

# Achievements of Eleven Years

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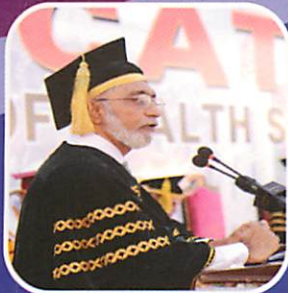
## DOW UNIVERSITY OF HEALTH SCIENCES



**Prof. Masood Hameed Khan**  
Tamgha-e-Imtiaz

Dow University of Health Sciences  
Founding Vice Chancellor

2004 --- 2015



Dow Convocation



Dow Research Institute of  
Biotechnology & Biosciences  
(DRIBBS)



Dow "Riva" Water Filtration Plant



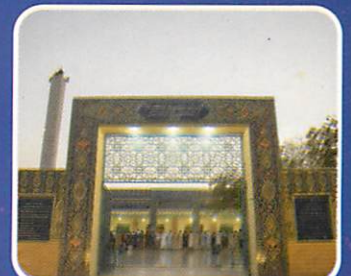
DUHS Animal House for Research  
& Anti Snake Venom



Institute of Health Management



OT Complex



New Mosque



Total Lab Automation (TLA)



Inauguration of Total Lab Automation System



Dow International Medical College



Intensive Care Unit (ICU)



OT Complex (Inner View)



Institute of Nursing

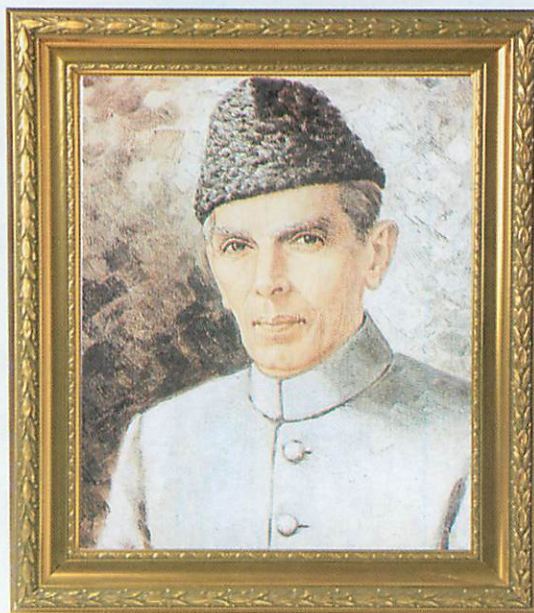


Dow University Hospital









### MESSAGE

We have got the greatest message in the Quran for our guidance and enlightenment. All that we have got to do is to know ourselves and the great qualities, virtues and powers that we possess, let us work up to that great ideal. Let us utilize our great potentialities in the right direction. Let us forego our personal interest and conveniences for the collective good of our people, and for a higher and nobler cause.

**QUAID -E- AZAM MUHAMMAD ALI JINNAH**

Father of the Nation





# DOW UNIVERSITY OF HEALTH SCIENCES

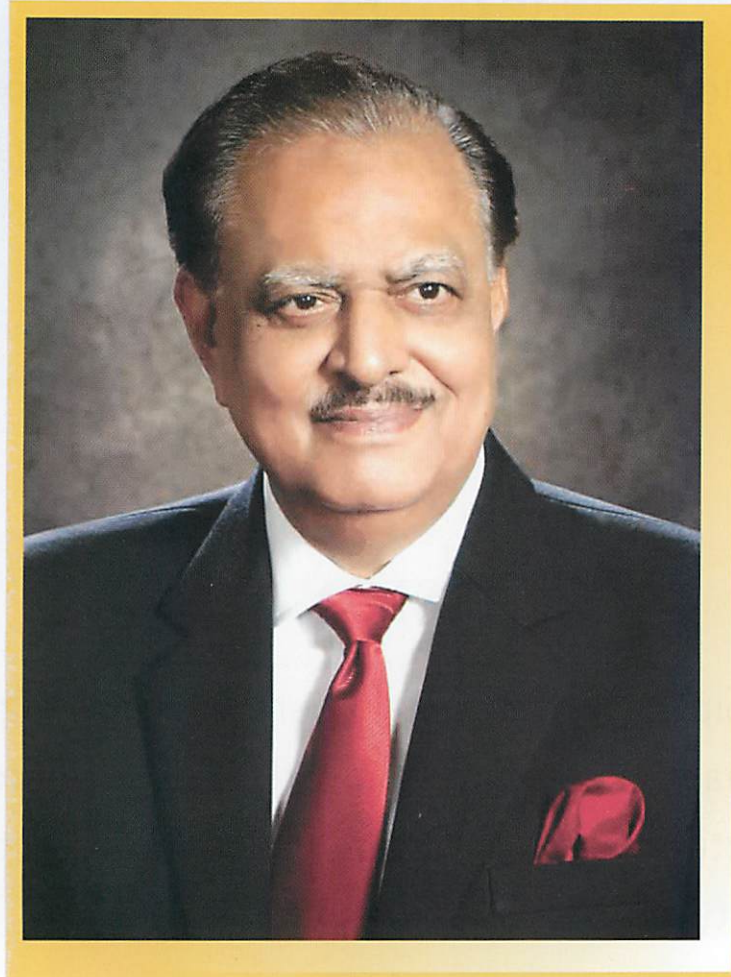
## VISION

Be an academic leader by generating creative, collaborative, contextual resources to improve health through scholarship and service.

## MISSION

Provide leadership in creating and imparting knowledge through high quality research and education with an aim to provide cost effective, contextually relevant high quality community service through its faculty, graduates and staff.



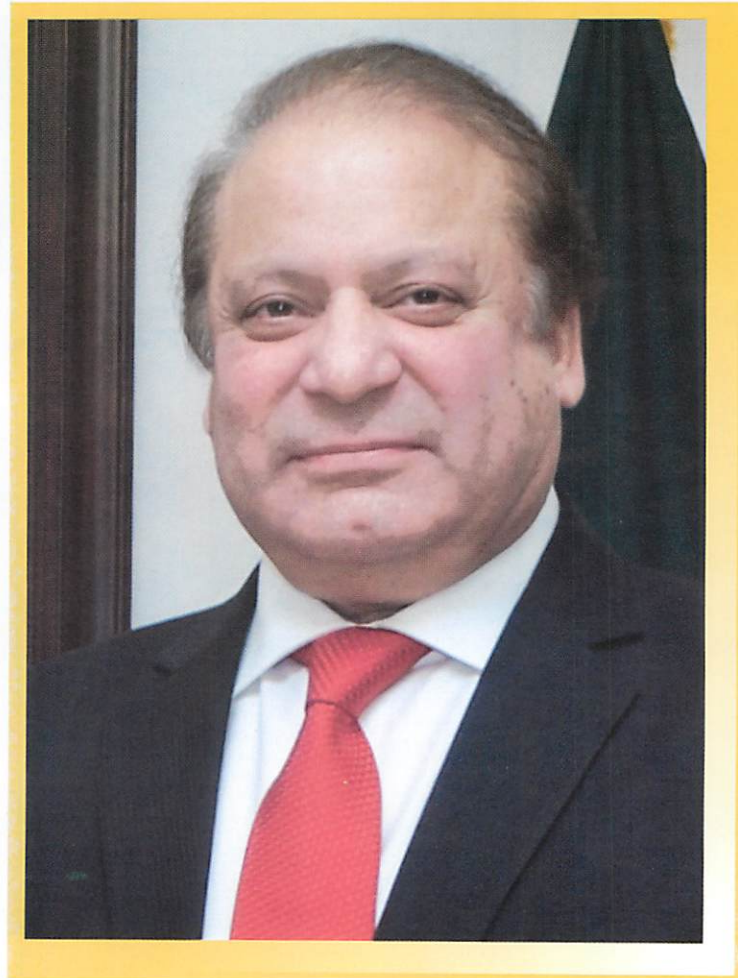


**MR. MAMNOON HUSSAIN**

**President**

**Islamic Republic Of Pakistan**





**MR. MUHAMMAD NAWAZ SHARIF**

**Prime Minister  
Islamic Republic Of Pakistan**

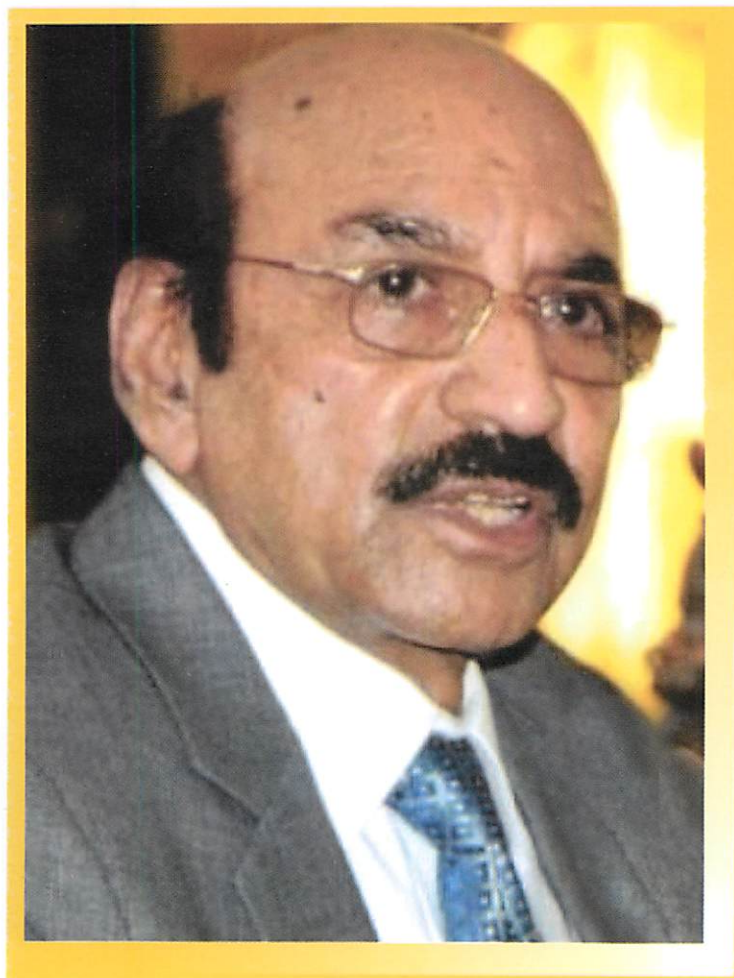




**DR ISHRAT-UL-EBAD KHAN**

**Nishan-e-Imtiaz  
Governor of Sindh  
Chancellor DUHS**





**SYED QAIM ALI SHAH**

Chief Minister Of Sindh  
Islamic Republic Of Pakistan



**PROF. MASOOD HAMEED KHAN**

**Tamgha-e-Imtiaz**

**Founding Vice Chancellor**

**Dow University of Health Sciences, Karachi**





**DR. JAM MEHTAB DAHAR**

Health Minister of Sindh  
Islamic Republic of Pakistan  
Pro-Chancellor, DUHS



## DOW UNIVERSITY OF HEALTH SCIENCES

### QUALITY POLICY

The DOW University of Health Sciences (DUHS) is committed to have academic excellence to be the learning place for students and faculty of its existing institutions as well as of those which will be added in future as per planned infrastructure.

The DUHS has been continuously adopting innovative ways to improve its services to the community and other stake holders and we will achieve this aim while adhering to the regulatory requirements through newly designed curricula, effective utilization of all resources, and the best practices invoked in the healthcare industry.

*Masood Hamid*  
Vice Chancellor  
Dow University of Health Sciences,  
Karachi





## DOW UNIVERSITY DECLARED ISO CERTIFIED WITH “ISO....9001-2008”

Alhamdollah, Dow University of Health Sciences has been declared ISO certified with latest available ISO 9001-2008 by Audit Organization Vinçotte of Brussels.

The Dow University has been working on the implementation of Quality Management System (QMS) ISO 9001-2008 for the past several years with the guidance of PIQC Institute of Quality. In the initial phase, all the services and procedures were documented as per the standards prescribed by the ISO 9001:2008, whereas, Phase II was related with the implementation of ISO procedures.

All the academic and administrative departments were included in the Audit scope of ISO 9001-2008, namely Dow Medical College (DMC), Dow International Medical College (DIMC), Dow College of Pharmacy (DCOP), Institute of Nursing (ION), Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences (DIKIOHS), Institute of Medical Technology (IMT), Institute of Physical Medicine & Rehabilitation (IPM&R), Institute of Health Management (IHM), National Institute of Diabetes & Endocrinology (NIDE), Institute of Basic Medical Sciences (IBMS), Institute of Post Graduate Studies (IPGS), Professional Development Centre (PDC), Registrar Office, Quality Enhancement Cell (QEC), Planning & Development Department, Admission Department, Q Bank, Examination Department, Campus Management Solution, Information Technology Department, All Libraries in every campus Digital Libraries and research department.

The Audit Team of Vinçotte International visited Dow University of Health Sciences to verify implementation of the Quality management system and its' conformance with the latest available ISO 9001:2008 Standard requirements. The week long audit period started with the Opening Meeting with the Vice Chancellor-DUHS. Prof. MasoodHameed Khan, all the Heads of Institutions and support departments were also present on this occasion. Prof. Dr. Rana Qamar Masood, the Quality Management Representative (QMR) delivered a presentation briefing about 'Implementation of Quality Management System at DUHS'.

The Closing Meeting was conducted at the end of the Audit Period having all the same participants of the Opening Meeting. The Auditors shared their opinion and views regarding the audit of DUHS and generally praised the working system and transparency of work in all the institutions mentioned above.

Quality Enhancement Cell (QEC)-DUHS played the leading role in coordinating and monitoring all the activities related for the implementation of QMS-ISO 9001-2008 right from documentation to physical implementation in all institutes and departments.

After a thorough audit of the entire Dow University of Health Sciences, including twelve (12) Institutes and ten (10) Support Departments, the Audit Team has declared Dow University of Health Sciences ISO certified with latest available “ISO...9001:2008”, besides this its twenty two (22) separate Institutes/Departments of Dow University have also been separately certified with “ISO....9001-2008”.

The Dow University of Health Sciences has received all 'ISO Certificates having Logos'. to be displayed in the respective departments.

### AND

It is heartening that the lead auditor of Vincotte International gave final comments

“DUHS is a great success story in the public sector of Pakistan and the credit goes to the vision and untiring efforts of the Founding Vice Chancellor, Prof. Dr. Masood Hameed Khan and his great team”.





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# HISTORY OF DUHS

**Sir Hugh Dow**

was the  
**second Governor of Sindh.**  
He laid the foundation stone of the  
Dow Medical College  
in December 1945.



**58 YEARS LATER**

**Dr. Ishrat-ul-Ebad Khan**

**Present Governor of Sindh.**  
**Established**  
**Dow University of Health Sciences**

Dr. Ishrat-ul-Ebad Khan took the initiative for the establishment of the Dow University of Health Sciences. He is a Dow Graduate. He was elected as member of the provincial assembly in 1990. and, later on became Minister of Housing, Town planning, Environment and Public Health Engineering at a young age, due to his dynamic personality.

He was appointed as Governor of Sindh in 2002 and ever since is striving to upgrade the facilities of medical education and health care in Sindh.



HIS EFFORTS WERE CROWNED BY  
THE ESTABLISHMENT OF THE  
**DOW UNIVERSITY**  
**OF HEALTH SCIENCES**  
IN  
DECEMBER 2003



**PROF. MASOOD HAMEED KHAN**

**Tamgha-e-Imtiaz**

**Founding Vice Chancellor**

**Dow University of Health Sciences, Karachi**





# DOW UNIVERSITY OF HEALTH SCIENCES

## Achievements of Eleven Years at DUHS

Since Establishment (2004-2015)



### FAST TRACK DEVELOPMENT WITH QUALITY ENHANCEMENT

#### DEVELOPED SIXTY (60) NEW ESTABLISHMENTS

DURING ELEVEN YEARS as Founding Vice Chancellor

	In 2004	In 2015
● Number of UNDERGRADUATE STUDENTS	2795	7384
● Number of POSTGRADUATE STUDENTS	114	1223
● Number of TEACHING FACULTY and STAFF	685	1900
● Number of NEW CONSTRUCTIONS	None	40
● RENOVATIONS	None	20
● COMMUNITY HEALTH CARE SERVICES	None	20
● Seperate INSTITUTES / COLLEGES / DEPARTMENTS	2	60
	<b>Total 62</b>	

- (1) Dow International Medical College (DIMC)
- (2) Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences (DIKIOHS)
- (3) Dow International Dental College (DIDC)
- (4) Dow Dental College (DDC)
- (5) Dow College of Pharmacy (DCOP)
- (6) Institutes of Medical Technology (IMT)
- (7) School of Dental Care Professionals (DCP)
- (8) Institute of Physical Medicine & Rehabilitation
- (9) School of Orthotics & Prosthetics
- (10) School of Occupation Therapy
- (11) Institute of Nursing (ION)
- (12) Institute of Basic Medical Sciences (IBMS)
- (13) Institute of Health Management (IHM)
- (14) Professional Development Centre (PDC)
- (15) Research Department
- (16) Institute of Postgraduate Studies
- (17) Information Technology Department
- (18) Campus Management Solution (CMS)
- (19) Quality Enhancement Cell (QEC)
- (20) Clinical Trial Unit (CTU)
- (21) Central Animal house
- (22) Library Block
- (23) Gymnasium, Fitness Club and Cricket Ground for students
- (24) Girls Hostel Block of DIMC
- (25) Boys Hostel Block of DIMC
- (26) Iqbal Yad TB Clinic
- (27) Dow Vocational Technical Training Centre (DVTTTC)
- (28) Computer Learning Centre
- (29) Dow University Artificial Limbs (DUAL) Centre
- (30) Dow University Hospital

- (31) OPD Block of Dow University Hospital
- (32) National Institute of Diabetes & Endocrinology (NIDE)
- (33) Sarwar Zubweri Liber Centre (SZLC)
- (34) National Institute of Liver & GI Diseases (NILGID)
- (35) Dow Diagnostic Research & Reference Laboratory
- (36) Dow Institute of Radiology
- (37) Dow LEJ Campus on Stadium Road
- (38) Institute of Biological, Biochemical & Pharmaceutical Sciences (mhrs)
- (39) Sleep Lab (Polysomnography)
- (40) School of Public Health
- (41) Dr. Ishrat-ul-Ebad Khan Institute of Blood Diseases
- (42) Dow Research Institute of Biotechnology & Biosciences (DRIBBS)
- (43) Thoraci Surgery Department
- (44) Bariatric Surgery Department
- (45) Day Care Centre
- (46) Child Care Centre
- (47) Centre of Cochlear Implant
- (48) Dow Diagnostic Research and Reference Lab (DDRRL)
- (49) Lab Automation System
- (50) Pharmacovigilance Centre
- (51) Serobiological Centre (for anti snake venom)
- (52) Establishment of Biorepository and Cancer Registry
- (53) Dow University establishes Industrial Linkage with Mactor International for Anti Snake Venom production
- (54) New construction of flats for employees
- (55) Dow campus at DHA City
- (56) Newly Constructed Mosque (Masjid-e-Aisha)
- (57) Dow Filtration Plant for Riva Drinking Water (for Community)
- (58) Operation Theatre Complex with NINE (09) theatres and Cath Lab
- (59) 100 beded ICU
- (60) Liver Transplant Center



# Achievements of Eleven Years at Dow University of Health Sciences

### PROFESSOR MASOOD HAMEED KHAN

Tamgha-e-Imtiaz (TI)

PhD(Hon), FCPS(PAK), FRCP(Edin), FRCP(London)

Professor of Medicine and

**FOUNDING VICE CHANCELLOR**

**DOW UNIVERSITY OF HEALTH SCIENCES**



The blessings of Almighty Allah resulted in great achievements at Dow University of Health Sciences during last eleven years. Alhamdulillah, the vision and mission conceived initially to be completed by 2020 have already been achieved by 2014 with accomplishments of major milestones.

The success of DUHS have also been acknowledged and praised by the auditors of an international organizations Vincotte, Brussels, for ISO certification (ISO 9001:2008)

They reviewed in detail the processes and documentation of all the support departments of Dow University eg Registrar Office, Admission Department, Examination Department,

Question Bank, Campus Management Solutions, IT department, Planning & Development, Professional Development Centre and Libraries System. The audit was done in two stages separately, each were about a week long.

Alhamdulillah, after the final audit they have declared that the Dow University of Health Sciences is eligible to be certified as per latest available ISO 9001-2008, due to documented transparency of work in these administrative departments.

Similarly the auditors did inspection of all the Constituent Institutions of Dow University, which are conducting various academic programs of undergraduate and postgraduate

level. They scrutinized their curricula, its designing and implementation and delivery process, monitoring, feedback and then assessment and evaluation of students alongwith the administrative aspects. These Colleges and Institutes include:

- Dow Medical College (DMC)
- Dow International Medical College (DIMC)
- Dr. Ishrat-UI-Ebad Khan Institute of Oral Health Sciences (DIKIOHS) and Dental Colleges
- Dow College of Pharmacy
- Institute of Physical Medicine & Rehabilitation (IPM&R)
- Institute of Medical Technology (IMT)





- Institute of Health Management (IHM)
- Institute of Nursing (ION)
- National Institute of Diabetes and Endocrinology (NIDE)
- Institute of Postgraduate Studies having
- Postgraduate committee for administrative work
- Department of Research
- Institute of Basic Medical Sciences
- Postgraduate academic programs of PhD, MPhil, Masters, Diplomas & Certificates.

All this success has been achieved with the blessings of Almighty Allah and the hardwork with dedication of the DUHS Faculty, Principals and Directors of various Colleges & Institutes as well as the Support staff of Dow University.

The vision and Mission at Dow University from the very beginning has been focused:

- a. To achieve academic excellence in Undergraduate and Postgraduate programs.
- b. To develop Human Resource in all possible health related fields so as to bridge deficiency gap and provide job opportunities to individuals.
- c. To have Civic Engagements of the university to provide maximum benefit to the general public regarding awareness or health care issues and provision of best possible & economical diagnostic and treatment facilities.



This Vision and Mission is also reflected in the Quality Policy of Dow University of Health Sciences.

The Goals were identified to achieve Vision & Mission, these include:

The VISION at Dow University of Health Sciences since its inception to be an academic leader by generating creative, collaborative, contextual resources to improve health by all possible means.

The MISSION is to provide leadership in creating and imparting knowledge through excellence in research and education with an aim to provide cost effective, contextually relevant and quality community service through its faculty, graduates staff and to continuously strive for improvement through reflection and learning.

The VALUES to be focused include critical thinking, comparison learning probability, responsibility, service, tolerance and altruism.

The defined GOALS include:

- Development and utilization of contemporary approaches in education and research to nurture future leaders in health professions.

- Promote an atmosphere of mutual respect, trust and teamwork to achieve the common goal of health care.
- Share and enhance knowledge and expertise through national and international collaborations
- Foster research through scientific investigations and capacity building in collaborations with local and global organizations.
- Reward scholarship in research, education and services to dedicated & successful persons.
- Impart Health Education to the masses for improving health status of the community.
- Identify and resolve issues affecting health and well being of the communities in collaboration with all the stakeholders.
- Identify and resolve issues affecting health and well being of students, faculty, staff and administration.
- Promote and practice cost effective, evidence-based service in local context.
- Ensure dynamism of the Institution by reflecting, reviewing and revising the practices.



Alhamdulillah 90% of our aims and objectives have been achieved during last decade, the details are mentioned below with the comparable status in 2004 & 2014.

**In 2004** Only three constituent institute include:  
 1. Dow Medical College (DMC)  
 2. Sindh Medical College (SMC)  
 3. Ojha Institute of Chest Diseases (OIDC)

**In 2015** Decade of Accomplishment, Since its establishment (2004-2013)

1. Dow International Medical College (DIMC)
2. Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences (DIKIOHS)
3. Dow International Dental College (DIDC)
4. Dow Dental College (DDC)
5. Dow College of Pharmacy (DCOP)
6. Institutes of Medical Technology (IMT)
7. School of Dental Care Professionals (DCP)
8. Institute of Physical Medicine & Rehabilitation
9. School of Orthotics & Prosthetics
10. School of Occupational Therapy
11. Institute of Nursing (ION)
12. Institute of Basic Medical Sciences (IBMS)
13. Institute of Health Management (IHM)
14. Professional Development Centre (PDC)
15. Research Department
16. Institute of Postgraduate Studies

17. Information Technology Department
18. Campus Management Solution (CMS)
19. Quality Enhancement Cell (QEC)
20. Clinical Trial Unit (CTU)
21. Central Animal house
22. Library Block
23. Gymnasium, Fitness Club and Cricket Ground for students
24. Girls Hostel Block of DIMC
25. Boys Hostel Block of DIMC
26. Iqbal Yad TB Clinic
27. Dow Vocational Technical Training Centre (DVTTTC) Under University Social Responsibility
28. Computer Learning Centre
29. Dow University Artificial Limbs (DUAL) Centre
30. Dow University Hospital
31. OPD Block of Dow University Hospital
32. National Institute of Liver & GI Diseases (NILGID)
33. Sarwar Zubweri Liver Centre (SZLC)
34. National Institute of Diabetes & Endocrinology (NIDE)
35. Dow Diagnostic Research & Reference Laboratory
36. Dow Institute of Radiology
37. Dow LEJ Campus on Stadium Road
38. Institute of Biological, Biochemical and Pharma Clinical Sciences (IBBPS)
39. Sleep Lab (Polysomnography)
40. School of Public Health
41. Aviation Medicine
42. Theatre complex and 100 bedded ICU (near completion)

43. Dr. Ishrat-ul-Ebad Khan Institute of Blood Diseases
44. Multi disciplinary Research Laboratory
45. Thoracic Surgery Department at Ojha Campus
46. Bariatric Surgery Department at Ojha Campus
47. Day Care Centre at Ojha Campus
48. Centre of Cochlear Implant DUHS
49. Main Lab Collection Point at DUHS
50. Lab Automation System DUHS
51. Serobiological Centre DUHS (for anti snake venom)
52. Dow University establishes Industrial Linkage with Mactor International for Anti Snake Venom Production
53. Ojha Employees Allotted New Houses by Dow University
54. Newly constructed Jamia Masjid at DUHS Ojha Campus.
55. Dow Water Production
56. New Telephone exchange deployment at DUHS





## NEW ACADEMIC BLOCK

In 2004

It did not exist

In 2015

New Academic Block has been constructed in 2007 at the main entrance of old Dow Medical College replacing the old redundant canteen building in a record time of 18 months after fighting out the case in court for about 20 months. This modern building, designed by renowned architect, has added the heritage value of old blocks having rich and aesthetic front elevation with big stones and granite. It matches the world over shine of Dow Alumni. This building lodges Professional Development Centre, departments of Community Medicine and Forensic Medicine, besides having Nine (9) state of art lecture halls / tutorial rooms, cafeteria, two lifts and car parking at basement.



It has main entrance which is electronically controlled by students, faculty & staff who have access through their Radio frequency cards. The entrance is also monitored by CCTV. It also has computerized electronic board for announcements or messages.

## ADMISSION DEPARTMENT

In 2004

There was no Separate department for admission Procedure and office of the vice principal Dow Medical College used to deal with MBBS admissions only.

In 2015

Since the Dow University established several new colleges and institutes for all possible undergraduate & postgraduate health related courses, separate department has been established for admission procedures of all the programs of DUHS. The applications received after advertisement for every program are scrutinized for eligibility and then admit cards are issued to eligible candidates. Then examination department or NTS are provided list of eligible candidates to conduct entry test. After the entry test, results available seats are allocated purely on the basis of merit.

DUHS selection board for admissions is responsible to finalize eligibility and seat allocation as per given rules & regulations, finalized by DUHS syndicate.

*This admission department has also been audited by vincotte auditors of Brussels who have declared it to be eligible for ISO certification 9001-2008 after the final audit on the basis of transparency of work and merit based admissions in all the programs.*

## CURRICULUM

In 2004

The undergraduate medical education was being imparted on subject based, teaching and annual examination and four yearly professional examinations were conducted.

In 2015

Dow University of Health Sciences introduced integrated modular curriculum having case base learning also and the semester examination replacing old system. All the subjects have been integrated into system based modules as in USA & UK. The skills curriculum has been specially designed for "Undergraduate

Skills Lab", for hands on training in MBBS.

*Now the auditors of Vincotte have also declared the curriculum as well. The Dow Medical College eligible to have ISO 9001 – 2008 Certifications.*

## MEDICAL EDUCATION DEPARTMENT

was established for the enhancement of academics. The MBBS course has been totally revised. The integrated, objective-based curriculum has been introduced at Dow Medical College (DMC), Sindh Medical College (SMC) and Dow International Medical College (DIMC) in 2010. The integrated curriculum is defined as courses with subject matter, classified by organ systems rather than only according to topics such as Anatomy, Physiology or Biochemistry etc. Such curriculum fosters professional development with systemic and coherent development of clinical and communication skills.

This aim of enhancement has been achieved by vertically integrated curriculum, which involves clinical aspects right from first year giving a holistic approach case base learning is provided with small tutorial classes. The teacher's role is also changed to a facilitator. The success has come by commitment, competencies and organization of the course with the help of senior faculty members and by handling issues related to learning strategies and assessment tools etc.

Dow University was given the Pilot Project of introducing integrated modular curriculum after its own designing, by PM&DC. It had been planned that its success monitored with feedback will lead to its implementation at other medical





colleges of Pakistan in which the Dow University will take the lead role of guidance. Alhamdulillah it has been very successful and other institutions are approaching DUHS for the guidance.

Skills Curriculum has also been designed and the undergraduate skills labs have been established to provide hands on training, to all classes from first to final year MBBS which includes workshops on Cardio Pulmonary resuscitation, basic skills, first aid, Auscultation on manikins, I/V, I/M injections, basic surgical skills, catheterization, NG tube, special examinations, lumbar puncture, otoscopy on Mannikins besides advanced skills required for treating all types of emergencies and complicated cases and other required skills. The main purpose of skills curriculum is that the students should learn all required procedures to deal with patients before actually handling them.

**The academic innovations also include:**

- Structured teaching in clinical departments
- 20% weightage of clinical posting
- Introduction of behavioral sciences
- Mandatory Research, for undergraduate students, in groups, under the supervision of faculty members.

Medical educational programs for faculty includes Workshops on Faculty Development, Best Choice Question (BCQs), Preparation, Curriculum Development, Preparation of Objective Structured Practical, and Clinical examinations (OSPE & OSCE),

Enhancing Clinical Skills and various new methods of evaluation and assessment. Conference on Recent Trends in Medical Education was also held twice at Dow University.

*The newly designed integrated module of MBBS curriculum, its designing authentication process, validation, implementation and the feed back system has been audited in detail by the auditors of Vincotte, Brussels and they have declared it to be eligible for ISO 9001-2008 certification alongwith all the other teaching modalities at MBBS level in Dow Medical College and Dow International Medical College.*

## POWER LABS

In 2004

It did not exist

In 2015

Since all old gadgets slowly become redundant and obsolete, new gadgets and innovative equipments are required to keep pace with modern world having international standards. Power Labs have been established in all the undergraduate the labs at Dow Medical College and Dow International Medical and Dental College, which are designed for life science student laboratories that teach scientific principles and it replaced old practical's which did not have any clinical correlation.

It provides students with the hardware and software to perform a wide range of basic



human physiology experiments including cardiovascular, respiratory, muscular and neurological systems related to day to day clinical workup. It makes learning and teaching of physiology easier in any laboratory class alongwith basic concept and practical approach.



It has built in software which not only gives operational guidelines to the students but also interprets the results of the experiment, which makes learning easier to students as it is user friendly.

## PLASTIC BONE BANK

In 2004

It did not exist

In 2015

During the last decade, there has been great shortage of human bones, which are necessary to teach students about exact Anatomy, which is eventually related to Physiology and Pathology.

The shortage of cadaveric human bones has been overcome by PLASTIC BONE BANK which helps students in learning real anatomy of human body, thus overcoming the shortage of real cadaveric bones. These imported plastic bones are complete replica of real bones.





*The Dow Medical College and its laboratories & plastic bone bank have also been audited and declared eligible ISO 9001 – 2008 certification.*

## EXAMINATION DEPARTMENT

**In 2004** Annual theory and subjective practical's were conducted as a routine since previous years.

**In 2015** Semester System, OSPE & OSCE have been implemented, to be at par with international requirements.

The Examination Department has special software to generate question papers from the Q-bank as per specifications. Twenty different sets of same questions are generated with different sequence of answers for zero cheating status and to have exact assessments.

Dow University has transformed from Annual Examination to SEMESTER SYSTEM for undergraduate and postgraduate examinations to improve academic standards.

Similarly to minimize subjectivity, old method of practical



examination has been shifted to objective structured practical examination (OSPE) and objective structured clinical examination (OSCE) at all institutes of DUHS. The postgraduate studies have also been focused to develop their research skills,

communication skills, ethics and hands on training in various specialities.

All the entry and exit examinations besides the modular, semester and retake examinations of all the undergraduate and post-graduate courses are conducted by DUHS Examination Department.

*This department also had first and second stage Audit by External auditors of Vincotte, who have declared this examination department eligible for ISO 9001 – 2008 Certifications on the basis of its transparent and fool proof procedures.*

## Q-BANK

**In 2004** It did not exist

**In 2015** The standard and quality of questions are mandatory for proper assessment and evaluation of the students of any course (undergraduate & post-graduate).

The Dow University has a question has a question Bank, with a separate setup where the faculty members prepare questions without having any connection from outside. These questions are stored in the pool and then used by computer command, just hours before the exams for the sake of transparency.

*This Q bank has also closely inspected by Auditors and then declared eligible for ISO 9001 – 2008 certification.*

## COMPUTER LEARNING CENTRE

**In 2004** It did not exist

**In 2015** The Computer Learning Centre was established in the initial years of DUHS to update skills of teachers & staff so that they get used to with the computer technology which is now a integral part of working system in every profession.



It was established in 2004 and upto now more than 800 faculty members including professors , 350 teachers of other institutes and 400 general practitioners have been trained here.

## DIGITAL LIBRARIES

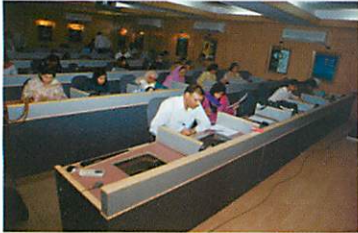
**In 2004** It did not exist

**In 2015** The Internet and Intranet Digital Library has been established at eight different institutions of Dow University. It is one of the largest, most modern high quality digital library of Pakistan and has more than 1300 computer stations connected to the main high standard SERVER





to have HEC connectivity for access to more than 22,000 journals and textbooks. It has high speed 8M wireless radio frequency link for worldwide video conferencing and access to HEC PERN. Initially in DMC and SMC with the help of HEC to have total of 300 Computer, but later on further establishments in other newly established Institutes and Departments has been done by Dow University.



By the Grace of God 1000 Computer Stations have been added, benefitting students and faculty members, who can access it even from home.

*The Digital libraries are looked after by IT Department for proper functioning. This section has also been audited and declared eligible by the auditors of Vincotte, Brussels, for ISO 9001 – 2008 Certification on the basis high quality of maintenance and standard working.*

## DEPARTMENT OF INFORMATION TECHNOLOGY



It did not exist



Information Technology (IT) Department has been established at DUHS to manage the technology and computer infrastructure that drives the organization's business systems in today's modern world.

### In Summary

#### Internet Facility

- Since the inception, IT department is responsible for providing connectivity to all the institutes of DUHS through high-tech radio frequency bridges. The information technology department is providing internet facility to all staff and faculty members. The high speed broadband connection of internet service is availed from PERN network, a country wide service established by Higher Education Commission. Firewalls and cache server are implemented to enhance the security and fast access.
- DUHS has a dedicate fiber optic redundant link of 27 MBPS.
- In case of link down, a sufficient back up by PTCL for 4 MBPS (dedicated) is available 24/7.
- This department also provide other facilities including, IT training programs for staff and Implementation of student management system.

#### Digital Library

All students are provided with internet facility from various digital libraries across all campuses. More than 550 high tech systems along with LCD

display are available in all digital libraries, especially selected by IT experts to cater future research and development requirements of student.

#### Software and Web Development

- IT department also maintains and update the website of DUHS as and when required like:
- Design and development alongwith timely update by Using most advance technologies and tools for various informations.

#### Wi-Fi Facility

Internet facility is also available to faculty, staff and student implying wireless technology. Hotspots are created at important location across all campuses where users can be connected via their mobiles and any other handheld device.

Class Room and Lecture Hall Information technology also provides robust system and overhead projector in class rooms and lecture hall. These well-equipped learning facilities assist students in their educational panorama – guest lectures, symposiums and workshops are conducted in lecture halls.







### Intranet Facility

Inter connectivity within the campus and across all campuses are provided by information technology department. This allows the institutional staff to share information, operational systems and computing services within the university via Internet Protocol technology. All buildings are connected via fiber link, Ojha and DMC campuses are inter-linked with dedicated fiber connection provided by PTCL.

### Email Service

Information technology department provides email facility to all faculty and staff members. Dedicated email service is acquired from Gmail with storage capacity of 25 GB per user.

### Official Website

- The official website of DUHS is managed by the information technology – it provides all information regarding admission, curriculum, examination and related news to interest groups. Complete portfolio of all institutions is also provided on the official website of DUHS.
- Design and Development of a web based application for Digital Library home access.
- Design and Develop Electronic continuing education (e-CME) for family physicians.

### Data Center

- Tier-III level of Data center in DUHS is equipped with multi-mode routers, layer 3 switches and SAN (Storage Area Network) servers. Licensed version of Server 2010 is

installed on Dell's Edge T-Series which assist in providing internet and intra-net facility to all users throughout the university.

- Redundant links of PERN and PTCL are terminated in data center to ensure internet availability 24/7. Data center of DUHS is operated to provide access, distribution, security and core (in case of collapsed backbone).
- Online admission process helps applicants to apply for admissions to different programs of DUHS

### Video Conferencing

The video conferencing facilities are professionally managed by skilled engineers of information technology department, equipped with the latest HD systems with a twin screen set up, connecting on IP or ISDN. Lectures are delivered to faculty and student on international scale. The two way audio and video transmission allows individuals and groups to collaborate visually.

### CCTV Surveillance Network

The CCTV network is also managed by the IT department, providing security and surveillance facility to DUHS. All the buildings, parking area and especially sensitive location are monitored by skilled control room operators 24 hours a day throughout the week. High-tech surveillance cameras are installed throughout the campus – every activity is recorded in DVRs placed in centralized control room.

### Telephone Exchange

Telephone exchange of DUHS is managed by information technology department, which provides around 1500 nodes distributed in all campuses across the university. More than 100

landlines from PTCL and NDC are available to cater the need of staff & faculty members.

**Photo Attendance System**  
Photo Attendance System is also provided by IT department. It is implemented throughout the University, Employee can easily mark his attendance throughout the DUHS Network and the time stamp is pasted on his real time captured picture. Comprehensive attendance report, including working hour, casual leave, earned leave and sick leave is available to competent authority for mentoring, Payroll dept for salary processing.

*The department of Information Technology and its servers were also audited by the auditors of Vincotte, Brussels and have been declared eligible for ISO-9001-2008 certification.*

## PROFESSIONAL DEVELOPMENT CENTRE (PDC)



It did not exist



Professional Development Centre (PDC) has been established for skills training workshops. It provides hands on skills of various levels right from very basic to the highest possible ones, through regular workshops conducted by Internationally recognized master trainers in various specialties and at multiple levels, including those for medical







students, postgraduates, doctors, specialists and other health related personnels, including nurses, paramedics and the general public. **Professionals Development Centre** is a centre of excellence, for training and education. It has a covered area of 7500 sq ft, with state of art equipments, anatomy models, electronic simulators, laparoscopic trainer manikins, simulated ICU and operation theatre besides several tutorial rooms. Since its establishment in Oct. 2005.

- It has state of art equipments, models electronic simulators & manikins.
- It caters to needs of several level undergraduate, postgraduate, faculty member, specialists all health related personals & general public.
- It has 5 major division: MHPE program, CME, CPS, Undergrad skills lab & Misc programs with collaboration of Alumni & visiting faculty.



- It has collaborations with National & International educational organization eg PTC foundation UK, INFORM, WHO, EMAME, EMOnc etc.
- It is a regional training centre of American Heart Association (AHA).

**Important Domains of Professional Development Centre Includes:**

**Emergency Skills, like Life Support Skills for adults, children and females (BLS, ACLS, PALS, ALSO, EMOc), Disaster Management. Essential Burn Care and Critical Care ICU Skills.**

**Basic Surgical Skills, include Primary Surgical Skills for Scrubbing, Gowning, Gloving and Suturing, Advanced Surgical Skills include Laproscopic Surgery, Cadaveric Temporal Bone Dissection & Now Surgical procedures, Advanced Orthopaedics Skills.**

**Basic Obstetrics & Gynae Skills includes Resuscitation in Obstetric patients and other Gynaecological Skills, beside Advanced Obstetric skills.**

**Research Skills** include those on Medical Writing, Online Health & Medical Research Information,

Medical Editing & Peer Review, besides Research Methodology and Biostatistics.

PDC is also conducting two and a half year Master in Health Professional Education (MHPE) program in collaboration with Institute of Postgraduate Studies. This is the first of its type hybrid program in Pakistan with both distance learning and contact components. Thirteen (13) students have completed this course, currently second and third batches are enrolled comprising of 48 students. This program has also been launched from Islamabad this year.

PDC is also certified by American Heart Association (AHA) to be the International Training Centre for BLS, ACLS and PALS.

PDC has also started a three year program on 'Advance Biomedical Course for Scientific Promotion Officers'. Currently two batches are studying .



PDC is also conducting Diploma Course in Echocardiography and nine (09) candidates have completed the course, where as another nine candidates are studying.

Since the inception of PDC till date, eight hundred (800) state of the art guest lectures by renowned specialists have been delivered for continuous professional development and more than nine hundred (900) hands on workshops have been conducted for skills training. About 3500 doctors, paramedics, ambulance personnel and others





are trained in Basic Life Support upto now.

*PDC has also been audited at two stages and declared eligible to have ISO-9001-2008 certification.*

## QUALITY ENHANCEMENT CELL (QEC)

In 2004

It did not exist

In 2015

Quality Enhancement Cell at DUHS was established in 2006 under the directives of HEC. The prime objective of this cell is to practice evaluative measures to achieve excellence in performance in all possible areas of quality education.

**Several measures for quality assurance have been introduced by QEC of DUHS at various institutes of Dow University.**

The DUHS QEC which has been conducting Academic Audit programmes and heading several training programmes for various universities and institutions has initiated pioneering quality assurance measures at Dow University.

QEC- DUHS is actively and constantly engaged in taking quality measures for better teaching and learning scenario at the university engaged by implementing the Quality Assurance (QA), Quality Enhancement (QE) and Quality

Management System (QMS) in all selected undergraduate and postgraduate programs being offered at DUHS.

### Quality Assurance/Enhancement (QA/E) Measures:

Following are the measures that have been introduced and implemented at Dow University:

#### Programme Evaluation through Self-Assessment

It includes all the degree, diploma or certificate courses being offered by the University. All these programs are required to prepare a SELF ASSESSMENT REPORT (SAR) on the basis of the criteria prescribed by the HEC. A quarterly HEC meeting keeps tabs on this process and analyzes the reports presented to them critically.

So far twenty (20) institutes have completed their program evaluation reports (SARs) which have been presented and submitted to the HEC. Few more are in progress.

#### Teachers' Portfolios:

QEC-DUHS has introduced and implemented Teachers Portfolio in all selected undergraduate and postgraduate programs being offered at DUHS. The Portfolio documents the progress of a teacher through the inclusion of

a teaching plan, lectures' summaries, assessment conducted and students' progress. The teaching philosophy of the teacher, their vision, mission as well as the objectives of their learning and teaching areas are also part of this portfolio. Maintained and periodically submitted by the teachers themselves, this practice has proved to be very effective in professional grooming of the teaching faculties.

#### Structured Feedback Mechanism:

QEC-DUHS has implemented a very structured feedback mechanism where feedback is collected from the various stake holders such as students, faculty, employees, employers, alumni etc. regarding course evaluation, teachers evaluation, their satisfaction related to administrative services, job etc. on forms prescribed by the HEC.

#### Institutional Academic Audit:

On the direction of the Vice Chancellor, DUHS, QEC also conduct the institutional Academic Audit to review the mechanisms for monitoring and enhancing the academic quality and standards which are necessary for achieving their stated aims and objectives, and





to comment on the extent to which procedures in place are applied effectively and reflect good practice in maintaining quality. The academic audit focuses on teaching quality, program delivery, the achievement of learning outcomes and compliance to the set procedures.

### Electives Abroad:

In the recent years, there is an increasing interest of the final year students of Medicine for doing ELECTIVES in different Medical Schools/hospitals in the United States / UK / Malaysia/France etc. Earlier, medical schools used to accept students directly but most of the institutions NOW accept only those students whose parent institution has some sort of Exchange Agreement with the host university.

QEC is actively engaged in developing collaboration and linkages with other universities and colleges around the globe in different areas of interest. We have developed a Memorandum of Agreement with some of the prestigious Medical Schools like:

- University of Illinois at Chicago, USA
- University of Louisville, USA
- University of Massachusetts Medical School, USA
- Vanderbilt University, USA

While affiliation with University of North Carolina School of Medicine and Swansea University College of Medicine, USA are in progress

**The outstanding performance of QEC is evident in the bi-annual ranking of all Pakistan QECs functioning in both public and private sector universities, conducted by Quality Assurance Agency (QAA) of HEC conducted. QEC- DUHS has been ranked**

**amongst the top category i.e. W category.**

### Implementation of Quality Management System; ISO 9001:2008:

QEC has been actively coordinating in monitoring and managing all the activities related to the implementation of Quality Management System leading to ISO 9001:2008 Certification of DUHS. These activities have been implemented in two phases:

Phase I was the documentation phase in which all the services and procedures were documented as per the standards prescribed by the ISO 9001:2008, whereas, Phase II was related to the implementation of ISO procedures.

**Alhamdulillah, the ISO Certification Body Vincotte, Brussels, after a thorough audit of entire DUHS including ten (10) Institutes and ten (10) Support Departments, the audit team has declared Dow University of Health Sciences eligible for ISO 9001:2008 certification. DUHS will receive ISO Certificates with logos, in due course of time.**

## CAMPUS MANAGEMENT SYSTEM (CMS)



It did not exist



Dow University has been aiming for provision of facilities to students, faculty, and staff with immediate access to real-time information which connects that information to specific action. Campus Management System CMS is

logically divided into several modules, each of which maps to a university function/department. DUHS worked closely with the HEC (Higher Education Commission) and "Campus Management Solution" project was initiated at Dow University first time in any university of Pakistan. Higher Education Commission selected six public sector universities for the implementation of Oracle People Soft Campus Solutions, Dow University did the pilot model, successfully for the initial period of two years.

The Campus Management software is an integrated solution which takes care of the various activities of an educational institution like institution management, student management, administrative functions, etc. The solution is available as a basic integrated application upgradeable to an Intranet / Internet system.

Oracle Corporation has a customized ERP Solution for academic institutions i.e. Campus Management or Student Information System. The solution is a combination of software and hardware. It helps to manage the business processes of an academic institute in an efficient and professional manner.

The integration between various processes and departments i.e. admissions (electronic and manual), enrolment, examination, fees etc. helps in automating the manual and traditional methods of functioning of a campus.

### SALIENT FEATURES

- User Interface.
- Easy to Customize.
- Hot Access keys.
- Multi-level Password protection.
- Full featured backup and restoration.



to teach clinical procedures at pre-clinical & clinical level. It has highly qualified and experienced faculty who carry out all Dental procedures ranging from simple diagnostic procedures to extractions and implant placements.

Dentistry is basically a skill based education in which great emphasis is laid on patient management and clinical teaching right from first year.

## SCHOOL OF DENTAL AUXILIARY SCIENCES

In 2004

It did not exist

In 2013

School of Dental Auxiliary Sciences of Dow University of Health Sciences was established in 2007 to produce **Dental Technologists, Hygienists** and other **Dental Auxiliaries** to meet the demands of new and more sophisticated Dental Care system of trained manpower.



Dentistry is a team work, requiring a Dentist, Dental Nurse, Dental Hygienist and a Dental Technician, all four Specialties are trained in their respective specialty. Presently four year Bachelor courses, i.e. for **Dental**

**Hygienist and Dental Technician** are being conducted. **Dental Hygienists** are trained to perform the procedure of scaling with appropriate filling and fluoride application etc. They can take elective subjects and Clinical Work in Dental hospital. They can work under supervision of a dentist and can enter in teaching profession after acquiring bachelors degree.

**Dental Technologists** are trained for the art of fabricating denture with partial and complete fabrication of fixed Prosthodontics like porcelain or crown and bridges, implant super structure, removable and functional appliances. They also acquire experience in Dental laboratory with Casting and Curing techniques.

Presently, Six batches having total of **150 students** are undertaking these courses at this institution. Three batches have already passed out.



Dow University is the only Institution in Pakistan to provide Degree Courses in Dental auxiliaries at the biggest Dental Institutes of Pakistan, Dr. Ishrat-UI-Ebad Khan Institute of Oral

Health Sciences. The curriculum of International standards is being adopted. Now five years BDS course has also been introduced at DIKIOHS, first time in Pakistan.

## DOW INTERNATIONAL MEDICAL COLLEGE (DIMC)

In 2004

It did not exist

In 2015

Dow International Medical College (DIMC) was established six years back in order to facilitate children of overseas Pakistanis as they face various difficulties in entering into medical profession abroad.

Initially a 100 seat Medical College, has now been increased to 150 seats by PMDC and presently five batches, with approx 600 students are studying at DIMC. Male to female ratio of students is about 1:1. Two batches have already passed out in 5 years only and also had its first convocation held at Governor House.

It is also been recognized internationally as it has been added in INTERNATIONAL MEDICAL EDUCATION DIRECTORY (IMED). The links can be seen at DUHS website.







The new building of DIMC is a specially designed building, having covered area of 1,75,000 sqft and fully equipped with most modern equipments.

It has five Laboratories fully equipped with most modern equipments including Power Lab. The state of art Modern building is fully air conditioned and powerful generators provide electricity round the clock.

Students undergo integrated modular curriculum which reinforces medical knowledge alongwith depth. Lectures objectives are given with Lectures for clarity.

The students also undergo Case Base Learning (CBL) to have clarity for clinical correlation. Like students of DMC, the DIMC students also have to do group research under the guidance of a faculty member.

Students counseling is done through designated Mentors amongst the faculty members. Separate Hostels are available for



boys and girls alongwith mess facilities within the same Ojha campus and security system is also regularly being monitored. Clinical training is provided in 500 beded Dow University. General Hospital.



DIMC currently having two affiliated teaching hospitals at Ojha Campus, the medical college has magnificently grown its clinical services through Dow University Hospital with a flourished OPD Block with busy



clinics of all medicine and its allied and surgery and its allied disciplines. Marvelous Diagnostic and Research Facilities of the college has gained the attention of Karachi city. These facilities were established by building the Dow Diagnostic Research and

Reference Laboratories and Radio Diagnostic Complex. Two institutes, National Institute of Liver & Gastrointestinal Diseases and National Institute of Diabetes and Endocrinology are not only providing medical education to students but also providing commendable diagnostic and treatment services to patients.



*Dow International Medical College has also been audited by auditors of Vincotte, Brussels and declared eligible for ISO-9001-2008 certification for the curriculum, course work, infrastructure Laboratory equipment and overall management for the MBBS course.*

## LEARNING RESOURCE CENTRE

In 2004

It did not exist

In 2015

Learning Resource Centre is a modern library with huge two storeyed building seperately having book section and digital library section with 300 work stations to provides material for research and other studies. It also has a reading room and video conferencing room. The library is fully equipped



- Unlimited number of users.
- Customized reports.

### GAINS and BENEFITS

- The web based features enables the faculty, students as well as the management to interact.
- Student's services is enhanced by allocating user name and password whereby they can view their mark lists, attendance, syllabus, important notes and other informations related to their course on the browser.
- The application generates various reports useful to the management, to the faculty and to the end user separately, for each module.
- The security levels can be administered at three levels.
- The management has the option to set user's right of the end user, depending on the role and job responsibility.
- CMS make easier to prepare and generate reports from different required aspects.

### CMS MODULES

- **Students Admission:** This module is capable of automating the admission process of the university, it generates merit lists according to the admission criteria and score of the admission test results.
- **Records and Enrolment:** This Module is can Enroll different Batches Individually, with Term Activation and individual Process.
- **Student's Financial Matters:** Student Financial module keeps the record of each student's financials including the tuition fees, other Charges and Payments made.
- **Curriculum Management:** This Module is a set of business

processes which can maintain Course Catalog, maintain Schedule of Classes, and define Repeat Checking Rules, Maintain Course Requisites, permissions, term activations and other term related activities.

**Campus Community:** It is the foundation of PeopleSoft Campus Solutions package which provides the 3C's concept i.e. Communications, Checklists and Comments. It enables to maintain People Biographical Data, Service Indicators and Organizations data.

• **Student's Grade Book:** The Students' Grade book helps to monitor class assignments and grades acquired.

### Campus Self Service:

**Student Self-Service:** They can access of Biographical Information, Fee Vouchers and Examination Forms, with their own password.

**ENTERPRISE PORTAL** It is a world class portal solution with many robust content and collaborative features, which is in use at DUHS also.

*The campus management system was also audited by auditors at two stages and declared eligible for ISO-9001-2008 certification.*

## ESTABLISHMENT OF DR. ISHRAT-UL-EBAD KHAN INSTITUTE OF ORAL HEALTH SCIENCES (DIKIOHS)

In 2004

It did not exist

In 2015

Dr. Ishrat -Ul- Ebad Khan Institute of Oral Health Sciences (DIKIOHS) was established in 2007. The institute has recently been shifted to a new location. It has:

a) The **Dental College** for imparting under-graduate dental education leading to the degree of Bachelor of Dental Surgery (BDS), two batches have already passed out. There are departments of **Oral & Maxillofacial Surgery, Prosthodontics, Oral Pathology & Oral Microbiology, Oral Medicine, Periodontology, Oral Biology and Tooth Morphology, Sciences of Dental Materials, and Community Dentistry.** Each department is headed by a subject specialist with supporting staff. It has highest number of highly qualified and experienced faculty. It enroll 100







undergraduate dental students every year. Currently **four batches** having **400** students are being trained for BDS. Now from this year the students have option to undertake four years course or five years course as per international requirement.

b) **The Dental Hospital.** With 125 dental chairs, has Nine Out-patient Departments namely **Oral Diagnosis, Oral Surgery, Oral Medicine, Oral Radiology, Periodontology, Prosthodontics, Crown & Bridge, Orthodontics and Operative Dentistry**, Procedures including extraction of teeth, filling, root canal, capping and emergency oral treatments are offered. The clinical work at the hospital is augmented by best practice, good



sterilization protocols and requisite gadgetry. All the departments are provided with material and equipments to help patients at minimum cost.

c) Postgraduate trainings of fellowship (FCPS), Masters in Dental Surgery (MDS) and PhD are also being imparted and presently sixty (60) postgraduates are undertaking these course. The fellowship training FCPS-II is provided in the **Departments of Orthodontics, Prosthodontics,**

**oral surgery and oral dentistry.** The MDS course, is offered in eight disciplines four of Basic Dental Sciences and four of Clinical Sciences. First batch of MDS has passed out.

These courses provide opportunities to acquire and develop the skills of synthesis, analysis and decision making, required for careers in dental education and research.

Dr. Ishrat-Ul-Ebad Khan Institute of Oral Health Sciences, which conducts Undergraduate and Postgraduate programs of dentistry has been declared eligible for ISO-9001-2008



Certification by the auditors of Vincotte, Brussels after the final audit.

## DOW INTERNATIONAL DENTAL COLLEGE (DIDC)

In 2004

It did not exist

In 2015

Dow International Dental College (DIDC) has been established at Ojha Campus, so as to meet deficiency of dental surgeons in Pakistan as well as abroad. It is located on the Top floors of DIMC building and offers admissions mainly to overseas students, however due to acute deficiency of Dental Surgeons, the option for admission is also given to local students.

This college has been recognized



by Pakistan Medical & Dental Council (PM&DC) in 2011 for fifty students. Two batches of BDS are presently studying at DIDC. This college is fully equipped with most modern facilities including regular library having books, journals and videos etc besides the digital library.

## DOW DENTAL COLLEGE (DDC)

In 2004

It did not exist

In 2015

Dow Dental College has been established at DMC after the inspection and approval by Pakistan Medical & Dental Council (PM&DC). The first batch of fifty students has been admitted in 2012.

This Dental College is pursuing two types of courses one of five years undergraduate program, to be at Par with International requirement specially USA and the other one is routine four years program to meet local requirements of Pakistan.

This college and its Dental hospital is fully equipped with most modern equipments in the laboratories alongwith Simulators





with gadgets & furnitures. It has covered area of 70,439 sq ft.



The Dow University has dedicated a section in the Learning Resource Centre (Library Block) in the name of a living legend of urdu literature Mr. Mushtaq Ahmed Yusufi and named it as 'Gosha-e-Yusufi'. Frequently Mehfile Ghazal and Mushairas are held here.

## GYMNASIUM & SPORTS COMPLEX

In 2004

It did not exist

The importance of sports in the life of students is invaluable. Gymnasium & Sports Complex having covered area of 14,856 sq ft and height of 36 feet.. It is a recreational facility for students. Besides a huge hall, there are two galleries and waiting area. Facilities for lockers kitchen, dinning room, toilets, store, therapy room and offices also exist. Green ground for cricket and football has also been provided.



The specially designed Sports Programs bear special components that motivate the students to remain in the campus, earn better grades and reinforce

the ideals of achieving success more than any other single type of activity.



This gymnasium has four badminton courts and six tables for table tennis; the surface can be adapted for basketball, volleyball, throwball and netball. The gymnasium is equipped with wall-to-wall maple wood flooring, and seat up to 1000 people.



Indoor Facilities include those for, Table Tennis, Badminton, Basketball, Volleyball, Throw ball, Fitness Centre (Gym), Squash and Netball

## DOW COLLEGE OF PHARMACY (DCOP)

In 2004

It did not exist

Dow College of Pharmacy was established in early 2008, to train pharmacists, who are a vital part of a complete health care system and can practice in a number of health care settings, including hospitals, clinics, etc.



**The Pharm-D is a semester based five years program.** The training also includes hands-on experience in hospitals and pharmaceutical settings. First batch of about 100 students have passed out this year. Presently **425** students of **four** batches are studying in Pharm-D courses. **Pharmacovigilance Centre**

Pharmacovigilance (PhV) is defined as the science and activities relating to the detection, assessment, understanding and prevention of adverse effects.

Dow University of Health Science in collaboration with Dimension Research has established the first Pharmacovigilance Center in a public health care set up of Pakistan using **PhVnet** ; an International standard web based Pharmacovigilance data base. This centre was inaugurated on 13<sup>th</sup> June 2013 by Vice Chancellor and Dr. Qaiser Waheed, Member



PPMA , Chairman Medi Sure Pharmaceuticals Pvt. Ltd.

Its principal aim is to provide safe drug therapy for the patients to improve public health, by timely reporting of Adverse Drug Reaction (ADR)/Adverse Event (AE).

*The Dow College of Pharmacy has also been audited by auditors of Vincotte, Brussels and declared eligible for ISO-9001-2008 Certification regarding its academic programs and working procedures.*



## INSTITUTE OF NURSING (ION)

In 2004

It did not exist

In 2015

The Institute of Nursing (ION) was established in 2006 in a purpose built 2 storey building having 36000 sqft covered area to prepare leaders in nursing and sufficient number of highly skilled and trained nursing professionals, to provide modern skilled preventive and curative health care personals besides having research capabilities.



It also has fully equipped science labs, with latest models, dummies, manikins, simulators and Digital Library with 41 computers with high speed internet facility, having access to online HEC journals.

The clinical skills are taught at Professional Development Centre. Hands on practical trainings are provided in various hospitals including Dow University Hospital & Civil Hospital.

The nursing students also provide services to the community by organizing medical camps and public awareness programs.

The Nursing students enhance their learning by organizing



various workshops & seminars for nursing professionals. They also provide preceptor ships for BScN students of other institution.

The Institute has more than twenty (20) full time highly qualified faculty members, conducting the academic programs and the training.



*This institute has also been audited in detail at two steps by the auditors of Vincotte, Brussels and declared eligible for ISO-9001-2008 Certification, for all the courses conducted at the Institute of Nursing.*



## INSTITUTE OF MEDICAL TECHNOLOGY (IMT)

In 2004

It did not exist

In 2015

The Institute of Medical Technology (IMT) has been established, to overcome lack of trained and qualified technical staff in Pakistan. This

deficiency hampers the ability of highly qualified physicians and surgeons to provide optimum management and care. Institute offers a four years degree programs in Seven specialties:

- BS in Clinical Laboratory Science Technology
- BS in Respiratory and Critical Care Technology
- BS in Surgical Technology
- BS in Clinical Ophthalmology Technology
- BS in Perfusion Science Technology
- BS in Audiology
- BS in Speech Language Pathology

*"Audiologists are health professionals focused on the processes and disorders of hearing."*



Audiologists study the perception of sounds, the physical and psychological characteristics that underlie hearing and disorders that affect the ability to hear.

Bachelor's of Science (B.S) in Audiology is a four year program covering theoretical, practical and clinical aspects of audiology. The program provides the foundation for graduate study leading to career opportunities and clinical certification as an audiologist. The curriculum in Audiology focuses on the anatomical and physiological mechanisms underlying hearing; the causes of communication disorders in children and adults; and theories and techniques of assessment and treatment of communicative and hearing disorders. Supervised clinical practicum provides





students experience in clinical assessment and intervention with persons having hearing impairments.

**“A Speech-language pathology professional (speech-language pathologist (SLP); informally, speech therapist) is a health care professional who specializes in communication and swallowing disorders.”**

The main part of their work involves assessing people and planning therapy

Bachelor’s of Science (B.S) in Speech-Language Pathology program emphasizes the physiological, neurological, behavioral, and psychological dimensions of normal and disordered communication across the lifespan.

The Dow University of Health Sciences offers program leading to a bachelor of speech-language pathology sciences. In this degree you will study a range of speech and language topics including how we create speech sounds using the vocal apparatus, the way the ear respond or sometimes fails to respond to different kinds of sounds and how

computers can be used in speech analysis.

The Speech-Language Pathology program offers study in the processes and disorders of speech and language which identify, help, and study persons with communicative disorders. Those entering these professions should possess a strong motivation to help individuals with genetically, physically, or psychologically caused communication problems. Preparation involves acquiring the knowledge and skills necessary to assume responsibility for assessment, education and rehabilitation of persons with speech, language, and hearing disorders.



Additional courses, started since 2011 include, those for ECG & Echocardiography and ECG technicians.

Bachelor courses have eight semesters over four years and comprises of a core course where training is also imparted in Basic Computer Skills, English proficiency, Behavioral Sciences and Research Methodology etc.

Presently more than 500 (five hundred ) students are studying in this Institute. Three batches have already passed out and have been offered important positions in various public and private institutions immediately after passing out from DUHS. **Additional training programs** are conducted as per requirements.



*IMT has also been declared eligible for ISO 9001-2008 Certification by the auditors of Vincotte, Brussels after its two stage audit.*

## INSTITUTE OF PHYSICAL MEDICINE & REHABILITATION (IPM&R)

In 2004

It did not exist

In 2015

It is the first ever institute of its kind in Pakistan and provides comprehensive multi-disciplinary rehabilitation services with state-of-the-art facilities to help patients.



Physical Medicine and Rehabilitation (PM&R), is a branch of medicine dealing with functional restoration of a person







affected by physical disability. The goal of the physical medicine and rehabilitation treatment team is to work together with the patient and family to help a person reach their maximum potential and become as independent as possible despite their disabilities. Physical Medicine & Rehabilitation is a young and growing field in Pakistan. DUHS has taken the initiative to open the first Institute of Physical Medicine and Rehabilitation of Pakistan in 2007. Over the last few years, the Institute has flourished, housing over five hundred students, and still growing to its full potential.

Education Facilities Provided at IPM&R, include School of Occupational Therapy, Physiotherapy and Prosthetics & Orthotics. The curriculum of BS of Occupational Therapy, Doctor of Physiotherapy, BS Orthotics & Prosthetics, and MS Physiotherapy has been constructed with approved guidelines of Higher Education Commission, providing students with state of the art education facilities as well as optimal learning opportunities with fully functional labs, a digital library and output clinic for patients treatment.

The clinical facilities, provided by the Departments of Occupational Therapy, Physiotherapy, Cardiovascular & Pulmonary Rehabilitation, Psychology and Child Development Centre cater to different needs of patients from all walks of life, providing quality treatment holistically focusing patients' need

physiological and psychological. There is also a Centre for the specific treatment of Sensory Integration and Autistic children and a capable workshop where all kinds of orthotics and prostheses are developed according to the patients' individual requirements, including **Cardiac Rehab, Neurological Rehab., Musculoskeletal Rehab., Pediatric Rehab, Speech and Language Rehab,** for an active and healthy lifestyle of the patients.

- School and Department of Occupational Therapy
- School of Prosthetics & Orthotics
- Dow University of Artificial Limb(DUAL) Centre
- Department of Cardiovascular and Pulmonary Rehabilitation
- School and Department of Physiotherapy
- Department of Psychology
- Child Development Centre
- The School of Occupational Therapy offers a 4-year bachelor course in Occupational Therapy and has enrolled five batches and also managing treatment of about 50 patients per day.
- The School of Physical Therapy is also conducting a 2-year postgraduate program of **MS Physiotherapy** program. The department is currently providing physiotherapy services to more than 55 patients per day.
- The School of Orthotics and Prosthetic offers a 4-years Bachelor Courses in Orthotic & Prosthetic Sciences. It is the first of its kind in Pakistan, with qualified staff for artificial



limbs. Presently about seventy (70) students are studying this course for bachelors in occupational therapy. This institute has also collaboration with NED university to have wider exposure of engineering by the students.

The IPM&R Institute has multidisciplinary rehabilitation team, which includes **Physiatrists, Physical Therapists, Occupational Therapists, Vocational Therapists, Orthotists and Prosthetists, Language and Swallowing Pathologist, Clinical Nutritionist** and a **Clinical Neurophysiologist, Speech therapist and special educationist.**

It also provides outpatient and community-based rehabilitation services, upto now more than 50,000 patients have been benefitted by this institute. *The auditors of Vincotte, Bursells also audited IPM&R in two stages and have declared it eligible for ISO-9001-2008 Certification, regarding all the academic programs conducted at IPMR.*

## DOW UNIVERSITY ARTIFICIAL LIMB CENTRE (DUAL)



It did not exist



The Dow University Artificial Limb (DUAL) Center is well equipped with all the required machines and material so as to fabricate light weight artificial limbs at Dow University, almost free of cost to needy patients.

More than 3000 limbless people have upto now been provided limbs free of cost. Semi





mechanized arms are also provided to patients so as to make them independent.

This project is also a part of Dow University's Civic engagement in which students & faculty gain access to handicapped people and helped them according to their individual requirements.

This department also provide four years bachelors courses in Orthotics and Prosthesis, which pertains to assessment of handicapped people, fabrication of the required item in the manufacturing area of DUAL and fitting it to patient with all possible level of comfort having maximum usage by training for its required optimum usage.



This centre has also been audited and declared eligible to be ISO 9001 – 2008 certification by auditors of Vincotte, Brussels, because of its high quality of work and programs.

## DOW VOCATIONAL TECHNICAL AND TRAINING CENTRE (DVTTTC)



It did not exist



In 2015 It has been established in 2008 by Dow University as a social welfare program of DUHS and is registered by Sindh Board of Technical Education, Karachi and National Vocational & Technical Education Commission.

The main purpose of this program is to uplift the economic status of low income group by providing short term computer, technical and vocational training to youngsters who are not highly qualified. These courses will enable students to get good jobs in different places and offices.

The computer program offered include, MS Office, SPSS, Hardware, Graphics, Animation, Web designing, Comp Accounts & Computerized Accounting etc. The training for girls include, those for Dress Making, Machine Embroidery, Hand Embroidery, Stitching, Cutting, Sewing & Candle Making.



This training centre also imparts free training of candle making, traditional cap making, block printing of cloth, personal grooming, stitching & embroidery to fortunate women suffering from MDR TB, so as to help them out financially during treatment, simultaneously engaging them Psychologically also, for a

respectable livelihood for themselves as well as their families.

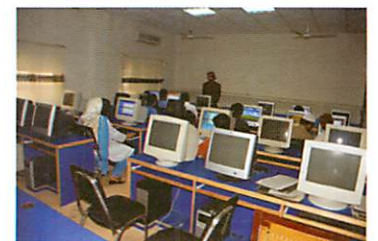


This vocational training centre is also providing computer training to the students and staff of Dow College of Pharmacy, Institute of Physical Medicine & Rehabilitation, Institute of Nursing and Institute of Radiology at DUHS.

During last five years DVTTTC has trained approx. (1400 fourteen hundred) youngsters with various short courses, who are bread winners of their family and a trained worker of the society, as after completion of the specific computer courses they are able to design their own or corporate websites, design brochures, pamphlets press advertisements, magazine advertisements, logo, monogram and book title etc.

The animation courses enable the students to get better placements at media, TV channels, production houses, TV cables and movie making agencies.

DVTTTC is now planning to introduce more courses eg Diploma in Information Technology, courses for glass painting and fabric painting etc.





## UNDERGRADUATE COURSES

In 2004

Only MBBS at Dow Medical College and Sindh Medical College

In 2015

### Details of Undergraduate Programs

Institute	Program	DESCRIPTION	Speciality
DMC	MBBS	Bachelor of Medicine and Bachelors of Surgery	
DIMC	MBBS	Bachelor of Medicine and Bachelors of Surgery	
DIKIOHS	BDS	Bachelor of Dental Surgery	
DIDC	BDS	Bachelor of Dental Surgery	
DDC	BDS	Bachelor of Dental Surgery	
DIKIOHS	BS-DCP	Dental Care Professional	Dental Technology
			Dental Hygienist
DCOP	PHARM-D	Doctor of Pharmacy (Pharm D)	
IMT	BSMT	BS Medical Tecnology In	Clinical Laboratory Sciences
			Critical Care
			Operation Theatre
			Ophthalmology
			Cardiovascular Perfusionist
IPMR	BSPMR	Bs Physical Medicine and Rehabilitation	BS Occupational Therapy BS Prosthetics and Orthotics
	DPT	Doctor of Physiotherapy	Rehabilitation
IHM	BBA	Bachelor of Business Administration	Health Management
			Pharmaceutical
			Marketng
			Finance+HRM+IT Management
ION	BSNUR	BS in Nursing (4 Year )	Nursing
	PRNBS	Post Rn BSc Nursing 2 Year Program	
	BSCNFT	Diploma in Nursing (One Year Fast Track Program)	
DIR	AAS	Associate of Applied Sciences	
SPH	BS Nutrition Sciences	Bachelor in Nutritional Sciences	
IBME	Bio Engineering	Bachelor of Biomedical Engineering	



# PASSED OUT UNDERGRADUATE STUDENTS

## from Dow University of Health Sciences Details of Undergraduate Programs

DESCRIPTION	Specialities	Till Date
MBBS from DMC		3209
MBBS from SMC		2936
MBBS from DIMC		111
BDS from DIKIOHS		197
Dental Technologist		12
Dental Hygienist		12
Doctor of Pharmacy		115
BS in Allied Health Sciences	Clinical Laboratory Sciences	170
	Respiratory & Critical Care Technology	103
	Operation Theatre	76
	Ophthalmology Technology	40
	Perfusion Sciences	25
BS in Physical Medicine and Rehabilitation	BS Occupational Therapy	47
	BS Prosthetics and Orthotics	14
Post RN BSc Nursing (2-Year) Program		260
Diploma in Nursing (One Year Fast Track Program)		37
Diploma in Nursing		20
<b>UNDER GRADUATE TOTAL</b>		<b>7384</b>



Molecular Lab



## INSTITUTE OF POSTGRADUATE STUDIES

In 2004

It did not exist

In 2015

The postgraduate education in Dow University of Health Sciences is conducted under the over all supervision of the Institute of Postgraduate Studies which is headed by the Vice Chancellor of the University. It has three major component departments under it.

1. Department of Postgraduate Studies which is the administrative department deals with admission, conduction of courses, monitoring, liaison with other departments of university, scheduling of examinations and certification. It also liaises with the regulatory authorities for recognition of the programs.
2. Department of Research which supervises research process in program with thesis such as M.Phil, M.S., M.D.S and Ph.D. Programs.
3. The Institutes or Departments where academic program is being conducted such as IBMS for (M.Phil and Ph.D Program), Dr. Ishrat-ul-Ebad institute of Oral Health Sciences (M.D.S.), Clinical Departments (FCPS Programs) etc.

The University bodies such as Board of Advanced Studies and Research, Institutional (ethical) Review Board and Scientific Committee facilitates monitors both the research activity and the overall programs. Dow University conducts 35 Ph.D, Masters, Fellowship, Diploma and Certificate programs. Each year around 150 FCPS

students, complete training form Dow University of Health Sciences. To date 140 candidates have passed of M.Phil., MDS, MSBE, MS diabetes, MS Physiotherapy and MBA from Dow University.

At present 1120 post graduate students are enrolled in various Dow University's Postgraduate programs.

The Dow University has now started first time in Pakistan Bachelor Courses in Nutritional Sciences at its School of Public Health.

*Along with other institutes of Dow University, the Institutes of Postgraduate Studies has also been declared eligible for ISO certification.*

## RESEARCH DEPARTMENT

In 2004

It did not exist

In 2015

Research Department has been established for the postgraduates and PhD program of the University to promote research in basic and clinical specialities besides supervising undergraduate students research.

The Research Department is providing its services to enhance university position in research, training and consultation areas. The particular activities of the department are briefly highlighted below:

### Postgraduate Synopsis and Thesis Review:



### Scientific Research Committee:

This committee was formed in November, 2012 with the approval of Board of Advanced Studies and Research of DUHS. The committee consisted of faculty of DUHS from various fields. In this committee, research proposals of postgraduate students are scientifically reviewed and advised modifications to the students.

- **Board of Advanced Studies and Research (BASR):** All the official work related to this Board are administered and organized under Research Department. The Board consists of 10 members under the Chairmanship of the Vice Chancellor. The functions of this board are:



- o To advise authorities on all matters connected with the promotion of Advanced Studies and Research in university
- o To propose regulations regarding the award of research degrees.
- o To appoint supervisors for research students to determine the subject of their thesis.
- o To recommend panel of names as paper setters and examiners for research examination after considering the proposals from Board of Studies in this regard; and
- o To perform such other functions as may be prescribed by the statutes. Furthermore, the Board also gives final approval for the synopsis.



**Journal of Dow University of Health Sciences:** Department of Research, DUHS administered and published Journal of Dow University of Health Sciences (JDUHS) 3 times a year. This journal is approved by PMRC and indexed in IMEMR, PakMediNet and CABI. The journal is also recognized by Higher Education Commission (HEC), Pakistan. From this year, online submission and review process of the manuscripts has already been started.

**Institutional Review Board:** Department also administered and organized Institutional Review Board of DUHS which consists of 14 members from different specialty such as medicines, law, religious scholar, ethics, social work etc. It reviews and approves research proposals conducted by DUHS. Besides, DUHS offers this service to those institutes who have not their own IRB/ERB.



#### Academic Activities:

1. **Undergraduate Students Research Activities:** A research component was incorporated in MBBS curriculum of DUHS five years back. Each clinical group works under a faculty member of DUHS. Research Department organizes all the activities of these researchers from assigning of supervisor to presentations, alongwith course works and data analysis.

• **Fourth Year Research Book:** The researches of

undergraduate students are published annually under department of research. This book contains reports of all the clinical groups of DUHS.

2. **Postgraduate Programs:** Research Department offers 3 postgraduate level programs, **Master of Science in Biostatistics and Epidemiology (MSBE)**, **Master of Science in Clinical Research (MSCR)** and **MPhil/PhD in Biostatistics**. None of the public university of Pakistan is conducting these postgraduate programs uptil now. MSBE program was started in October 2008. This is a two years program comprises of four semesters with a research thesis work in second year of the program. MSCR and MPhil/PhD in Biostatistics programs have also been offered this year.

3. **Summer Short Courses:** Department has initiated three months summer short courses last year. The courses on Applied Biostatistics, Fundamental Epidemiology, Statistical softwares in health sciences and Research methodology are taught from June to August. The classes are held on Saturdays and Sundays.

4. **Training on Biostatistics and Research Methodology:** Department also facilitates training on specific topics of biostatistics and research methodology. Several workshops have been conducted by the faculty of Research Department on this topic.

**Unit for Ramadan Studies:** Research Department also facilitates studies conducted on the topic of Ramadan and its effect on health. The unit provides



assistance in literature and training on such studies. An international conference of the same topic is scheduled to be held on October 25-26, 2013.

**Foreign Scholarship program**  
Foreign Scholarship program is funded by Higher Education Commission (HEC) of Pakistan. Twenty scholars were sent for PhD program at overseas universities. Fifteen scholars enrolled in United Kingdom's universities and one each in Australia, Canada, Sweden, Scotland and Germany. These scholars were selected after thorough screening by Graduate Assessment Test (GAT), subject and protocol writing tests and followed by two interviews based on candidate's research interest and specialty. Nine scholars have successfully completed their PhD program and have joined back DUHS.

**Research and Bio-statistical Consultation:** The faculty of Research Department also provides research and bio-statistical consultation not only to faculty and students but also to the pharmaceutical industries. The consultation is classified following three major parts

1. **Statistical Consultation:** Department consults all kind





of statistical works to different academic and research based organizations including pharmaceutical industries. These services include, but not limited to, sample size calculation, data entry, data analysis and formatted table & graph of the output of the analysis.

**2. Writing Consultation:** Department also provides consultation in writing analysis and result sections of the research project/report. Besides, investigators who want to write by themselves, department guides them how to interpret the statistical results.

**3. Research Protocol Review Guides:**

The faculty also assists research students and faculty members about the processes of research work and writing including questionnaire formatting, structure of protocol, literature review and consent form etc.

**Other Related Activities:**

- **Research Loan Funding:** DUHS provides a loan fund upto Rs.100,000 for the research projects of faculty and postgraduate students of DUHS. The administration work for this is handled by Research Department. More than one hundred researches have been approved uptil now.

- **Faculty Research Profile:** The department has established research profiles of the faculty members on the DUHS website. It helps all DUHS faculty members to be in search engines like; Google and others. The advancement in the websites is being performed.

- **Research Posters Competition:** Each year research department celebrates Faculty and Student Research Day. On these days, researches of faculty and students are displayed through posters. The best three researchers present their works orally and are awarded.

- **Abstract Book:** Every year Research Department compiles and publishes 'Abstract Book' which contains abstracts of research works published by DUHS faculty. The first book was published in 2010. Three issues have been published till now.

- **Registration of Research Projects:** All the faculty and students of DUHS have to register their intended research projects at the Research Department, so that the projects should not be duplicated by other faculty members and candidates.

*Department of Research, Institute of Postgraduate studies have also been declared eligible for ISO-9001-2008 Certification by the auditors of Vincotte, Brussels after its final audit.*

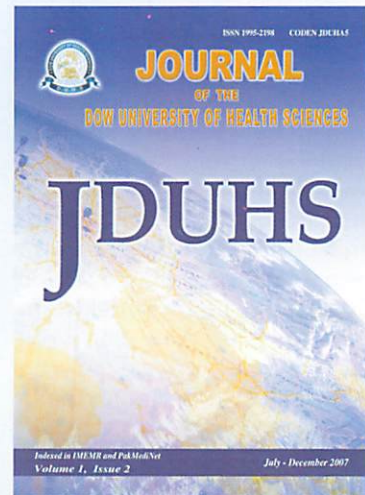
## JOURNAL OF DOW UNIVERSITY OF HEALTH SCIENCES (JDUHS)

In 2004

It was not a publication

In 2015

Journal of Dow University of Health Sciences (JDUHS) is a routine publication by Department of Research, DUHS. This "Journal of Dow University of Health Sciences (JDUHS)" is approved by PMDC & HEC and is indexed in IMEMR,



PakMediNet and CABI. Three issues per year are published routinely. The articles are also submitted online, which reduced the communication time with the reviewers. Authentic publications have increased its credibility. **Now JDUHS of Research Department is also in the domain of ISO certification process.**

## CLINICAL TRIAL UNIT (CTU)

In 2004

It did not exist

In 2015

Clinical Trial Unit (CTU) was established in 2009 to support all aspects of clinical trials from concept to analysis & reporting. Ministry of Health (MoH), Pakistan has identified DUHS as one of the Centre for clinical trials. CTU-DUHS is also registered at NIH / FDA, USA protocol registration system.

This department is coordinating between different Pharmaceutical companies and Clinical Units of the DUHS for conducting clinical trials. Several trials are presently being conducted.



## INSTITUTE OF BASIC MEDICAL SCIENCES (IBMS)

In 2004

It did not exist

In 2015

The Institute of Basic Medical Sciences, DUHS offers M.Phil, M.Phil Leading to PhD and PhD Program in the following disciplines,

1. Anatomy
2. Biochemistry
3. Medical Biotechnology
4. Medical Genetics
5. Pathology:
  - a. Chemical Pathology
  - b. Hematology
  - c. Histopathology
  - d. Microbiology
  - e. Molecular Pathology
6. Pharmacology
7. Physiology

- It also provides an opportunity for generation of synthesis for learning, grooming of analytical minds and critical thinking to prepare graduates for life-long learning as a subject specialist.
- The labs at IBMS are fully equipped with all modern equipments for all types of research experiments. The curriculum has been designed with Multidisciplinary approach.
- The IBMS has almost 26 PhDs faculty members, who are supervisors.
- It will now take admission for 6<sup>th</sup> Batch of students of M.Phil, M.Phil Leading to PhD program and 3<sup>rd</sup> Batch for PhD Program.
- Thirty Seven (37) students have been awarded M.Phil Degree in various discipline of biomedical sciences. Presently Seventy (70) M.Phil / M.Phil Leading to PhD students are currently undertaking the program (56 students have

completed the course work and undertaking the synopsis writing / synopsis approval / research work and 14 students are undertaking the course work). Thirty Six (36) PhD students have completed the course work and are in process of synopsis writing / synopsis approval.

*Institute of Basic Medical Sciences conducting Academic programs of PhD & MPhil have been declared eligible for ISO-9001-2008 Certification by the auditors of Vincotte, Brussels.*

## CENTRAL ANIMAL HOUSE

In 2004

It did not exist

In 2015

Dow University has established Central Animal House, to meet the requirements of researchers of MPhil & PhD and undergraduate students of Pharm-D, besides its usage for clinical trial and production of preventive vaccines e.g. anti-snake venom.



It has an area of 4000 Sq ft. Animals which are kept, include rabbits, rats, mice, guinea pigs, snakes, monkeys Twelve horses of good breed are kept and looked after with international standards



for the production of anti-snake venom.

Routine services at animal house are aimed to promote human care of animals used in research with proper maintenance & monitoring. Full time experienced doctors and other staff takes care of animals.



*This department was also visited by the auditors for its maintenance as per international standard. They have declared it eligible to be ISO 9001 – 2008 certification.*



## VIDEO CONFERENCING

In 2004

It did not exist

In 2015

The facility has been provided by HEC.

- Now Since three years Video Conference sessions are conducted every Monday & Saturday for 2 hours from USA in collaboration with APPNA MERIT.
- Regular live rounds by eminent doctors of USA are also witnessed by doctors & postgraduates via video conferencing. It is attended regularly by PGs and faculty members.
- Various specialties are included in video conferencing lectures & discussions.
- Several sessions pertaining to teachers training are also conducted via this media.
- The Quality Enhancement Cell (QEC) of DUHS coordinated several sessions on quality assurance, key performance indicators. Through DUHS advisor Dr. A.W. Usmani.



## DEVELOPMENT OF LAWN IN FRONT OF ARAG

In 2004

It did not exist

In 2015

A huge lawn been developed in front of Arag auditorium. An area of 10,500 Sq ft was digged down 3 feet to convert it into a grassy one. This is to improve the environment

and facilitate students for relaxation and to provide healthy and soothing environment.



An Additional Entrance of Arag Auditorium has also been provided from the back side. Previously, the Auditorium had only one front opening. The back entrance minimize disturbances. The auditorium seats, flooring walls and roof have also been completely renovated to maintain the decades old Auditorium.



## INSTITUTE OF HEALTH MANAGEMENT (IHM)

In 2004

It did not exist

In 2015

Institute of Health Management (IHM) was established by DUHS in 2007, for Health Management programs to produce human resource for Government and Private organizations, dealing with public health.

The Institute prepares graduates for careers leading towards senior level leadership in health services management, pharmaceutical marketing & management, besides conducting research, disseminating knowledge and contributing in the betterment of health care services.



Presently IHM is offering following programs in four years, two years and diploma courses.

1. BBA Health Services Management
2. BBA Pharmaceutical Management
3. BBA Hospital Management
4. BBA Marketing (with additional courses of Health Marketing)
5. BBA Finance (with additional courses of Health Finance)
6. BBA Human Resource Management
7. MBA Health Services Management
8. MBA Pharmaceutical Management
9. MBA Hospital Management
10. Diploma courses in:

Administration Skills, Health Care Services and Hospital Management for postgraduate business students who wish to work in relevant fields(s). The IHM offers courses in many disciplines which help students to understand various links of diversified professions.

Alhamdulillah, the graduates of IHM DUHS are competing with other MBA graduates and enjoying equal opportunities for job like MBA's of other prestigious institutions. One of IHM graduate has been appointed by World Health Organization (WHO), in high level management position.

Executive MBA degree program is designed for those executives and the middle level managers who strive for excellence and greater challenges in their professional life. They can study on a schedule that minimizes



disruptions of work and personal pursuits. It is a two year degree program.

BBA is a morning program, which deals with various program related to marketing and management related issues. Similarly the Diploma Courses are designed to give edge on pertinent aspects of business in a shorter period of training. The students at IHM are trained in biostatistics, epidemiology, policy analysis, health promotion, and disease prevention, health economics, the organization of health & medical care systems, strategic management, organization behavior, health finance, health informatics, law and ethics etc.

**Presently more than 500 students are undertaking Various Programs in IHM.**

The courses are meant for graduate students which prepares them for lifelong and continuous learning, necessary for complex society.

The executive MBA course, allows students to conveniently accommodate their professional life and also continue their jobs simultaneously.

The institute also plans to introduce new additional courses for Bachelors and Masters degree related to Management Sciences, Social Sciences and Education, besides online degree program, to build up the required Human Resource in these fields.

*Institute of Health Management has also been declared eligible for ISO-9001-2008 Certification for all the program conducted by the auditors of Vincotte, Brussels.*

## DR. ISHRAT-UL-EBAD KHAN INSTITUTE OF BLOOD DISEASES (DIEKIBD)

In 2004

It did not exist

In 2013

Dr. Ishrat-Ul-Ebad Khan Institute of Blood Diseases (DIEKIBD) is a center of excellence in Haematology & related Health Care Management, Research and Diagnostics, established by DUHS in 2012.

This Institute has emerged with excellence in Technical, under graduate, Postgraduate Teaching, Training & Research programs like:

- PhD. Haematology indigenous Program,
- MPhil. leading to PhD Haematology (3 candidates have been awarded MPhil. Degree, another candidate has submitted his Thesis. From the 3<sup>rd</sup>. batch all the 3 candidates are in the process of submitting their Synopsis).
- MS. Transfusion Medicine & Tissue Typing
- Master of Dental Surgery (Oral Pathology)
- BS Clinical pathology.

This institute has following components:

1. **Haematology Section**
  - a. Routine Haematology
  - b. Bone marrow & Special Haematology Procedures & Reporting
  - c. Immuno-Histochemistry
  - d. Haemotasis , Screening & Rare Blood Group
2. **Blood Banking**
  - a. Volunteer Blood Product Supply,after Screening & Cross Matching:
    - i. Packed Red Cells
    - ii. Platelets (Random & Mega Units)
    - iii. Fresh Frozen Plasma
    - iv. Cryo-precipitates & Cryo-supernatants etc..
  - b. Antibody Screening, Titer & Identification
  - c. Rare Blood Group (Kell, Duffy, Kidd, Lutheran, etc..)
  - d. Pheresis Procedures for Plasma and Blood Cells
3. **Thalassaemia Support Program:** (for Blood Transfusion Dependent Patients)
4. **Dow Thalassaemia Assistance Program ( Dow-TAP):** volunteer program for Awareness, Screening, Diagnosis & Pre-marriage/pre-marriage Counseling services with DNA analysis





5. **Research & Development** in the field of Haematology
6. **Post graduate Teaching / Training Programs**
  - a. Ph.D. Haematology , Indigenous Program
  - b. MPhil. Leading to Ph.D. Haematology Program
  - c. MS. Transfusion Medicine, Tissue Typing

**Main Objectives of this Institute are:**

- Serve as a reliable resource center for Routine as well as specialized Haematology service provider at an affordable price
- Serve as Volunteer, reliable resource center to provide Blood & its products on "NO PROFIT NO LOSS BASIS".
- To set up a Community/ Working Groups for Thalassaemia & Haemophilia Care Center for the needy
- To deal with Haematological Disorders, like Leukaemias, Lymphomas etc.
- Prove as a resource for Tissue typing & Stem Cells Storage Facility.
- To assist our Liver Transplantation & Jinnah Genome Projects
- To assist in research & Development activities inside as well as outside university.
- To excel in teaching & training of undergraduate, postgraduate and develop managerial skills through hands on training & online courses

This institute will not only Cater needs for Haematological diagnostic needs but also for Blood Transfusion Services.

1. By encouraging Volunteers to donate Blood, Bone marrow & other body Tissues for establishing Volunteer donor setup for the needy, irrespective of cast & creed.
2. Rare Blood groups storage, Tissue Culture Facility, Cord Blood Stem Cells Storage, progressively join

International Registries.

3. In the Public Sector, to establish the name in Research, Development, postgraduate training & Teaching Institute of Haematology.
4. Establishment of a state of the art Bone marrow Transplantation Center
5. To meet the demand for the Postgraduate Training Program in Blood Diseases & Transfusion Medicine
6. Serve as a mandatory component of Medical & Research City Complex of DUHS

**In Summary the benefits of this Institute include:**

- Quality Controlled Screened Blood products like Packed Red Cells, FFP. Platelets & other blood components on "NO PROFIT NO LOSS BASIS" are provided to the public.
- Reliable resource for Haematology related Diagnostic services at an affordable price.
- Smooth running of Clinics for Thalassaemia and Haemophilia
- To establish a Registry for Leukaemia, lymphomas & other blood disorders.

## SCHOOL OF PUBLIC HEALTH (SPH)



It did not exist



Dow University of Health Sciences has established the School of Public Health (SPH) at OJHA campus in 2012. The aim of this school is to improve the health of our population by addressing the major health issues. Public Health is an important component of health services that is often ignored in the developing world and highly emphasized in the developed world. Keeping in view the needs of Pakistani

population, the DUHS took this initiative to establish the first public health school in a public sector university in Sindh Province.

The SPH has one batch of students which has successfully completed the first semester of their studies and the induction of second batch students for six master level programs is in process. These programs include Master of Public Health, Master of Sciences (Biostatistics and Epidemiology), Master of Sciences in Public Health (Nutrition Sciences, Health Policy and Management, Social and Behavioral Sciences) and Master of Philosophy (Health Education). All these programs are approved by Pakistan Medical and Dental Council (PM&DC). The SPH is also in process to develop a PhD program in public health, which is a major educational need of this time. This program will also offer prospective students to pursue their higher education in variety of different branches of public health such as epidemiology and biostatistics, health education and health economics etc.

The faculty and students of SPH are also conducting community based research and health activities. The SPH has various sections to focus separately such as epidemiology division (examining communicable and non-communicable diseases in Pakistani population), nutrition division (studying the role of nutrition in disease development and prognosis) and economic and policy group (examining the impact of economic indicators on health of Pakistani population and health policy). These research groups will develop the scientific evidence which will Inshallah help in improving the health of Pakistani population, besides developing Human Resource of this particular field.



## DOW INSTITUTE OF RADIOLOGY

In 2004

It did not exist

In 2015

The Dow Radiology Complex was established in 2008 to have the highest quality medical imaging, research opportunities and Radiology educational experiences. Besides providing economical benefits to the patients. The department of Imaging Services is committed to be at the forefront of new developments and clinical applications in the rapidly changing field of medical imaging.



- It was inaugurated by honourable Governor of Sindh, Dr. Ishrat Ul Ibad Khan four years back.
- The institute offers a full range of diagnostic and screening services to meet the needs of patients on very competitive rates around 1/3<sup>rd</sup> to 1/4<sup>th</sup> as compared to other centers in the city.
- It also offer a filmless digital environment for image viewing, reporting, as well as storage with the Picture Archiving and Communication System (PACS).

### Services include:



Provision of all modern diagnostic facilities eg.

- X-rays
- Ultrasound (09 Nine Machines)
- Fluoroscopy
- Dexa Scan
- Echocardiography
- Mammography
- CT Scan (03 Three Machines)
- MRI (03 Three Machines including one open MRI for Claustrophobic patients).



- The Institute of Radiology at Ojha Campus has 2 MRI Machines (including 1.5 Tesla) and 2 CT Machines, which are functioning 24 hours.
- Considering the growing demands of patient a City Campus on Stadium Road has been established near TV Station. named as 'Dow LEJ Campus' and it provides facilities of CT & MRI, 24 hrs.
- The Two Dow Lab Collection Centres at Nazimabad & F.B. Area are also have ultrasound facility performed by experienced sonologists.
- Teaching programs of Radiology Institute include :

- Undergraduate Program
- Associate of applied sciences in Radilologic technology

- Postgraduate Programs
- FCPS
- DMRD
- Certificate in Ultrasonology
- Certificate in Neurospinal-imaging
- Certificate in Interventional Radiology
- Certificate in Doppler Ultrasound
- One year Diploma in Echocardiography
- The Dow Radiology department during last four years



has performed Total MRI more than 30,000 at average cost of Rs. 4000, which is 3-4 times less than private set ups. Thus giving benefit to patients of approx. total saving of Rs. 25 crores.

- Similarly the Total No. CT Scans performed are more than 22000, which is also 3-4 times less than privately, thus giving benefit to patients of total savings of approx. Rs. 14 crores.



All the teachings and services at Dow Institute of Radiology are performed by highly qualified and experienced faculty, staff and technologists.



## OJHA INSTITUTE OF CHEST DISEASES (OICD)

In 2015

130 acres of land, only had Ojha Institute of Chest Diseases (OICD), having 250 bedded hospital and OPD block in redundant buildings.

- There was No ICU or ventilators in OICD.
- There was no operation theatre.
- The land was deserted having wild bushes except for some old huts & buildings.

In 2015

The Ojha Institute of Chest Diseases (OICD) is also a constituent institute of the Dow University of Health Sciences, since its inception in Jan 2004. It was established in the early forties, as a TB sanatorium and now recognized as a center of excellence for Tuberculosis by the World Health Organization (WHO).

The laboratory of OICD is the designated Provincial Reference Laboratory for Tuberculosis. NTP has also established, a BSL 3 lab facilities at OICD. It has fully equipped operation theatre and a separate intensive care unit for complicated tuberculous and

MDR patients.

All services are free of cost. Normally such type of ICU services costs around Rs. 20,000 - Rs. 50,000 / day in private hospitals.

The facilities provided to patients include high quality diet, recreation environment with TV, cable etc and vocational training and support in the form of training for candle making and stitching etc. The Dow University takes the responsibility to sell their products for them.

FOUR OUT-PATIENT CLINICS of OICD in the periphery of the city are also functioning, these are chest clinics of Iqbal Yad, Nazimabad, Lyari and Malir, Each clinic has a well organized DOTS (Directly Observed Treatment), where these patients with TB are provided medicines and health education.

Daily about 600 patients visit these TB clinics for DOTS treatment and follow up. TB HOSPITAL of 250 beds provide all possible facilities to indoor and outdoor patients for diagnosis and treatment of tuberculosis. MULTI DRUG RESISTANT (MDR) TB is a great problem. In Pakistan about 15,000-20,000 tuberculosis patients presently suffering from Multi-Drug Resistant (MDR TB), each patient requires approx 500,000 Rs. for management including costly medicines and other logistics but at OICD their



treatment is free.

Vocational training program have specially been designed and introduced to engage regular TB patients, while undergoing treatment for atleast 9 months, so as to engage them mentally and simultaneously help them to earn daily living.

The diploma course in chest diseases (DTCD) is also conducted at OICD. It is also recognized for fellowship and membership courses in chest diseases.

In Summary the development at OICD after the establishment of Dow University include:

- TB treatment by direct observation ie TB-DOTS program has been started in all the Five chest clinics of TB.
- College of Physicians & Surgeons of Pakistan (CPSP) has recognized it for F.C.P.S. in chest diseases.
- Proper management for Treatment of Multi drug Resistant tuberculosis MDR-TB, started.
- OICD has been selected as one of the Pilot site for NTP DOTS plus project for GLC medicine.
- Vocational Training Centre for indoor/attendant started.
- Re building state of art chest & TB OPD as per infection control protocol within the premises of Ojha Campus.
- Rebuilding of Thoracic Surgery & ICU.
- Establishment of Drug Resistant Tuberculosis.
- Renovation of Male & Female MDR Wards.
- Reference Lab upgraded to BSL3 level.





## POSTGRADUATE COURSES

In 2015

In 2004

Only FCPS in major specialties

- FCPS course is now more structured and additional specialties have been added
- More than 50 new postgraduate courses have been started

### Details of Post Graduate Programs

Institutes	Programs	DESCRIPTION	Specialities
<b>PhD / MPhil Programs</b>			
	PhD	Doctrate in Bio Medical Sciences and Basic Sciences	
	MPhil	MPhil in Basic Medical Sciences	
<b>Fellowship Training Courses (FCPS)</b> FCPS in all Medical & Surgical Allied Specialities			
<b>Masters Degree Programs</b>			
DIKIOHS	MDS	Masters of Dental Surgery (Basic)	<ul style="list-style-type: none"> <li>→ Oral Pathology</li> <li>→ Community Dentistry</li> <li>→ Dental Materials</li> <li>→ Oral Biology</li> </ul>
		Masters of Dental Surgery (Clinical)	<ul style="list-style-type: none"> <li>→ Oral &amp; Maxillofacial Surgery</li> <li>→ Operative Dentistry</li> <li>→ Prosthodontics</li> <li>→ Orthodontics</li> </ul>
DMC	MHPE	Masters in Health Professional Education	
	MSBE	Master of Biostatistics and Epidemiology	
	MSBPHY	MS Bio Physics	<ul style="list-style-type: none"> <li>→ Physician Track</li> <li>→ Dentist Track</li> </ul>
IPMR	MSPT	Masters in Physiotherapy	
IHM	MBA	Masters of Business Administration	<ul style="list-style-type: none"> <li>→ Hospital Management</li> <li>→ Health Services Management</li> <li>→ Pharmaceutical Management</li> </ul>
	EMBA	Executive Masters of Business Administration	
ION	MSNUR	Masters in Nursing	
NIDE	MScDE	Master of Diabetes and Endocrinology	
DMC	MPH	Masters in Public Health	Master in Nutritional Sciences
DMC	MSTMT	MS Transfusion Medicine & Tissue Testing	Master in Policy & Management
SPH	MSPH-HPM	Masters of Science in Public Health - Health Policy & Management	
	MSSBS	Masters of Science Social & Behavioral Sciences	
	MSNS	Masters of Science Nutritional Sciences	
	MPhil HEP	MPhil in Health Education & Promotion	
	MSPH	Masters of Science in Public Health	
<b>Diploma /Certificate Programs</b>			
OICD	DTCD	Diploma in Tuberculosis and Chest Diseases	
DMC	DMJ	Diploma in Medical Jurisprudence	
	DCH	Diploma in Child Health	
	DCARD	Diploma in Cardiology	
	DFM	Diploma Family Medicine	
	DLO	Diploma Laryngo Otorthinology	
	DCCM	Diploma in Critical Care Medicine	
	D. DERM	Diploma Dermatology	
	DMRD	Diploma Radiology	
	DA	Diploma Anesthesia	
	DO	Diploma Ophthalmology	
OJHA	DPM	Diploma in Psychiatric Medicine	
	CHPE	Certificate Health Professional Education	
	ECARD	Echocardiography	
	DHCM	Diploma In Health Care Mangement	
SPH	DSCM	Diploma in Supply Chain Management	
		PG Diploma in Aviation Medicine	
DIR		Basic Certificate Course in Ultrasound	
		Color Doppler Ultrasound	
		Small Parts Ultrasound	
		Non Vascular Interventional Radiology	
		Certificate course of Neuro Spinal Imaging	
IBMS	<b>PhD / MPhil (in IBMS and Pharmacy) Programs</b>		
	PHD	Doctors in Philosophy (in Basic & Clinical Sciences)	
	MPHIL	Master in Philosopy (in Basic Sciences and Pharmacy)	



## *Passed out Postgraduate Students from Dow University of Health Sciences*

DESCRIPTION	Till Date
<b>Masters Degree Programs</b>	
FCPS	958
Masters in Dental Surgery	215
Masters in Health Profession Education	27
Masters in Biostatistics and Epidemiology	14
Masters in Business Administration	141
Masters in Diabetes and Endocrinology	26
Masters in Jurisprudence	10
Masters in Physiotherapy	23
<b>Diploma Programs</b>	
Diploma in Tuberculosis and Chest Diseases	17
Diploma in Medical Jurisprudence	5
Diploma in Child Health	5
Diploma in Cardiology	49
Ultrasound	16
Echocardiography	10
PhD	2
M.Phil	46
<b>Post Graduate Total</b>	<b>1564</b>



**Lab Automation**



## DOW SERO BIOLOGY LABORATORY

**In 2004**  
It did not exist

**In 2015** The Dow University has established Sero biological Laboratory with the main aims and objectives of providing sero biological products at a low cost which is safe and easily available to the people Major objectives of this project include:

To have state of art Sero biology laboratory for Anti Snake venom research and allied fields through the development of infrastructure, appropriate incentives, and regulatory framework for research.

- To produce low cost , safe, and easily available sero biological products for the general public.
- To develop high quality infrastructure with the required support services for manufacturing units by setting up specialized sero biology incubators.
- To evaluate efficacy of local and imported sero biological products.
- To have congenial atmosphere for research & development and various field surveillances.
- To collaborate with international research institutes in related areas of Mutual-interest.
- Enhancing the existing knowledge about sero biology, blood fractionation, Vaccinology, immunology.& Introduction of sero biology sciences in

medical educational curricula at various stages.

- Dow sero biology production of sera for research & development provision for international Researchers, Scientist, post graduate and graduate students. We also have great opportunities to establish a bridge between foreign universities and DUHS.
- Currently there are twenty four hyper immunized horses against Russel viper, Sangchore, Cobras, and saw scale viper and their sera has been collected for anti snake venom vials to be filled with required procedure.

## BARIATRIC SURGERY

**In 2004**  
It did not exist

**In 2015** huge problem of present era not only in Pakistan but world over. This is because of sedentary life style. Most of the chronic illnesses e.g. Diabetes, high blood pressure, Cardiac problems and stroke etc. are directly related to obesity. More than 50% of obese people are unable to reduce weight by diet and exercise despite efforts.

Bariatric surgery is a process in which bigger loose part of stomach is stapled with specialized ways leaving out less space, enough to fulfill the food requirement of the individual. The specialized process is not only very expensive in private set up but also lacks expertise.

This centre at DUHS performs surgery by experts only at the cost of required staples, hence very economical and effective.

## COCHLEAR IMPLANT CENTRE

**In 2004**  
It did not exist

**In 2015** Pakistan is a developing country having prevalence of certain indigenous health issues since its inception. Hearing impairment is one of the major issue pounding unnecessary burden on the society. According to a surveys, about 15 % of the population is suffering from hearing impairment, majority of them are due to preventable causes. Some people suffered from Sensorineural hearing loss (SNHL) due to congenital reasons and if it is not detected & rehabilitated early, it can lead to Deaf mutes, meaning lifetime incapacitation.

Cases of congenital SNHL are increasing day by day due to variety of socio-cultural reasons in our region. In vast majority of these cases , conventional rehab measures with the use of hearing aids and/or speech therapy are not much beneficial. Cochlear implant is relatively newer technique that caters the need of majority of these cases if they meet the criteria of cochlear implant candidacy. The major concern in its applicability all over the globe, is the cost of implant, pre-implant assessment and post implant rehabilitation. Most of these concerns are overcome in developed countries but in our region its use for every patient is still a dream due to economic constraints and non availability of post implant





rehabilitation facilities.

The cost incurred by private sector in Pakistan is very high (25000 USD) for a single patient which cannot be afforded by many parents specially from lower and middle class.

Considering the gravity of the situation, Dow University of Health Sciences in collaboration of IMRA, and UK based NGO, Launched its Cochlear implant program with the aim of implanting the needy & suitable candidates of the families who cannot afford the cost, side by side we endeavor to setup fully equipped rehabilitation institute for pre implant assessment and post implant rehabilitation. The sum of estimated cost of implant and other expenses are approx 15000 USD, Which will be borne by DUHS and IMRA equally as per MoU signed earlier between them.

Up till now four children had been implanted free of charge after standard international criteria of cochlear implant candidacy. All four children are doing well especially the girls implanted in Dec 2012. All of them are visiting to a rehabilitation center.

## DOW DIAGNOSTIC RESEARCH AND REFERENCE LABORATORY (DDRRL)

In 2004

It did not exist

In 2015

The Dow Clinical & Research Laboratory has been established to provide reliable, high quality diagnostic services of International standard for routine and specialized tests at, extremely economical rates (approx at 30% as compared to private ones) for

all socioeconomic segments of population.

It's the fastest growing lab of Pakistan. Monthly about 25,000 tests are performed and upto now more than one million tests have been performed. Internal quality assurance is guaranteed by daily controls. Provision of online electronic reporting & Image transfer facilities exist. More than 100 researchers have conducted various test. DDRRL proactively collaborates in Research & academics with AKU, KU, NED AIDS control, TB and Hep-C control Programs, The DDRRL has international Collaborations with caglin University, South Carolina USA & Cardiff University UK.

The research facilities help postgraduates of MPhil and PhD

All related departments of DDRRL provide State of Art facilities. The Histopathology Department performs special and immunological stains for conclusive biopsy reporting including FISH by hybridization.

The Microbiology department provides routine and specialized diagnostic and research services.

The Dow Lab also provides TB culture and sensitivity Rifampicin and INH resistance by Molecular techniques.



The Molecular Pathology Department offer Qualitative and Quantitative PCR testing of Hepatitis B, C, and D viruses along with their Genotyping. This Lab facility is equipped with state of art technique i.e. conventional and automated systems of PCR machines, Fluorescence in-Situ Hybridization technique, Gel Electrophoresis and Documentation system.

Besides the main lab, presently there are five collection centers of Dow Lab, near Civil Hospital, Jinnah Hospital, Malir, Nazimabad and Federal B Area, to provide easy accessibility to the clients for diagnostic laboratory services. Inshallah Soon more collection points will also be established.





## INSTITUTE OF BIOLOGICAL, BIOCHEMICAL & PHARMACEUTICAL SCIENCES (IBBPS)

In 2004

It did not exist

In 2015

1) Institute of Pharmaceutical and Environmental Research (IPER) is the first interdisciplinary institute of its kind in any medical university of Pakistan established in 2010, which provides link between academia and industries.

2) The need of Pharmaceutical Industries for drug development, bioavailability and bioequivalence testing and peoples interest to check the quality of their drinking water and food items forced Dow University of Health Sciences to establish an independent Institute of Pharmaceutical and Environmental Research under the ICH/GCP guideline as a multidimensional Research center which fulfill the requirement of all type of drug testing including fake and counterfeit drugs, low potency drugs and Microbiological testing need of ministry of health in Pakistan and provide research in betterment of food products, herbal and pharmaceutical products.

3) The main centers of IPER i.e., Dow Bioequivalence Study Center (DBSC), Dow Volunteer Health Care Facility (DVHCF) and Dow Analytical Center (DAC) are equipped with state of the art facilities and GCP/GLP laboratories

4) The team of IPER is well trained from Germany, USA, Jordan, Pakistan etc and comprises of Ph.D scientists, Medical doctors, Pharmacist, Biotechnologist, Microbiologist, Biochemist, Bioinformatician. which make IPER to perform and offer basic, clinical and applied consortium research.

5) This institute provide facilities of contract research organization (CRO), Bioequivalence/Bioavailability, Clinical Trials, Survey, Method development, Trainings, Analysis, Lab scale Pilot production etc.

6) The laboratories are equipped with High Performance Liquid Chromatography, Gas Chromatography, Spectrophotometer, Lyophilizer, Flame Photometer, Polarimeter, Tintometer, Dissolution, Disintegrator etc.

The team at IPER includes physician, phlebotomists & statistician besides technicians. Volunteer work is also undertaken at IPER.

## SLEEP LAB

In 2004

It did not exist

In 2015

Snoring is a generalized problem seen in Pakistan, besides being a social problem it has medical side effects e.g. stroke, heart attack and even sudden death if not analyzed and treated at the right time.

Polysomnography is done by a special machine with electrodes fitted on head & chest, which record the sleep cycle and display

it graphically on the monitor, which is noted by experts of this field and after having overnight sleep with all protocols. The reports are finalized with treatment options.

## DOW UNIVERSITY GENERAL HOSPITAL

In 2004

It did not exist

In 2015

Dow University Hospital is a tertiary care hospital, established by Dow University of Health Sciences. It is a teaching Hospital attached to Dow International Medical College for teaching and training MBBS & Post-graduate students. It is a 500 bedded currently 3 storied Hospital, but now two additional floors have also being constructed to overcome shortage of space.



The hospital has got 13 spacious general wards, semi private rooms, private rooms, operation theaters and labor room. The hospital is also equipped with most modern facilities for treatment of surgical and medical problems, including eg ICU, neonatal Intensive Care Unit, Nursery, Special Care Unit, Bleeding Care Unit and Endoscopy Units. It also have Ultrasound,







Echocardiography facilities, fully equipped emergency room, pharmacy, ware house, Seminar Rooms & Cafeteria.

The Surgeries carried out in the hospital include those for abdomen, Chest, Urology, Orthopedics, Gynae & Obstetrics, Plastic Surgery and surgeries for ENT, Eye, breast thorax etc. Bariatric surgeries are also being performed.

### Presently hospital has following Clinical departments

General Medicine Diabetes & Endocrinology, GI & Liver diseases, Chest disease, General Surgery, Orthopedic, Urology, Ent, Eye, Paeds, Plastic Surgery Cardiology and Neurosurgery. The teaching Facilities in the hospital include faculty rooms with Computer & Internet facilities & seminar rooms with modern audio visual facilities.

The hospital is providing round the clock

emergency services, subsidized food for patients and medicines at discounted rates.

Intensive Care Unit (ICU) has 6 beds, fully equipped with ventilators and other required equipments and monitors. High Dependency Unit (HDU) is meant for serious patients but not requiring ventilators.

Now twelve Dialysis Machines have been provided adding to the previously available six dialysis machines, thus providing round the clock services to the patients, including those having hepatitis B and C.

A LAB collection point has also been

established within the Dow Hospital to facilitate indoor patients.

The Dow Hospital has also been recognized by College of Physician & Surgeon (CPSP) of Pakistan and Pakistan Medical & Dental Council (PM&DC) to train residents in various specialities for fellowship (FCPS-II) degrees.

## OPD OF DOW HOSPITAL

In 2004

It did not exist

In 2015

Dow University Hospital has all possible specialities for patients. The morning OPD from 08:00am to 02:00pm has Rs. 100/- consultant charges, per patient. The executive clinic is managed from 02:00pm to 09:00pm in which consultant charges as Rs. 300/-, per patient. Highly faculty & doctors are available from morning till night.

It has computerized Registration & tracking system for Patients.

- Consultants of all specialties are available.
- Highly economical special welfare packages are also offered for procedures e.g. endoscopies and surgeries etc.

- Its Fullyequipped for diagnostic procedures, minor surgical procedures, Dental treatment &





Physiotherapy.

- Monthly attendance of patients is about 15000. Considering the increased number of patients a new huge OPD block has been designed by the Architect which will cater expected 5000 patient daily in near future as this medical city has thickly populated areas of Karachi. The construction of new OPD block will soon be started.

## INSTITUTE OF DIABETES & ENDOCRINOLOGY (NIDE)

In 2004

It did not exist

In 2015

Diabetes is a growing problem of Pakistan, hence the National Institute of Diabetes & Endocrinology was established in 2006. It provides free consultation and counseling to patients suffering from Diabetes and other Endocrine diseases. It also has facilities for management and treatment of eye complications of diabetes through its Eye Care Center including laser treatment.

More than 15,000 patients have been registered uptil now at NIDE. Public awareness programs are also regularly conducted at NIDE. It also conducts two year diploma course for "Masters in Diabetes & Endocrinology", so as to produce Human Resource in this particular field.



*This institute has also been declared eligible for ISO 9001 – 2008 certification by auditors by Vincotte, Brussels, regarding its postgraduation Course of Masters in Diabetes and Endocrinology,*

## SARWAR ZUBERI LIVER CENTRE (SZLC)

In 2004

It did not exist

In 2015

Liver diseases are Third major problem in Pakistan, bulk of it is related to hepatitis B and C which requires close monitoring and early treatment even in the absence of symptoms. The Sarwar Zuberi Liver Centre was established by Dow University eight years back in May 2004 as the first liver centre of Dow University, in a Medical Unit of Civil Hospital Karachi, so as to focus on individual patients as per requirement. Many facilities are offered to the patients at SZLC, which aims at diagnosis and treatment at minimum cost or with Zakat if applicable.

This Centre was named to honour legend of Hepatitis, Dr. Sarwar Jahan Zuberi, who met untimely death just few days before the



inauguration of this liver centre in 2004.

The treatment of chronic liver diseases is provided either by Zakat, Adopt a Patient Scheme or at 30% of the market cost, depending upon the affordability of the Patient.

Endoscopies and Liver biopsies are also performed. The data is computerized and several research papers have also been presented or published.

More than 80,000 patients have uptil now been registered at SZLC of Dow University of Health Sciences

## NATIONAL INSTITUTE OF LIVER AND GI DISEASES

In 2004

It did not exist

In 2015

The National Institute of Liver & GI Diseases NILGID has been established at Ojha Campus. Presently one floor of Dow Hospital has been designated for NILGID.

Approximately 100 patients are seen and managed each day in NILGID OPD that comprise the full spectrum of liver and GI diseases ranging from functional dyspepsia to Hepatitis B and C, other liver diseases and gastrointestinal tumors. The OPD is conducted from 8 am to 8 pm.

NILGID has state of the art **ENDOSCOPIC EQUIPMENT** and the faculty has the expertise to perform all the GI endoscopic procedures. Approximately 20 to 25 endoscopic procedures are being done daily that includes both the diagnostic as well as therapeutic procedures; Gastrosopies, colonoscopies, polypectomies, variceal band ligation are routinely being done. In addition complex therapeutic procedures that involve fluoroscopy like ERCPs, stenting, dilatations are also increasingly being performed in the unit. The Endoscopy department provides round the clock coverage for all



GI emergencies, the coverage also includes all public holidays.

NILGID has a novel facility of FIBROSCAN machine through which liver stiffness and fibrosis is measured noninvasively, first of its kind in Pakistan and presently is also in the process of



starting Endoscopic Ultrasound, a unique modality incorporating Ultrasound probe within the endoscope, which would be the first in the huge Cosmopolitan city of Karachi. Even in Pakistan only 2 centres has this facility.

NILGID has got dedicated **high dependency bleeding care unit** with trained staff to take care of variceal and non variceal bleeders for prompt pre and post procedure management.

Regular Journal clubs and Multidisciplinary meetings are held at NILGID comprising of faculty from NILGID, Deptt of Surgery and Radiology to enhance the academic atmosphere at institution.

Various researches as well as randomized controlled trials are being done at NILGID, some of them have been presented in the premier conferences of Gastroenterology like American Association for the study of liver diseases (AASLD), and United European Gastroenterology week (UEGW).

Public Awareness program are regularly held to increase the awareness of GI diseases amongst masses particularly viral hepatitis seminars are conducted by our faculty and masses are educated

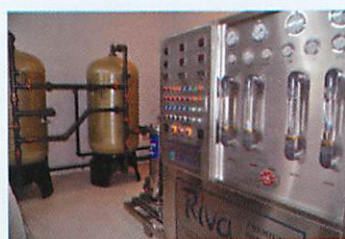
regarding signs, symptoms and care of viral hepatitis.

Similarly free medical camps are also held routinely to screen people for Hepatitis B and C, with a large population taking part both in medical camps and education programmes.

## ***Dow Filtration Plant installed for 'Dow Riva' drinking water***



Dow University of Health Sciences installed state of the art Reverse Osmosis (RO) Desalination Plant to produce high quality premium drinking water by using modern water treatment technologies. The Premium Drinking Water Plant with very high purification is installed at Ojha Campus by the name of RIVA Premium Drinking Water.



The Plant purifies water through 11 stages including includes Chlorination, Sand Filtration, Activated Carbon Filtration, Fine Filtration, First Pass RO, Microfiltration, Second Pass RO, Mineralization, Microfiltration, Ozonation and UV Sterilization. It completely removes viruses, bacteria, pyroxene and most the organic compounds. Finally water is disinfected through ozonation and ultraviolet system. Every batch is tested in laboratory

whereas experts ensure the quality as per international standards. The water quality is of high quality and approved by PSQCA Standards. Furthermore, Dow University will provide Riva water to all the hospitals and education institutions on subsidize rates after its plant for commercial production is installed. Currently DUHS is providing 19 litre bottle to its faculty staff and students at a very subsidized cost.

## ***Newly Mosque constructed at Dow University***

A New Mosque by the name of Masjid-e-Aisha Siddiqa Razihallahtala Aanho has been establish at Ojha Campus of Dow University of Health Sciences (DUHS).



It's a very spacious masque and has ground plus three floors. It can accommodate 2000 people at a time to offer their prayers as the open space has 11560 sq ft. The Mosque has a high Minaret inscribed with 99 names of Almighty Allah. First floor is reserved for women and have separate stairs.



The mosque has separate places for toilet and Wadoo for males & females. The mosque has been beautifully designed, constructed and decorated.



## **Dow Research Institute of Biotechnology and Biosciences (DRIBBS)**



A state of the art multidisciplinary research institute with the name of "Dow Research Institute of Biotechnology & Biomedical Sciences (DRIBBS)" has been established by Dow University of Health Sciences (DUHS) at Ojha Campus. It is first of its kind in Pakistan having first bioprocess engineering lab, stem cell lab and level 3 biosafety laboratories to provide multidisciplinary research facilities under one roof. This Institute is fully equipped with high tech sophisticated equipment of emerging fields along with expertise of foreign qualified Ph.D researchers. The aim of institute is to provide high quality research, well trained M.Phil/Ph.D scholars and produce

medically as well as industrially beneficial products. The Institute focuses on human resource development in the highly deficient field of biotechnology and advancing the knowledge of emerging disease of Pakistan.

## **Operation Theatre Complex with nine state of art theaters**



Dow University established operation theatre complex of international standard in a dedicated and purpose built building fully equipped with most modern equipments in its Nine Spacious theatres having separate modern sterilization system. It has 80,000 square feet area having all modern facilities for patients, faculty and staff to provide clinical services and post graduate training.

## **Liver Transplant Centre**

The Liver Transplant Centre has also been established with



separate theaters for donors and recipients along with the recovery room and intensive care unit it is fully equipped with most modern equipments.

The team of required Surgeons, Physicians, Anesthetics, Intensivists, Radiologists and Technologists have been provided with specialized training inside Pakistan and abroad. Inshallah soon living donor Liver Transplant will be started.

## **Establishments of 100 Bedded ICU**

Dow University has established ICU considering the need of fully equipped intensive care unit in mega city of Karachi, this ICU is fully equipped with most modern equipments including ventilators. The highly economical per day cost against the huge amount, charged privately will be an additional advantage for the general public having economical constraints and require best possible services for critically ill patients.





Highly trained and qualified staff has been appointed for round the clock services in the ICU.



## CO-CURRICULAR ACTIVITIES

In 2004

No regular Co-Curricular Activities were held

In 2015

Co-curricular activities are held for all undergraduate students studying in about Ten different institutions are held of DUHS over a week to ten days period which is followed by talent show and prize distribution function.

The Co-curricular week is also organized every year to celebrate of 14th Aug. Besides these annual functions DUHS students also participate regularly in several national and international debate contest held by various colleges and institutions of Pakistan and have won several medals. DUHS institutes participate in regarding Cricket, Football, Throwball, Badminton, Table Tennis, Squash, Debates (Urdu & English) Naat, Qirat and athletics, are also held regularly.





## DOW CONVOCATIONS

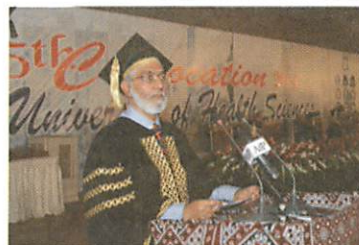


Convocations have been held by Dow University regularly to confer degrees to the graduates and postgraduates of all its constituent Institutes and Colleges like Dow Medical College, Sindh Medical College, Dow International Medical College, Dr. Ishrat-Ul-Ebad Khan Institute of Oral Health Sciences, School of Dental Care Professionals, Dow College of Pharmacy, Institute of Physical Medicine & Rehabilitation, Institute of Medical Technology and Institute of Nursing.

The postgraduates, who completed their courses from the newly established institute of Dow University of Health Sciences have also been conferred degrees in previous Convocations and will also be conferred degrees in upcoming convocation.

These include Masters in Dental Surgery, Masters in Health Profession Education, Masters in Biostatistics and Epidemiology, Masters in Business Administration, Masters in Diabetes and Endocrinology, Masters in Jurisprudence and Masters in Physiotherapy.

The Postgraduates who successfully completed Mphil and PhD courses have also been conferred degrees in Dow University Convocations.





## INFRASTRUCTURE OF PLANNING AND DEVELOPMENT DEPARTMENT

**In 2004**

Old buildings (requiring lot of civil work) were seen, without A/C and multimedia.

- Laboratories had very old equipment's, broken furniture's and were not airconditioned.
- Hostel buildings at DMC & SMC required lot of civil work.
- Canteens & Common rooms of boys & girls were small and with limited facilities.
- No generators were available.

**In 2015**

The Department of Planning and Development of Dow University planned renovations and refurbishments of old Dow Medical College, Sindh Medical College and a number of old buildings at Ojha campus. All plans have been executed amicably.

It also planned & constructed various new buildings, which have been designed and constructed by reputable and renowned architects and construction companies.

Some renovated and refurbished projects are mentioned:

- Renovations and restoration of heritage building to lodge Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences (DIKIOHS).
- Fixation of 125 dental chairs and other required equipments at Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences (DIKIOHS) alongwith furnishing of lecture halls, laboratories, libraries and administrative rooms.
- Old auditorium converted in

Dental Hospital.

- Renovations and furnishing of Lecture halls at Dow Medical College and Sindh Medical College alongwith audiovisual aids and fixed multimedia.
- Renovations and furnishing of all Laboratories of basic sciences at Dow Medical College and Sindh Medical College and provision of all required modern equipments.
- Renovations of Auditoriums at Sindh Medical College.
- Renovations of Canteens and Common Rooms for students at Dow Medical College and Sindh Medical College. (boys and girls separately).
- Renovations of old administrative blocks at Dow and Sindh Medical Colleges.
- Renovations at girls hostels of Dow Medical and Sindh Medical Colleges.
- Different departments of Dow University have been equipped with new furniture and some old ones repaired.
- New bigger lift has been installed at Dow Medical College, whereas its old lift has been installed at the Institute of Physical Medicine & Rehabilitation (IPM&R), located at Old DMC boys hostel.
- Air conditioners are also

installed in the lecture halls, labs and different departments at DMC, SMC, DIMC and other institutes of DUHS.

- Intercom system has also been installed in various buildings at all campuses of Dow University.
- Fixation and supply of instruments / equipments in different clinical departments of civil hospital, Karachi for seminar rooms to have proper teaching atmosphere for undergraduate & postgraduate students.
- Renovation of old boys hostel blocks at Dow Medical College and their furnishing besides being equipped to lodge Institute of Medical Technology (IMT), Institute of Physical Medicine & Rehabilitation (IPM&R), Institute of Health Management (IHM) and Dow University Artificial Limb (DUAL) Centre.
- Renovation of shah lateef campus of DUHS to lodge Institute of Health Management and Dow Lab Collection Point, near JPMC & NICVD.
- Upgradation & Modernization of existing laboratories & libraries.
- Three storied Boys hostel for DIMC at Ojha.







- Establishment of Dow Dental College (DDC).
- Establishment of Dr. Ishrat-ul-Ebad Khan Institute of Blood Diseases at Ojha Campus (DIKIBD).
- Construction of a four storied new state of art building to having **Lab Automation System** on the ground floor.
- Dow Diagnostic complex at LEJ campuses, having CT & MRI on stadium road.
- Four storied Operation Theatre complex and 100 bedded ICU, building near completion.
- New construction for Serobiological lab is in process.

*The department of Planning and Development has also been audited at two stages and has been declared eligible for ISO 9001 – 2008 Certification by the Auditors of Vincotte, Brussels*

This is the authentic proof of high quality constructions Renovations and Refurbishments of various institutes / departments of Dow University at all campuses.

## DEPARTMENTAL ADMINISTRATION



Single Person used to manage departments subjectively.

- No quality assessment or feedback system, was seen.
- Data was not computerized, no software was implemented, hence there was no transparency or accountability of departmental performance.



The extensive growth of newly established university has now structured organogram.

Continuous quality assessment & feedback system has been implemented, All departments are provided with computers, Computer training is provided to all faculty & staff of DUHS, Special software is provided for fast work, transparency, fool proof administrative work and accountability.

*Now all the support departments of Dow University related to administration have been declared eligible for ISO 9001 – 2008 Certification by the Auditors of Vincotte, Brussel after the final audit in the last week of August 2013.*

## NUMBER OF UNDERGRADUATE STUDENTS



2795



7384

## NUMBER OF POSTGRADUATE STUDENTS



114



1564

## NUMBER OF FACULTY MEMBERS



160



700

## NUMBER OF NON TEACHING STAFF



525



1900

## FACILITIES FOR STUDENTS



Admissions in MBBS did not have transparent procedure.

- Method of teaching was by Black Board Teaching & Unstructured lectures.
- Buildings were old with minimum facilities in hostels & common rooms.
- Annual exams & viva voice system had no transparency.
- MBBS Curriculum was not at par with International standards.
- No skills training centre was available for students and doctors.
- There were no Digital libraries.



Admissions in All Courses are Given on merit basee through a transparent system since 2004.



- All Class Rooms, Labs & Museums have been air-conditioned.
- Power Point Teaching With Multimedia have been implemented.
- All Lectures are structured and available on website.
- Wifi & Internet facility is provided to students and faculty members at all campuses
- State of art digital library, with access even from home has also been provided.
- Introduction of Modular structured integrated curriculum, makes them eligible to compete easily with other students internationally.
- Establishment of undergraduate skills lab & professional development centre, provides all required basic and highly specialized skills to undergraduate and postgraduate students with modern manikins and master trainers.
- Special courses have been introduced for personality grooming of students including communication skills, medical ethics, research methodology and behavioral sciences etc.
- Attendance system of the students has been made transparent with radiofrequency identification (RFID) card.
- Semester system has been introduced to reduce burden of studies and provide wider spectrum of knowledge.
- The old viva voice examination has been replaced by structured practical & clinical examination (OSPE) & (OSCE) for ease of students and transparency.
- Co-Curricular activities for students are provided frequently besides annual week for all types of activities

including sports, talent show, debates and games etc, Special programs related to Independence Day and debates etc are also conducted.

- Mentor system has also been successfully introduced first time in Pakistan for students regarding academics, personal social or psychological counseling to make them comfortable and adjustable.
- Hostels, common rooms, canteens of boys and girls have been completely renovated with provision of additional facilities.
- **Dow club card** has been introduced for students and faculty to have discounts for shopping and restaurants etc.
- Career guidance centre has been established to guide students for future career. It is a new interactive, computer based career guidance unit, featuring an elaborate range of career opportunities.
- Professional Development Centre provides them various hands on skills.
- Learning module grooming of students includes, classes on advance computer skills, medical ethics, communication skills, research methodology and behavioral sciences.

## NEW FLEET OF DOW UNIVERSITY BUSES

**In 2004**

Old redundant Point buses were used by students.

**In 2015**

New Fleet of Dow University Buses having 20



new buses have been purchased by Dow University from HINO PAK company of Pakistan to provide good transport facility to students.

The staff and faculty members also avail this facility after paying required minimal transport charges.

## INSTALLATION OF GENERATORS

**In 2004**

No Generators were available during power failure.

**In 2015**

Installation of Generators at all Dow University campuses, has relieved students, faculty & staff from the burden of load shedding. The heavy generators assure continuous supply of electricity in case of any breach in KESC supply. **Each campus has at least two high powered 500 KVA Diesel generators, providing electricity round the clock.** This



has enhanced the work output of the students and the staff.



## FACILITIES FOR FACULTY/STAFF OF DUHS

- In 2004** Faculty members did not have computer training facilities.
- No training courses for enhancement of teaching skills were provided
  - There was no skill training center, neither research facilities were available.
  - Digital libraries were not present
  - No health insurance was provided to faculty members

- In 2015** The grade of staff and faculty members have been enhanced.
- Laptops were provided on discounted prices and in small installments.
  - Computer training provided by a trainer
  - Regular teachers training courses are conducted by DUHS.
  - Hands-on training are provided by concerned specialists in specified specialties.
  - Workshops are conducted for MCQs/BCQs, research methodologies medical and grant proposal writing etc.
  - Research facilities are provided as research laboratory, animal house, provision of supervisors and discounted tuition fees.
  - Research loan of Rs.100,000 provided if proposal is approved by DUHS Institutional Review Board.
  - Faculty members children are given 50% discounted in fee if their children get admission on merit basis.
  - Health insurance is provided for best possible treatment at best hospitals of city.
  - Digital library access is provided from home also.
  - Dow Club Card facility provided

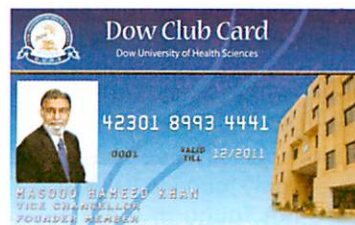
for discounts at restruents and shopping etc.

- Vocational technical training is provided to children of DUHS employees.
- Programs offered include all computer programs, graphics and web designing, multi media animation etc. Girls sewing, embroidery, dress and candle making. Upcoming courses include fashion and textile designing, courses of beautician, plumbing and electrical courses etc.

## Dow Club Card

**In 2004** No Club Card facility existed.

**In 2015** Dow Club Card introduction provides maximum possible facilities to the students, faculty members and alumni of DUHS. Variable discounted can be availed at various places, including restruents, hotels and number of outlets. This facility is provided at yearly meager charge of Rs.500/- and Rs.1000/- for students and faculty members respectively.



## Health Insurance Policy

**In 2004** It was not available

**In 2015** Health Insurance facility has been provided by DUHS for its employee and their families. The insurance card

allows them to avail indoor and outdoor facilities as per range of their specific grades. This facility can be availed in any private hospital of Karachi.

## Medical Health and Research City

**In 2004** Were not taken up by administration

**In 2015** The 130 acres of Ojha campus land has been converted into a Medical Health and Research City after development of its master plan and numerous projects have been executed as mentioned above. About 90% of the master plan has already been completed and the remaining projects are being designed to be executed as per planning and financial assistance with the vision and mission to be an Education hub of this region, having all research facilities and opportunities alongwith provision of healthcare facilities.

Simultaneously its provide health care services to the community. Most of the above mentioned department and institutes are part of the Medical Health and Research City. InshAllah all future expansions will also be undertaken here.

By the grace of God, the Dow University has emerged as the fastest growing institution of higher education in south Asia and now its has also been declared eligible to have ISO 9001-2008 certification.





## **Dow University Allotted Newly Constructed Apartments ..... to its OICD Employees**

The Ojha Institute of Chest Diseases (OICD) was established in 1942 mainly for Patients of Tuberculosis to be admitted and treated. Separate residential Colony for its employees was also established for its lower staff, which were in dilapidated condition, despite frequent repair, causing severe hardships to the employees, working day & night at TB hospital.

Prof. Masood Hameed Khan, Vice Chancellor DUHS, planned construction of new apartments for these employees for which funds were approved and sanctioned by the Sindh Government.



The construction of the apartments were completed in the shortest possible time.

The allotment papers of the apartment were given to the Residents of old ruined houses, by the Honourable Governor Sindh and Chancellor DUHS Dr. Ishrat-Ul-Ebad Khan in the presence of Vice Chancellor DUHS Prof. Masood Hameed Khan, faculty members and other distinguished guests.

## **Dow University establishes Industrial Linkage with Mactor International For.. Anti Snake Venom Production**

The Dow University has been taking several social responsibilities on its own, as a part of DUHS Civic Engagements.



Every year thousands of snake bite patients die due to nonavailability of Anti Snake Venom. In Pakistan upto now only National Institute of Health (NIH) laboratory, Islamabad is producing anti snake venom, which is insufficient as it only meets 10-15% of the Pakistan's requirement. Pakistan has been importing expensive Anti Snake Venom from Saudi Arabia and India, spending lot of foreign exchange. Despite this, imported vaccines do not have antidote against all species seen in Pakistan, specially two species which are only found in Pakistan and are not found in India or Saudi Arabia, thus causing several deaths despite the usage of imported anti snake venom. Besides this, from this year India & Saudi Arabia have refused to supply Anti Snake Venom due to its shortage.



The Dow University has acquired all species of Snakes in its animal house and as per required protocol about twenty horses are hyper immunized against the snake poison. The serum of these horses have also been collected to have further process for commercial production of anti snake venom. Industrial linkage has been developed with Macter International (PVT Ltd), a well known Pharmaceutical Industry which has agreed to collaborate with DUHS for commercial production of Anti Snake Venom and any other vaccine or pharmaceutical preparation on large scale, as a service to the nation. Eventually producing highly effective anti snake venom and other vaccines, within the reach of a common man in Pakistan at very low cost.



Memorandum of Understanding (MoU) in this regard was signed between Mactor International and DUHS by Mr. Misbah Uddin and Prof. Masood Hameed Khan, respectively at Governor House, in the presence of Honourable Governor Sindh Dr. Ishrat-Ul-Ebad Khan, faculty members and distinguished guests.





## **New Campus of Dow University to be Opened at DHA City, Karachi**

The present Medical Health & Research City of DUHS at Ojha Campus, is providing high quality diagnostic and treatment facilities to the general public besides successfully conducting various academic programs.

The Defence Housing Society of Pakistan has acquired a huge land on Super Highway, named as 'DHA City' which is a mega residential project having all possible state of art facilities. The DHA offered a land in DHA city on very economical rates to Dow University so as to establish a set up similar to one at Ojha Campus.

A memorandum of understanding (MoU) has been signed in this regard between DHA and DUHS by Brig (Retd) Inam Karim, Secretary DHA and Prof. Shaikh Nadeem Ahmed, Registrar DUHS respectively in the presence of Honourable Governor Sindh Dr. Ishrat-UI-Ebad Khan, Vice Chancellor DUHS, Prof. Masood Hameed Khan, Vice Chancellor DUHS and large number of DUHS faculty members besides number of distinguished guests.

According to MoU, the DUHS Medical Complex will be developed in three phases. In the first phase Medical Centre by 2014-15 will provide OPD facilities with modern diagnostic machines and treatment facilities by trained specialists. In the second phase 500 bedded hospital tertiary care hospital will be established, having state of the art operation theatres and other modern medical facilities by 2018. In the third phase, a medical college will be established with all required facilities for the medical students by 2020.

Governor Sindh Dr. Ishrat-UI-Ebad Khan who initiated the deal of DUHS with DHA said on this occasion that the new initiative of Dow University is a significant step forward towards provision of best medical and health care facilities not only to the residents of DHA city but also to the surrounding areas and the entire Sindh Province.



## **New Postgraduate Programs**

**Additional Postgraduate program to be started soon, include:**

- Ph.D in All Basic Sciences
- Ph.D in Pharmaceutical Sciences four disciplines
- Ph.D in Dental Sciences both in the Clinical and Basic Sciences disciplines
- Ph.D in Public Health
- Ph.D in Bio Medical Sciences (Indigenous Program)

## **NEW UPCOMING PROJECTS OF DOW UNIVERSITY**

1. Institute of Mental Health
2. Institute of Neuro Sciences
3. Tele Medicine Centre
4. Trauma and Emergency Centre
5. New Spacious OPD Block of Dow University Hospital
6. Mother and Child Care Centre
7. Department of Cardiology and Cardiac Surgery
8. New Block for MDR TB patients
9. Convention Centre

**With the help of ALMIGHTY ALLAH we really hope to succeed in our future mission and with the untiring efforts of the dedicated team, as we have been blessed during the last ten years for the developments at Dow University.**





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Dow University of Health Sciences  
was in

**DR. ISHRAT U**

Honourable Governor Sindh  
on Friday 27

*During the Tenure:*

*Prof. Dr. Masood Hameed Khan  
Founding Vice Chancellor, DUHS*

*Prof. Dr. Muhammad Masroor  
Principal, DUHS*

*Prof. Dr. Rana Umar Masood  
Director, DUHS*

*Dr. Iqbal Hussain Alam  
Manager of Surgery / Coordinator*



# ACADEMIC PROGRAMS

## OF DOW UNIVERSITY OF HEALTH SCIENCES

### at its various Institutes / Colleges

Dow University of Health Sciences, after its establishment about Ten years back have started many additional undergraduate and Postgraduate programs besides only MBBS at Dow Medical College and fellowship training courses at Civil hospital Karachi.

The new undergraduate and postgraduate courses have been started at the newly established Institutes / colleges of DUHS since 2006.

Several student batches have already passed out from these Institutions. Summary of all these programs conducted at DUHS are mentioned below.





## ESTABLISHMENT OF DR. ISHRAT-UL-EBAD KHAN INSTITUTE OF ORAL HEALTH SCIENCES (DIKIOHS)

Dr. Ishrat-Ul-Ebad Khan Institute of Oral Health Sciences (DIKIOHS) has been established in 2007.

Imparting under-graduate dental education leading to the degree of Bachelor of Dental Surgery (BDS), two batches have already passed out. There are departments of Oral & Maxillofacial Surgery, Prosthodontics, Oral Pathology & Oral Microbiology, Oral Medicine, Periodontology, Oral Biology and Tooth Morphology, Sciences of Dental Materials, and Community Dentistry. Each department is headed by a subject specialist with supporting staff. It has highest number of highly qualified and

experienced faculty. It enrolls 100 undergraduate dental students every year. Currently four batches having 400 students are being trained for BDS. Now from this year the students have option to undertake four years course or five years course as per international requirement.

The Dental Hospital. Is equipped with 125 dental chairs, Procedures including extraction of teeth, filling, root canal, capping and emergency oral treatments are offered. The clinical work at the hospital is augmented by best practice, good sterilization protocols and requisite gadgetry. All the departments are provided with material and equipments to help patients at minimum cost.

Postgraduate trainings of fellowship (FCPS), Masters in Dental Surgery (MDS) and PhD are also being imparted and presently sixty (60) postgraduates are undertaking these course. The fellowship training FCPS-II is

Departments of Orthodontics, Prosthodontics, oral surgery and oral dentistry. The MDS course, is offered in eight disciplines four of Basic Dental



Sciences and four of Clinical Sciences. First batch of MDS has passed out.

These courses provide opportunities to acquire and develop the skills of synthesis, analysis and decision making, required for careers in dental education and research.

Dr. Ishrat-Ul-Ebad Khan Institute of Oral Health Sciences, which conducts Undergraduate and Postgraduate programs of dentistry has been declared eligible for ISO-9001-2008 Certification by the auditors of Vincotte, Brussels after the final audit.



## DOW INTERNATIONAL DENTAL COLLEGE (DIDC)

Dow International Dental College (DIDC) has been established at Ojha Campus, so as to meet deficiency of dental surgeons in Pakistan as well as abroad. It is located on the Top floors of DIMC building and offers admissions mainly to overseas students, however due to acute deficiency of Dental Surgeons, the

option for admission is also given to local students.

This college has been recognized by Pakistan Medical & Dental Council (PM&DC) in 2011 for fifty students. Two batches of BDS are presently studying at DIDC. This college is fully equipped with most modern facilities



## DOW DENTAL COLLEGE (DDC)

Dow Dental College has been established at DMC after the inspection and approval by Pakistan Medical & Dental Council



(PM&DC). The first batch of fifty students has been admitted in 2012.

This Dental College is pursuing two types of courses one of five years undergraduate program, to be at par with International requirement specially USA and the other one is regular four years program to meet local requirements of Pakistan.

This college and its Dental hospital is fully equipped with most modern equipments

in the laboratories alongwith Simulators to teach clinical procedures at pre-clinical & clinical level. It has highly qualified and experienced faculty who carry out all Dental procedures ranging from simple diagnostic procedures to extractions and implant placements.

Dentistry is basically a skill based education in which great emphasis is laid on patient management and clinical teaching right from first year.



## SCHOOL OF DENTAL AUXILIARY SCIENCES

School of Dental Auxiliary Sciences of Dow University of Health Sciences was established in 2007 to produce Dental Technologists, Hygienists and other Dental Auxiliaries to meet the demands of new and more sophisticated Dental Care system of trained manpower.

Dentistry is a team work, requiring a Dentist, Dental Nurse, Dental Hygienist and a Dental Technician, all four Specialties are trained in their respective specialty. Presently four year Bachelor



courses, i.e. for Dental Hygienist and Dental Technician are being conducted. Dental Hygienists are trained to perform the procedure of scaling with appropriate filling and fluoride application etc. They can take elective subjects and Clinical Work in Dental hospital. They can work under supervision of a dentist and can enter in teaching profession after acquiring bachelors degree.

Dental Technologists are trained for the art of fabricating denture with partial and complete fabrication of fixed Prosthodontics like porcelain or crown and bridges, implant super structure, removable and functional appliances. They also acquire experience in Dental laboratory with Casting and Curing techniques.

Presently, Six batches having total of 150 students are undertaking these courses at this institution. Three batches have



already passed out. Since its establishment.

Dow University is the only Institution in Pakistan to provide Degree Courses in Dental auxiliaries at the biggest Dental Institutes of Pakistan, Dr. Ishrat-Ul-Ebad Khan Institute of Oral Health Sciences. The curriculum of International standards is being adopted. Now five years BDS course has also been introduced at DIKIOHS, first time in Pakistan.

## DOW INTERNATIONAL MEDICAL COLLEGE (DIMC)

Dow International Medical College (DIMC) was established six years back in order to facilitate children of overseas Pakistanis as they face various difficulties in entering into medical profession abroad.

Building of DIMC is a specially designed building, having covered area of 1,75,000 sqft and fully equipped with most modern equipments.



The state of art Modern building is fully air conditioned and powerful backup generators provide electricity round the clock.

Students study on integrated modular curriculum with Case Base Learning (CBL) to have clarity for clinical correlation. Students also have to do group research under the guidance of a faculty member.



Separate Hostels and security system regularly being monitored. Clinical training is provided in 500 bedded Dow University. General Hospital. DIMC currently has two affiliated teaching hospitals

Dow International Medical College has also been audited by auditors of Vincotte, Brussels and declared eligible for ISO-9001-2008 certification for the curriculum, course work, infrastructure Laboratory equipment and overall management for the MBBS course.

## DOW COLLEGE OF PHARMACY (DCOP)

Dow College of Pharmacy was established in early 2008, to train pharmacists, who are a vital part of a complete health care system and can practice in a number of health care settings, including hospitals, clinics, etc.

The Pharm-D is a semester based five years program. The training also includes hands-on experience in hospitals and



pharmaceutical settings. First batch of about 100 students have passed out this year. Presently 425 students of four batches are studying in Pharm-D courses.

The Dow College of Pharmacy has also been audited by auditors of Vincotte, Brussels and declared eligible for ISO-9001-2008 Certification regarding its academic programs and working procedures.



## INSTITUTE OF NURSING (ION)

The Institute of Nursing (ION) was established in 2006 in a purpose built 2 storey building having 36000 sqft covered area to prepare leaders in nursing and sufficient number of highly skilled and trained nursing professionals, to provide modern skilled preventive and curative health care personals besides having research capabilities.

It also has fully equipped science labs, with latest models, dummies, manikins,



simulators and Digital Library with 41 computers with high speed internet facility, having access to online HEC journals.

The clinical skills are taught at Professional Development Centre. Hands on practical trainings are provided in various hospitals including Dow University Hospital & Civil Hospital.

The nursing students also provide services to the community by organizing medical camps and public awareness programs.

The Nursing students enhance their learning by organizing various workshops & seminars for nursing professionals. They also provide preceptor ships for BScN students of other institution.



The Institute has more than twenty (20) full time highly qualified faculty members, conducting the academic programs and the training.

This institute has also been audited in detail at two steps by the auditors of Vincotte, Brussels and declared eligible for ISO-9001-2008 Certification, for all the courses conducted at the Institute of Nursing.

## INSTITUTE OF MEDICAL TECHNOLOGY (IMT)

The Institute of Medical Technology (IMT) has been established, to overcome lack of trained and qualified technical staff in Pakistan. This deficiency hampers the ability of highly qualified physicians and surgeons to provide optimum management and care. Institute offers a four years degree programs in Seven specialties:

- BS in Clinical Laboratory Science Technology
- BS in Respiratory and Critical Care Technology
- BS in Surgical Technology
- BS in Clinical Ophthalmology Technology
- BS in Perfusion Science Technology
- BS in Audiology
- BS in Speech Language Pathology

“Audiologists are health professionals focused on the processes and disorders of hearing.”

Bachelor's of Science (B.S) in Audiology is a four year program covering theoretical, practical and clinical aspects

of audiology. The program provides the foundation for graduate study leading to career opportunities and clinical certification as an audiologist. The curriculum in Audiology focuses on the anatomical and physiological mechanisms underlying hearing; the causes of communication disorders in children and adults; and theories and techniques of assessment and treatment of communicative and hearing disorders. Supervised clinical practicum provides students experience in clinical assessment and intervention with persons having hearing impairments. B.S in Speech-Language Pathology program emphasizes the physiological, neurological, behavioral, and psychological dimensions of normal and disordered communication across the lifespan.

Preparation involves acquiring the knowledge and skills necessary to assume responsibility for assessment, education and rehabilitation of persons with speech, language, and hearing disorders.



Additional courses, started since 2011 include, those for ECG & Echocardiography and ECG technicians. Bachelor courses have eight semesters over four years and comprises of a core course where training is also imparted in Basic Computer Skills, English proficiency, Behavioral Sciences and Research Methodology etc. Presently more than 500 (five hundred) students are studying in this Institute. Three batches have already passed out and have been offered important positions in various public and private institutions immediately after passing out from DUHS. Additional training programs are conducted as per requirements.

IMT has also been declared eligible for ISO 9001-2008 Certification by the auditors of Vincotte, Brussels after its two stage audit.





## INSTITUTE OF PHYSICAL MEDICINE & REHABILITATION (IPM&R)

It is the first ever institute of its kind in Pakistan and provides comprehensive multi-disciplinary rehabilitation services with state-of-the-art facilities to help patients.

Dow University of Health Sciences has taken the initiative to open the first Institute of Physical Medicine and Rehabilitation of Pakistan in 2007. Over the last few years, the Institute has flourished, accommodating over five hundred students, and still growing to its full potential is a branch of medicine dealing with functional restoration of a person affected by physical disability. The goal helps a person become as independent as possible.



Education Facilities Provided at IPM&R, include School of Occupational Therapy, Physiotherapy and Prosthetics & Orthotics. The curriculum of BS of Occupational Therapy, Doctor of Physiotherapy, BS Orthotics & Prosthetics, and MS Physiotherapy has been constructed with approved guidelines of Higher Education Commission, providing students with state of the art education facilities as well as optimal learning opportunities with fully functional labs, a digital library and output clinic for patients treatment.



The clinical facilities, provided by the Departments of Occupational Therapy, Physiotherapy, Cardiovascular & Pulmonary Rehabilitation, Psychology and Child Development Centre cater to different needs of patients from all walks of life, providing quality treatment holistically focusing patients' need physiological and psychological. There is also a Centre for the specific treatment of Sensory Integration and Autistic children and a capable workshop where all kinds of orthotics and prostheses are developed according to the patients' individual requirements, including Cardiac Rehab, Neurological Rehab., Musculoskeletal Rehab., Pediatric Rehab, Speech and Language Rehab, for an active and healthy lifestyle of the patients. It also has department of Dow University of Artificial Limb (DUAL) Centre, Department of Cardiovascular and Pulmonary Rehabilitation, Department of Psychology & Child Development Centre.

- The School of Occupational Therapy offers a 4-year bachelor course in Occupational Therapy and has enrolled five batches and also managing treatment of about 50 patients per day.
- The School of Physical Therapy is also conducting a 2-year postgraduate program of MS Physiotherapy program.

The department is currently providing physiotherapy services to more than 55 patients per day.

- The School of Orthotics and Prosthetics offers a 4-years Bachelor Courses in Orthotic & Prosthetic Sciences. It is the first of its kind in Pakistan, with qualified staff for artificial limbs. Presently about seventy (70) students are studying this course for bachelors in occupational therapy. This institute has also collaboration with NED university to have wider exposure of engineering by the students.



The IPM&R Institute has multidisciplinary rehabilitation team, which includes Physiatrists, Physical Therapists, Occupational Therapists, Vocational Therapists, Orthotists and Prosthetists, Language and Swallowing Pathologist, Clinical Nutritionist and a Clinical Neurophysiologist, Speech therapist and special educationist.

It also provides outpatient and community-based rehabilitation services, uptil now more than 50,000 patients have been benefitted by this institute. The auditors of Vincotte, Burssels also audited IPM&R in two stages and have declared it eligible for ISO-9001-2008 Certification, regarding all the academic programs conducted at IPMR.

## INSTITUTE OF POSTGRADUATE STUDIES

The postgraduate education in Dow University of Health Sciences is conducted under the over all supervision of the Institute of Postgraduate Studies which is headed by the Vice Chancellor of the University. It has three major component departments under it.

1. Department of Postgraduate Studies which is the administrative department deals with admission, conduction of courses, monitoring, liaison with other departments of university, scheduling of examinations and certification. It also liaises with the regulatory authorities for recognition of the programs.
2. Department of Research which supervises research process in program with thesis such as M.Phil, M.S., M.D.S and Ph.D. Programs.

3. The Institutes or Departments where academic program is being conducted such as IBMS for (M.Phil and Ph.D Program), Dr. Ishrat-ul-Ebad institute of Oral Health Sciences (M.D.S.), Clinical Departments (FCPS Programs) etc.

The University bodies such as Board of Advanced Studies and Research, Institutional (ethical) Review Board and Scientific Committee facilitates monitors



both the research activity and the overall programs.

Dow University conducts 35 Ph.D, Masters, Fellowship, Diploma and Certificate programs.

Each year around 150 FCPS students, complete training form Dow University of Health Sciences. To date 140 candidates have passed of M.Phil., MDS, MSBE, MS diabetes, MS Physiotherapy and MBA from Dow University. At present 1120 post graduate students are enrolled in various Dow University's Postgraduate programs.

Along with other institutes of Dow University, the Institutes of Postgraduate Studies has also been declared eligible for ISO certification.



## RESEARCH DEPARTMENT

Research Department has been established for the postgraduates and PhD program of the University to promote research in basic and clinical specialities besides supervising undergraduate students research.

The Research Department is providing its services to enhance university position in research, training and consultation areas. The particular activities of the department are briefly highlighted below:

Postgraduate Synopsis and Thesis Review by Scientific Research Committee & Board of Advanced Studies and Research (BASR)

Journal of Dow University of Health Sciences is published 3 times a year. The journal is indexed in IMEMR, PakMediNet and CABI and is also recognized by Higher Education Commission (HEC).



Institutional Review Board Institutional Review Board of DUHS consists of 14 members from different specialty. It reviews and approves research proposals conducted by DUHS. The university offers this service to those institutes who have not their own IRB/ERB.

## JOURNAL OF DOW UNIVERSITY OF HEALTH SCIENCES (JDUHS)

Journal of Dow University of Health Sciences (JDUHS) is a publication approved by PMDC & HEC and is indexed in IMEMR, PakMediNet and CABI. Three issues per year are published routinely. The articles are also submitted online, which reduced the communication time with the reviewers. Authentic publications have increased its credibility. Now JDUHS of Research Department is also

in the



## CLINICAL TRIAL UNIT (CTU)

Clinical Trial Unit (CTU) was established in 2009 to support all aspects of clinical trials. CTU-DUHS is also registered at NIH / FDA, USA protocol registration system.

This is coordinating between different Pharmaceutical companies for conducting clinical trials. Several trials are presently being conducted.

## INSTITUTE OF BASIC MEDICAL SCIENCES (IBMS)

The institute of Basic Medical Sciences, DUHS offers M.Phil, M.Phil Leading to PhD and PhD Program :

Anatomy, Biochemistry, Medical Biotechnology, Medical Genetics, Pathology, Chemical Pathology, Hematology, Histopathology, Microbiology, Molecular Pathology, Pharmacology & Physiology

The labs at IBMS are fully equipped with all modern equipments for all types of research experiments. The curriculum has been designed with Multidisciplinary approach.

The IBMS has almost 26 PhDs faculty members, who are supervisors.

It will now take admission for 6th Batch of students of M.Phil, M.Phil Leading to PhD program and 3rd Batch for PhD Program.

Thirty Seven (37) students have been awarded M.Phil Degree in various discipline of biomedical sciences. Presently Seventy (70) M.Phil / M.Phil Leading to PhD students are currently undertaking the program (56 students have completed the course work and undertaking the synopsis writing / synopsis approval / research work and

14 students are undertaking the course work). Thirty Six (36) PhD students have completed the course work and are in process of synopsis writing / synopsis approval.

Institute of Basic Medical Sciences conducting Academic programs of PhD & MPhil have been declared eligible for ISO-9001-2008 Certification by the auditors of Vincotte, Brussels.

## VIDEO CONFERENCING

The facility has been provided by HEC.

- Now Since three years Video Conference sessions are conducted every Monday & Saturday for 2 hours from USA in collaboration with APPNA MERIT.
- Regular live rounds by eminent doctors of USA are also witnessed by doctors & postgraduates via video conferencing. It is attended regularly by PGs and faculty members.



- Various specialties are included in video conferencing lectures & discussions.
- Several sessions pertaining to teachers training are also conducted via this media.



## INSTITUTE OF HEALTH MANAGEMENT (IHM)

Institute of Health Management (IHM) was established by DUHS in 2007, for Health Management programs to produce human resource for Government and Private organizations, dealing with public health. The Institute prepares graduates for careers leading towards senior level leadership in health services management, pharmaceutical marketing & management, besides conducting research, disseminating knowledge and contributing in the betterment of health care services.

Presently IHM is offering following programs in four years, two years and diploma courses.

1. BBA Health Services Management
  2. BBA Pharmaceutical Management
  3. BBA Hospital Management
  4. BBA Marketing (with additional courses of Health Marketing)
  5. BBA Finance (with additional courses of Health Finance)
  6. BBA Human Resource Management
  7. MBA Health Services Management
  8. MBA Pharmaceutical Management
  9. MBA Hospital Management
  10. Diploma courses in Administration Skills, Health Care Services and Hospital Management for postgraduate business students who wish to work in relevant fields(s).
- The IHM offers courses in many

disciplines which help students to understand various links of diversified professions.

Alhamdulillah, the graduates of IHM DUHS are competing with other MBA graduates and enjoying equal opportunities for job like MBA's of other prestigious institutions. One of IHM graduate has been appointed by World Health Organization (WHO), in high level management position.

Executive MBA degree program is designed for those executives and the middle level managers who strive for excellence and greater challenges in their professional life. They can study on a schedule that minimizes disruptions of



work and personal pursuits. It is a two year degree program.

BBA is a morning program, which deals with various program related to marketing and management related issues. Similarly the Diploma Courses are

designed to give edge on pertinent aspects of business in a shorter period of training.

The students at IHM are trained in biostatistics, epidemiology, policy analysis, health promotion, and disease prevention, health economics, the organization of health & medical care systems, strategic management, organization behavior, health finance, health informatics, law and ethics etc.

Presently more than 500 students are studying in various Programs in IHM.

The courses are meant for graduate students which prepares them for lifelong and continuous learning, necessary for complex society.

The executive MBA course, allows students to conveniently accommodate their professional life and also continue their jobs simultaneously.

The institute also plans to introduce new additional courses for Bachelors and Masters degree related to Management Sciences, Social Sciences and Education, besides online degree program, to build up the required Human Resource in these fields.

Institute of Health Management has also been declared eligible for ISO-9001-2008 Certification for all the program conducted by the auditors of Vincotte, Brussels.

## DR. ISHRAT-UL-EBAD KHAN INSTITUTE OF BLOOD DISEASES (DIEKIBD)

Dr. Ishrat-Ul-Ebad Khan Institute of Blood Diseases (DIEKIBD) was established by DUHS in 2012.

This Institute has programs like:  
 · PhD. Haematology indigenous Program, MPhil. leading to PhD Haematology, MS. Transfusion Medicine & Tissue Typing, Master of Dental Surgery (Oral Pathology) & BS Clinical pathology.

This institute has:  
 Haematology Section, Blood Banking, Thalassaemia Support Program, Research & Development in the field of

Haematology and Post graduate Teaching / Training Programs.

In Summary the benefits of this Institute include:

- Quality Controlled Screened Blood products like Packed Red Cells, FFP. Platelets & other blood components on "NO PROFIT NO LOSS BASIS" are provided to the public.
- Reliable resource for Haematology related Diagnostic services at an affordable price.
- Smooth running of Clinics for



Thalassemia and Haemophilia

To establish a Registry for Leukaemia, lymphomas & other blood disorders.

## SCHOOL OF PUBLIC HEALTH (SPH)

Dow University of Health Sciences has established the School of Public Health (SPH) at OJHA campus in 2012. The aim of this school is to improve the health of our population by addressing the major health issues. Public Health is an important component of health services that is often ignored in the developing world and highly emphasized in the developed world. Keeping in view the needs of Pakistani population, the DUHS took this initiative to establish the first

public health school in a public sector university in Sindh Province.

Programs include Master of Public Health, Master of Sciences (Biostatistics and Epidemiology), Master of Sciences in Public Health (Nutrition Sciences, Health Policy and Management, Social and Behavioral Sciences) and Master of Philosophy (Health Education). All these programs are approved by Pakistan Medical and Dental Council (PM&DC).

The faculty and students of SPH are also conducting community based research and health activities. Examining the impact of economic indicators on health of Pakistani population and health policy. Which will Inshallah help in improving the health of Pakistani population, besides developing Human Resource of this particular field.



## DOW INSTITUTE OF RADIOLOGY

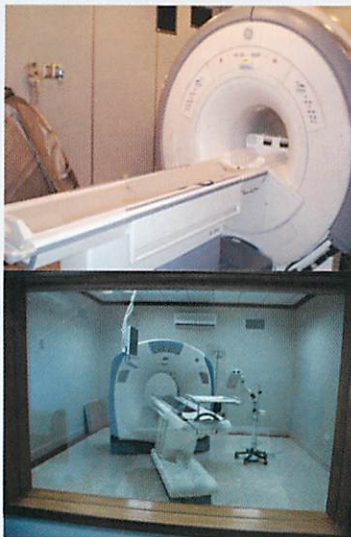
The Dow Radiology Complex was established in 2008 to have the highest quality medical imaging, research opportunities and Radiology related educational.

The Undergraduate Program includes:

- Associate of Applied Sciences in Radiological technology

The Postgraduate Programs includes: FCPS, DMRD, Certificate in Ultrasonology, Certificate in Neurospinal-imaging, Certificate in Interventional Radiology, Certificate in Doppler Ultrasound, One year Diploma in Echocardiography, The Dow Radiology department during last four years. It has upto performed Total MRI more than 30,000 and more than 22000 CT Scans.

All the teachings and services at Dow Institute of Radiology are performed by highly qualified and experienced faculty,



staff and technologists.

- The institute offers a full range of diagnostic and screening services to meet the needs of patients on very competitive rates around 1/3rd to 1/4th as compared to other centers in the city.
- It also offer a filmless digital environment for image viewing, reporting, as well as storage with the Picture Archiving and Communication System (PACS).

## OJHA INSTITUTE OF CHEST DISEASES (OICD)

The Ojha Institute of Chest Diseases (OICD) is also a constituent institute of the Dow University of Health Sciences, since its inception in Jan 2004. It was established in the early forties, as a TB sanatorium and now recognized as a center of excellence for Tuberculosis by



the World Health Organization (WHO). The laboratory of OICD is the designated Provincial Reference Laboratory for Tuberculosis. NTP has also established, a BSL 3 lab facilities at OICD. It has fully equipped operation theatre and a separate intensive care unit for complicated tuberculous and MDR patients.

All services are free of cost. Normally such type of ICU services costs around Rs. 20,000 - Rs. 50,000 / day in private hospitals.

The diploma course in chest diseases (DTCD) is also conducted at OICD. It is also recognized for fellowship and membership courses in chest diseases.

The College of Physicians & Surgeons of Pakistan (CPSP) has recognized it for F.C.P.S. in chest diseases.



## INSTITUTE OF BIOCHEMICAL, BIOLOGICAL AND PHARMACEUTICAL SCIENCES (IBBPS)

1. Institute of Biochemical, Biological and Pharmaceutical Sciences (IBBPS), established in 2010 is the first interdisciplinary institute of its kind in any medical university of Pakistan, which provides link between academia and industries.

2. This Institute has now also been certified for bioavailability and bioequivalence of drugs. It is a great service to the pharmaceutical companies of Pakistan, who presently acquire services from outside Pakistan to have bioequivalence of their drugs for its microbiological testing, potency & efficacy.

3. The team of IBBPS is well trained from

Germany, USA, Jordan, Pakistan etc and comprises of Ph.D scientists, Medical doctors, Pharmacist, Biotechnologist, Microbiologist, Biochemist, Bioinformatician, which make IBBPS to perform and offer basic, clinical and applied consortium research.

4. This institute also provide facilities of contract research organization (CRO), Bioequivalence/Bioavailability, Clinical Trials, Survey, Method development, Trainings, Analysis, Lab scale Pilot production etc.

5. The laboratories are equipped with High Performance Liquid Chromatography, Gas

Chromatography, Spectrophotometer, Lyophilizer, Flame Photometer, Polarimeter, Tintometer, Dissolution, Disintegrator etc.

The Dow University have also signed a Memorandum of Understanding (MoU) with a local pharmaceutical company, to focus on production of high quality drugs in accordance with the critical health requirements of the country. This will particularly include anti snake venom, frequently required in rural and sub urban parts of Pakistan. Presently its production in short and thus collaboration efforts will fill up the gap.



## PROFESSIONAL DEVELOPMENT CENTRE (PDC)

Professional Development Centre (PDC) has been established for skills training workshops. It provides hands on skills of various levels right from very basic to the highest possible ones, through regular workshops conducted by Internationally recognized master trainers in various specialties and at multiple levels, including those for medical students, postgraduates, doctors, specialists and other health related personnels, including nurses, paramedics and the general public. Professionals Development Centre is a centre of excellence, for training and education.

- It has state of art equipments, models electronic simulators & manikins.
- It caters to needs of several level undergraduate, postgraduate, faculty



member, specialists all health related personals & general public.

- It has 5 major division: MHPE program, CME, CPS, Undergrad skills lab & Misc programs with collaboration of Alumni & visiting faculty.

PDC is also conducting two and a half year Master in Health Professional Education (MHPE) program in collaboration with Institute of Postgraduate Studies. This is the first of its type hybrid program in Pakistan with both distance learning and contact components. Thirteen (13) students have completed this course, currently second and third batches are enrolled comprising of 48 students. This program has also been launched from Islamabad this year. PDC is also certified by American Heart

Association (AHA) to be the International Training Centre for BLS, ACLS and PALS. PDC has also started a three year program on 'Advance Biomedical Course for Scientific Promotion Officers'. Currently two batches are studying .

PDC is also conducting Diploma Course in Echocardiography and nine (09) candidates have completed the course, where as another nine candidates are studying.



## DOW VOCATIONAL TECHNICAL AND TRAINING CENTRE (DVTTTC)

It has been established in 2008 by Dow University as a social welfare program of DUHS and is registered by Sindh Board of Technical Education, Karachi and National Vocational & Technical Education Commission.

The computer program offered include, MS Office, SPSS, Hardware, Graphics, Animation, Web designing, Comp



Accounts & Computerized Accounting etc. The training for girls include, those for Dress Making, Machine Embroidery, Hand Embroidery, Stitching, Cutting, Sewing & Candle Making.

DVTTTC is now planning to



introduce more courses eg Diploma in Information Technology, courses for glass painting and fabric painting etc.

## INSTITUTE OF DIABETES & ENDOCRINOLOGY (NIDE)

Diabetes is a growing problem of Pakistan, hence the National Institute of Diabetes & Endocrinology was established in 2006. It provides free consultation and counseling to patients suffering from Diabetes and other Endocrine diseases. It also has facilities for management and treatment of eye complications of diabetes through its Eye Care Center including laser treatment.

It also conducts two year diploma course for "Masters in Diabetes & Endocrinology", so as to produce Human Resource in this particular field.

This institute has also been declared eligible for ISO 9001 - 2008 certification by auditors by Vincotte, Brussels, regarding its postgraduation Course of Masters in Diabetes and Endocrinology,







OTC COMPLEX

فاذا مرضت فهو يشفين  
اور كنت ارضيا شفايا وكنت ما يكون فيه وفضل الله العليم الخبير



DOW UNIVERSITY OF HEALTH SCIENCES



# CIVIC ENGAGEMENTS OF DOW UNIVERSITY OF HEALTH SCIENCES

The Dow University since its inception has been focusing on

## Community Services

to provide preventive, diagnostic and treatment facilities for community health care specially to the under privileged class.

The students of various Undergraduate and Postgraduate programs of DUHS are also actively involved with the faculty members in all the Civic Engagements of DUHS







## CIVIC ENGAGEMENTS OF DOW UNIVERSITY OF HEALTH SCIENCES

### DISASTER MANAGEMENT IN NATURAL CALAMITIES

#### Earth Quake in 2005

- DUHS arranged a workshop for handling mass casualties. with disaster management cell.
- Groups of doctors, students and Allied Health Workers were send to different affected areas of Kashmir and NWFP.
- These teams provided medical & surgical treatment to the victims.
- The promptness of relief activities were much appreciated.



### FLOOD RELIEF WORK ..... in 2010 & 2011

#### Services delivered by DOW UNIVERSITY



- During massive floods in 2010 & 2011.
- large number of homeless flood affectees needed food, shelter and items of daily needs.
- Huge campaign was launched by Dow University with the help of students and faculty. Funds were collected for food & items of daily needs, they were packed & distributed personally by students in affected areas of interior Sindh.

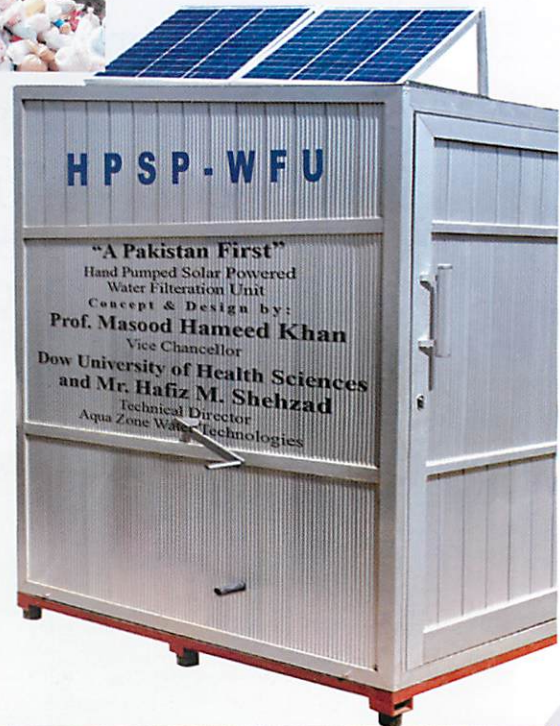


- 19 Truck loads of medicine, food & articles were distributed.

### SOCIAL ENTREPRENEURS

#### PROVISION OF SAFE DRINKING WATER

- There is a dearth of safe drinking water especially in slum areas of Karachi. Dow University designed a filter plant which can operate with solar light and provide clean & safe drinking water to a larger community.
- Presently three filter plants are installed at three slum areas one in Karachi and two in the interior of Sindh, which are helping the community. Further, Installations will take place soon.





## CIVIC ENGAGEMENTS OF DUHS

### SERVICES FOR IMPROVING QUALITY OF LIFE CORRECTION OF FUNCTIONAL DISABILITIES

- The incidence of congenital physical and functional disorders are on the rise in Pakistan. Therefore Dow University has established Institute of Physical Medicine & Rehabilitation, a part of which is the child development centre which deals with 'Autism' a common problem, recognized quite late by the parents.
- This centre also conducts awareness programs for the community with the help of students for early recognition of this functional disorder and the required management.



### TOOLS TO MAKE DEPENDENT PATIENTS ...INDEPENDENT PROVISION OF PHYSICAL AIDS TO DISABLE PERSONS



- In Pakistan we are facing disabilities every day due to bomb blasts, earth quakes, traffic accidents & amputations due to diabetes, violence and congenital abnormalities.
- The Dow University artificial limb Centre (DUAL), provides artificial limbs, almost free of cost to limbless people so as to make them independent for their daily activities.
- More than 3500 people have been provided artificial limbs free of cost uptil now.



### CREATING AWARENESS FOR PREVENTIVE STRATEGIES

#### HEALTH EXPO

Dow Health Expo was held at a very large scale on a span of three days at the Expo Centre Karachi. Where general public was attracted with light entertainment and then checkups of all specialities were offered by specialists free of cost. Blood tests and dental checkups were also done free of cost.



### HELPING FOR CORRECTIONS

#### COSMETIC REPAIR FOR SEVERE BURNS

- Post Burn Contractures are also a major problem in Pakistan. Burns of serious nature leave patient disfigured and demotivated through out the life.
- Dow University in collaboration with MS Hashmat Affendi from House of Charity (Texas USA) got two reconstructive surgery sessions performed by experienced Plastic Surgeons of Houston. About 70-80 severely disable patients were benefitted
- The Medical Students of DUHS played a vital role for coordinating treatments.



### AWARENESS PROGRAMS

#### COMMUNITY HEALTH WORK (for Dentistry)

The Community work regarding free dental checkups were also performed by students of Dow International Dental College alongwith their faculty members.



### AWARENESS PROGRAMS

#### COMMUNITY HEALTH WORK (for Medical Checkups)

Students of Dow International Medical College (DIMC) alongwith the faculty and an NGO have been holding camps at frequent intervals for general screening and counseling of the public.



## HELPING PATIENTS OF ..... CHRONIC DISEASES

### TREATMENT THROUGH CAMPS AND STUDENT'S MOTIVATION FOR PUBLIC SERVICES

- Dow University of Health Sciences organized several eye camps at various peripheral areas of the city to provide free consultation and treatment to the under privileged class of the community.
- Medical students of Dow International Medical College actively participated in the screening process and registration of the patients for operation and even assistance during operations.



## PROMOTING SENSE OF WELL BEING

### FREE PLASTIC SURGERY FOR BIRTH DEFECTS (OUTREACH PROGRAM)

- In Pakistan there are increasing incidences of congenital birth defects eg cleft lip & Palate, specially seen in under privileged class of the society due to various reasons including malnourishment.
- Dow University conducted several camps in this connection mainly in the interior of Sindh.
- Students took keen interest in motivating the patient's relatives for operation and maintaining record for further followup.



## IDENTIFICATION OF ROOT CAUSES

### HEALTH PROBLEMS OF DENTISTRY

- Several dental related problems are prevailing in our community. These were addressed in various ways by group of BDS students of Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences alongwith the faculty members.
- They identified various problems and documented them for rectification.



## TRAINING OF HEALTH VOLUNTEERS

### FOR FIRST AID TREATMENTS By Professional Development Centre

Professional Development Centre of DUHS is not only training undergraduates, postgraduates and the faculty members but also the Allied health related workers eg Nurses, Paramedics, general students and laymen for first aid procedures.



## REHABILITATION

### CHRONICALLY ILL PATIENTS

- The Incidence of stroke and neuromuscular disorders are also increasing day by day. Eventually the patients have to live with compromised status and they need proper rehabilitation to live and work independently.
- The Institute of Physical Medicine & Rehabilitation (IPM&R) provides physiotherapy manually and with machines for wide variety of disorders.



## AWARENESS PROGRAMS

### GOOD PRACTICES IN NURSING

- The profession of Nursing in Pakistan's lacks in depth of knowledge and skills in clinical practice which is a great hindrance in quality of health care practices as Nurses are the back bone of Health Professions alongwith other paramedical staff.
- Therefore, students of nursing at Dow University conducted various seminars not only in various hospitals but also in the community to attract students in this dynamic profession.





## TB PATIENTS TO BE MADE SELF EARNER

### TECHNICAL TRAINING OF TB PATIENTS DURING TREATMENT PHASE

Patients of TB require long term treatment for about 9 months to 1 yr, during this period they even loose jobs, therefore the Dow University not only provides free medicines, food and others sorts of treatment but also provides technical training so that they can acquire skills and become self earner. These skills include candle making, block printing, stitching and computer training etc.



## BLOOD DONATION CAMPAIGN

- Dr. Ishrat ul Ebad Khan Institute of Blood Diseases has been established for clinical research in blood diseases and for MPhil & PhD courses besides blood transfusion services to the community.
- It will also meet increasing demands of blood needed in diseases, road traffic accidents, gunshot wounds and other conditions.



## HELPING SNAKE BITE PATIENTS

### INDUSTRIAL LINKAGE OF DOW UNIVERSITY DEVELOP .....FOR ANTISNAKE VENOM PRODUCTION

Thousands of Pakistanis die every year due to non availability of antsnake venom, which is usually imported. Considering this problem the Dow University has developed antsnake venom after nurturing all available species of snakes in its animal house as per required protocol. Twenty horses are hyper immunized against the snake poison. The serum of these horses will now be processed by Macter International (Pvt. Ltd) for commercial production of antsnake venom. The MoU in this regard has already been signed by Prof. Masood Hameed Khan, Vice Chancellor, DUHS.



## PUBLIC AWARENESS SEMINARS.....on

- Mental Illnesses
- Obesity
- Thallasemia
- Diabetes, etc.





## DUHS STUDENT'S INVOLVEMENT IN CIVIC ENGAGEMENTS

The DUHS Students of MBBS, BDS, Pharmacy, and Allied Health Sciences are actively involved in Civic engagements of Dow University, under the guidance of DUHS faculty members, for voluntary work, besides their academic schedule so as to help the community in various possible ways. Community Dentistry services, are conducted at frequent intervals by DUHS Dental faculty, in which the students of BDS participate actively along with their faculty members for general screening of dental hygiene and teach them techniques of tooth brushing and preventive measures for caries etc, besides other diagnostic and treatment procedures taken up by the faculty.



The dental students are also involved in the education and training of Dental Hygiene program, for the community.

This externship program gives, students the opportunities to enhance their clinical skills, appreciate the cultural and socio economic differences of their patients and provide needed services to low income patients.

The medical students are also motivated to participate in making projects regarding volunteer community work and collection of data, thus enhancing understanding of relevant issues and having insight of research. The community work makes student understand prevailing problems and identify pertinent issues for rectification.



Due to various Civic Engagements the students have realized the problems of needy patients and the ground realities of their non affordability. Hence many student groups, have formed their own organizations voluntarily, so as to work for patients benefit e.g.

- a) DIPCA-Dow International Patient Care Association
- b) FRIP-First Response Initiative in Pakistan (in cases of accidents)

In these group work, the students teach life saving ways and techniques to the people of the community. They also

conduct public awareness lectures for adopting preventive measures to illiterate people eg what to do, in cases of snake bite, fits, sudden unconsciousness, road accidents and severe sudden illnesses etc.

They also educate villagers about obesity, and chronic diseases like diabetes, tuberculosis & thalassemia etc. Medical & Eye camps, are also organized by students with the help of faculty members.



Majority of sites where public services are provided by students, include community Health care Centres, mentally & physically handicapped institutions, private & public schools and institutes for homeless people.





## Dow Lab Charges verses Private Lab Charges

Test Name	Private Lab Rates	Dow Lab Rates
24 Hours Urine For Calcium	380.00	250
24 Hours Urine for Creatinine	516.67	250
24 Hours Urine For Creatinine Clearance	916.67	450
24 Hours Urine For Magnesium	400.00	250
24 Hours Urine For Microalbumin	383.33	350
24 Hours Urine For Phosphorus	280.00	250
24 Hours Urine For Protein	410.00	250
24 Hours Urine For Sodium	266.67	150
24 Hours Urine For Urea	253.33	150
24 Hours Urine For Uric Acid	263.33	250
ABGs - ARTERIAL BLOOD GASES	800	600
Absolute Eosinophil Count	220.00	150
Absolute Value	200.00	150
ACTH (ADRENO CORTICO TROPIC HORMONE)	2205.00	1350
AFB Culture & Sensitivity		1500
AFB SMEAR	275.00	130
Albumin	260.00	140
ALKALINE PHOSPHATASE	250.00	140
Alpha Feto Protein ( AFP )	1730.00	1200
Amylase	526.00	230
ANA PROFILE (ANA,AMMA,ASMA)	1953.33	1300
ANTI CCP	1683.33	1500
ANTI ds DNA	1466.67	1000
ANTI Gliadin IgA	1300.00	1000
ANTI Gliadin IgG	1300.00	1000
ANTI TTG IgA	920.00	900
ANTI TTG IgG	920.00	900
ASCITIC FLUID D/R	718.33	500
ASCITIC FLUID D/R + AFB	718.33	600
Ascitic Fluid DR + ALBUMIN	700.00	600
ASCITIC FLUID FOR PROTEIN	346.67	200
ASCITIC FLUID FOR Triglycerides	83.33	200
ASOT (Anti Streptolysin O Titer)	596.67	400
B-12 (Vitamin B-12)	1241.67	800
BCR/ABL		4000
Bicarbonate	216.67	120
Bilirubin (Total and direct)	396.67	130
BLEEDING TIME	213.33	120
Block 1 Given to Patient		100
BLOCK FOR IMMUNOHISTOCHEMISTRY	5020.00	3500
Blood Culture & Sensitivity (Manual)	1066.67	400
BLOOD CULTURE BACT/ALERT	1066.67	600
BLOOD CULTURE BACT/ALERT (SA/SN)	456.67	900
Blood Glucose Fasting	236.67	120
Blood Glucose Random	236.67	120
Blood Group	370.00	300
BODY FLUID FOR C/S	666.67	600
Bone Marrow Aspiration D/R	1660.00	1100



## Dow Lab Charges verses Private Lab Charges

Test Name	Private Lab Rates	Dow Lab Rates
FOLIC ACID	1118.33	800
FREE T3	1101.67	500
FREE T4	1161.67	500
Fresh Frozen Plaza		900
Fungus Culture	1096.67	700
Fungus Direct Smear	290.00	150
G6PD Quantitative		1500
Gamma GT	293.33	200
GCT (Glucose Challenge Test) GESTATIONAL	593.33	300
GCT (Glucose Challenge Test) NON-GESTATIONAL	493.33	300
GENOTYPE MTB DR	2000.00	2000
Gram Stain + AFB Smear (Each)	306.67	130
Growth Hormone	1368.33	1000
Growth Hormone(Stimulation Test)	4710.00	3500
GTT (GESTATIONAL) 2Hrs	866.67	400
GTT (GESTATIONAL) 3 Hrs	790.00	500
GTT (NON - GESTATIONAL) 2Hrs	626.67	400
HB Electrophoresis	1240.00	1100
Hb%	166.67	150
HBA1C (GLYCOSYLATED HEMOGLOBIN)	1068.33	600
HBsAg	923.33	450
HBsAg (ICT)	105.00	200
HBV DNA DETECTION BY PCR (QUALITATIVE)	3896.67	2800
HBV Genotyping	6246.67	5000
HCV (ICT)	66.67	250
HCV Genotyping	11033.33	7500
HCV Genotyping SUBTYPE	8500.00	8500
HCV RNA DETECTION BY PCR (QUALITATIVE)	4820.00	2800
HDL (HIGH DENSITY LIPOPROTEINS)	266.67	250
Helicobacter Pylori Antibody (CLIA)	1236.67	800
Hepatitis A Antibody IgM	1436.67	750
Hepatitis B Core Antibody IgM	1425.00	750
HEPATITIS B CORE TOTAL	1240.00	750
Hepatitis B Profile	7800.00	3600
Hepatitis B Surface Antibody	1020.00	700
HEPATITIS B VIRAL LOAD (Quantitative)	13120.00	5500
Hepatitis Be Antibody	1453.33	700
Hepatitis Be Antigen	1450.00	700
Hepatitis C Antibody	1563.33	800
Hepatitis C Virus Viral Load (Quantitative)	11690.00	5500
Hepatitis Delta Virus Anitbody	1140.00	800
Hepatitis E Virus Antibody IgG	1323.33	800
Hepatitis E Virus Antibody IgM	1323.33	800
HER-2/NEU	2270.00	1500
HISTO BLOCK 2ND OPINION	2566.67	2000
Histopathology Biopsy Large	3750.00	2500
Histopathology Biopsy Small	1953.33	1000
Histopathology Biopsy Small (Specimen 2)	1000.00	1000





## Dow Lab Charges verses Private Lab Charges

Test Name	Private Lab Rates	Dow Lab Rates
HIV Human Immunodef. Virus Antibody	1396.67	700
HIV VIRAL LOAD		9000
HSV by PCR	2303.33	2000
HVS Smear / Gram Stain / Wet Mount	250.00	130
ICT MALARIA ANTIGEN	850.00	500
ID-PNH		1200
IgE	1240.00	700
IMMUNOHISTO MARKER - PANEL	5020.00	3500
Indirect Coombs		250
LDH (Lactate Dehydrogenase)	360.00	200
LDL (Low Density Lipoproteins)	360.00	250
Leishmania LD Bodies	283.33	250
LFT (LIVER FUNCTION TESTS)	943.33	700
Lipase	788.33	500
LIPID PROFILE	1393.33	700
Lithium	620.00	250
Liver Abscess D/R	426.67	350
Magnesium	513.33	250
Mantoux Test (MT)	190.00	200
MP (Malarial Parasites)	216.67	150
MTB PCR	2490.00	2000
Occult Blood (Stool)	146.67	120
Packed Red cells		1000
Pap Smear with Procedure	1193.33	1000
Para Thyroid Hormone (PTH)	1656.67	1000
PERITONIAL FLUID D/R +ALBUMIN	613.33	600
Peritoneal Fluid D/R	683.33	500
Peritoneal Fluid D/R + AFB + GRAM STAIN	683.33	500
Phosphorus	316.67	200
Platelet Count	160.00	200
Platelets From Single Blood Bag		900
Platelets Mega Unit From Single Donor		12000
Pleural Fluid D/R	600.00	500
Pleural Fluid D/R + AFB + GRAM STAIN	683.33	650
Pleural Fluid for C/S	610.00	600
PLEURAL FLUID FOR Cholestrol	226.67	150
Pleural Fluid for D/R + Albumin	683.33	500
PLEURAL FLUID FOR PROTEIN	226.67	150
PLEURAL FLUID FOR Tg	226.67	150
POTASSIUM	226.67	120
Pregnancy Test / HCG	270.00	200
Prostatic Massage C/S	673.33	600
PROTEIN A/G RATIO	403.33	200
PSA (Prostatic Specific Antigen)	1346.67	800
Pus For Cytology		1000
Pus For DR (AFB & GRAM STAIN)	206.67	130
RA Factor (Rheumatoid Arthritis)	370.00	300





## Dow Lab Charges verses Private Lab Charges

Test Name	Private Lab Rates	Dow Lab Rates
RBC COUNT	86.67	150
REDUCING SUGAR (STOOL)	138.33	100
Reticulocytes Count	263.33	200
Rubella IgG	1043.33	650
Rubella IgM	1253.33	650
Semen Analysis	843.33	300
SERUM BHCG	823.33	700
SERUM BHCG (URGENT)	1023.33	1000
SERUM FSH	1025.00	700
SERUM Insulin	2403.33	800
Serum Iron	470.00	250
SERUM LEPTIN	1000.00	1000
SERUM LH	1055.00	600
SERUM PROGESTERONE	1136.67	600
SERUM PROLACTIN	1100.00	600
Serum Protein	163.33	150
SERUM T3	794.33	400
SERUM T4	857.67	400
SERUM TESTOSTERONE	1218.33	900
SERUM TSH	809.00	450
SGOT	326.67	150
SGPT	256.67	150
Skin Scraping For Fungal	173.33	150
SLIDES FOR 2ND OPINION	1433.33	400
SLIDES PREPARATION	446.67	300
SLIDES PREPARTION FROM BLOCK HISTOPATHLOGY	320.00	500
Sodium	200.00	120
SPECIAL STAIN 1	300.00	300
SPECIAL STAIN 2	600.00	600
SPUTUM FOR CYTOLOGY	3813.33	1000
SPUTUM FOR D/R (AFB+ GRAM STAIN)	456.67	150
Stool C/S	1030.00	600
Stool D/R	260.00	100
Stool For Fat Globules	110.00	100
Stool For pH	60.00	100
Stool For Reducing Sugar	110.00	100
Stool Helicobacter Pylori Antigen	2033.33	1500
Synovian Fluid for DR	473.33	500
Throat Swab For C/S	1030.00	600
Throat Swab For KLB Smear (Gram Stain)	406.67	200
THYROID PROFILE	2196.67	1200
TIBC (Total Iron Binding Capacity)	460.00	250
TLC (WBC)	156.67	200
Transfusion set		100
TRIGLYCERIDES	321.67	150
Typhidot	1023.33	500
UREA	306.67	150
Urethral Smear For Gram Stain	200.00	100



## Dow Lab Charges verses Private Lab Charges

Test Name	Private Lab Rates	Dow Lab Rates
Bone Marrow Biopsy (Trephine)	2983.33	3000
Bone Marrow Culture	1066.67	600
Brain Fluid for Cytology		1000
BUN (BLOOD UREA NITROGEN)	306.67	120
CA-125 (Cancer Antigen-125)	2628.33	1400
CALCIUM	353.33	150
Cardiac Enzyme with CKMB	1301.67	1000
CARDIAC ENZYMES	1123.33	600
CBC & ESR	586.67	400
CEA (CARCINOEMBRYONIC ANTIGEN)	2560.00	1400
Chikungunya ICT	300.00	350
CHLORIDE	200.00	120
CHOLESTEROL	308.33	120
CK-MB	763.33	300
CLOTING TIME	210.00	130
Crypripitates		500
Cortisol	1015.00	900
CP (Complete Blood Picture)	506.67	300
C-PEPTIDE	1833.33	1000
CPK (Creatine Phospho Kinase)	433.33	200
CREATININE	361.67	140
Cross Match only		400
CRP (C-Reactive Protein)	883.33	500
CSF D/R (Cerebrospinal Fluid)	691.67	350
CSF For Cell Count	346.67	200
CSF for Culture & Sensitivity (BACTIC)	666.67	650
CSF FOR PROTEIN	296.67	130
Culture & Senitivity	666.67	600
CYTOLOGY CSF	1513.33	1000
DENGUE BY PCR	4000.00	4000
Dengue IgA	1193.33	800
Dengue Virus (IgG/IgM)	1576.67	850
Dengue Virus IgM (ELISA)	946.67	600
Direc Coombs		200
DLC TLC (Auto Analyzer)	220.00	200
EAR SWAB C/S	666.67	600
ELECTROLYTES	730.00	400
ESR (Erythrocyte Sedimentation Rate)	170.00	150
Estradiol	1446.67	700
Estrogen Receptor & Progesteron Receptor & Her 2	6666.67	3500
FACTOR IX	1500.00	1500
FACTOR VIII	1020.00	1500
Ferritin	1055.00	800
FIBROGEN	343.33	1000
FLUID D/R	653.33	450
Fluid Differential Count	246.67	150
FLUID FOR ALBUMIN	193.33	130
FLUID FOR BILIRUBIN	133.33	120
FLUID FOR CREATININE	116.67	120
FLUIDE FOR AMYLASE	256.67	120
FNAC With Procedure		1500
FNAC Without Procedure		1000



## Dow Lab Charges verses Private Lab Charges

Test Name	Private Lab Rates	Dow Lab Rates
URIC ACID	326.67	150
Urinary Protein/ Creatinine Ratio (SPOT SAMPLE)	453.33	250
Urine (Micro Albumin)	580.00	250
Urine C/S	1036.67	600
Urine D/R	240.00	120
Urine For Calcium (SPOT URINE)	423.33	150
Urine For Creatinine (SPOT URINE)	330.00	150
Urine For Ketone Bodies	171.67	100
Urine For Phosphorus (SPOT URINE)	383.33	150
Urine For Protein (SPOT URINE)	290.00	130
V.D.R.L	553.33	300
Vitamin D TOTAL (25-OH) D2+D3	2346.67	1300
VWF Antigen	-	1500
Water Bacteriology	1063.33	800
WBC Count (TLC)	156.67	200
whole Blood		1000
Widal	546.67	300



## Dow Radiology Charges verses Private Charges

<b>MAGNETIC RESONANCE IMAGING (MRI)</b>		<b>PRIVATE RATES</b>	<b>DOW RATES</b>
1	Shoulder Single Plain (Without Contrast)	10000-16000	4500
2	Shoulder Single with Contrast	15000-20000	7200
3	Ankle Joint Single Plain (Without Contrast)	10000-16000	4500
4	Ankle Joint Single with Contrast	15000-20000	7200
5	Foot Plain (Without Contrast)	10000-16000	4500
6	Foot with Contrast	15000-20000	7200
7	Knee Single Plain (Without Contrast)	10000-16000	4500
8	Knee Single with Contrast	15000-20000	7200
9	Femur Single with Contrast	10000-16000	7200
10	Abdomen with Contrast	15000-20000	7200
11	Breast with Contrast	18000-25000	7200
12	MRI Head / Brain Plain	9000-12000	4200
13	MRI Head / Brain Plain & Contrast	15000-18000	6600
14	MRI Head / Brain With Mra Plain	10000-15000	5500
15	MRI Lumbosacral Spine Screening	3500-4500	1200
16	MRI Brain Screening	3500-4500	1200

<b>ULTRASOUND</b>		<b>PRIVATE RATES</b>	<b>DOW RATES</b>
1	Abdomen Upper	1000-1200	400
2	Abdomen Whole	1400-2000	700
3	Axilla	900-1200	450
4	Breast Bilateral	900-1200	450
5	Chest	900-1200	450
6	Doppler Carotid Bilateral	3000-4000	1500
7	Doppler Periphery Arterial Unilateral	2000	800
8	Doppler Periphery Venous Bilateral	3000	1500
9	Doppler Periphery Venous Unilateral	17000	800
10	Foetal Doppler	2000	800
11	Foetal Well Being (Fwb)	800-1200	350
12	Foetal- Anomaly Scan	1800-2500	600
13	Guided FNAC	2000	450
14	KUB U/S	1000-1200	400
15	Pelvis	600-800	450
16	Prostate	600-800	400
17	Pre-post Void	700-900	400

<b>X-RAY</b>		<b>PRIVATE RATES</b>	<b>DOW RATES</b>
1	Ankle Joint Left (A.P/Lat)	-	300
2	Chest P.A	350-600	250
3	Elbow Joint Right Lap& Lat)	500-700	300
4	Elbow Right A.P	550	250
5	Hand Left (A.P/Lat)	500-700	300
6	Pelvis A.P & Lateral	550-800	250
7	Knee Right A.P (Weight Bearing)	900-1200	500
8	Neck (A.P & Lat)	350-600	250
9	Orbit Right (A.P & Lat)	500-700	300
10	Pelvimetry (A.P & Lat)	750-1100	300
11	Skull (A.P & Lat)	540	250

<b>C-T SCAN</b>		<b>PRIVATE RATES</b>	<b>DOW RATES</b>
1	Abdomen & Pelvis with Contrast	8000-15000	4400
2	Abdomen & Pelvis with And Without Contrast	10000-13000	5500
3	Chest With & without Contrast	10000-13000	5500
4	Chest with Contrast	8000-10000	3900
5	Chest High Resolution (HRCT)	6000-7000	2800
6	CT Pyelogram - CT Kub	5000-7900	2200
7	CT Angiography	15000-18000	6600
8	Head / Brain Plain	3500-5000	1500
9	Head Plain / Trauma	45000-6000	1800
10	Head / Brain With & Without Contrast	6000-8000	3000
11	Head and Neck	14000-16000	7200









CT Scan



MRI



Dow Convocation

11<sup>th</sup>  
Successful Years



DIMC Hostel Block



Dow Water Filtration Plant



New Academic Block of DMC



Dow Dental College



DIMC Hall Named Dr. Abdul Qadeer Khan



Dow International Dental College



Dow Olympics



National Institute of Diabetes & Endocrinology



Innaugration of OT Complex



Institute of Medical Technology



Child Development Centre



Dow Artificial Limb Centre



DUHS Gymnasium





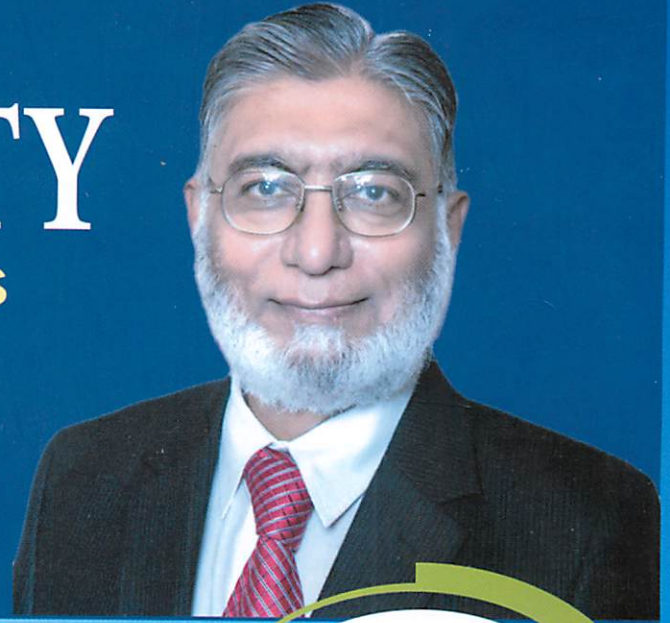
# DOW UNIVERSITY OF HEALTH SCIENCES

## VISION *TO* REALITY

IN THIRTEEN (13) YEARS  
(2004 - 2016)

**PROFESSOR DR. MASOOD HAMEED KHAN**

Sitara-e-Imtiaz (SI), Tamgha-e-Imtiaz (TI)  
PhD(Hon), FCPS(PAK), FRCP(Edin), FRCP(London)  
Professor Emeritus and  
FOUNDING VICE CHANCELLOR  
DOW UNIVERSITY OF HEALTH SCIENCES



Successful Liver Transplant  
at DUHS



Groundbreaking Ceremony  
of DUHS in DHA



New Academic Block  
of DUHS



Dow University Hospital



Operation Theatre (OT) Complex



Dow International Medical  
College (DIMC)



Institute of Nursing (ION)



Connecting Bridge between  
OT Complex and Dow Hospital





DOW UNIVERSITY  
OF HEALTH SCIENCES

**Estd.**

**2004**

PROF. MASOOD HAMEED KHAN  
ACADEMIC BLOCK





بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



# DEVELOPMENTS *at* DOW UNIVERSITY OF HEALTH SCIENCES FROM INCEPTION IN 2004 TILL 2016

S. No.	Institutes / Departments	In 2004	In 2016
1	Dow International Medical College (DIMC)	None	Established
2	Dr. Ishrat-ul-Ebad _ Institute of Oral Health Sciences (DIKIOHS)	None	Established
3	Dow International Dental College (DIDC)	None	Established
4	Dow Dental College (DDC)	None	Established
5	New Academic Block at Dow Medical College (DMC)	None	Established
6	Lawn Developed in DMC	None	Established
7	Dow College of Pharmacy (DCOP)	None	Established
8	Institutes of Medical Technology (IMT)	None	Established
9	Institute of Physical Medicine & Rehabilitation (IPM&R)	None	Established
10	Dow University Artificial Limbs (DUAL) Centre	None	Established
11	Institute of Nursing (ION)	None	Established
12	Institute of Basic Medical Sciences (IBMS)	None	Established
13	School of Public Health (SPH)	None	Established
14	Institute of Health Management (IHM)	None	Established
15	Professional Development Centre (PDC) at DMC & DIMC	None	Established
16	Library Block at DIMC	None	Established
17	State of Art Gymnasium	None	Established
18	Modern Fitness Club	None	Established
19	Grassy Cricket and Footbal Ground	None	Established
20	Boys Hostel Block of DIMC	None	Established
21	Girls Hostel Block of DIMC	None	Established
22	Digital Library at Dow Medical College	None	Established
23	Digital Library at Sindh Medical College	None	Established
24	Canteen Block at Sindh Medical College	None	Established
25	Professional Development Centre at Sindh Medical College	None	Established
26	Library Block Sindh Medical College	None	Established
27	Computer Learning Centre	None	Established
28	Research Department	None	Established
29	Institute of Postgraduate Studies	None	Established
30	Information Technology Department	None	Established
31	Campus Management Solution	None	Established
32	Close Circuit TV Monitoring System (CCTV)	None	Established
33	Biometric Attendance of Facutly/Staff and Students	None	Established
34	Paperless Healthcare Management System Started at Dow University	None	Established
35	Institute of Biological, Biochemical & Pharmaceuticals Sciences (IBBPS)	None	Established
36	Dow Research Institute of Biomedical & Biosciences (DRIBBS)	None	Established
37	Dow Institute of Medical Education (DIME)	None	Established
38	Establishment of Postgraduate Skills Lab ( <i>near completion</i> )	None	Established
39	Granite Flooring of DMC Campus	None	Established
40	Complete Renovation of Muin Auditorium	None	Established
41	Heavy Diesel Generators Installed at Every Campus	None	Established
42	New Block of Dow Dental College ( <i>under construction</i> )	None	Established



**DEVELOPMENTS** *at*  
**DOW UNIVERSITY OF HEALTH SCIENCES**  
 FROM INCEPTION IN 2004 TILL 2016

S. No.	Institutes / Departments	In 2004	In 2016
43	Clinical Trials Unit (CTU)	None	Established
44	DUHS-DICE Health Innovation Center	None	Established
45	Dow University Hospital	None	Established
46	Kidney Dialysis Centre	None	Established
47	Sleep Lab (Poly Somnography)	None	Established
48	OPD Block of Dow Hospital	None	Established
49	New OPD Block for Diabetes Patient	None	Established
50	National Institute of Liver & GI Diseases (NILGID)	None	Established
51	OPD Block for Liver Transplant Patients	None	Established
52	Oncology Clinic & Surgery	None	Established
53	Operation Theatre Complex with Nine (9) Operation Theatres	None	Established
54	Liver Transplant Center (LTU)	None	Established
55	National Institute of Solid Organ & Tissue Transplant (NISOTT)	None	Established
56	National Institute of Diabetes & Endocrinology (NIDE)	None	Established
57	Dow Institute of Cardiology (DIC)	None	Established
58	100 beded Intensive Care Unit (ICU)	None	Established
59	Trauma Center ( <i>under construction</i> )	None	Established
60	Dow Diagnostic Research & Reference Laboratory (DDRRL)	None	Established
61	Total Lab Automation System (TLA)	None	Established
62	Dr. Ishrat-ul-Ebad Khan Institute of Blood Diseases (DIKIBD)	None	Established
63	Dow Institute of Radiology (DIR)	None	Established
64	LEJ Campus with CT & MRI & Dow Lab	None	Established
65	Executive Clinics	None	Established
66	Dow Cancer Research Institute (DOCRI)	None	Established
67	Satelite Dow Clinic in Nazimabad	None	Established
68	Satelite Dow Clinic in Mehran Town	None	Established
69	Iqbal Yad Chest Clinic ( <i>Complete renovation</i> )	Old	Renovated
70	Thoracic Surgery Department	Old	Renovated
71	New Construcion of a Floor in TB Hospital	None	Established
72	Dow Vocational & Technical Training Center (DVTTC)	None	Established
73	Isolated Unit for infectious disease Patients	Old	Renovated
74	Serobiological Centre for Vaccines	None	Established
75	Central Animal house	None	Established
76	Bariatric Surgery Centre	None	Established
77	Cochlear Implant Centre	None	Established
78	Child Care Centre	None	Established
79	Centre for Autism	None	Established
80	New Mosque - Jamia Masjid Aisha	None	Established
81	New construction of flats for employees of DUHS	None	Established
82	Day Care Centre	None	Established
83	Gas Power Plant Installation	None	Established
84	New Modern Cafeteria	None	Established
85	Free Shuttle Service in Ojha Campus	None	Established
86	Office of Research Innovation & Commercialization (ORIC)	None	Established
87	Dow Water (Riva) safe drinking water production for community	None	Established



# Dow University of Health Sciences

## 'Vision to Reality'

*in Thirteen (13) Years*

**PROFESSOR MASOOD HAMEED KHAN**

Sitara-e-Imtiaz (SI), Tamgha-e-Imtiaz (TI)

PhD(Hon), FCPS(PAK), FRCP(Edin), FRCP(London)

Professor Emeritus and

**FOUNDING VICE CHANCELLOR**

**DOW UNIVERSITY OF HEALTH SCIENCES**



**A**lhamdulillah, the Dow University of Health Sciences has achieved great success in last Thirteen (13) years.

The vision and mission, initially planned to be completed in 16 years have already been achieved in 12 years time, having international standards, as all main Institutions and departments have already been ISO Certified with ISO 9001-2008 by Vincotte International Bursels.

The VISION at Dow University of Health Sciences since its inception to be an academic leader by generating creative, collaborative, contextual resources to improve health by all possible means.

The MISSION is to provide leadership in creating and imparting knowledge through excellence in research and education with an aim to provide cost effective, contextually relevant and quality community service through its faculty, graduates staff and to continuously strive for improvement through reflection and learning.

The VALUES to be focused include critical thinking, comparison learning probability, responsibility, service, tolerance and altruism.





**Main Goals since beginning have been:**

- To have Contemporary approach in Education and Research.
  - To develop team for achievement of health care goals.
  - To enhance knowledge & expertise through national & international collaborations.
  - To focus in research with scholarship.
  - To elevate health status of the community and increase public awareness.
  - To identify problems and solve with collaborations of stake holders.
  - To provide health care facilities of international standards on Cost to Cost basis to the Community.
  - To review & reflect practices continuously for rectification and enhancement.
- Alhamdulillah our aims & objectives have been achieved during last Thirteen (13) years.



In 2004 Only three constituent institute include:

1. Dow Medical College (DMC)
2. Sindh Medical College (SMC)
3. Ojha Institute of Chest Diseases (OICD)

Now Sixty four (64) new establishments including Separate Institutes and departments have been made to achieve above mentioned Vision, Mission and goals.

Summary of all new establishments are mentioned below:

Initially following Support departments were developed to work proficiency and Transparency to have good Governance these include:

- Admission department, fully equipped with required computers, staff and safe operating procedures.
- Curriculum of previous MBBS Curriculum was revised and Vertically integrated curriculum was introduced after our designing as per PMDC criteria, as a Pilot project.
- Alhamdulillah after running it successfully for five years, we have offered it officially to other medical Institutions of Pakistan, as it has been very successful because we monitored it continuously through feed back after implementation.
- The practical system of old MBBS course have also been revised and replaced by most modern 'Power Labs' of international standard.
- To meet shortage of human bones, plastic bone bank have been developed.
- To have transparency of written questions papers and preventing its leakage, Q-Bank have been established for all Theory & Practical examination. Different examiners form Pool of questions in a highly confidential department, for transparency special Software in used to select
- questions from the Pool on the day of examination.
- The examination system has been changed from Annual to Semester System for

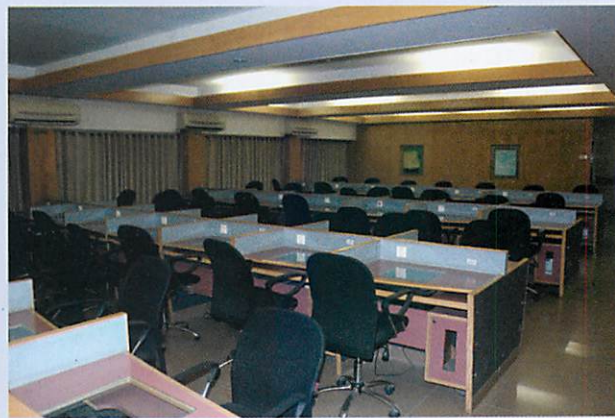


- undergraduates & Postgraduate to improve standards.
- Similarly to minimize subjectivity, old method of practical examination has been shifted to objective structured practical examination (OSPE) and objective structured clinical examination (OSCE) at all institutes of DUHS.
- The postgraduate studies have also been focused to develop their research skills, communication skills, ethics and hands on training in various specialities.
- Computer learning center was established to enhance computer skills of the faculty & students. Besides more than **350 teachers** of other institutions and **400 general practitioners** have been trained for computer skills from this center.

\*\*\*\*\*

## DIGITAL LIBRARY

One of the largest and best digital libraries have been established at eight different Institutes of Dow University.



- It is one of the largest, most modern high quality digital library of Pakistan and has more than 1300 computer stations connected to the main high standard SERVER to have HEC connectivity for access to more than 22,000 journals and textbooks. It has high speed 8M wireless radio frequency link for worldwide video conferencing and access to HEC PERN.
- Through HEC 'PERN its access is worldover.

Wi-Fi Facility is also available to faculty, staff and student implying wireless technology.



Class room and Lecture Halls are equipped with Wi-Fi and overhead projectors.

All campuses are connected. All buildings are connected via fiber link, more over all campuses are interlinked with dedicated optical fiber connectivity.

The high speed broadband connection of internet service is





availed from PERN. Firewalls and cache server are implemented to enhance the security and fast access.

Video conferencing facility is also provided by the information technology in all campuses. Clary Icon (PC based web conferencing) setup is installed in Ojha Campus for advance conferencing.

The CCTV network is also managed by the IT department, providing security and surveillance facility to DUHS. High- tech surveillance indoor

and outdoor cameras are installed throughout all campuses – every activity is recorded in DVRs placed in centralized control room.

To obtain fool free security on notified location or area access control panels, tripods and walk through gates are also installed and register Employee RF ID card on access control panels to get authorized access.

Information technology department provides email facility to all faculty and staff members. Gmail with storage capacity of 50 GB per user with google talk messenger.

Web portal of Dow University of Health Sciences assist in timely update of news, events, information on the official website of the university which is managed by IT department. It provides all the information regarding admissions, curriculum, examination and events planned in the university.

Dow University has launched its web-based Continuing Medical Education Program named the "e-CME Program for the Family Physicians".

IT department developed web based application for QEC department to automate students, teachers and courses survey and evaluation. which helps in monitoring the progress of the students and the faculty.

Various software's of the Microsoft is integrated with the DUHS website. directly download the Microsoft software from the portal. available to Dow University as part of Academic Alliance with Microsoft through HEC.

Journal of Dow University of Health Sciences (JDUHS) publishes high quality research papers, which also can be submitted online.

Master program of Health Professional Education (MHPE) is also conducted by Dow University with hybrid system, that is partly by direct contact & teaching and partly by online distant learning, managed by IT department.

WEB Base Photo Attendance System is also provided by IT department. It is implemented throughout the University, Employee can easily mark his attendance throughout the DUHS network attendance report, including working hour, casual leave, earned leave and sick leave is available to competent authority for Mentoring, Payroll dept. for salary processing.



Beside normal admission system Online admission assist in reducing work load, avoid data entry mistakes and of course in keeping up to date record by electronic means.

\*\*\*\*\*

## INFORMATION TECHNOLOGY DEPARTMENT

### IT Dept. established at 2005-2006

- In formation Technology (IT) Department has been established at DUHS to manage the technology and computer infrastructure that drives the organization's business systems in todays modern world.

Section of Data Center, Digital Library, Wi-Fi and Intranet, PERN, video conferencing, CCTV Surveillance and access control system, web portal and development of online admission system, online Degree verification, QEC evaluation, Photo Attendance System, PACS and Hospital Management Software and Database management. IT department also provides other facilities including, IT training programs for staff and online Lectures to upgrade the technical skills.



Information Technology Department of DUHS is proud to deploy highly advanced Hospital Management Information System (HMIS) that integrates patient information and Modalities Imaging record for the better outcomes of clinical, operational and financial functions. From patient registration and appointments to complete medical records, all information now is entered directly into a highly advanced Hospital Management Information System (HMIS).



Dow University of Health Sciences is the Pioneer University to adopt Health Care Information Technology System.

Hospital Management Information will be accelerated by the advance of new technologies, Tele-Radiology, Voice Recognition System, internet, and cloud services. The healthcare products and services provided by Pacslink Corporation will not only bring changes to the traditional healthcare model, but also enable more high quality healthcare resources.

\*\*\*\*\*



## BIOMETRIC ATTENDANCE OF FACULTY/ STAFF AND STUDENTS

Good Governance of any institution needs transparency at work which begins from punctuality and regularity that needs to be documented without flaws.

Biometric attendance system has been installed at all the campuses of DUHS for the students, who need to have required percentage of attendance in the class for being eligible to appear in the exams.

The attendance of faculty/ staff is connected with a software having leave record in the payroll which calculates the monthly salaries. Therefore without manual interference major requirement of punctuality and regularity is documents. Eventually the performance of the institution enhances.



\*\*\*\*\*

## CLOSE CIRCUIT TV MONITORING SYSTEM FOR SECURITY



The entrance of Dow Medical Campus and Ojha Campus are monitored for security purpose. The clinical service areas at Ojha

Campus e.g. Dow University Hospital, Radiology Department and Laboratory etc. are also monitored by CCTV not only for security but also to make sure proper delivery of services by staff and students.

The control room of Ojha Campus monitors it round the clock and in case of need contacts the required person or department.

\*\*\*\*\*



## PROFESSIONAL DEVELOPMENT CENTRE (PDC)



This center was established in 2005 for skills training workshops. It provides hands on skills of various levels right from very basic to the highest possible ones, through regular workshops conducted by Internationally recognized master trainers in various specialties and at multiple levels, including those for medical students, postgraduates, doctors, specialists and other health related personnels, including nurses, paramedics and the general public. Professional Development Centre is a centre of excellence, for training and

education. It has a covered area of 7500 sq ft, with state of art equipments, anatomy models, electronic simulators, laparoscopic trainer manikins, simulated ICU and operation theatre besides several tutorial rooms.



It has collaborations with National & International educational organization eg PTC foundation UK, INFORM, WHO, EMAME, EmONC etc.

It is also a regional training centre of American Heart Association (AHA), is PDC is also certified by American Heart Association (AHA) to be the International Training Centre for BLS, ACLS and PALS.

### **Important Domains of Professional Development Centre Includes:**

Emergency Skills, like Life Support Skills for adults, children and females (BLS, ACLS, PALS, ALSO, EMoC), Disaster Management. Essential Burn Care and Critical Care ICU Skills.





Basic Surgical Skills, include Primary Surgical Skills for Scrubbing, Gowning, Gloving and Suturing, Advanced Surgical Skills include Laproscopic Surgery, Cadaveric Temporal Bone Dissection & Now Surgical procedures, Advanced Orthopaedics Skills.

Basic Obstetrics & Gynae Skills includes Resuscitation in Obstetric patients and other Gynaecological Skills, beside Advanced Obstetric skills.

Research Skills include those on

Medical Writing, Online Health & Medical Research Information, Medical Editing & Peer Review, besides Research Methodology and Biostatistics. PDC has also conducted two and a half year Masters in Health Professional Education (MHPE) program in collaboration with Institute of Postgraduate Studies. This is the first of its type hybrid program in Pakistan with both distance learning and contact components.

Since the inception of PDC, more than (1000) state of the art guest lectures have been conducted by renowned specialists and more than twelve hundred (1200) hands on workshops have been conducted for skills training. About five thousand (5000) doctors, paramedics, ambulance personnel and others are trained in Basic Life Support upto now.

This center is also ISO-9001-2008 certified.

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## QUALITY ENHANCEMENT CELL (QEC)

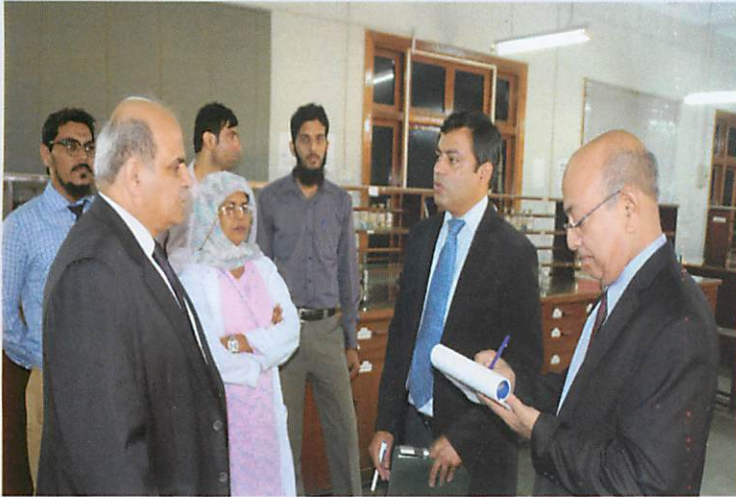
This center was established in 2005 under the directives of HEC. The prime objective of this cell is to practice evaluative measures to achieve excellence in performance in all possible areas of quality education.



**Main functions of QEC are:**

- Periodic evaluation of teaching and learning processes.
- Initiating and sustaining Self-Assessment in all institutes .
- Implementation of Quality Management System (QMS) through ISO 9001:2008 certification of DUHS.
- Collaboration with different international medical universities for the facilitation of students' abroad clinical electives.
- Academic audit to maintain quality





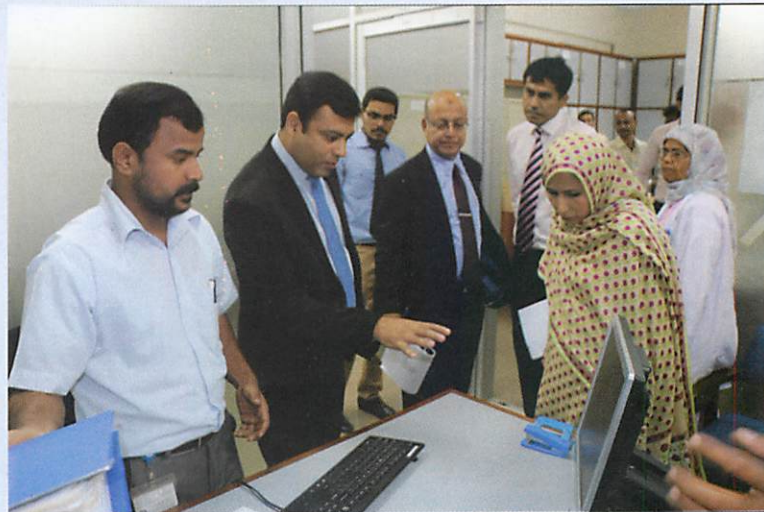
standards at the departmental level.

- Capacity building of faculty and administrative staff
- Maintain the complete database of DUHS

Besides having Self Assessment reports of every program, this department also maintains teachers portfolio in selected under graduate and postgraduate program. It documents the progress of a teacher through their teaching plan, lectures, summaries,

assessments conducted and student's progress. This practice is very effective for professional grooming of teaching faculties.

QEC-DUHS has also implemented a very structured feedback mechanism where feedback is collected from the various stake holders such as students, faculty, employees, employers, alumni etc. regarding course evaluation, teachers evaluation, their satisfaction related to administrative services, job etc. on forms prescribed by the HEC.



The academic audit focuses on teaching quality, program delivery, the achievement of learning outcomes and compliance to the set procedures.

QEC is actively engaged in developing collaboration and linkages with other universities and colleges around the globe.

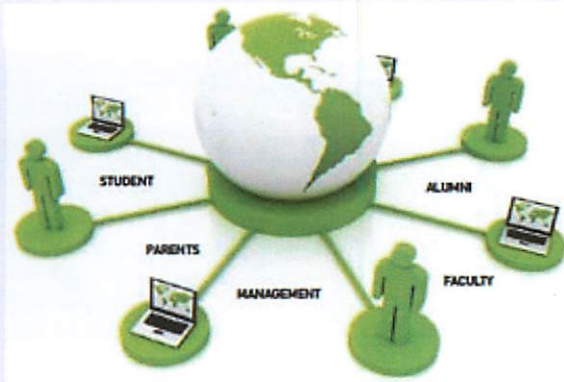
The outstanding performance of QEC is evident in the bi-annual ranking of all Pakistan QECs functioning in both public and private sector universities, conducted by Quality Assurance Agency (QAA) of HEC. QEC - DUHS has been ranked amongst the top category i.e. W category.

QEC actively coordinated for implementation of Quality Management System leading to ISO 9001:2008 certification of all major institutes & departments of Dow University.

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# CAMPUS MANAGEMENT SOLUTION (CMS)



It was established in July 2007, with the aim to provide facilities to the students, faculty and staff with immediate access to real time information, which connects it to specific action.

The CMS is logical divided into several modules, each of which relates to department or function. The Dow University worked closely with HEC to initiate CMS project.

Web based features enables the faculty, students as well as the management to interact.

Students services is enhanced by allocating user name and password whereby they can view their mark lists, attendance, syllabus, important notes and other information related to their course on the browser.

The Campus Management software is a paperless and an integrated solution which takes care of the various activities of an educational institution. The solution is available as a basic integrated application upgradeable to an Intra net / Internet system.

The CMS was also audited by auditors of Vincotte, Brussels and have ISO 9001-2008 certification.

Oracle Corporation has a customized ERP Solution Campus Management or Student Information System. a combination of software and hardware. It helps manage the business processes of a academic institute in an efficient and professional manner.

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## DR. ISHRAT-UL-EBAD KHAN INSTITUTE OF ORAL HEALTH SCIENCES (DIKIOHS)

Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences (DIKIOHS) was established in year 2006, BDS & BS (Dental Care Professionals) 4 Years (MDS & FCPS), 2 Years (MSc) Programs.

It has the entire infrastructure to conduct undergraduate and post graduate programs in Basic and Clinical oral health sciences to development of human resource.





**Undergraduate Programs**

1. (BDS): 4 years Program
2. BS(Dental Care Professionals): 4 years Program

**Postgraduates Programs**

1. Master of Dental Surgery (MDS): 4 years Program (in different specialties)
2. Master of Science (Oral Health Sciences) (MSc): 2 years Program (in different specialties)
3. Fellowship of College of physicians and surgeons (FCPS): 4 years Program (in different specialties)



- In BDS upto now 500 students have passed out and 400 students are studying.
- In Dental Care Professionals (technologists) 66 students have passed out and 80 students are studying currently.
- Regarding postgraduate courses

**Masters in Dental Surgery (MDS)** is offered in eight disciplines of basic dental sciences and four of clinical sciences, upto now **18 students have passed out and currently 127 students are studying.**

DIKIOHS has also started MSc program in dental sciences and currently 79 students are studying.

Fellowship training is also provided at this institute. Currently 10 students are completing their training and 30 students have already completed it. Its related dental hospital provides all types of dental treatment at bare minimum cost.

**This Institute is also ISO 9001-2008 certified.**

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## DOW INTERNATIONAL DENTAL COLLEGE (DIDC)

It was established in 2011. Both undergraduate & postgraduate programs are offered in BDS, MDS and MSc in dental sciences. **Currently 200 students are studying in these programs.**



This college is also fully equipped with most modern facilities including a regular library, having books, journals and videos etc besides the digital library.



Its related dental hospital also provides all types of clinical treatment facilities to the patients and upto now more than 1000 patients have been benefitted at bare minimum cost.



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## DOWN DENTAL COLLEGE (DDC)



It was established in 2012 at Dow Medical College premises. Currently 194 students are studying. The dental college and its related dental hospital is also fully equipped with most modern equipments. In the laboratories there are Simulators to teach clinical procedures.

The dental hospital of this college has upto now treated more than **25000 patients**, being located in the thickly populated area. Here also all treatment are provided at bare minimum cost.

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## DOWN INTERNATIONAL MEDICAL COLLEGE (DIMC)

It was established in 2006 at the Ojha Campus in an old block. Later on in 2009 it was shifted in the newly constructed state of art building having total covered area of more than 2,000,00 sq.ft..

This college was basically established to facilitate children of overseas Pakistanis as they face various difficulties in entering into medical profession abroad.

Initially a 100 seat Medical College, has now been increased to 150 seats by





PMDC and presently five batches, with approx 600 students are studying at DIMC. Male to female ratio of students is about 1:1. About 340 students have passed out and had first convocation held at Governor House.

It is also been recognized internationally as it has been added in INTERNATIONAL MEDICAL EDUCATION DIRECTORY (IMED). The links can be seen at DUHS website.



It has five Laboratories fully equipped with most modern equipments including Power Lab. The state of art Modern building is fully air conditioned and powerful generators provide electricity round the clock.

Students undergo integrated modular curriculum which reinforces medical knowledge alongwith depth. Lectures objectives are given with Lectures for clarity.

The students also undergo Case Base Learning (CBL) to have clarity for clinical correlation. Like students of DMC, the DIMC students also have to do group research under the guidance of a faculty member.

Separate Hostels are available for boys and girls alongwith mess facilities within the same Ojha campus and security system is also regularly being monitored. Clinical training is provided in 500 bedded Dow University. General Hospital.

**The DIMC is also ISO 9001-2008 certified**

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## LEARNING RESOURCE CENTER (LIBRARY BLOCK)

A huge two storyed building having basement, lodges the digital library as well as the reading library for students of DIMC. The digital library has 300 work stations, it is fully equipped and also has Video Conferencing facilities.

A section in the Learning Resource Centre Library Block is in the name of a living legend of urdu literature Mr. Mushtaq Ahmed Yusufi and named it as 'Gosha-e-Yusufi'. Frequently Mehfile Ghazal and Mushairas are held here.





This library block has been named as Masood Hameed Khan library by the Dow University Syndicate.



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## GYMNASIUM & SPORTS COMPLEX

It was established in 2007. The Gymnasium & Sports Complex having covered area of 14,856 sq ft and height of 36 feet.. It is a recreational facility for students. Besides a huge hall, there are two galleries and waiting area. Facilities for lockers kitchen, dining room, toilets, store, therapy room.

This gymnasium has four badminton courts and six tables for table tennis; the surface can be adapted for basketball, volleyball, throwball and netball.



The gymnasium is equipped with wall-to-wall maple wood flooring, and seat up to 1000 people. Indoor Facilities include those for, Table Tennis, Badminton, Basketball, Volleyball, Throw ball

Recently state of the art fitness center has also been established in the Gymnasium. A trainer also provides services to the students and the faculty.

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## UNDERGRADUATE COURSES

In  
2004

*Only MBBS at Dow Medical College & Sindh Medical College*

In  
2016

*Details of Undergraduate Programs at Dow University*

INSTITUTE	PROGRAM	DESCRIPTION	SPECIALITY
DMC	MBBS	Bachelor of Medicine and Bachelors of Surgery	
DIMC	MBBS	Bachelor of Medicine and Bachelors of Surgery	
DIKIOHS	BDS	Bachelor of Dental Surgery	
DIDC	BDS	Bachelor of Dental Surgery	
DDC	BDS	Bachelor of Dental Surgery	
DIKIOHS	BS-DCP	Dental Care Professional	Dental Technology Dental Hygienist
DCOP	PHARMA-D	Doctor of Pharmacy (Pharm D)	
IMT	BSMT	BS Medical Tecnology In	Clinical Laboratory Sciences
			Critical Care
			Operation Theatre
			Ophthalmology
			Cardiovascular Perfusionist
IPM&R	BSPMR	BS Physical Medicine & Rehabilitation	BS Occupational Therapy BS Prosthetics and Orthotics
	DPT	Doctor of Physiotherapy	Rehabilitation
IHM	BBA	Bachelor of Business Administration	Health Management
			Pharmaceutical
			Marketng
			Finance+HRM+IT Management
ION	BSN	BS in Nursing (4 Year )	Nursing
	PRNBS	Post Rn BSc Nursing 2 Year Program	
	BSCNFT	Diploma in Nursing (One Year Fast Track Program)	
DIR	AAS	Associate of Applied Sciences	
SPH	BS Nurtition Sciences	Bachelor in Nutritional Sciences	
IBME	Bio- Medical Engineering	Diploma of Biomedical Engineering	
DRIBBS	Bio- Technology	Dow Research Institute of Biotechnology and Biosciences	



## POST-GRADUATE COURSES

**In 2004** Only FCPS in major specialities

**In 2016** \* FCPS course is now more structured and additional specialities have been added

\* More than 50 new postgraduate courses have been started

### DETAILS OF POST-GRADUATE PROGRAMS

INSTITUTE	PROGRAMS	DESCRIPTION	SPECIALITIES
<i>PhD / MPhil PROGRAMS</i>			
	PhD	Doctrate in Bio Medical Sciences and Basic Sciences	
	MPhil	MPhil in Basic Medical Sciences	
Fellowship Training Courses (FCPS)   FCPS in all Medical & Surgical Allied Specialities			
<i>MASTERS DEGREE PROGRAMS</i>			
DIKIOHS	MDS	Masters of Dental Surgery (Basic)	<ul style="list-style-type: none"> <li>→ Oral Pathology</li> <li>→ Community Dentistry</li> <li>→ Dental Materials</li> <li>→ Oral Biology</li> </ul>
		Masters of Dental Surgery (Clinical)	<ul style="list-style-type: none"> <li>→ Oral &amp; Maxillofacial Surgery</li> <li>→ Operative Dentistry</li> <li>→ Prosthodontics</li> <li>→ Orthodontics</li> </ul>
DMC	MHPE	Masters in Health Professional Education	
	MSBE	Master of Biostatistics and Epidemiology	
IPMR	MSPT	Masters in Physiotherapy	
IHM	MBA	Masters of Business Administration	<ul style="list-style-type: none"> <li>→ Hospital Management</li> <li>→ Health Services Management</li> <li>→ Pharmaceutical Management</li> </ul>
	EMBA	Executive Masters of Business Administration	
ION	MSNUR	Masters in Nursing	
NIDE	MScDE	Master of Diabetes and Endocrinology	
DMC	MPH	Masters in Public Health	Master in Nutritional Sciences
DMC	MSTMTT	MS Transfusion Medicine & Tissue Testing	Master in Policy & Management
SPH	MSPH-HPM	Masters of Science in Public Health	
		Health Policy & Management	
	MSSBS	Masters of Science Social & Behavioral Sciences	
	MSNS	Masters of Science Nutritional Sciences	
	MPhil HEP	MPhil in Health Education & Promotion	
	MSPH	Masters of Science in Public Health	
<i>DIPLOMA /CERTIFICATE PROGRAMS</i>			
OICD	DTCD	Diploma in Tuberculosis and Chest Diseases	
DMC	DMJ	Diploma in Medical Jurisprudence	
	DCH	Diploma in Child Health	
	DCARD	Diploma in Cardiology	
	DFM	Diploma Family Medicine	
	DLO	Diploma Laryngo Otorthinology	
	DCCM	Diploma in Critical Care Medicine	
	D. DERM	Diploma Dermatology	
	DMRD	Diploma Radiology	
	DA	Diploma Anesthesia	
	DO	Diploma Ophthalmology	
OJHA	CHPE	Certificate Health Professional Education	
	ECARD	Echocardiography	
IHM	DHCM	Diploma In Health Care Mangement	
	DSCM	Diploma in Supply Chain Management	
Center of Aviation Medicine		PG Diploma in Aviation Medicine	
DIR		Basic Certificate Course in Ultrasound	
		Color Doppler Ultrasound	
		Small Parts Ultrasound	
		Non Vascular Interventional Radiology	
		Certificate course of Neuro Spinal Imaging	
		A.A.S	



# DOW COLLEGE OF PHARMACY (DCOP)



This college was established in 2007 to develop human resource in pharmacy as pharmacist are a vital part of a complete health care system and can practice in a number of health care settings, including hospitals, clinics, etc. The Pharm-D is a semester based five years program. The training also includes hands-on experience in hospitals and pharmaceutical settings.

**More than 400 students have already passed out from this college and currently about 550 students are studying** in both morning and evening shifts.

Pharmacy professionals ensure safe and effective use of drugs throughout the society whether in hospitals, clinics or community. discourage misuse. also play

vital roles in pharmaceutical industry to look after production, research and development, quality control, quality assurance, planning, warehouses, regulatory affairs, sales and marketing and many other capacities thereby leading to an improved overall performance and quality.



This college is also ISO 9001-2008 certified for its academic programs and working procedures.

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## INSTITUTE OF NURSING (ION)

This institute was established in 2006 in a purpose built 2 storey building having 36000 sqft covered area to prepare leaders in nursing and sufficient number of highly skilled and trained nursing professionals, to provide modern skilled preventive and curative health care persons besides having research capabilities.



Besides this the need was also felt to enhance standard nursing education so as to improve patient care. The focus has also been made on faculty development and promotion of research in the field of nursing.



The aim is to overcome acute shortage of skilled nurses, therefore number of courses are conducted eg:

- **BS Nursing**
- **Post RN Nursing**
- **One year Nurse Aid Program**
- **MS in Nursing**

**More than 600 nurses have passed out and currently 300 nurses are studying.**

It also has fully equipped science labs, with latest models, dummies, manikins, simulators and Digital Library with 41 computers with high speed internet facility, having access to online HEC journals.

The clinical skills are taught at Professional Development Centre. Hands on practical trainings are provided in various hospitals including Dow University Hospital & Civil Hospital.

The nursing students also provide services to the community by organizing medical camps and public awareness programs.

The Nursing students enhance their learning by organizing various workshops & seminars for nursing professionals. They also provide preceptor ships for BScN students of other institutions.

**This institute has also been ISO-9001-2008 Certified.**

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## INSTITUTE OF MEDICAL TECHNOLOGY (IMT)

This institute was established in 2005, to overcome lack of trained and qualified technical staff in Pakistan. This deficiency hampers the ability of highly qualified physicians and surgeons to provide optimum management and care. Institute offers a four years degree programs in Several specialties:

- BS in Clinical Laboratory Science Technology
- BS in Respiratory and Critical Care Technology



- BS in Surgical Technology
- BS in Clinical Ophthalmology Technology
- BS in Perfusion Science

Bachelor courses have eight semesters over four years and comprise of a core course where training is also imparted in Basic Computer Skills, English proficiency, Behavioral Sciences and Research Methodology etc.

Presently more than 400 (four hundred ) students are studying in this Institute. About 600 have already passed out and working in various public and private institutions.

This institutes is also ISO 9001-2008 certified.

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## INSTITUTE OF PHYSICAL MEDICINE & REHABILITATION (IPM&R)

This important Institute is the first of its kind in Pakistan and was established in 2007 to provide comprehensive multi-disciplinary rehabilitation services with state-of-the-art facilities to help patients.

Physical Medicine and Rehabilitation (PM&R), is a branch of medicine dealing with functional restoration of a person affected by physical disability. The goal of the physical medicine and rehabilitation treatment team is to work together with the patient and family to help persons reach their maximum potential and







become as independent as possible despite their disabilities.

Physical Medicine & Rehabilitation is a young and growing field in Pakistan. Education Facilities Provided at IPM&R, include School of Occupational Therapy, Physiotherapy and Prosthetics & Orthotics. The curriculum of BS of Occupational Therapy.

Doctor of Physiotherapy, BS Orthotics & Prosthetics, and MS Physiotherapy has been constructed with approved guidelines of Higher Education Commission, providing students with state of the art education facilities as well as optimal learning opportunities with fully functional labs, a digital library and output clinic for patients treatment.

The clinical facilities, provided by the Departments of Occupational Therapy, Physiotherapy, Cardiovascular & Pulmonary Rehabilitation, Psychology and Child Development Centre cater to different needs of patients from all walks of life, providing quality treatment

holistically focusing patients' physiological and psychological need. There is also a Centre for the specific treatment of Sensory Integration and Autistic children. A workshop is provided where all kinds of orthotics and prostheses are developed according to the patients' individual requirements, including Cardiac Rehab, Neurological Rehab., Musculoskeletal Rehab., Pediatric Rehab, Speech and Language Rehab, for an active and healthy lifestyle of the patients.



The School of Occupational Therapy offers a 4-year bachelor course in Occupational Therapy and five years course of Doctor in Physiotherapy. The IPM&R institute is also conducting MS Physiotherapy.

The School of Orthotics and Prosthetics offers a 4-years Bachelor Courses in Orthotic & Prosthetic Sciences. It is also the first of its kind in Pakistan.



This institute has produced more than hundred (100) graduates and currently about 350 students are studying.

The human resource produced from here are a great help in Pakistan as number of persons with disabilities are increasing due to multiple issues. It is estimated that Pakistan will have approximately 180 million disabled by year 2020, According to WHO 10% of total population would have some form of disabilities ranging from Trauma, Cardiac, diabetic, developmental or other medical mental health illness.

Occupational Therapist evaluates and train/retrain patients whose functional abilities have been impaired.

Patients services are also provided at IPM&R through:

- Adult Rehabilitation Unit
- Paediatric Rehabilitation Unit
- Sensory Integration unit

More than 60,000 patients have been benefited upto now, from here.

**The artificial limbs have been provided to more than 600 patients, free of cost.**

**This institute is also ISO 9001-2008 certified.**

\*\*\*\*\*

## DOW UNIVERSITY ARTIFICIAL LIMB CENTRE (DUAL)

It was established in 2007. It is well equipped with all the required machines and material so as to fabricate light weight artificial limbs at Dow University, almost free of cost to needy patients.

More than 6000 limbless people have upto now been provided limbs free of cost. Semi mechanized arms are also provided to patients so as to make them independent. This department also provide four years bachelors courses in Orthotics and Prosthesis.

Department is a center of excellence with highly qualified, professionals of Prosthetics and Orthotics. The difference between Dow University Artificial Limb Centre and other centers is that it has latest German machines. The center makes orthotic and prosthetic appliances for the patients almost free of cost.

**About forty (40) students have passed out and currently 27 students are studying.**





## DOW COLLEGE OF BIOTECHNOLOGY (DCOB)

This college was established in 2015 to meet the global challenges in Biotechnology.

It is the first university based purpose built interdisciplinary college of biotechnology of its kind in Pakistan.

The main purpose is to nurture world class biotechnologists with a potential to innovate and disseminate knowledge for the benefit of society and to develop research scholars to have solutions for industrial, agriculture and health based problem.



**Currently Seventy (70) students are studying, under the supervision of Ten (10) PhD scholars who have been trained abroad.**

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## INSTITUTE OF POSTGRADUATE STUDIES

This institute was established in 2007. Before the establishment of the University, postgraduate education was limited to training leading to FCPS at Civil Hospital, Karachi. exit examination was conducted by the College of Physician and Surgeons.

After the establishment of the Dow University of Health Sciences in December 2003, several new postgraduate programs were initiated in the basic and clinical disciplines. These included the higher research programs. During the last 10 years there has been an enormous expansion in the postgraduate education conducted by the University.

**It has three major components:**

1. Department of Postgraduate Studies which is the administrative department deals with admission, conduction of courses, monitoring, liaison with other departments of university, , scheduling of examinations and certification. It also liaises with the regulatory authorities for recognition of the programs.





2. Department of Research which supervises research process in program with thesis such as M.Phil, M.S., M.D.S and Ph.D. Programs.
3. The Institutes or Departments where academic program is being conducted such as IBMS for (M.Phil and Ph.D Program), Dr. Ishrat-ul-Ebad institute of Oral Health Sciences (M.D.S.), Clinical Departments (FCPS Programs) etc.



The University bodies such as Board of Advanced Studies and Research, Institutional (ethical) Review Board and Scientific Committee facilitates monitors both the research activity and the overall programs. Dow University conducts 35 Ph.D, Masters, Fellowship, Diploma and Certificate programs.

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## RESEARCH DEPARTMENT

This department was established in 2005 for the postgraduates and PhD program of the University to promote research in basic and clinical specialities besides supervising undergraduate students research.



The Research Department is providing its services to enhance university position in research, training and consultation areas.

At the time of establishment, the on-going research activities were at a minimal level, Besides, introducing research related graded courses, research degree programs and occasional trainings for health professionals; the department initiated several research activities in last one decade. In the year 2011, under the directives of Higher Education Commission (HEC) of Pakistan, DUHS developed Office of Research, Innovation and Commercialization (ORIC). The ORIC then, adapted policies for augmenting activities

### **Courses started by the department are:**

1. Applied Biostatistics
2. Statistical software for health sciences
3. Fundamentals of Epidemiology
4. Research Methodology

### **Department took key initiatives taken to strengthen quality of research**

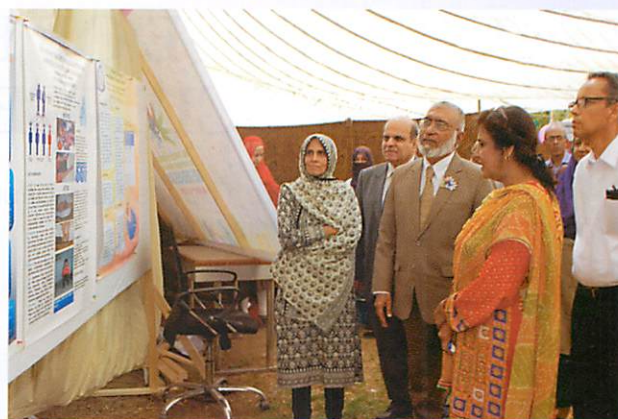
- Scientific Committee of 20 members, to look after all research plans of postgraduate students for their degree completion.
- PhD Advisory Committee: consists of 12 members.





This committee reviews the research plans also invites expert scientists

- Institutional Review Board (IRB): For the conduct of any research related activity, consideration consists of 14 members. provide valuable feedback on ongoing research activities,
- Board of Advanced Studies and Research (BASR) is a statutory body of the DUHS, look after all the policies and procedures regarding the postgraduate education at the University.
- Foreign Scholarship Program: also successfully completed Twenty scholars were selected for PhD program at overseas universities. Many of these scholars have already completed their PhDs from world renowned institutions and joined back the University and significantly contributing to the research activities and postgraduate activity at the University.
- Registration of Research Projects:
- Annual Research Day and Competition: not only from DUHS but other Universities of the province compete and present their research findings
- Journal of Dow University of Health Sciences: approved journal by PMRC and indexed in IMEMR, PakMediNet and recognized by Higher Education Commission of Pakistan and also by Pakistan Medical and Dental Council. Currently, the journal is publishing its 10th volume in the year 2016.
- Abstract Book contains the abstracts of all DUHS publications and this published annually. Seven issues of abstract book have been published till now.



The postgraduates of various specialities submit their thesis to the then Research department and it is processed as per requirement of HEC, after which the candidate can appear in the examination. Hence the research department deals with all students of MPhil, PhD, Masters, MS and and MBA, belonging to Dow University.

**The number of Postgraduates who have passed out in various specialities including diploma courses are more than 300. Currently about 2500 postgraduate students are studying in various specialities.**

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## JOURNAL OF DOW UNIVERSITY OF HEALTH SCIENCES (JDUHS)

The "Journal of Dow University of Health Sciences (JDUHS)" is approved by PMDC & HEC and is indexed in IMEMR, PakMediNet and CABI.

This research journal publishes four issue per year. The articles are also submitted online.

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# INSTITUTE OF BASIC MEDICAL SCIENCES (IBMS)

It was established in 2005. The institute offers M.Phil, M.Phil Leading to PhD and PhD Program in the following disciplines:

- **Anatomy**
- **Biochemistry**
- **Medical Biotechnology**
- **Medical Genetics**
- **Pathology:**
  - a. Chemical Pathology
  - b. Hematology
  - c. Histopathology
  - d. Microbiology
  - e. Molecular Pathology
- **Pharmacology**
- **Physiology**



It also provides an opportunity for generation of synthesis for learning, grooming of analytical minds and critical thinking to prepare graduates for life-long learning as a subject specialist.

The labs at IBMS are fully equipped with all modern equipments for all types of research experiments. The curriculum has been designed with Multidisciplinary approach.

The Institute facilitate the health & medical related research in basic, biomedical, clinical, Dental, Public Health and Allied Health Sciences. To conduct integrated programs and impart training for quality education, discipline and character building for potential postgraduates

Health & biomedical Sciences post-graduate program covers a range of interdisciplinary disciplines/units in areas of modern biomedical sciences, human biology & public health. include:

- Basic Medical Sciences
- Clinical Disciplines
- Medicine and allied, Surgery and allied, Gynae & Obstetrics, ENT, Ophthalmology, Radiology, Orthopedic etc

Dental disciplines (Oral Biology, Oral Pathology, Operative Dentistry, Periodontology & Degree Programs in the above mentioned disciplines:

1. M. Phil
2. M. Phil Leading to Ph. D
3. Ph. D (Indigenous) & Ph. D. (OPEN)

**The total number of postgraduate passed out from this institute are 52. Currently 104 students are enrolled in MPhill and 65 in PhD program.**

\*\*\*\*\*



## DOW INSTITUTE OF MEDICAL EDUCATION (DIME)

Dow Institute of Medical Education (DIME) is the first medical education institute of the country.

It will provide a focus and structure to ensure the Medical and allied health professionals produce well-groomed graduates equipped with the skills and knowledge to enable them to work within, to shape and to lead 21st century healthcare systems. The seven divisions within the institute will contribute to the delivery of exciting and challenging courses at undergraduate, postgraduate and continuous professional development levels.



As a newly emerging discipline, medical education is getting popularity day by day. In the modern era of Evidence Based Medicine (EBM), personal dogmas and deliberations are not enough to effectively deliver huge responsibility of imparting medical education. Therefore, educational theories alongwith documented research literature is needed to improve the quality of medical education.

The institute is intended to act as a nucleus for DUHS in teaching, scholarship, development and evaluation of educational programs through service provision, research and innovation.

It is established to restructure, organize and optimize the existing medical education programs being conducted regularly at Dow University

This institute aims to do a need based assessment for faculty development in Medical Education. It is also conducting short certificate courses for all the faculty members of DUHS, besides the doctoral program.

The objectives also include review and evaluation of curriculum for improvement in teaching strategies and curriculum.

DIME also aims to collaborate with Medical Education Centers of other nationally &







internationally recognized medical universities.

It will also promote a culture of educational research amongst faculty of DUHS and help them to develop research proposals for grants from funding agencies and eventually help them to publish their research in indexed journals.

This institute will also evaluate postgraduate curricula for improvement besides organizing national and international conferences on medical education.

Major functions of this Institute are:

- Development of instructional materials, study guides and online learning materials
- Provision of supporting the faculty in developing their competencies as teachers through courses and workshops
- Improvement in assessment policies in collaboration with the concerned administrative authorities of DUHS and instilling quality assurance procedures in all phases of assessment
- Development and review of the curricula in accordance with best evidence medical education
- Offering health professions education courses ranges from short certificate courses to doctoral programs
- Provision of consultancy services in the field of medical education at National and International level

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## CLINICAL TRIAL UNIT (CTU)

It was established in 2009. It has been established for Clinical Trials to support all aspects of clinical trials from concept to analysis & reporting. Ministry of Health (MoH), Pakistan has identified DUHS as one of the sites of clinical trial center in the province of Sindh.

Clinical Trials Unit is conducting clinical trials (sponsor and investigator initiated) with broad expertise in planning, execution and interpretation of research projects.





CTU provides focused comprehensive planning leading to successful trials. CTU-DUHS has a complete resource solution on a single platform with facilities from initial working till the statistical data entry, analysis and interpretation.



Its need has been felt:

- To provide Good Clinical Practice (GCP) compliant clinical trials infrastructure for investigators.
- To fulfill the link between principal investigators and industry needs.
- To strongly support training programs for clinical trial management.

It is also conducting various courses to produce research associates, much required in various organizations.

**These courses are of CRCP, SRC and IPPER, upto now 922 students have qualified in these courses.**

This department is also conducting various national and international drug trials.

## CENTRAL ANIMAL HOUSE

Do w University has established Central Animal House, to meet the requirements of researchers of MPhil & PhD and undergraduate students of Pharm-D, besides its usage for clinical trial and production of preventive vaccines e.g. anti-snake venom.



It has an area of 4000 Sq ft. Animals which are kept, include rabbits, rats, mice, guinea pigs, snakes,



monkeys Twelve horses of good breed are kept and looked after with international standards for the production of anti-snake venom.



Routine services at animal house are aimed to promote human care of animals used in research with proper maintenance & monitoring. Full time experienced doctors and other staff takes care of animals.

This department is also ISO 9001-2008 certified.



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## INSTITUTE OF HEALTH MANAGEMENT (IHM)

This institute was also established in 2007 to produce human resource for Government and Private organizations, dealing with public health.

The Institute prepares graduates for careers leading towards senior level leadership in health services management, pharmaceutical marketing & management, besides conducting research, disseminating knowledge and contributing in the betterment of health care services. Presently IHM is offering following programs in four years, two years and diploma courses.



1. BBA Health Services Management
2. BBA Pharmaceutical Management
3. BBA Hospital Management
4. BBA Marketing (with additional courses of Health Marketing)
5. BBA Finance (with additional courses of Health Finance)
6. BBA Human Resource Management
7. MBA Health Services Management
8. MBAPharmaceutical Management
9. MBA Hospital Management
10. Diploma courses in Administration Skills, Health Care



Services and Hospital Management for postgraduate business students who wish to work in relevant fields(s).

The IHM offers courses in many disciplines which help students to understand various links of diversified professions.

Executive MBA degree program is designed for those executives and the middle level managers who strive for excellence and greater challenges in their professional life. They can study on a schedule that minimizes disruptions of work and personal pursuits. It is a two year degree program.



BBA is a morning program, which deals with various program related to marketing and management related issues. Similarly the Diploma Courses are designed to give edge on pertinent aspects of business in a shorter period of training.

The students at IHM are trained in biostatistics, epidemiology, policy analysis, health promotion, and disease prevention, health economics, the organization of health & medical care systems, strategic management, organization behavior, health finance, health informatics, law and healthcare leadership and ethics etc.

Presently more than 500 students are undertaking Various Programs in IHM.

The courses are meant for graduate students which prepares them for lifelong and continuous learning, necessary for complex society.

This institute promotes a unique blend of partnership between academia, pharmaceutical industry, health care providers and administration.

**Since its establishment 126 students have passed MBA & 26 students have passed BBA. Currently 274 students are studying.**

\*\*\*\*\*

## SCHOOL OF PUBLIC HEALTH (SPH)

This institute was established in 2012 to improve the health of our population by addressing the major health issues. Public Health is an important component of health services that is often ignored in the developing world and highly emphasized in the developed world.

Public health helps improve the health and wellbeing of people in local communities. Public health work mainly focus on prevention of health problems before they occur. Public





health in Pakistan is a need of the country where areas such as issues related to social and behavioral sciences, basic nutrition, policy issues, human resource management and health communication are highly neglected in the past. Dow University established the first public sector institute of the province which deals with all public health challenges by training the human resource for Pakistan and cater to the healthcare needs.

SPH offers Morning and Evening on-campus public health programs for active health professionals in various disciplines. The SPH's academic activity involves not only the basic public health disciplines of biostatistics and epidemiology, but also includes social sciences, health policy and management, and nutritional sciences. The main programs of the SPH include Doctor of Philosophy (PhD) in Public Health Sciences, Masters of Public Health, Masters of Science in Health policy and Management, Masters in Science in Social and Behavioral Sciences, Masters of Science in Public Health Nutrition, MPhil in Health Education and Promotion, and recently started four years Bachelors of Science in Public Health Nutrition.



The institute has been successful in producing over 30 research publications concerning global and public health issues in peer review journals in last 2.5 years. In addition to this the institute has been successful in receiving HEC research grant on three large projects last year and quite a few are in review process for funding.

**During last 3 years eighteen students have qualified from this Institute and Seventy Three (73) of them are currently studying.**

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## INSTITUTE OF BIOLOGICAL BIOCHEMICAL & PHARMACEUTICALS SCIENCES (IBBPS)

This Institute is the first interdisciplinary Institute of its kind in any medical university of Pakistan.

It was established in 2009 to provide link between academia and industries and established this facility to study bioavailability/ bio-equivalent (BA/BE) of drugs in Pakistan.



Currently Pakistan is spending foreign exchange by sending the drugs outside for BA/BE through pharmaceutical companies.

These studies are mandatory for registration by international regulatory agencies and also health regulatory authorities within Pakistan for registration and checking quality of drugs.

This center of Dow University provides BA/BE services for all pharmaceutical products at a very economical cost both for in-vitro drug testing and in-vivo (BA/BE) Studies which are quality assured studies.



**IBBPS has multifunctioning areas of testing which caters:**

- Bioavailability/ Bioequivalence studies of Drugs (BA/BE)
- Pharmaceutical Equivalence of Drugs
- In-vitro testing of Drugs,
- Toxicity testing of Drugs,
- Water testing,
- Microbiological testing,
- Clinical research,
- Providing services to the students for their analytical testing.

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## DOW RESEARCH INSTITUTE OF BIOTECHNOLOGY AND BIOSCIENCES (DRIBBS)

In April 2015 state of the art multidisciplinary research institute with the name of "Dow Research Institute of Biotechnology & Biomedical Sciences (DRIBBS)" has been established by Dow University of Health Sciences (DUHS) at Ojha Campus. It is first of its kind in Pakistan having first bioprocess engineering lab, stem cell lab and level 3 biosafety laboratories to provide multidisciplinary





research facilities under one roof.

This Institute is fully equipped with high tech sophisticated equipment of emerging fields along with expertise of foreign qualified Ph.D researchers. The aim of institute is to provide high quality research, well trained M.Phil/ Ph.D scholars and produce medically as well as industrially beneficial products. The Institute focuses on human resource development in the highly deficient field of biotechnology and advancing the knowledge of emerging disease of Pakistan.



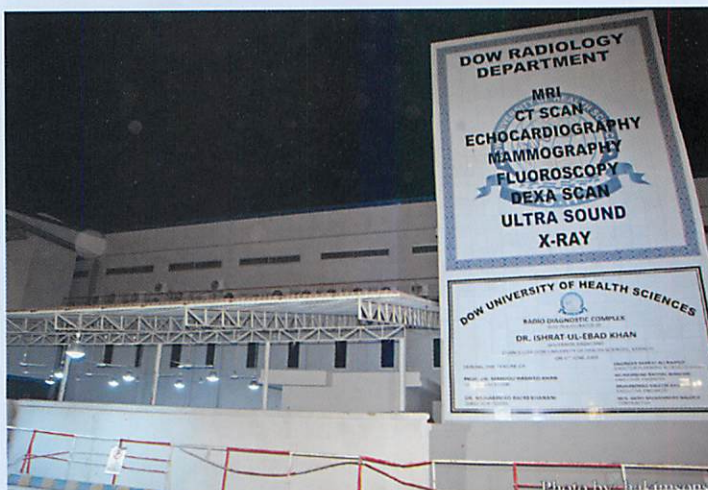
The faculty members of Dow University who were sent abroad to pursue PhD in diverse fields of biological sciences, on their return, desire to get technology transferred to local students and establish the cutting edge hub in Pakistan.

Insha-Allah the Dow Univesity will succeed in its aims through this Institute.

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## DOW INSTITUTE OF RADIOLOGY

This institute was established in June 2009. It has been advancing the field of radiology while serving the healthcare needs of patients and physicians. state-of-the-art diagnostic radiology and image-guided interventional services. Radiology services is an essential part of the health Dow institute of Radiology is designed with the mission to help patients with affordable prices.



It provides best possible education, cutting edge research and very good clinical services, through faculty, trainees and scientists, who have the opportunity to work and train in a dynamic innovation environment.

This Institute also provides fourteen (14) academic programs.

It's academic programs have a total of 120 trainees indulged in different undergraduate and postgraduate programs.

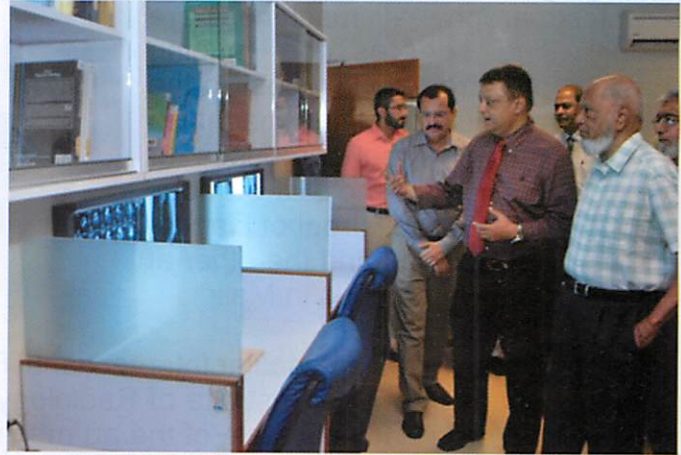
Intensive educational opportunities include: one-on-one supervision and teaching by



dedicated faculty radiologists, didactic lectures and case conferences, and extracurricular scholarly activities including research projects. The academic curriculum is structured to blend rigorous formal teaching conferences with a progressive, balanced clinical rotation.

**Post Graduate Programs:**

- FCPS
- MD in Diagnostic Radiology
- DMRD
- One year Diploma in Echocardiography
- Six months Basic certificate course in Ultrasound
- Certificate course in Doppler Ultrasound
- Certificate course in Neuro spinal Imaging
- Certificate course in Non-Vascular Interventional Radiology



**Undergraduate Programs:**

- Associate Of Applied Sciences (AAS) - 2 years Degree program in Radiologic Technology
- BS in Radiologic Technology – 4 years Degree Program
- 1 Year Diploma Program in CT & MRI Technology



**Imaging services include:**

- MRI – (03) three machine including, 1.5 Tesla and one open MRI for claustrophobic patients. Fourth MRI machine has also been purchased & will be installed soon.

- CT scanners (16 slice) 03 CT Scan machines

are already installed and recently CT-128 Slice General Electric machine has also been installed

- This new state of the art CT Scanner Optima CT660 advanced applications coupled with built-in Smart Technologies, the scanner allow having greater diagnostic confidence in every study.

- Apart from all routine procedures, this scanner performs all Angiographies especially Cardiac Angiography which help referring physicians for prompt diagnosis

- Ultrasound Colour dopler are 23 machines in total.

- X-Ray machines are Conventional,





- Fluoroscopy and Portable also.
- Mammography machines are two
  - DEXA Scan - one machine
  - Echo Cardiography . one machine
  - Elastography – machines are providing services for imaging tests at extremely low cost to the general public. The machines are kept at three campuses or locations. One is the LEJ Campus on Stadium road in front of Liaquat National Hospital and the other at Mehran town campus in Malir.



Recently it has added a Vascular Interventional Radiology (VIR) department. The vascular interventional suit of Dow Institute of Radiology is equipped with two DSA units. One of the newly installed units is state of the art machine from Siemens Company with C-Arm; performing most of the diagnostic and therapeutic procedures which include vascular as well as non-vascular interventions.

With latest VIR equipments we perform vascular as well as US and CT guided non Vascular Interventional radiology procedures. Highly Qualified Interventional Radiologists are available for expert opinion and to provide advance treatment at highly economical cost.

We have also started one year postgraduate Fellowship in vascular Interventional Radiology supervised by highly qualified faculty locally and from abroad.



This Institute also has established a Reading room. This Reading Room utilizes picture archiving and communication system (PACS) for soft-copy interpretation of radiology studies. Dow Institute of Radiology's Reading Room is provided integrated voice recognition and dictation system to reduce report Turnaround Time (TAT). Report availability is being intimated to the patients through SMS and Online Reports Download Facility is also provided to patients and referring physicians for quick results delivery.

The Museum of Radiology has been established with the hope of creating historical memory in all radiologists, backing up their professional skills.

**During last seven years, since the establishment of this Institute one lac forty three thousand (1,43,000) patients have been provided with state of art diagnostic facilities on Cost to Cost basis.**



This Institute has produced seventy eight (78) students of various courses mentioned above and currently one hundred and seventy (170) students are undertaking various courses.

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## DOW RADIOLOGY CITY CAMPUS (LEJ CAMPUS)

The Dow University established another diagnostic facility in the middle of the city, near Liaquat National hospital & Aga Khan hospital for the benefit of general public. It is named as LEJ Campus, as the place has been donated by a Philanthropist Latif Ebrahim Jamal.

**The LEJ Campus at the Dow University of Health Science has eight clinical divisions.**

1. Abdominal Imaging
2. Breast Imaging
3. Musculoskeletal Imaging
4. Neuroradiology
5. Pediatric Imaging

### List of Services (LAB)

1. Electrophoresis Services
2. Routine Biochemistry
3. Special Chemistry (Hormones Testing)
4. Microbiology (Cultures, Isolation and Sensitivity Analysis)
5. Routine Histopathology Services
6. Frozen Sections
7. Immunohistochemistry Stains



LEJ Diagnostic Services facilitates the provision of timely, cost-effective, and high quality diagnostic care in safe and secure environments. It includes the clinical services of Pathology. The Radiology and Laboratory services are provided round the clock on all days.

All academic programs students of different programs are being rotated in all modalities at LEJ Campus too.





## DOW DIAGNOSTIC RESEARCH & REFERENCE LABORATORY

It was established in Oct 2007 to provide reliable, high quality diagnostic services of International standard for routine and specialized tests at, extremely economical rates (approx at 30% as compared to private ones) for all socioeconomic segments of population.

It's the fastest growing lab of Pakistan. Monthly about 25,000 tests are performed and upto now more than six million tests have been performed. Internal quality assurance is guaranteed by daily controls. Provision of online electronic reporting & Image transfer facilities exist. More than 100 researchers have conducted various test. DDRRL proactively collaborates in Research & academics with AKU, KU, NED AIDS control, TB and Hep-C control Programs, The DDRRL has international Collaborations with Caglin University, South Carolina USA & Cardiff University UK.



of art technique i.e. conventional and automated systems of PCR machines, Fluorescence in-Situ Hybridization technique, Gel Electrophoresis and Documentation system.

The DDRRL is equipped with latest and modern, sophisticated equipment and instruments. A part from the main laboratory located at Ojha Campus, 30 collection units within Sindh have been established to date. The DDRRL has now been ISO 15189 accredited, certified with ISO

All related departments of DDRRL provide State of Art facilities. The Histopathology Department performs special and immunological stains for conclusive biopsy reporting including FISH by hybridization.

The Microbiology department provides routine and specialized diagnostic and research services.

The Molecular Pathology Department offer Qualitative and Quantitative PCR testing of Hepatitis B,C, and D viruses along with their Genotyping. This Lab facility is equipped with state





9000-2001, and recognized by the College of American Pathologist (CAP) 89764-25-01. The DDRRL operates 24 hours a day, 7 days a week.

objective is to provide high-quality care that is convenient and easily accessible to larger populations that reside in areas distant from the main campus at affordable cost and to assist Researchers by providing quality services on 10 collection points were established in Interior Sindh like Thatta, Moro, Mirpur Khas, Mithi etc.

The lab also helps student of

1. M.Phil. Program.
2. M.Phil. leading to Ph.D. Program
3. MS program.

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## TOTAL LAB AUTOMATION SYSTEM (TLA)

The Dow University has installed Total Lab Automation System (TLA) to cope up with increased burden of laboratory tests amicably with zero error and at fast pace. The TLA of Abbott diagnostic is a state of art facility which is accredited with ISO 15189.

Currently a team of 23 experts and dedicated staff takes care of the system and also participate in the internal and external quality control program, which offers wide range of tests for clinical services and research, without manual error.

The TLA has reduced the turnaround time besides providing error free results.



Photo by: hakimsons



# NATIONAL INSTITUTE OF LIVER AND GI DISEASES (NILGID)

This Institute was established in May 2004, initially on the first floor of Medical Unit V of Civil Hospital Karachi as a Sarwar Zuberi Liver Center (SZLC) in the name of a hepatologist Madam Sarwar Jahan Zuberi who died in untimely accidental death. This centre worked for about Ten years and provided services to about one lac patients.



Few years later considering the load of Liver diseases, NILGID was established at Ojha Campus of DUHS. It provides all possible diagnostic and treatment facilities under one roof.

NILGID has state of the art ENDOSCOPIC EQUIPMENT and the faculty has the expertise to perform all the GI endoscopic procedures. Approximately 30 to 40 endoscopic procedures are being done daily that includes both the diagnostic as well as therapeutic procedures; Gastros

copies, colonoscopies, polypectomies, variceal band ligation are routinely being done. In addition complex therapeutic procedures that involve fluoroscopy like ERCPs, stenting, dilatations are also increasingly being performed in the unit. The Endoscopy department provides round the clock coverage for all GI emergencies, the coverage also includes all public holidays.

NILGID has a novel facility of FIBROSCAN and Elastograph machine through which liver stiffness and fibrosis is measured noninvasively.

NILGID has dedicated team with trained staff to take care of variceal and non variceal bleeders for prompt pre and post procedure management.

Regular Journal clubs and Multidisciplinary meetings are held at NILGID comprising of





faculty from NILGID, Deptt of Surgery and Radiology to enhance the academic atmosphere at institution.

Various researches as well as randomized controlled trials are being done at NILGID.

Public Awareness programs are regularly held to increase the awareness of GI diseases amongst masses particularly viral hepatitis seminars are conducted by our faculty and masses are educated regarding signs, symptoms and care of viral hepatitis.

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## LIVER TRANSPLANT UNIT OF NILGID

Alhamdulillah, dream comes true, DUHS is the first Public sector university of Sindh to provide highly specialized Living Donor Liver Transplant Surgery successfully to six patients, by the trained team of surgeons at DUHS accompanied by team of surgeons from India.



This transplant is supported and appreciated by the honourable Governor Sindh Dr. Ishrat-UI-Ebad Khan who sponsored these patients and met the transplant team as well as the patients and their donors to boost up their moral.

Inshallah very soon the Dow University will also start Renal Transplant and bone Marrow transplant. By the Grace of Almighty Allah six (06) patienta had successfully gone through Living Donor Liver Transplant.





## ESTABLISHMENT OF NATIONAL INSTITUTE OF SOLID ORGAN AND TISSUE TRANSPLANT (NISOTT)

After the dream of Living donor Liver transplant has come true, alhamdulillah we have acquired excellence in all related ancillary departments eg departments laboratory , histopathology frozen section, Radiology, Blood transfusion, vascular and Intervention Radiology and all clinical departments eg Cardiology, Nephrology, Neurology etc.



Therefore, now soon Inshallah we are also going to start Renal Transplant and Bone Marrow transplant. The trained faculty members have already been appointed and some faculty members will also be provided further training in these particular field. This need is felt as increasing number of patients are seen having kidney and blood diseases needing transplant for safety of life.

We are also considering to offer the services of hair transplant at DUHS to people who need to have it.

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## INSTITUTE OF DIABETES & ENDOCRINOLOGY (NIDE)

This Institute was established in 2006 as it provides free consultation and counseling to patients suffering from Diabetes and other Endocrine diseases. It also has facilities for management and treatment of eye complications of diabetes through its Eye Care Center including laser treatment.

More than 25,000 patients have been registered upto now at NIDE. Public awareness programs are also regularly conducted at NIDE.





It also conducts two year diploma course for "Masters in Diabetes & Endocrinology", so as to produce Human Resource in this particular field.

Since inception sixty five (65) students have passed Masters Program and currently 21 students are studying.

**Facilities Provided are:**

- Availability of trained diabetes educator and dietician
- Chiropodist at diabetic foot clinic (Foot Care Clinic)
- Men's health clinic / Obesity Clinic / GDM Clinic.
- Computerized record keeping of all patients
- Screening for Relatives and Individuals at Risk
- 5- Basic lab facilities
- 14- Pedography
- 6-Free sampling of insulin & medicine for poor patients



This Institute is also ISO 9001-2008 Certified by Vincotte, International Brussels.

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## DOW INSTITUTE OF CARDIOLOGY (DIOC)

This is the Third Public Sector Institute of Cardiology Vascular diseases in Karachi, after NICVD and KIHD, established in Jan 2016 to provide the immediate cardiac services to the residents of Gulistan-e-Jauhar, Safoora Goth, Sachal Goth and residents of Malir Cantt. The institute will provide specialized and affordable cardiac care to patients. It will include departments of preventive cardiology, clinical cardiology, interventional cardiology, paediatric cardiology, cardiology electrophysiology, cardiac surgery, paediatric cardiac surgery, vascular surgery, thoracic surgery and anesthesiology.



Cardiology is the most important component of medicine. Vision is to lead the country with cardiovascular care, advancing clinical expertise, care models and accessible locations. We will provide an innovative, efficient, and effective delivery model. It will incorporate leading technologies and techniques to provide the highest level of care to the country, will provide leadership to the development of protocols and standards appropriate for the



care throughout the region.

This institute has also started Academic programs of MD Cardiology and diploma in echocardiography.

The outpatient facilities are provided and very soon 'Cardiac Clinic' for Cardiac emergencies will also be established.

The indoor facilities are provided for all types of cases, including medical and surgical emergencies eg. Myocardial infarction, angioplasties, coronary bypass surgery and various procedures of Vascular Interventional Radiology (VIR).

The angioplasty and coronary bypass surgeries are performed at extremely low rates.

The state of Coronary Care Unit (CCU) has trained staff to look after serious patients.

#### **Clinical Services provided by this Institute include:**

- Angiography
- Angioplasty
- Coronary Bypass Surgery
- Echo
- Stern Echo
- Tee Echo
- 24 hour Holter Monitoring
- 24 hour BP monitoring
- Cardiac ICU (CICU)
- Coronary Care Unit (CCU)
- Cardiac Clinic for Emergency patient
- Routine out patient clinic (OPD) for cardiac patients





Since the establishment of this Institute during last few months, about 300 angiographies, more than 30 angioplasties and 28 CABG have been done.

All above mentioned services are provided on Cost to Cost basis eg angiography is Rs. 14,000 / case, angioplasty Rs. 70,000/ without cost of stent.

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## DOW UNIVERSITY HOSPITAL

Dow University Hospital is a tertiary care in Dec 2009 as a teaching Hospital attached to Dow International Medical College for teaching and training MBBS & Post-graduate students. It is a 800 bedded currently 5 storied Hospital.



The hospital has fully equipped emergency room spacious general wards, semi private rooms, private rooms, four operation theaters and six labor rooms. It is also equipped with

most modern facilities for treatment of surgical and medical problems, like twelve bedded ICU and 12 bedded HDU, Nursery, Special Care Unit, and Endoscopy Units. It also have Ultrasound, Echocardiography and pharmacy besides Seminar Rooms, Cafeteria, and the administrative departments.

All types of Routine and Specialized Surgeries are carried out by highly experienced surgeons of every speciality including neurosurgery cardiac surgery & plastic surgery. The Dow hospital has departments of General Medicine, Diabetes & Endocrinology, GI & Liver diseases, Chest disease, General Surgery, Orthopedic, Urology, Ent, Eye, Paeds, Plastic Surgery Cardiology and Neurosurgery. The teaching Facilities in the hospital include faculty rooms with Computer & Internet facilities & seminar rooms with modern audio visual facilities.

The hospital is providing round the clock emergency services, subsidized food for patients and medicines at discounted rates.

The Intensive Care Unit (ICU) is also fully equipped with ventilators and other required equipments and monitors. High Dependency Unit (HDU) is meant for serious patients, not requiring ventilators.



Ten dialysis machines are providing services till late night daily, separate machines are designated for Hep B & C patients.

A LAB collection point is placed within the Dow Hospital to facilitate indoor and emergency



patients.

The Dow Hospital has also been recognized by College of Physician & Surgeon (CPSP) of Pakistan and Pakistan Medical & Dental Council (PM&DC) to train residents in various specialities for fellowship (FCPS-II) degrees.



Resident Medical officers, nurses and paramedical staff who are available round the clock with day and night shifts. All types of major & minor surgeries are being performed by expert consultant. Labour room is also functional round the clock along with intensive care unit, which is fully equipped.

**In summary Dow hospital provides following services**

- 24 hours Emergency department (now expanded to increase capacity)
- Intensive Care Unit
- High dependency unit
- Neonatal Intensive Care Unit
- Labour rooms
- Dialysis department
- Operation Theatre department for all major & minor surgeries
- Sleep lab
- Vascular Interventional Radiology (VIR), highly specialized procedure for various disease minimizing major surgeries
- Living donor Liver transplant
- Hepato pancreato biliary surgeries
- All types medical & surgical treatment to cardiac patients



All treatment packages of Surgeries and procedure are bare minimum to meet the running cost on no profit no loss basis. The needy patients are evaluated to be treated from Zakat fund.

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## OPD BLOCK OF DOW UNIVERSITY HOSPITAL

The out door patient block was established in Dec 2009 to provide health care services to the adjacent community.

Dow University Hospital has all possible specialities for patients. The morning OPD from 08:30 am to 02:00 pm has Rs. 200/- consultant charges, per patient. The executive clinic is managed from 02:00 pm onward. Highly qualified faculty & doctors are available in the OPD.



- It has computerized Registration & tracking system for Patients.
- Consultants of all specialties are available.
- Highly economical packages are offered for operation & various procedures e.g. endoscopies, surgeries and normal deliveries.
- OPD is Fully equipped for diagnostic procedures, minor surgical procedures, Dental treatment & Physiotherapy.
- Daily attendance of patients is about 1000. Considering the increased number of patients a new huge OPD block has been designed by the Architect which will cater expected daily 5000 patient in near future as Dow medical city has thickly populated areas around Ojha campus.
- In short, following services are provided to out door patients.
- specialized medical consultation to the patients
- Endoscopy, Colono scopy, ERCP, VIR etc
- Offer preventive health care like vaccination, polio dose, etc.
- To prepare records of patients for future reference and
- Minor OT / Treatment Area
- Physiotherapy
- Laboratory services
- ECG services
- Pharmacy
- Ultrasound / Fibroscan / Elastography
- EEG / EMG
- Vaccination
- Audiology Lab
- Foot Club

**Total number of patients treated up till now are approx. 55, 5000**



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## SLEEP LAB (POLY SOMNOGRAPHY)

Dow University is the first public sector sleep laboratory of Pakistan in Dec 2011. The procedure is known as Polysomnography.

Polysomnography is done by a special machine with electrodes fitted on head & chest, which record the sleep cycle and display it graphically on the monitor, which is noted by experts of this field and after overnight sleep with all protocols. The reports are finalized with treatment options.



Obstructive sleep apnea is a potentially serious sleep disorder in which breathing repeatedly stops and starts during sleep. Sleep disorders adversely affect the quality of life, cardiovascular health, mental health, daytime energy and alertness, and increases the risk of depression, heart attacks, strokes, high blood pressure and motor vehicle or work-related accidents.

Here specialized and experienced team provide the highest quality of care for evaluation and treatment of patients with sleep disorders.

Sleep lab is fully equipped with state-of-the-art diagnostic instruments to monitor sleep patterns, breathing, brainwaves, heart activity, and eye and muscle movements.

Facility provide reliable, high quality diagnosis and management of sleep disorders of international standard to the people at extremely economical rates as compare to private sector.

Recently it has been uplifted from a diagnostic center to an institute Prof. Malik Ali Sheikh School of Sleep Medicine where Medical Technologists will be provided proper education and training.

**Clinical Services Provided include:**

1. Polysomnography
2. Pulmonary Function Test
3. Six minute walk test

**Uptil now more than four hundred (400) patients have been benefitted from Sleep Lab**

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## OPERATION THEATRE COMPLEX

Dow University established a huge Operation purpose built Theatre Complex of international standards having 80,000 sq ft area which is fully equipped with most modern equipments.



It has nine (09) operation theatre. Two are designated for Liver Transplant and hepato pancreato biliary surgeries and the required special instrument and gadgets are installed there. One theatre is designated for Cardiac Surgeries hence the required instruments are provided.



Another Theatre is designated for Orthopaedic Surgery alongwith the required instrument and gadgets.

Remaining five Theatre are also fully equipped with most modern equipments to have operations of General Surgery, Urology, ENT,

Plastic Surgery, Neuro Surgery and Thoracic Surgery, Bariatric Surgery etc.

This complex also have fully equipped recovery room. The operation floor has a unique channelizing operating in automation to collect the dirty liner with safety, which is then washed, sterilized and stored hygienically preventing infection.

The OT complex has state of art equipments including ventilators, invasive haemodynamic monitoring system and hemodialysis.

Since various specialities also provide Postgraduate training, camera recording and CCTV system is also installed for telecasting live operative procedures.

This new OT complex has lot of facilities for the doctors, staff and students, including rest rooms, canteens and separate lockers besides other facilities.

## HUNDRED (100) BEDED ICU

The mega city of Karachi needs Intensive Care facilities at a very large scale as only few private hospitals have limited ventilators facilities for huge population. Serious patients due to diseases or accidents need transient life support on ventilators of ICU.

Dow University established 100 beded ICU to cater the needs of such patients. This state of the art huge unique facility is probably one of the largest in the region.





It is fully equipped with most updated and modern equipment, looked after by the trained staff.

This ICU has different segments Medical ICU, Surgical ICU, Special ICU for Liver transplant patients etc.

The charges are kept bare minimum on cost to cost basis i.e. only Rs.5,000/day against huge charges of about Rs.70,000/day charged in other private hospitals.



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## BARIATRIC SURGERY CENTER

Obesity and overweight is a huge problem of present era not only in Pakistan but world over. This is because of sedentary life style. Most of the chronic illnesses e.g. Diabetes, high blood pressure, Cardiac problems and stroke etc. are directly related to obesity. More than 50% of obese people are unable to reduce weight by diet and exercise despite efforts.



Bariatric surgery is a process in which bigger and loose part of stomach is stapled with specialized ways leaving out less space, enough to fulfill the food requirement of the individual. The specialized process is very expensive in Private hospitals. The charges at Dow University are mostly of the costly staples used in the procedure, so this service is also provided on cost to cost basis. Bariatric Surgery is the best current treatment for morbid obesity and long term sustained weight loss.

Patient of Bariatric Surgery



The multidisciplinary team of Bariatric Surgery, Physician, Cardiologist and anaesthetise help those obese patients who are having adverse effects on health eg heart disease, diabetes, joint pains, sleep disturbances and Psychiatric illness etc leading to social out cost.

This is a minimally invasive surgical technique (laproscopic), safest, least invasive method and the patient is up and about on first post operative day. Total number of patients treated with this technique uptil now are 84, who have acquired normal weight and normal life style after bariatric surgery.

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## FOOT DEFORMITY CENTER (PONSETI CLUB FOOT)

Large number of congenital abnormalities are seen globally. Club foot is a congenital disorder of foot in which the feet are in abnormal position. Majority of club feet can be treated in infancy in about six to eight week with proper gentle manipulations and plaster casts.



This technique is a conservative mode of treatment in which serial casting is done on weekly

basis. Usually 6-7 plasters are applied, after achieving abduction of 70 degrees, tenotomy of Achilles tendon is done under local anesthesia. After tenotomy, cast is applied for 3 weeks. After removal of cast foot abduction orthosis (brace) is given to the children to be worn 23 hours a day for three months followed by during night and in nap (during day time). All of these services are provided free of cost in the OPD of Dow University hospital.

All over the world after every third minute a child with club foot is born. Initially all the clubfoot was treated surgically, resulting in poor scarring, fibrosis and recurrence. Since the advent of Ponseti technique, surgical treatment has now been abandoned and all the club foot are treated by Ponseti technique. Dow university club clinic has made this treatment feasible for everyone, since the establishment of this clinic in April 2014.

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## DR. ISHRATUL EBAD KHAN INSTITUTE OF BLOOD DISEASES

Dr. Ishrat-UI-Ebad Khan Institute of Blood Diseases (DIEKBID) is a center of excellence in Haematology & related Health Care Management, Research and Diagnostics, established by DUHS in 2012.

This Institute has under graduate, Postgraduate Teaching, Training & Research programs like:

- PhD. Haematology indigenous Program,





- MPhil. leading to PhD Haematology
- MS. Transfusion Medicine & Tissue Typing
- Master of Dental Surgery (Oral Pathology)
- BS Clinical pathology

This institute also provides postgraduate training like the M.Phil (haematology) program leading to PhD, MS program in transfusion medicine & tissue typing.

### Objectives of DIEKIBD

- To provide diagnostics and therapeutic services related to haematology and transfusion medicine for patients with haematological and non haematological disorders.
- To conduct public awareness and screening programs for thalassemia and haemophilia.
- To provide bone marrow transplant and tissue typing services along with stem cell storage and cord blood banking facilities.
- To support liver transplantation & Jinnah genome projects of DUHS.
- To assist in research and development activities within as well as outside university.
- To provide teaching and training at all levels.

### Need for Establishment:

Hematological disorders are seen in every social strata of our country, which are treated at both private and public sector healthcare institutes. Patients of lower socioeconomic status, usually do not have access to the private sector, also they usually present with advanced diseases due to general lack of awareness regarding healthcare. Therefore, there is a need to equip public sector hospitals with state of the art facilities at an affordable price to cater for the general population.

The “Dr Ishratul Ebad Khan Institute of Blood Diseases” aims to provide such services in hematology, transfusion medicine, research and diagnostics. Inshallah it will also be the first bone marrow transplant and tissue typing center in public sector.

This Institute also conducts academic program, of Mphil Leading to PhD. Several students have passed out. Currently fourth batch is about to submit their thesis.

Quality Controlled Screened Blood products like Packed Red Cells, FFP. Platelets & other blood components on “NO PROFIT NO LOSS BASIS” are provided to the public



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## DOW VOCATIONAL TRAINING CENTRE (DVTC)

The Dow University established this center in 2008, as a social responsibility. The main purpose of this program is to uplift the economic status of low income group by providing short term computer, technical and vocational training to youngsters who are not highly qualified. These courses will enable students to get good jobs in different places and offices.



The computer program offered include, MS Office, SPSS, Hardware, Graphics, Animation, Web designing & Computerized Accounting etc. The training for girls include, those for Dress Making, Machine Embroidery, Hand Embroidery, Stitching, Cutting, Sewing & Candle Making.

This training centre also imparts free training of candle making, traditional cap making, block printing of cloth, personal grooming, stitching & embroidery to fortunate women suffering from MDR TB, so as to help them out financially during treatment, simultaneously engaging them Psychologically also, for a respectable livelihood for themselves as well as for their families.

This center is registered / affiliated with Sindh board of Technical Education Karachi.

**During last eight years 2234 students have acquired training from this institute and earning their livelihood at various places. Currently 100 students are undertaking various courses to acquire skills.**

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## OJHA INSTITUTE OF CHEST DISEASES (OICD)

This institute was initially a TB Sanatorium since 1942, when a Philanthropist Deep Chand Ojha donated 150 acres of Land with few huts to keep TB patients for fresh air as no medical treatment was available at that time. Later on a hospital was also established where diploma for chest diseases was offered.







In 2004 this place was given to Dow University with 130 acres of land.

It is recognized as a center of excellence for Tuberculosis by W.H.O.

Tuberculosis is a global problem and for its eradication international agencies are working. They have started "Stop TB Partnership Program" in various countries where they collaborate scientifically and to some extent financially. National TB program of Pakistan is also linked with it.

Since past few years, Founding Vice Chancellor, Prof. Masood Hameed Khan have been nominated as chairman of Stop TB Partnership program. Having this new responsibility alongwith the main as Vice Chancellor DUHS, made several plans which are being executed in phases.

The OICD hospital has been completely renovated, New department of Thoracic surgery has been established alongwith an fully equipped intensive care unit.

The old Iqbal yard Chest clinic has also been completely renovated to fulfill the need of tuberculosis and other chest related facilities for the patients.

There are other outpatient clinics of OICD in the periphery of the city, namely Nazimabad, Lyari and Malir, where TB patients are provided medicine and health education.

**Daily more than 600 patients visit these TB clinics for free treatment, DOTS (directly observed treatment given to patients) and follow up. Daily about 600 patients visit these TB clinics for DOTS treatment and follow up.**

TB HOSPITAL of 250 beds provide all possible facilities to indoor and outdoor patients for diagnosis and treatment of tuberculosis.

MULTI DRUG RESISTANT (MDR) TB is a great problem. In Pakistan about 15,000-20,000 tuberculosis patients presently suffering from Multi-Drug Resistant (MDR TB),





each patient requires approx Rs.500,000/- for management including costly medicines and other logistics but at OICD their all treatment is free.

Vocational training program have specially been designed and introduced to engage regular TB patients, while undergoing treatment for atleast 9 months, so as to engage them mentally and simultaneously help them to earn daily living.

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## DOW UNIVERSITY establishes INDUSTRIAL LINKAGE with MACTER INTERNATIONAL for ANTI-SNAKE VENOM PRODUCTION

The Dow University has been taking several social responsibilities on its own, as a part of DUHS Civic Engagements Dow University has developed an industrial linkage with Macter International for commercial production of Anti Snake Venom on large scale, as a service to the nation. Within the reach of common man in Pakistan at low cost.

Every year thousands of snake bite patients die due to non availability of Anti Snake Venom. In Pakistan up till now only National Institute of Health (NIH) laboratory, Islamabad is producing anti snake venom, which is insufficient as it only meets 10-15% of the Pakistan's requirement. Pakistan has been importing expensive Anti snake venom from Saudi Arabia and India, spending lot of foreign exchange. Do not have antidote against all species, DUHS is working towards the local Anti-Snake Venom.



Macter International (PVT Ltd), a well known Pharmaceutical Industry which has agreed to collaborate with DUHS for commercial production of Anti Snake Venom and any other vaccine or pharmaceutical preparation on large scale, as a service to the nation.

The Serobiology Center for Vaccine production at Dow University is under construction at a fast pace, for which an agreement was signed by a Chinese company, almost fifty percent of work has been completed.

\*\*\*\*\*



## DOW INSTITUTE OF LIFE SCIENCES

The Dow University has established Dow Institute of Life Sciences with the main aims and objectives of providing sero biological products at a low cost which is safe and easily available to the people. Major objectives of this project include:

- To have state of art Sero biology laboratory for Anti Snake venom research and allied fields through the development of infrastructure, appropriate incentives, and regulatory framework for research.
- To produce low cost, safe, and easily available sero biological products for the general public.
- To develop high quality infrastructure with the required support services for manufacturing units by setting up specialized sero biology incubators.
- To evaluate efficacy of local and imported sero biological products.
- To have congenial atmosphere for research & development and various field surveillances.
- To collaborate with international research institutes in related areas of Mutual-interest.

Enhancing the existing knowledge about sero biology, blood fractionation, Vaccinology, immunology.& Introduction of sero biology sciences in medical educational curricula at various stages.

Dow sero biology production of sera for research & development provision for international Researchers, Scientist, post graduate and graduate students. We also have great opportunities to establish a bridge between foreign universities and DUHS.

Currently there are Thirty five hyper immunized horses against Russel viper, Sangchore, Cobras, and saw scale viper and their sera has been collected for anti snake venom vials to be filled with required procedure.

\*\*\*\*\*

## COCHLEAR IMPLANT CENTRE

Hearing impairment is one of the major issue 15 % of the population is suffering from hearing impairment. If it is not detected & rehabilitated early, it can lead to Deaf mutes, meaning lifetime incapacitation.

In vast majority of these cases conventional rehab measures with the use of hearing aids and or speech therapy are not much beneficial. Cochlear implant is relatively newer







technique that caters the need of majority of these cases if they meet the criteria of cochlear implant candidacy. The major concern is the cost of implant, pre-implant assessment and post implant rehabilitation.

The cost incurred by private sector in Pakistan is very high (25000 US \$) for a single patient, Dow University of Health Sciences launched its Cochlear Implant program for cochlear implant to needy & suitable candidates in collaboration, estimated cost of implant and other expenses are approx 15000 USD, upto now forty (40) children have been implanted cochlear implant free of cost. Upto now forty (40) children have been implanted cochlear implant free of cost.

\*\*\*\*\*

## NEW MOSQUE CONSTRUCTED AT DOW UNIVERSITY

A New Mosque by the name of Masjid-e-Aisha Siddiqa Razihallahtala Aanho has been established at Ojha Campus of Dow University of Health Sciences (DUHS). The Foundation Stone was Laid In 2010 and Completed In 2014.

It's a very spacious mosque and has ground plus three floors. It can accommodate 2000 people at a time to offer their prayers as the open



space has 11560 sq ft. The Mosque has a high Minaret inscribed with 99 names of Almighty Allah. First floor is reserved for women and have separate stairs.

The mosque has separate places for toilet and Wadoo for males & females. The mosque has been beautifully designed, constructed and decorated.



# DOW RIVA DRINKING WATER

Dow University of Health Sciences has established State of Art Reverse Osmosis Double Pass Premium drinking water Plant for the benefit of public visiting Dow hospital and allied services of DUHS, not only this it will benefit to all who wants to have premium drinking water . The commercial name of drinking water is 'Dow Riva'.

'Riva drinking water' is purified through Eleven (11) steps of Hydration, starting from chlorination and ending with UV sterilization after double RO and Ozonation etc.



Dow 's Riva Premium Drinking Water Plant is situated at Ojha Campus of DUHS. This manufacturing facilities is of international standards and can prepare premium quality drinking water up to one thousand gallon per day, the water is filled/ sealed in a 19liter bottles (FD approved poly carbonate) which are mounted on ceramic and electric dispensers.

Dow Riva water is medically tested, purest & safest, ensuring quality for Processing Packaging Distribution to Customer Satisfaction and is truly in line with established international standards.

Using vital and state of art technology of reverse osmosis (R.O) desalination. R.O, is a semipermeable membrane separation process. It remove most organic compounds upto 99.9+% ,viruses, bacteria and pyroxene. After passing R.O selective food graded minerals added such as calcium, magnesium, chloride, sulphate, bicarbonates, potassium etc. Finally water is disinfected through ozonation and ultraviolet system. Disinfection of water using ozone and UV is a proven technology.

The University has a world class GMP compliant manufacturing facility having State of Art machinery which ensure that our water produced is of the highest quality standard and also approved by PSQCA Standards.



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## DOW DAY CARE CENTER

It is a known fact that female doctors face great difficulty after getting married, as they have to cope up with their children, alongwith professional duties.

Therefore, Dow University established a Day Care Centre in February 2014 at its Ojha Campus to facilitate female doctors and employees, where they can keep their children at bare minimum charges during their duty hours.



This centre has been provided with all required facilities of a proper day care centre having a play area with toys & gadgets besides separate sleeping rooms. The bigger children are also provided with Montessori teaching facilities.

**Currently there are forty (40) children who stay at day care center**, either full day a half day as per need. About Ten staff member look after these children working under a supervision and an assistant.

This center has a CCTV system, monitored by a senior female faculty member of the university for its proper functioning and taking action in case of breeches.

This center also has a proper security system, ensuring safety of children.

\*\*\*\*\*

## DOW UNIVERSITY CONSTRUCTED NEW APARTMENT FOR DUHS EMPLOYEES

The Ojha Institute of Chest Diseases (OICD) was established in 1942 mainly for Patients of Tuberculosis to be admitted and treated. Separate residential Colony for its





employees was also established for its lower staff, which was fifty (50) years old and in dilapidated condition, despite

frequent repair, causing severe hardships to the employees, working day & night at TB hospital. Hence construction of new flats were planned for which funds were approved and sanctioned by the Sindh Government.

The construction was completed in the shortest possible time.

The allotments of apartments to the Residents of old ruined houses were made by the Honourable Governor Sindh and Chancellor DUHS Dr. Ishrat-UI-Ebad Khan.

Each flat has two bed rooms with attached bathroom, dinning, drawing room, modern Kitchen. There are six (06) blocks and each block has Ten (10) apartments each apartment covered area is 760.00 sqft.



## EXECUTIVE CHECK-UP CLINIC CENTER

Considering the growing health problems in the thickly populated mega city of Karachi, the Dow University has now planned to establish a centre where people of every strata, elit

to middle class, can have regular check ups for detection of diseases and problems at any early curable stage eg early detection of cancer in females and males.

In our population there is no concept of regular check up for screening of cancer like diseases, hence patients usually show up in late untreatable stage.

This clinic located in the heart of city adjacent to Liaquat National hospital, near Aga Khan hospital on Stadium road for the convenience of general public.



### DOW UNIVERSITY OF HEALTH SCIENCES

## DOW EXECUTIVE CHECKUP

<b>PACKAGE A</b>	<b>(Comprehensive Health Checkup)</b>	<b>Rs. 11,000/-</b>
Provides comprehensive Health Screening including Laboratory Tests, Chest X-Ray, Whole Abdomen Ultrasound, ECG & Consultation		
<b>PACKAGE B</b>	<b>(Basic Health Checkup)</b>	<b>Rs. 6,500/-</b>
Provides Basic Health Screening including Laboratory Tests, Chest X-Ray, Whole Abdomen Ultrasound, ECG & Consultation		
<b>PACKAGE C</b>	<b>(Screening for Chronic Diseases)</b>	<b>Rs. 9,500/-</b>
Is designed for Male which provides specific Laboratory Tests including Prostate Test, Chest X-Ray, Whole Abdomen, Ultrasound, ECG and Consultation		
<b>PACKAGE D</b>	<b>(Female Health Screening)</b>	<b>Rs. 7,500/-</b>
Is designed for "Females" which provides specific Tests for Female including Chest X-Ray, Pelvic Ultrasound, Mammography, Bone Density and ECG		

Dow University of Health Sciences, Ojha Campus, Radiology Department, Ground Floor | Contact Number 021-99232660, 38771111 Ext 2298



## NEW MODERN CAFETERIA

The Dow Health and Research City having great number of undergraduate & postgraduate students, besides faculty, staff and visitors much needed a good air conditional restaurant Cafeteria in good hygienic atmosphere with comfortable seating space and other facilities.

Hence a cafeteria has been established in March 2015 having international standard. The food and snacks provided are fresh and tasty.

The huge indoor and outdoor area provides opportunity to have good relax time after hard studies and work.



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## INSTALLATION OF DIESEL GENERATORS

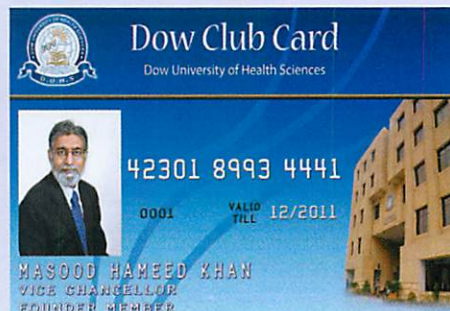
Installation of Generators at all Dow University campuses, has relieved students, faculty & staff from the burden of load shedding. The heavy generators assure continuous supply of electricity in case of any breach in KESC supply. Each campus has at least two high powered 500 KVA Diesel generators, providing electricity round the clock. This has enhanced the work output of the students and the staff.





## DOW CLUB CARD

Dow Club Card introduction provides maximum possible facilities to the students, faculty members and alumni of DUHS. Variable discounted can be availed at various places, including restruents, hotels and number of outlets. This facility is provided at yearly meager charge of Rs.500/- and Rs.1000/- for students and faculty members respectively.



\*\*\*\*\*

## HEALTH INSURANCE POLICY

Health Insurance facility has been provided by DUHS for its employee and their families. The insurance card allows them to avail indoor and outdoor facilities as per range of their specific grades. This facility can be availed in any private hospital of Karachi.

\*\*\*\*\*

## MEDICAL HEALTH AND RESEARCH CITY

The 130 acres of Ojha campus land has been converted into a Medical Health and Research City after development of its master plan and numerous projects have been executed as mentioned above.

About 90% of the master plan has already been completed and the remaining projects are being designed to be executed as per planning and financial assistance with the vision and mission to be an Education hub of this region, having all research facilities and opportunities alongwith provision of healthcare facilities.



Simultaneously its provide health care services to the community.

Most of the above mentioned department and institutes are part of the Medical Health and Research City. InshAllah all future expansions will also be undertaken here.

By the grace of God, the Dow University has emerged as the fastest growing institution of higher education in south Asia and now its has also been declared eligible to have ISO 9001-2008 certification.

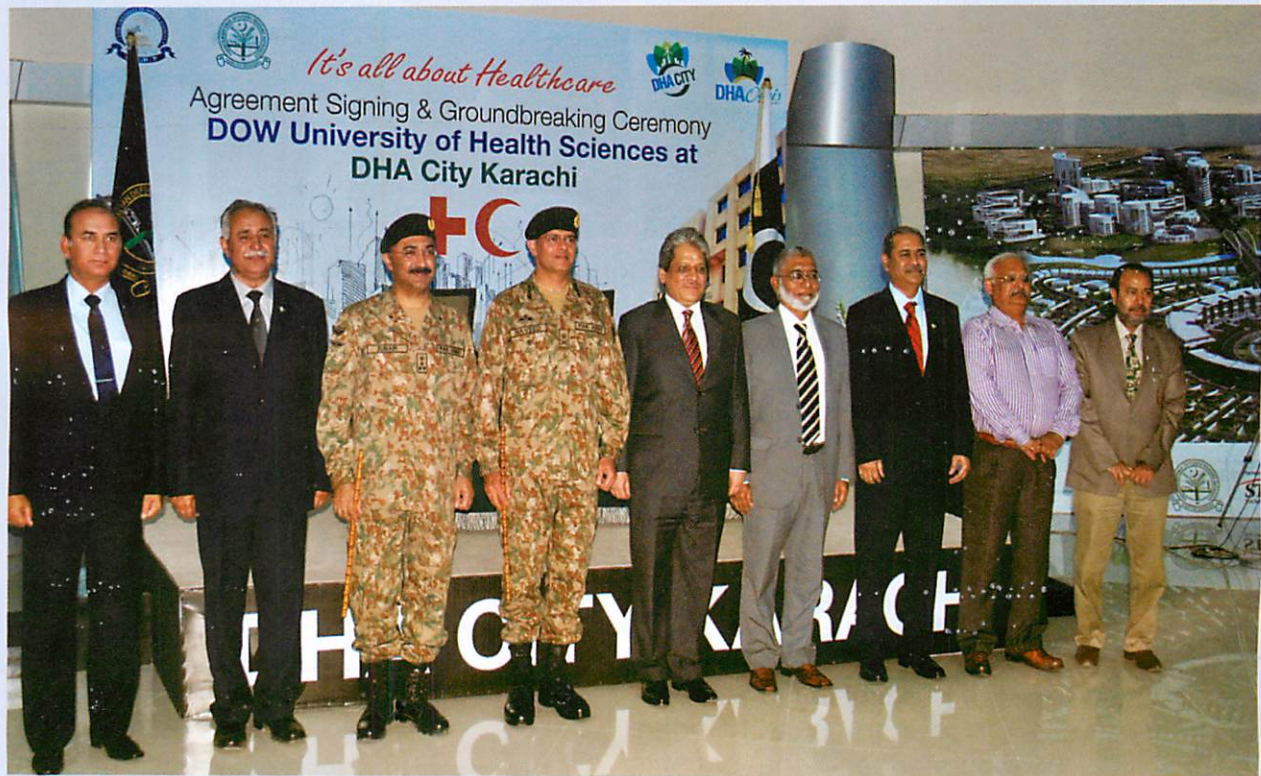
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# NEW CAMPUS OF DOW UNIVERSITY ESTABLISHED AT DHA CITY, KARACHI

The present Medical Health & Research City of DUHS at Ojha Campus, is providing high quality diagnostic and treatment facilities to the general public besides successfully conducting various academic programs.

The Defence Housing Society of Pakistan has acquired a huge land on Super Highway, named as 'DHA City' which is a mega residential project having all possible state of art facilities. The DHA offered a land in DHA city on very economical rates to Dow University so as to establish a set up similar to one at Ojha Campus.



A memorandum of understanding (MoU) was signed in this regard between DHA and DUHS in the presence of Honourable Governor Sindh Dr. Ishrat-UI-Ebad Khan, one year back.

The DUHS Medical Complex will be developed in three phases. In the first phase Medical Centre by 2014-15 will provide OPD facilities with modern diagnostic machines and



treatment facilities by trained specialists. In the second phase 500 bedded hospital tertiary care hospital will be established, having state of the art operation theatres and other modern medical facilities by 2018. In the third phase, a medical college will be established with all required facilities for the medical.

Few month back in April 2016, ground breaking ceremony was held in DHA City by the Honorable Governor Sindh, Dr. Ishrat-Ul-Ebad Khan in the presence of Core Commander-5, Karachi, Mr. Naveed Mukhtar, administer DHA and other high officials of DHA besides the senior faculty members of Dow University and other dignitaries.

The work at DHA city has already been started at a fast pace & OPD services are provided very soon. Additional diagnostic and treatment facilities will also be provided to the public of adjacent areas.

\*\*\*\*\*

## SATELITE CLINIC IN MEHRAN TOWN



The community health care services in the forum clinics by family practioners, Dow lab collection point and some imaging facilities eg x-ray & ultra sound, ECG etc are provided in a four hundred sq yds house at Mehran Town, near Malir.

The complicated cases are referred to tertiary care hospital at DUHS Ojha Campus.

\*\*\*\*\*

## SATELLITE DOW CLINIC IN NAZIMABAD

The Northern area of Karachi in Nazimabad, North Nazimabad, New Karachi and Surjani etc are thickly populated and the patients have to travel long distance to avail diagnostic and treatment facilities.

Therefore, Dow University has been established as a Satellite Clinic in the already Nazimabad Chest Clinic of DUHS where an MRI, CT Scan and Ultrasound Machines





besides a Dental Chair will soon be provided alongwith laboratory facilities where physicians and dental surgeons will provide treatment facilities after required diagnostic measures.

\*\*\*\*\*

## FREE SHUTTLE SERVICES AT OJHA CAMPUS



Since the establishment of Dow Health and Research City Ojha Campus on 130 acres of land, the staff and patients have to walk long distance for their work place or place of clinical services. Therefore free shuttle service operating from the main gate of Ojha to different areas of the campus have been provided free of cost by Dow University.

\*\*\*\*\*

## DEVELOPMENT OF LAWN AT DMC CAMPUS

A huge lawn has been developed in front of Arag auditorium. An area of 10,500 Sq ft was digged down 3 feet to convert it into a grassy one. This is to improve the environment

This green area has not only made a soothing impact on the environment of this old campus but has also provided a venue for various Extra Curricular Activities and dinner parties for the students, faculty and Alumni of Dow University.



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## BANK FACILITY PROVIDED AT CAMPUS



The Dow University has large number of students and faculty members who need bank facilities for payment fees or drawing salaries etc. Besides time consuming factor the security issues put them at risk which going to and coming from bank. Therefore facility for booth of UBL bank and ATM within the campus has been provided to facilitate them.

\*\*\*\*\*

## TRAUMA CENTER SOON TO BE COMPLETED

The Ojha campus of Dow University is gradually becoming the centre surrounded by thickly

populated locality comprising of high rise buildings. It is also very near to Super highway. All these factors have increased road traffic accidents needing prompt, modern and safe treatment to save precious lives.

State of art Trauma Center is being constructed at Ojha Campus to meet such emergency situation. Currently the construction is in process as planned and hopefully Inshallah it will be completed as per plans.





## NEW OPD BLOCK FOR DIABETES PATIENTS SOON TO BE COMPLETED

Diabetes is growing problem of Pakistan, affecting not only adults but even children now a days. The current building which hosts Institute of Diabetes is gradually becoming deficient to accommodate rapidly growing number of diabetic patients.



We are extremely thankful Sardar yasin Malik Saheb who is helping Dow University financially to construct a new OPD block, to accommodate large number of patients. This block will also have additional modern facilities for the diagnosis and treatment of Diabetes, its complications and other related chronic diseases.

\*\*\*\*\*

## OFFICE OF RESEARCH INNOVATION & COMMERCIALIZATION (ORIC)

As per directives of Higher Education Commission (HEC) Office of Research, Innovation and Commercialization (ORIC) has been established at Dow University which monitors all research activities, and establish policies and procedures. Direct and immediate supervision of all research activities of students and faculty members are monitored by Research Review committee of Institute of Health Management (IHM) of Dow Univeristy Research conducted at IHM is both exploratory and applied in nature. However, applied research is highly encouraged, focusing on specific problems of the corporate sector, mostly in the domain of healthcare management.



Installation of Dow Riva drinking water plant is a part of this ORIC department of Dow Univeristy.

Many other programs under ORIC are in the pipeline for Dow University.

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## GAS POWER PLANT INSTALLATION

Dow Health & Research City of Ojha Campus has more than ninety percent 90% of all the new establishment of Dow University

including the Dow University hospital and other service providing areas where continuous supply of electricity in a major requirement.

Gas Generation Power Plant (01 MW) established Nov 2015 at Dow University Ojha Campus to generate Electricity projects Like (OT Complex, Trauma Center, Dow University Hospital, TLA & Other Sensitive Labs) at very cheap cost of per unit and UN-interpreted supply 24 hrs. This Plant fulfill the 50% requirements of Campus in day time (Peak Hours) and 95% in Night (Off Hours)/Gazetted/Holidays. After this installation we have double, triple protection of our system.

01. Gas Supply (Power House)
02. K Electric Supply
03. Diesel Generators Supply



Installation of this plant has enhanced the quality of Patient Care at Dow University.

\*\*\*\*\*

## ISOLATION UNIT ESTABLISHED AT OJHA FOR INFECTIOUS & CONTAGIOUS DISEASES

Some infectious diseases are a problem not only for the patient but also for their family members or those health care people around them. Therefore it is extremely important to Isolate such patients and the health care personals are provided with protective material to take care of themselves, while treating them.





The Isolation unit has been established in a relatively deserted place at Ojha in one of the old TB huts having required facilities, so as to minimize patients exposure to others, while being treated for the contagious disease.

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## DEVELOPMENT OF CRICKET GROUND AT OJHA CMAPUS

Sports are essential components of education, specially professional students need physical activity to reduce stress. A grassy cricket & football ground has been established at Ojha Campus. This will soon have a jogging track at the periphery.



This ground has provides a venues for a various social activities and Convocations.

\*\*\*\*\*

## DICE, DUHS HEALTH INNOVATION CENTRE

Distinguished, Innovation, Collaborative, Entrepreneurship (DICE) is the foundation formed in USA by highly qualified and accomplished patriotic Pakistani who want transfer of knowledge to Pakistan to boost up its economy and image.



This foundation is collaborating with different universities of Pakistan on various platforms e.g. automobile, engineering, textile, agriculture and health etc.

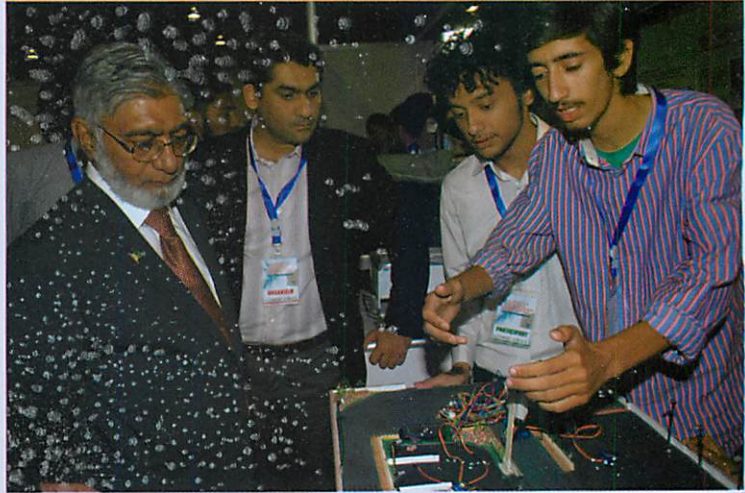


Dow University has collaborated with DICE for health innovation. Last year in Aug 2015 first DUHS-DICE Health Innovation Exhibition was held at Expo Centre Karachi in which about twelve universities of Pakistan show cased their sixty (60) health innovation projects.

In this competition 2 & 3 prizes were also given by DICE to the projects of the students. Now Second health innovation exhibition is going to be



held in Dec2016, again at Expo Center. This year more than thirty (30) universities are bringing above hundred (100) health innovation projects. This time expectedly some mature projects will be adopted by business community for processing eventually leading to commercialization.



The incubation center of DUHS-DICE health has been established at the floor of Research department in Ojha Campus, where the students & faculty from other universities eg NED and NUST etc join frequently to share their innovation projects.

The DUHS members have regular video conferencing weekly sessions with members of DICE foundation in USA, who also visit Pakistan eg pace maker, stethoscope and stents etc may be produced by this centre.

\*\*\*\*\*

## NEW ACADEMIC BLOCK AT DMC

The establishment of Dow University in 2004, needed space for expansion to accommodate new department.

The place of old canteen of Dow Medical College and the adjacent place was designed by the architect to have new four storeyed academic block having a basement for Car Parking and various departments on its floors.

The unique uniqueness of the new building is that it is blending with the old heritage building without blocking air passage.

It also lodges newly department of professional development centre for skills training of students and doctors.



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## NEW BLOCK OF DOW DENTAL COLLEGE

Currently the Dental students at DMC campus is sharing some facilities of basic sciences with the medical students of DMC causing congestion. Besides this thickly populated area of down town need more spacious facilities for treatment in the dental hospital.

Therefore, a new block of Dow Dental College is undergoing construction rapidly adjacent to the library block in the previous open parking area. This new building will also have parking facilities in the basement area.



Inshallah after completing this building students and patients will be provided with most modern facilities.

\*\*\*\*\*

## GRANITE FLOORING OF DMC CAMPUS

After complete renovation and refurbishment of auditorium, lecture halls, laboratories, museum, various departments and tripod are for security at

entrance, it was necessary to uplift the look of the old campus. Therefore beautification of the Court Yard is done with multi colour special designing for granite flooring having beautiful lamp posts.



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## COMPLETE RENOVATION OF MUIN AUDITORIUM

The Muin Auditorium named after a renowned professor of DMC Prof. Khawaja Muin established in the decade of 1970, was gutted by fire due to the short circuit about six years back.



This auditorium has recently been completely renovated and refurbished on modern theatre style which can have functions and conference of international level.

\*\*\*\*\*

## ESTABLISHMENT OF RECORD ROOM

The Dow University is currently offering about twenty five (25) undergraduate programs and more than two hundred (200) postgraduate programs.

Admissions in all these programs are given purely on merit and their submitted documents needed special handling.

Therefore a safe record keeping room has been recently established in the admission department at DMC Campus.



\*\*\*\*\*



## ESTABLISHMENT OF LIVER OPD BLOCK AT OJHA CAMPUS

The Liver Centre 'NILGID' at Ojha Campus is providing all possible diagnostic and treatment facilities to patients of Liver diseases including hepato pancreato biliary surgeries and Liver Transplant besides patients of all types of cancers as eventually liver is affected in every cancer.

The rapidly gravating number of such patients needed a separate OPD block, hence a new OPD block has been established after renovating a building to facilitate patients with all types of liver problems.



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## PAPERLESS HEALTHCARE MANAGEMENT SYSTEM STARTED AT DOW UNIVERSITY

Dow University of Health Sciences (DUHS) is the Pakistan's first public sector medical university to establish Paperless healthcare management system after being equipped with highly advanced and customized healthcare information technology system i.e. Picture Archiving & Communication System (PACS) and Hospital Management Information System (HMIS). The Dow University is proud to select Pacslink Corporation to deliver highly advanced and customized Hospital Management Information System at its Ojha Campus that integrates patient information and Diagnostic Imaging record for the better outcomes of clinical, operational and financial functions.

From patient registration and appointments to complete medical records, all information now is entered directly into a highly advanced Hospital Management Information System (HMIS) by the core team of Health Informatics professionals, doctors and surgeons.

The Hospital Management Information System, aims to provide benefits such as easier patient record management, reduced paperwork,





faster information flow between various departments, greater organizational flexibility, reliable and timely information, minimal inventory levels, reduced wastage, reduced waiting time at the counters for patients and reduced registration time for patients.

Picture Archiving & Communication System (PACS) with integrated voice recognition and dictation system of Pacslink Corporation is provided to reduce report Turn around Time (TAT). Report availability is being intimated to the patients through SMS and Online Reports Download Facility is also provided to patients and referring physicians for quick results delivery.

Integrated digital writing pad facilitate quick reporting. Send SMS and Online Reports availability to patients as well as referring physicians. All diagnostic studies from ECG, Angiography, Echocardiography, ETT, X-ray, CT and MRI etc. image and content is accessible integrated within the hospital management system provide clinicians with faster, easier access to images for improved patients care decision-making.

The clinician is provided with a single point of entry to efficient patient overviews including image thumbnails.

\*\*\*\*\*

## ESTABLISHMENT OF POSTGRADUATE SKILLS LAB

After establishing undergraduate skills lab, it has been realized that now it is a era of sub specialty in the medical field, mostly requiring some type of procedures, major or minor e.g. Endoscopy, ERCP, Bronchoscopy, Laparoscopic Surgeries, Vascular Interventional Radiology (VIR) and miniature neurosurgeries etc. Therefore a separate Skills Lab has been established on the top floor of Library Block at DMC to provide the specialized skills. Soon it will be fully equipped with the required manikins and gadgets.



\*\*\*\*\*

## NEW FLEET OF BUSES

The Students and staff of DUHS are facilitated by new fleet of twenty (20) buses purchased from Hino Pak Company of Pakistan. This transport system us provided at bare minimum cost.





## KIDNEY DIALYSIS CENTRE ESTABLISHED

Kidney diseases leading to renal failure are also increasing in Pakistan. Such patients need immediate renal dialysis as a life saving measure till renal transplant takes place.

The Dow University installed twelve (12) renal dialysis machine four years back which are in operation daily from morning till late night. During last 4-years twenty five thousand (Rs.25000/-) patients have been dialysis at very nominal charges.

Soon more machines will be installed to ease out the patients load.



\*\*\*\*\*

## DOW CANCER RESEARCH INSTITUTE (DOCRI)

Alarming number of cancer patients are increasing very rapidly in Pakistan, therefore there is a dire need to address this issue with multi prolong approach.

First thing is to do Cancer Screening of the general public at bare minimum cost for early detection and care. Secondly to look into the factors resulting in the increase of same particular cancers gender wise e.g. Breast Cancers in female while Lung and Colon Cancer in males.

Hence a Dow Cancer Research Institute has been established at the stadium road campus of DUHS to carry out screening of patients and research.

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# PLANNING AND DEVELOPMENT DEPARTMENT

## Renovations:

Since the inception of Dow University the Department of Planning and Development of Dow University planned renovations and refurbishments of old Dow Medical College, Sindh Medical College and a number of old buildings at Ojha campus. All plans have been executed amicably.

It also planned & constructed various new buildings, which have been designed and constructed by reputable and renowned architects and construction companies.

Some renovated and refurbished projects are mentioned:

- Renovations and restoration of heritage building to lodge Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences (DIKIOHS) converting old auditorium into dental hospital fixation of 125 high class dental chairs. Complete Renovation and Refurbishment of all departments. Laboratories been equipped with most modern equipments.
- Renovations and furnishing of Lecture halls at Dow Medical College and Sindh Medical College alongwith audiovisual aids and fixed multimedia.
- Renovations and furnishing of all Laboratories of basic sciences at Dow Medical College and Sindh Medical College and provision of all required modern equipments.
- Renovations of Auditoriums at Sindh Medical College.
- Renovations of Canteens and Common Rooms for students at Dow Medical College and Sindh Medical College. (boys and girls separately).
- Renovations of old administrative blocks at Dow and Sindh Medical Colleges.
- Renovations at girls hostels of Dow Medical and Sindh Medical Colleges.
- Different departments of Dow University have been equipped with new furniture and some old ones repaired.
- New bigger lift has been installed at Dow Medical College, whereas its old lift has been installed at the Institute of Physical Medicine & Rehabilitation (IPM&R), located at Old DMC boys hostel.
- Air conditioners are also installed in the lecture halls, labs and different departments at DMC, SMC, DIMC and other institutes & offices of DUHS.
- Intercom system has also been installed in various buildings at all campuses of Dow University.
- Fixation and supply of instruments / equipments in different clinical departments of civil hospital, Karachi for seminar rooms to have proper teaching atmosphere for undergraduate & postgraduate students.
- Renovation of old boys hostel blocks at Dow Medical College and their furnishing besides being equipped to lodge Institute of Medical Technology (IMT), Institute of Physical Medicine & Rehabilitation (IPM&R), Institute of Health Management (IHM) and Dow University Artificial Limb (DUAL) Centre.
- Renovation of shah lateef campus of DUHS to lodge Institute of Health Management and Dow Lab Collection Point, near JPMC & NICVD.
- Upgradation & Modernization of existing laboratories & libraries.
- Muin Auditorium at DMC, completely renovated and refurbished in most modern style.
- Renovation of Arag auditorium in DMC



- Renovation of DMC for establishment of Dental College
- Institute of Physical Medicine & Rehabilitation in Old DMC boys hostel
- Institute of Medical Technology in Old DMC boys hostel
- In Ojha Campus Decades old building have been completely renovated for the establishment of
- OPD block of Dow University hospital
- Institute of Radiology
- Dow Diagnostic Research & Reference laboratory
- Various Collection Points (33) within Karachi and Interior Sind.
- TB hospital at OICD
- TB clinics in Karachi (Nazimabad, Malir & Lyari)
- Old Iqbal Yad clinic at Ojha
- Anima house
- National Institute of Diabetes and Endocrinology (NIDE)
- Dow College of Pharmacy in two blocks
- Construction of a completely new floor with provision of most modern facilities for indoor patients of TB
- Mostly new construction with partly renovation near Kalapul Defence for shifting of Dow International Dental College.

## **NUMBER OF UNDERGRADUATE STUDENTS**

IN 2004 **2795**

IN 2016 **7384**

## **NUMBER OF POSTGRADUATE STUDENTS**

IN 2004 **114**

IN 2016 **1564**

## **NUMBER OF FACULTY MEMBERS**

IN 2004 **160**

IN 2016 **700**

## **NUMBER OF NON TEACHING STAFF**

IN 2004 **525**

IN 2016 **2031**

### **New Constructions: State of the art new Building of:**

- Dow International Medical College
- Dow International Dental College
- Two storeyed Library Block having digital library
- Dow University hospital five storeyed building
- Institute of Nursing, five storeyed building, which also lodges School of Public Health
- Girls hostel five storeyed block having most modern facilities
- Boys hostel also five storeyed block
- State of art Gymnasium of International standzrd
- Jamia Masjid Aisha with most modern facilities
- Installation and Maintenance of heavy diesel generator at all campuses
- Installation and Maintenance of Separate Gas Power Plant
- Serobiology Centre with unique features of modern standards
- Main Dow lab collection point at Ojha Campus



## FACILITIES FOR STUDENTS

**Admissions in All Courses are Given on merit basee through a transparent system since 2004.**

- All Class Rooms, Labs & Museums have been air-conditioned.
- Power Point Teaching With Multimedia have been implemented.
- All Lectures are structured and available on website.
- Wifi & Internet facility is provided to students and faculty members at all campuses
- State of art digital library, with access even from home has also been provided.
- Introduction of Modular structured integrated curriculum, makes them eligible to compete easily with other students internationally.
- Establishment of undergraduate skills lab & professional development centre, provides all required basic and highly specialized skills to undergraduate and postgraduate students with modern manikins and master trainers.
- Special courses have been introduced for personality grooming of students including communication skills, medical ethics, research methodology and behavioral sciences etc.
- Attendance system of the students has been made transparent with radiofrequency identification (RFID) card.
- Semester system has been introduced to reduce burden of studies and provide wider spectrum of knowledge.
- The old viva voice examination has been replaced by structured practical & clinical examination (OSPE) & (OSCE) for ease of students and transparency.
- Co-Curricular activities for students are provided frequently besides annual week for all types of activities
- including sports, talent show, debates and games etc, Special programs related to Independence Day and debates etc are also conducted.
- Mentorsystemhasalsoeensuccessfully introduced first time in Pakistan for students regarding academics, personal social or psychological counseling to make them comfortable and adjustable.
- Hostels, common rooms, canteens of boys and girls have been completely renovated with provision of additional facilities.
- Dow club card has been introduced for students and faculty to have discounts for shopping and restaurants etc.
- Career guidance centre has been established to guide students for future career. It is a new interactive, computer based career guidance unit, featuring an elaborate range of career opportunities.
- Professional Development Centre provides them various hands on skills.
- Learning module grooming of students includes, classes on advance computer skills, medical ethics, communication skills, research methodology and behavioral sciences.
- Extra security services provided from Private Company.

## FACILITIES FOR FACULTY/STAFF OF DUHS

- Faculty members did not have computer training facilities.
- No training courses for enhancement of teaching skills were provided
- There was no skill training center, neither research facilities were available.
- Digital libraries were not present
- No health insurance was provided to faculty members
- The grade of staff and faculty members have been enhanced.
- Laptops were provided on discounted prices and in small installments.



- Computer training provided by a trainer
- Regular teachers training courses are conducted by DUHS.
- Hands-on training are provided by concerned specialists in specified specialties.
- Workshops are conducted for MCQs/BCQs, research methodologies medical and grant proposal writing etc.
- Research facilities are provided as research laboratory, animal house, provision of supervisors and discounted tuition fees.
- Research loan of Rs.100,000 provided if proposal is approved by DUHS Institutional Review Board.
- Faculty members children are given 50% discounted in fee if their children get admission on merit basis.
- Health insurance is provided for best possible treatment at best hospitals of city.
- Digital library access is provided from home also.
- Dow Club Card facility provided for discounts at restruents and shopping etc.
- Vocational technical training is provided to children of DUHS employees.
- Programs offered include all computer programs, graphics and web designing, multi media animation etc. Girls sewing, embroidery, dress and candle making. Upcoming courses include fashion and textile designing, courses of beautician, plumbing and electrical courses etc.



Groundbreaking Ceremony of DUHS in DHA





## CO-CURRICULAR ACTIVITIES

Besides excellent academic program both at Undergraduate & Postgraduate levels, the Dow University also focuses on Co-



Curricular activities throughout the year. Since the Ojha Campus has a state of art Gymnasium and also a Cricket ground so all the indoor and outdoor games are organized at Inter University Level throughout the



year besides at Inter Institutional within Dow University as a mega event every year.

The zonal and all Pakistan Sports

events organized by Higher Education Commission (HEC) are also conducted at Dow University.

The Annual Co-Curricular months of Dow University has



twelve (12) teams of various constitutional institutes of DUHS, which participate in



Debates (Urdu & English), Naat & Qirat competition, athletics and miscellaneous track events besides cricket, football, throw ball, badminton, table tennis, squash etc.

Similarly every year Independence Day of 14th



*DUHS Annual Sport Week*





August is also celebrated by students at DUHS. This year Dow University of Health Sciences (DUHS) took a great initiative to celebrate the big day with full zeal and zest at all of its



institutes from 8th to 14th August at Dow Medical College as well as at Ojha Campus of DUHS. A host of events including, debates, speech contests, singing and



skits competition were arranged for students to participate. The cake cutting ceremony in garden area of DMC was held.

Independence Celebrations at Ojha Campus has speeches, singing competition, short skits, drama, Qawwali, mushaira and performances on national songs. The unique event was the Inter-institutional competition





# Independenc Week Celebrations



of decorations among all the institutes of university. All the institutes participated in the competition with utmost patriotism. Dow Institute of Radiology, Institute of Health Management and Institute of Biotechnology were given 1st, 2nd & 3rd prizes respectively in decoration competition.

ceremony was very well attended by student, staff and faculty of DUHS. Trophies, Shields and Certificates were also distributed. Four Special Mosquito repellent plants were also planted to promote healthy environment in the campus with the help of Routrack.

A National Flag Hoisting Ceremony was held at Dow University on 14th August. On this occasion, another cake cutting ceremony was held and sweets were also distributed. The





# DOW CONVOCATIONS

Convocations have been held by Dow University regularly to confer degrees to the graduates and postgraduates of all its constituent Institutes and Colleges like Dow Medical College, Sindh Medical College, Dow International Medical College, Dr. Ishrat-Ul-Ebad Khan Institute of Oral Health Sciences, School of Dental Care Professionals, Dow College of Pharmacy, Institute of Physical Medicine & Rehabilitation, Institute of Medical Technology and Institute of Nursing.



The postgraduates, who completed their courses from the newly established institute of

Dow University of Health Sciences have also been conferred degrees in previous Convocations and will also be conferred degrees in upcoming convocation.

These include Masters in Dental Surgery, Masters in Health Profession Education, Masters in Biostatistics and Epidemiology, Masters in Business Administration, Masters in Diabetes and Endocrinology, Masters in Jurisprudence and Masters in Physiotherapy.



The Postgraduates who successfully completed Mphil and PhD courses have also been conferred degrees in Dow University Convocations.

With the help of **ALMIGHTY ALLAH** we really hope to succeed in our future mission and with the untiring efforts of the dedicated team, as we have been blessed during the last Thirteen years for the developments at Dow Univeristy.





**PATIENTS BENEFITED WITH COST EFFECTIVE HEALTHCARE SERVICES  
(NO PROFIT, NO LOSS BASIS) AT DOW UNIVERSITY TILL JUNE 2016**

<b>SR NO</b>	<b>DESCRIPTION</b>	<b>NUMBER OF PATIENTS SEEN TILL JUNE 2016</b>
1.	Patients attending Dow University Hospital Out Patient Department (OPD)	7,67,380
2.	Patients attending Emergency Room of Dow Hospital	1,90,000
3.	Patients admitted at Dow Hospital	45,000
4.	Laboratory services at its 33 collection points (all specialized & routine tests)	7,81,7325
5.	Imaging investigations at Dow Institute of Radiology including MRIs, CT Scans, Doppler, Ultrasounds, Bone Scanning, Mammographies and routine X-rays etc	7,24,800
6.	Patients of Liver diseases seen at National Institute of Liver & G I Diseases (NILGID)	86,425
7.	Patients diagnosed/ treated with specialized procedures e.g. ERCP, Endoscopy, Colonoscopy, Band Ligation, Fibroscan & Polypectomy etc.	2,245
8.	Patients treated at Dental Hospital of Dr. Ishrat Ul Ebad Khan Institute of Oral Health Sciences (DIKIOHS)	1,89,145
9.	Patients treated at Dental Hospital of Dow International Dental College (DIDC)	1,25,402
10.	Patients treated at Dental Hospital of Dow Dental College (DDC)	48,665
11.	Patients visiting Institute of Physical Medicine & Rehabilitation (IPM&R) for Physiotherapy	134,547
12.	Handicapped patients visiting School of Orthotics and Prosthetics for artificial limbs and various other support application	10,442
13.	Children with Autism supported at Autism Center of DUHS at IPM&R	446
14.	Children with Cerebral Palsy managed at Child Development Centre at IPM&R	88
15.	Cochlear Implants done at DUHS	40
16.	Patients treated after admission in the Hospital of OICD	35000
17.	Patients treated in OPD of Chest Disease Clinics (OICD) 2004 - 2015	22 Lacs

**BENEFITS PROVIDED BY DOW UNIVERSITY TO THE PUBLIC IN  
EDUCATION & EMPLOYMENT DURING LAST 12 YEARS**

<b>SR NO</b>	<b>EDUCATION</b>	<b>IN 2004</b>	<b>IN 2016</b>	<b>INCREASE</b>
1.	Bachelor Courses offered	01	30	30 times increase
2.	Postgraduate Courses offered	04	215	53 times increase
3.	Number of Undergraduate students studying	1500	7600	4 times increase
4.	Number of Postgraduate students studying	114	2470	12 times increase
5.	Number of Passed out undergraduates from newly established Institutes	did not exist	12000	New Program
6.	Number of Passed Out postgraduates from newly established institutes	did not exist	1350	New Program
7.	Fellowship (FCPS) students trained completely	200	864	4 times increase
8.	Number of PhDs in Dow University	04	50	12 times increase
9.	Number of Research Publication	40/year	315/year	7 times increase
10.	Number of Teaching faculty	160	700	4 times increase
11.	Number of non-teaching faculty	800	2031	3 times increase



# DOW RADIOLOGY CHARGES v/s PRIVATE CHARGES

## MAGNETIC RESONANCE IMAGING (MRI)

SR NO	DESCRIPTION	DOW RATES	PRIVATE RATES
1.	SHOULDER SINGLE PLAIN (WITHOUT CONTRAST)	4500	10000-16000
2.	SHOULDER SINGLE WITH CONTRAST	7200	15000-20000
3.	ANKLE JOINT SINGLE PLAIN (WITHOUT CONTRAST)	4500	10000-16000
4.	ANKLE JOINT SINGLE WITH CONTRAST	7200	15000-20000
5.	FOOT PLAIN (WITHOUT CONTRAST)	4500	10000-16000
6.	FOOT WITH CONTRAST	7200	15000-20000
7.	KNEE SINGLE PLAIN (WITHOUT CONTRAST)	4500	10000-16000
8.	KNEE SINGLE WITH CONTRAST	7200	15000-20000
9.	FEMUR SINGLE WITH CONTRAST	7200	10000-16000
10.	ABDOMEN WITH CONTRAST	7200	15000-20000
11.	BREAST WITH CONTRAST	7200	18000-25000
12.	MRI HEAD / BRAIN PLAIN	4200	9000-12000
13.	MRI HEAD / BRAIN PLAIN & CONTRAST	6600	15000-18000
14.	MRI HEAD / BRAIN WITH MRA PLAIN	5500	10000-15000
15.	MRI LUMBOSACRAL SPINE SCREENING	1200	3500-4500
16.	MRI BRAIN SCREENING	1200	3500-4500

## ULTRASOUND (U/S)

SR NO	DESCRIPTION	DOW RATES	PRIVATE RATES
1.	ABDOMEN UPPER	400	1000-1200
2.	ABDOMEN WHOLE	700	1400-2000
3.	AXILLA	450	900-1200
4.	BREAST BILATERAL	450	900-1200
5.	CHEST	450	900-1200
6.	DOPPLER CAROTID BILATERAL	1500	3000-4000
7.	DOPPLER PERIPHERY ARTERIAL UNILATERAL	800	2000
8.	DOPPLER PERIPHERY VENOUS BILATERAL	1500	3000
9.	DOPPLER PERIPHERY VENOUS UNILATERAL	800	17000
10.	FOETAL DOPPLER	800	2000
11.	FOETAL WELL BEING (FWB)	350	800-1200
12.	FOETAL- ANOMALY SCAN	600	1800-2500
13.	GUIDED ENAC	450	2000
14.	KUB U/S	400	1000-1200
15.	PELVIS	450	600-800
16.	PROSTATE	400	600-800
17.	PRE-POST VOID	400	700-900

## X-RAY

SR NO	DESCRIPTION	DOW RATES	PRIVATE RATES
1.	ANKLE JOINT LEFT (AP/LAT)	300	-
2.	CHESTPA	250	350-600
3.	ELBOW JOINT RIGHT IAP& LAT)	300	500-700
4.	ELBOW RIGHT AP	250	550
5.	HAND IEFT (AP/IAT)	300	500-700
6.	PELVIS IAP& LATERAL	250	550-800
7.	KNEE RIGHT AP (WEIGHT BEARING)	500	900-1200
8.	NECK (AP & LAT)	250	350-600
9.	ORBIT RIGHT (AP & LAT)	300	500-700
10.	PELVIMETRY (AP & LAT)	300	750-1100
11.	SKULL (AP & LAT)	250	540

## CT SCAN

SR NO	DESCRIPTION	DOW RATES	PRIVATE RATES
1.	ABDOMEN & PELVIS WITH CONTRAST	4400	8000-15000
2.	ABDOMEN & PELVIS WITH AND WITHOUT CONTRAST	5500	10000-13000
3.	CHEST WITH & WITHOUT CONTRAST	5500	10000-13000
4.	CHEST WITH CONTRAST	3900	8000-10000
5.	CHEST HIGH RESOLUTION (HRCT)	2800	6000-7000
6.	CT PYE - CT KUB	2200	5000-7900
7.	CT ANGIOGRAPHY	6600	15000-18000
8.	HEAD / BRAIN PLAIN	1500	3500-5000
9.	HEAD PLAIN / TRAUMA	1800	45000-6000
10.	HEAD / BRAIN WITH & WITHOUT CONTRAST	3000	6000-8000
11.	HEAD AND NECK	7200	14000-16000



# DOW LAB CHARGES V/S PRIVATE LAB CHARGES

MICROBIOLOGY				SR NO	DESCRIPTION	DOW RATES	PRIVATE RATES
SR NO	DESCRIPTION	DOW RATES	PRIVATE RATES	45	WIDAL TEST	300	NA
1	ANTI DS DNA (ANTIBODIES DOUBLE STANDARD) (ELISA)	1000	2350	46	MT (MANTOUX TEST)	200	450
2	ANTI GLIDIN IgA	1000	2750	47	AFB (ACID FAST BACILLI) CULTURE (BACTEC)	1500	3790
3	ANTI GLIDIN IgG	1000	2750	48	AFB SMEAR (ACID FAST BACILLI)	130	600
4	ANTI TTG IgA (ANTI TISSUE TRANSGLUTAMINASE-IgA)	900	1850	49	FUNGUS CULTURE	700	1950
5	ANTI TTG IgG (ANTI TISSUE TRANSGLUTAMINASE-IgG)	900	1850	50	FUNGUS DIRECT SMEAR	200	700
6	ANTI CARDIOLIPIN IgG	900	4570	51	ROUTINE CULTURE & SENSITIVITY	600	1690
7	ANTI CARDIOLIPIN IgM	900	4570	52	C.S.F FOR CULTURE & SENSITIVITY	600	1690
8	ASOT (ANTI STREPTOLYSIN O TITRE)	400	1150	53	EAR SWAB CULTURE & SENSITIVITY	600	1690
9	BETA-2 GLYCOPROTEIN 1 IgG	900	NA	54	NASAL SWAB FOR CULTURE	600	1690
10	BETA-2 GLYCOPROTEIN 1 IgM	900	NA	55	THROAT SWAB FOR CULTURE & SENSITIVITY	600	1690
11	DENGUE ANITIGEN	800	2100	56	HVS FOR CULTURE & SENSITIVITY	650	1690
12	DENGUE VIRUS (IgG/IgM)	850	NA	57	SPUTUM FOR CULTURE & SENSITIVITY	600	1690
13	DENGUE VIRUS IgM	600	2100	58	STOOL CULTURE	600	1650
14	DRUGS OF ABUSE PANEL(Amphetamines, Barbiturates, Benzodiazepines, Cannabinoids, Cocaine, Methadone, Phencyclidine,Opiates, Methamphetamine Methyleneedioxyamphetamine)	1000	N/A	59	URINE CULTURE	600	1690
15	EBV EBNA-IgG (EPSTEIN-BARR VIRUS)	900	N/A	60	BLOOD CULTURE (AEROBIC+ANAEROBIC)	600	1800
16	EBV VCA-IgG (EPSTEIN-BARR VIRUS)	900	N/A	61	BONE MARROW CULTURE (AEROBIC+ANAEROBIC)	600	1850
17	HEPATITIS A VIRUS ANTIBODY TOTAL	700	2150	62	PUS FOR DR	130	N/A
18	HEPATITIS A ANTIBODY IgM	750	2280	63	SPUTUM DR	150	N/A
19	HEPATITIS B PROFILE	3600	10500	64	GRAM STAIN	100	390
20	HEPATITIS B SURFACE ANTIBODY	750	1600	65	LIVER ABSCESS D/R	350	N/A
21	HEPATITIS B CORE ANTIBODY IgM	750	2280	66	LEISHMANIA L.D BODIES	250	1140
22	HEPATITIS B CORE TOTAL	750	1950	67	WATER BACTERIOLOGY	800	3200
23	HEPATITIS B E ANTIBODY	700	2280	68	URINE DR	120	380
24	HEPATITIS B E ANTIGEN	700	2250	69	STOOL DR	100	390
25	HEPATITIS DELTA VIRUS ANTIBODY	800	2650	70	STOOL FOR PH	100	250
26	HEPATITIS E VIRUS ANTIBODY IgG	750	2700	71	STOOL OCCULT BLOOD	120	280
27	HEPATITIS E VIRUS ANTIBODY IgM	750	2850	72	STOOL FOR REDUCING SUGAR	100	280
28	HBSAG (HEPATITIS B SURFACE ANTIGEN) (ICT)	200	NA	<b>BIOCHEMISTRY</b>			
29	ANTI HCV (HEPATITIS C VIRUS) (ICT)	250	NA	SR NO	DESCRIPTION	DOW RATES	PRIVATE RATES
30	HIV (HUMAN IMMUNODEFICIENCY VIRUS-ICT)	350	NA	1	ACETAMINOPHEN	1100	N/A
31	HIV(HUMAN IMMUNODEFICIENCY VIRUS) ANTIBODY	700	2450	2	ACTH	1350	3900
32	TORCH PROFILE	4300	6950	3	ALBUMIN	140	400
33	CMV IgG (CYTOMEGALO VIRUS-IgG)	900	N/A	4	ALKALINE PHOSPHATASE	140	500
34	CMV IgM (CYTOMEGALO VIRUS-IgM)	900	N/A	5	Alpha-1 Antitrypsin	1200	1850
35	HSV-1 IgG (HERPES SIMPLEX VIRUS-1)	900	N/A	6	ALPHA-FETO PROTEIN	1200	3450
36	HSV-2 IgG (HERPES SIMPLEX VIRUS-2)	900	N/A	7	AMYLASE	230	1080
37	RUBELLA IgG	650	1750	8	ANTI CCP	1500	3500
38	RUBELLA IgM	650	2150	9	ANTI THYROGLOBULIN (ANTI TG)	1000	900
39	TOXO IgG	900	1630	10	ANTI THYROID PEROXIDASE (ANTI TPO)	1000	900
40	TOXO IgM	900	1750	11	ASCITIC FLUID D/R	500	1370
41	STOOL HELICOBACTER PYLORI ANTIGEN	1500	5500	12	ASCITIC FLUID D/R + ALBUMIN	600	1480
42	TYPHIDOT	500	NA	13	ASCITIC FLUID FOR PROTEIN	200	570
43	PREGNANCY TEST / HCG	200	NA	14	ASCITIC FLUID FOR TRIGLYCERIDES	200	570
44	V.D.R.L	250	1080	15	B-12 (VITAMIN B-12)	800	2000
				16	BICARBONATE	120	410
				17	BILIRUBIN TOTAL & DIRECT	130	700
				18	BLOOD GLUCOSE FASTING	120	370
				19	BLOOD GLUCOSE RANDOM	120	370
				20	BUN BLOOD UREA NITROGEN	120	600
				21	CA-125	1500	4580
				22	CALCIUM	150	600
				23	CARDIAC ENZYME (CPK LDH SGOT)	600	1780
				24	CARDIAC ENZYME WITH CKMB	1000	N/A
				25	CEA (CARCINOEMBRYONIC ANTIGEN)	1400	3900



SR NO	DESCRIPTION	DOW RATES	PRIVATE RATES	SR NO	DESCRIPTION	DOW RATES	PRIVATE RATES
27	CHOLESTROL	120	600	83	LIPID PROFILE	700	2250
28	CK-MB	300	1750	84	LITHIUM	250	1240
29	CORTISOL	900	2150	85	LACTIC ACID	1500	N/A
30	CPK	250	410	86	MAGNESIUM	250	1040
31	C-REACTIVE PROTEIN	500	1400	87	PERITONIAL FLUID FOR DR	500	920
32	CREATININE	140	660	88	PERITONIAL FLUID FOR DR + ALBUMIN	600	N/A
33	CSF FOR DETAIL REPORT (CSF D/R)	350	1380	89	PHENOBARBITAL	1000	1550
34	CSF FOR PROTEIN	130	570	90	PHENYTOIN / DILANTIN	1000	1600
35	CA 19-9	2000	4550	91	PHOSPHORUS	200	620
36	CARBAMAZEPINE / TEGRETOL	1000	1600	92	PLEURAL FLUID FOR PROTEIN	150	N/A
37	CERULOPLASMIN	1000	1900	93	PLEURAL FLUID FOR CHOLESTROL	150	N/A
38	COPPER	900	1500	94	PLEURAL FLUID FOR DR + ALBUMIN	500	N/A
39	CYCLOSPORIN	4000	6100	95	PLEURAL FLUID FOR TRIGLYCERIDES	150	N/A
40	DIGOXIN	1050	1750	96	POTASSIUM (K+)	120	410
41	ELECTROLYTES	400	1450	97	PROGESTERONE SERUM	600	1750
42	ESTRADIOL	700	2200	98	PROLACTIN	600	1850
43	FERRITIN	800	1750	99	PROTEIN	120	400
44	FLUID DR	450	1080	100	PROTEIN AG RATIO	200	N/A
45	FLUID FOR ALBUMIN	130	N/A	101	PROTEIN ELECTROPHORESIS	1200	1750
46	FLUID FOR AMYLASE	120	N/A	102	PSA (PROSTATIC SEPCIFIC ANTIGEN)	800	2700
47	FLUID FOR BILIRUBIN TOTAL & DIRECT	120	N/A	103	PTH (PARA THORMONE TEST)	1000	2650
48	FLUID FOR CREATININE	120	N/A	104	RBC FOLATE	1400	1990
49	FLUID FOR LIPASE	300	N/A	105	R A FACTOR QUALITATIVE	300	N/A
50	FLUID FOR TRIGLYCERIDES	120	N/A	106	R A FACTOR QUANTITATIVE	400	850
51	FLUID FOR URIC ACID	130	N/A	107	SERUM URIC ACID	150	650
52	FOLIC ACID	800	1700	108	SERUM BHCG	700	1950
53	FREE T3	500	1950	110	SERUM FSH	700	1900
54	FREE T4	500	1950	111	SERUM IRON	250	840
55	GAMMA GT	200	500	112	SERUM T3	400	2250
56	GCT (GESTATIONAL)	300	570	113	SERUM T4	400	1450
57	GCT (NON GESTATIONAL)	300	570	114	SERUM TESTOSTERONE	900	1900
58	GROWTH HORMON	1000	2100	115	SGOT ( AST)	150	600
59	GROWTH HORMON (STIMULATION TEST )	3500	11400	116	SGPT ( ALT )	150	380
60	GTT 2 HOURS (GLUCOSE TOLERANCE TEST) NON GESTATIONAL	400	NA	117	SHORT SYNACTEN	2700	5650
61	GTT 2 HOURS (GULCOSE TOLERANCE TEST) GESTATIONAL	400	NA	118	SODIUM (Na)	120	410
62	GTT 3 HOURS (GESTATIONAL)	500	1850	119	SYNOVIAL FLUID FOR D/R	500	1080
63	H.D.L (HIGH DENSITY LIPOPROTEINS)	250	600	120	SHBG	900	2300
64	HAPTOGLOBIN	800	1140	121	TSH	450	1250
65	HBA1C	600	1800	122	THYROID PROFILE	1200	2960
66	HOMOCYSTINE	1700	N/A	123	TACROLIMUS	4000	6750
67	H-PYLORI ANTIBODY / HELCOBACTER	800	2150	124	TRIGLYCERIDES	150	600
68	HSCRIP	700	1600	125	TROPONIN I	1000	1990
69	HEPATITIS B SURFACE Ag (CHEMILUMINESCENCE)	450	1300	126	TIBC	250	780
70	HEPATITIS C Ab (CHEMILUMINESCENCE)	800	2400	127	URINE FOR MICRO ALBUMIN (SPOT)	250	1050
71	IRON PROFILE	500	1370	128	URINE POTASSIUM (SPOT)	250	600
72	IgA	650	950	129	URINE SODIUM (SPOT)	250	600
73	IgE	700	2100	130	URINE FOR URIC ACID (SPOT)	120	700
74	IgG	650	920	131	URINE FOR PROTIEN ( SPOT)	130	700
75	IgM	650	950	132	VITAMIN D	1300	3500
76	INSULIN	800	3900	133	VALPORIC ACID	1000	1550
77	L.D.H (LACTATE DEHYDROGENASE)	200	600	134	24 HOURS URINE FOR CALCIUM	250	830
78	L.D.L (LOW DENSITY LIPOPROTEINS)	250	600	135	24 HOURS URINE FOR CREATININE	250	830
79	LFT (LIVER PROFILE)	700	1450	136	24 HOURS URINE FOR CREATININE CLEARANCE	450	1300
80	LP FLUID FOR DR (LUMBAR PUNCTURE)	500	N/A	137	24 HOURS URINE FOR MAGNESIUM	250	560
81	LH	600	1750	138	24 HOURS URINE FOR MICROALBUMIN	350	660
82	LIPASE	500	1320	139	24 HOURS URINE FOR PHOSPHORUS	250	660
				140	24 HOURS URINE FOR PROTIEN	250	660
				141	24 HOURS URINE FOR UREA	150	660
				142	24 HOURS URINE FOR AMYLASE	780	250
				143	24 HOURS URINE FOR URIC ACID	250	660



HEMATOLOGY / BLOOD BANK			
SR NO	DESCRIPTION	DOW RATES	PRIVATE RATES
1	ANTI-THROMBIN III	500	5600
2	APTT	400	1140
3	BLOOD GROUP	300	650
4	BMA & TREPINE BIOPSY with Immunohisto Marker panel	6500	N/A
5	BMA & TREPINE BIOPSY without	3000	4950
6	CBC + ESR	400	810
7	CP / CBC	300	700
8	CROSS MATCH	400	N/A
9	D-DIMER (QUANTITATIVE)	1000	1950
10	DIRECT COOMBS TEST	200	660
11	ESR	150	310
12	FACTOR XI	1500	2050
13	FACTOR VII	1500	2300
14	FACTOR VIII	1500	2500
15	FFP SINGLE RANDOM BAG	250	N/A
16	FIBRINOGEN	1000	1500
17	FLUID FOR DIFFERENTIAL COUNT	150	N/A
18	G6PD (QUALITATIVE)	1100	N/A
19	HB ELETROPHORESIS	1100	2250
20	HB% (AUTO ANALYZER)	150	N/A
21	INDIRECT COOMBS TEST	250	660
22	LUPUS ANTI COAGULANT	500	5650
23	MP ( MALARIAL PARASITE)	150	630
24	P.T. (PROTHROMBIN TIME)	220	750
25	PCV (AUTO ANALYZER)	150	410
27	PLATELET COUNT	200	410
28	PROTEIN-C	750	4950
29	PROTEIN-S	1000	4950
30	RBC COUNT	150	N/A
31	RED CELL ANTIBODY SCREENING	800	1200
32	RED CELL ANTIBODY TITRE	300	1650
33	RETIC COUNT	200	500
34	Rh GROUP CROSS MATCHING	300	N/A
35	SEMEN ANALYSIS	300	1800
36	TLC (WBC)	150	410
37	WON WILIBRAND FACTOR	750	N/A

SR NO	DESCRIPTION	DOW RATES	PRIVATE RATES
19	FACTOR V MUTATION	5000	N/A
20	HEV BY PCR	4000	3800
21	QUANTIFERON TB	4000	N/A
22	ANCA	1000	N/A
23	LKMI	800	1850
24	dsDNA	1000	2350

HISTOPATHOLOGY / CYTOLOGY			
SR NO	DESCRIPTION	DOW RATES	PRIVATE RATES
1	BIOPSY SMALL (ONE CONTAINER)	1000	3050
2	BIOPSY MEDIUM	2000	N/A
3	BIOPSY LARGE	2500	5550
4	BLOCK FOR PATIENT	100	N/A
5	BLOCK FOR SECOND OPINION	2000	N/A
6	CYTOLOGY	1000	2800
7	ER-PR	2000	10750
8	FEROZEN SECTION	5000	6850
9	FNA WITH PROCEDURE	1500	3450
10	HER - 2	1500	N/A
11	IMMUNOHISTOCHEMISTRY PANEL	3500	N/A
13	SINGLE MARKER	1200	N/A
14	SLIDE FOR PATIENT	100	1500
15	SLIDE PREPARATION	500	1500



MOLECULAR PATHOLOGY			
SR NO	DESCRIPTION	DOW RATES	PRIVATE RATES
1	HEPATITIS C VIRUS QUALITATIVE BY PCR	2800	7850
2	HEPATITIS C VIRUS QANTITATIVE BY PCR	5500	17500
3	HEPATITIS B VIRUS DNA BY PCR QUALITATIVE	2800	6750
4	HEPATITIS B VIRUS VIRAL LOAD (QUANTITATIVE )	5500	21650
5	HEPATITIS C VIRUS GENOTYPING	7500	19550
6	HEPATITIS DELTA VIRUS VIRAL LOAD (QUANTITATIVE)	4500	10010
7	MTB QUALITATIVE	2000	5650
8	HSV1/2 PCR	2000	4550
9	ANA PROFILE	1300	2500
10	BCR/ABL	4000	7900
11	FISH	7000	26900
12	JACK2 MUTATION NEW KIT	5000	6550
13	THALASSEMIA BY PCR	3000	26480
14	XMN POLYMORPHSAM	4000	N/A
15	HIV VIRAL LOAD (QUANTITATIVE)	9000	25500
16	CMV VIRAL LOAD PCR	8000	17000
17	EBV VIRAL LOAD PCR	8000	4150
18	FACTOR I MUTATION	5000	N/A



## RATE COMPARISON OF DOW INSTITUTE OF RADIOLOGY & PRIVATE CENTERS

S NO.	INVESTIGATION NAME	PRIVATE CENTERS CHARGES	DOW INSTITUTE OF RADIOLOGY CHARGES	DIFFERENCE	TEST PERFORMED BY DOW INSTITUTE OF RADIOLOGY FROM Jun.2009 TO May, 2016	BENEFIT TO PUBLIC FROM DOW INSTITUTE OF RADIOLOGY (5 X 6) Rs. in Million
1	2	3	4	5	6	7
1	MAMMOGRAM	2,640.00	880.00	1760 300% Above	7150	12.50
2	XRAY CHEST	700.00	250.00	450 280% above	75100	33.70
3	XRAY BARIUM	2,800.00	1,000.00	1800 280% Above	4900	8.80
4	XRAY HYSTEROSALPINGOGRAM (HSG)	5,000.00	1,800.00	3200 278% Above	3600	11.50
5	CT GUIDED BIOPSY (FNAC)	6,000.00	2,900.00	3100 207% Above	3541	10.90
6	CT HEAD & NECK	26,000.00	7,200.00	18800 361% Above	3800	71.40
7	CT CHEST & ABDOMEN	26,500.00	8,300.00	18200 319% Above	18401	334.80
8	CT ABDOMEN & PELVIS WITH & WITHOUT CONTRAST	19,000.00	5,500.00	13500 345% Above	10125	136.60
9	CT HEAD WITHOUT CONTRAST/ TRAUMA	4,000.00	1,800.00	2200 222% Above	7510	16.50
10	MRI THORACIC SPINE/ L/Spine / Cervical Spine / Brain (SCREENING)	3,500.00	1,200.00	2300 292% Above	29250	67.20
11	MRI THORACIC SPINE/ L/Spine / Cervical Spine / Brain WITHOUT CONTRAST	10,000.00	4,200.00	5800 238% Above	27540	159.70
12	MRI SHOULDER WITH & WITHOUT CONTRAST	29,500.00	7,200.00	22300 410% Above	3541	78.90
13	MRI PELVIS WITH & WITHOUT CONTRAST	28,500.00	7,200.00	21300 396% Above	5140	109.40
14	ULTRASOUND ABDOMEN UPPER	1,100.00	400.00	700 275% Above	21410	14.90
15	ULTRASOUND PELVIS	1,150.00	450.00	700 256% Above	24510	17.10
16	ULTRASOUND ABDOMEN WHOLE	2,500.00	700.00	1800 357% Above	29410	52.90
17	ULTRASOUND GUIDED TRUCUT BIOPSY	20,000.00	2,300.00	17700 870% Above	3800	67.20
18	TRANSCATHETER ARTERIAL CHEMOEMBOLIZATION (TACE)	180,000.00	75,000.00	105000 240% Above	1200	126.00
19	PERCUTANEOUS TRANSHEPATIC CHOLANGIOGRAPHY (PTC)	60,000.00	16,500.00	43500 364% Above	4500	195.70
20	ECHO CARDIOGRAPHY	2,800.00	850.00	1950 329% Above	19450	37.90
21	DEXA SCAN	3,500.00	1,000.00	2500 350% Above	8591	21.40

### DOW INSTITUTE OF RADIOLOGY (DIR)

The Dow Institute of Radiology is a respected leader on all three fronts. Our talented faculty and advanced technology attract trainees and scientists who are among the best and brightest – offering the opportunity to work and train in a dynamic innovative environment which remains personal and accessible.  
Our mission is simple: to bring scientific advances in medical imaging to clinical application.

**1585.00**  
(Millions)

**Benefit to Public**

**1.585**  
(Billion)





# DOW UNIVERSITY OF HEALTH SCIENCES

## RATE COMPARISON OF DOW LAB & PRIVATE LAB

S.No.	INVESTIGATION NAME	PRIVATE LAB CHARGES	DOW LAB CHARGES	DIFFERENCE	TEST PERFORMED BY DOW LAB FROM 2012 TO APRIL 2016	BENEFIT TO PUBLIC BY DOW LAB. (5X6) Rs. In Million
1	2	3	4	5	6	7
1	LIPID PROFILE	2,250.00	700.00	1,550.00 321% above	205845	319.06
2	VIT-D	3,500.00	1,300.00	2,200.00 269% above	162823	358.21
3	COMPLETE BLOOD COUNT	700.00	300.00	400.00 233% above	715272	286.11
4	HEPATITIS B SURFACE ANTIGEN	1,300.00	450.00	850.00 289% above	144077	122.47
5	HEPATITIS C VIRUS ANTIBODY	2,400.00	800.00	1,600.00 300% above	160205	256.33
6	GLUCOSE RANDOM	370.00	120.00	250.00 308% above	184352	46.09
7	BLOOD UREA NITROGEN	600.00	150.00	450.00 400% above	41910	18.86
8	CREATININE	880.00	140.00	740.00 629% above	377757	279.54
9	LIVER PROFILE (LFT)	1,450.00	700.00	750.00 207% above	218160	163.62
10	URIC ACID	650.00	150.00	500.00 433% above	144476	72.24
11	THYROID PROFILE	2,980.00	1,200.00	1,780.00 248% above	44899	79.92
12	FERRITIN	1,750.00	800.00	950.00 219% above	15396	14.63
13	VIT-B12	2,000.00	800.00	1,200.00 250% above	39168	47.00
14	SERUM IRON	840.00	250.00	590.00 336% above	36216	21.37
15	HBA1C	1,800.00	600.00	1,200.00 300% above	144777	173.73
						2,259.17 (Million)
<p>Dow Diagnostic Reference and Research Laboratory (DDRRL) aims to provide diagnostic reference and research facilities in health sciences. We strive to achieve customer satisfaction by providing reliable, high quality state of the art diagnostic services at economical cost and our staff is dedicated to provide their services according to the international ISO15189 Standards</p>						<p><b>Benefit to Public 2.259 (Billion)</b></p>



# DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI

## RATE COMPARISON OF DOW OPD AND PRIVATE OPD

S. NO.	YEARS	PRIVATE OPD CHARGES	DOW OPD CHARGES	DIFFERENCE (3 - 4)	PATIENTS VISIT IN DOW OPD	BENEFIT TO PUBLIC BY DUHS (5 X 6) Rs. In Million
1	2	3	4	5	6	7
1	DOW GENERAL OPD (January 2010 - December 2015)	800.00	200.00	600 (400% above)	675266	405.16
2	T.B. OPD (January 2007 - June 2016)	800.00	Free of Cost	800 (800% above)	623700	498.96
3	DOW DIABETES & ENDOCRINOLOGY OPD (January 2010 - December 2015)	800.00	200.00	600 (400% above)	134734	80.84
4	EYE OPD (January 2011 - December 2015)	800.00	200.00	600 (400% above)	67045	40.23
5	INSTITUTE OF PHYSICAL MEDICINE & REHABILITATION OPD (January 2007 - March 2016)	800.00	100.00	700 (800% above)	60000	42.00
						1,067.19 (Million)
<b>BENEFIT TO PUBLIC</b>						<b>1.067 (Billion)</b>



# DOW UNIVERSITY OF HEALTH SCIENCES

**Dow Diagnostic Reference & Research Laboratory (DDRL)**

*Total Patients Registered in Different Dow Lab Collection Centers*

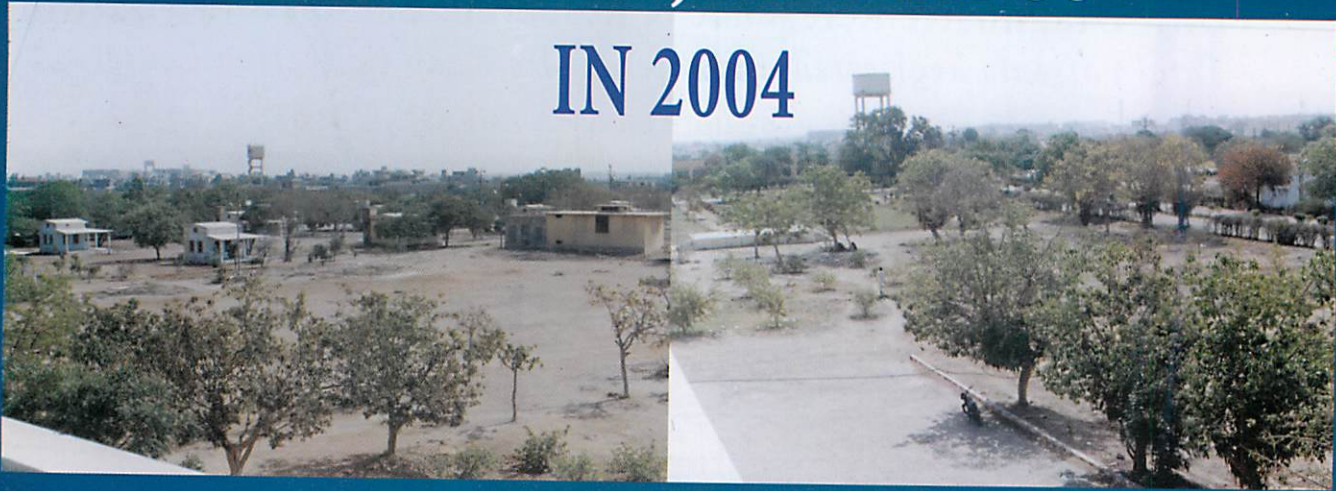
*In Eight Months (January to August , 2016)*

SR. NO.	DOW LABORATORY COLLECTION CENTERS	TOTAL PATIENTS REGISTERED
1	MAIN LAB OJHA CAMPUS	134335
2	NILGID COLLECTION CENTER	24487
3	MALIR COLLECTION CENTER	35592
4	CIVIL COLLECTION CENTER	33468
5	NAZIMABAD COLLECTION CENTER	30103
6	FEDERAL B AREA COLLECTION CENTER	37321
7	HIGH COURT COLLECTION CENTER	319
8	LEJ (NEW TOWN) COLLECTION CENTER	33369
9	GULSHAN E IQBAL COLLECTION CETER	24160
10	LATIFABAD-6 COLLECTION CENTER HYD	4933
11	SADAR COLLECTION CENTER HYD	2350
12	CHANESAR GOTH COLLECTION CENTER	3803
13	SHAH FAISAL COLLECTION CENTER	7963
14	GULSHAN E MAYMAR COLLECTION CENTER	8781
15	SUKKUR COLLECTION CENTER (FROM	11377
16	MORO COLLECTION CENTER	2598
17	MIR PUR KHAS COLLECTION CENTER	3224
18	CITY COURT COLLECTION CENTER	211
19	NORTH KARACH COLLECTION CENTETR (NEW)	13441
20	GULSHAN E HADEED COLLECTION CENTER (NEW)	13042
21	GULSTAN E JOHAR COLLECTION CENTER (NEW)	18150
22	OPD BLOCK OJHA CAMPUS COLLECTION CENTER (NEW)	9032
23	THATTA MAKLI COLLECTION CENTER (NEW)	3606
24	SHIKARPUR COLLECTION CENTER (NEW)	6513
25	GHOTAKI COLLECTION CENTER (NEW)	6409
26	MEHRAN TOWN COLLECTION CENTER (NEW)	466
27	DOW HOSPITAL COLLECTION CENTER	13586
28	GARDEN EAST COLLECTION CENTER (NEW)	12005
29	KORANGI # 2.5 COLLECTION CENTER	8791
30	SAEEDABAD BALDIA COLLECTION CENTER	6606
31	MITHI THAR COLLECTION CENTER Opened on 19/8/15	1678
32	NIDE (DIABETIC CENTER) COLLECTION CENTER	153
33	NAZIMABAD CHEST CLINIC COLLECTION CENTER	4539
34	DHA CITY COLLECTION CENTER	34
35	EXECUTIVE CHECKUP VOLUME	439
<b>TOTAL</b>		<b>516884</b>



# DESERTED OJHA CAMPUS

## IN 2004



## MEDICAL HEALTH & RESEARCH CITY



Intensive Care Unit (ICU)



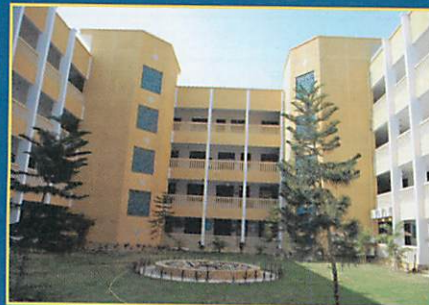
Dr. Ishrat Ul Ebad Khan Institute of Blood Diseases



Boys Hostel



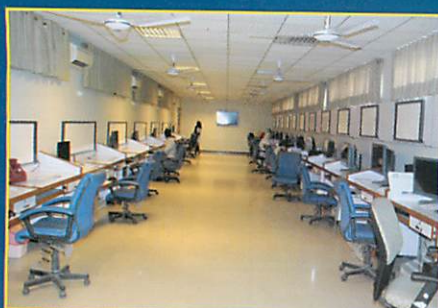
Cath Lab of Cardiology



DIMC Inner View



Digital Library DIMC



Institute of Radiology Reading Room



Bio Technology Inner View



Dow Research Institute of Bio-Technology and Bio-Sciences (DRIBBS)



# MEDICAL HEALTH & RESEARCH CITY



New Central Cafeteria



DUHS Employees Apartments



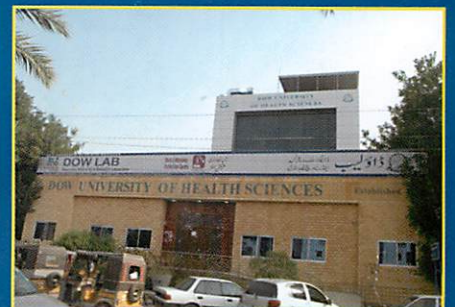
Inst. of Physical Medicine & Rehabilitation



OT Complex (Inner view)



Animal House



Dow Lab Main Collection Center



DUHS-DICE Health Innovation Exhibition



Dow College of Pharmacy



New Modern Operation Theater



Dow Dental College OPD



Jamia Masjid Aisha



Connecting Bridge between OT Complex and Dow Hospital



# MEDICAL HEALTH & RESEARCH CITY



**Dow Institute of Radiology**



**Dow International Medical College**



**Dow University Hospital**



**Library Block**



**OPD Block**



**Gymnasium**



**Institute of Health Management**



**Hostel Block**



**Institute of Nursing**



**Prof. Masood Hameed Khan  
Addressing at DHA City**



**Groundbreaking Ceremony  
of DUHS in DHA**



**Dr. Ishrat-Ul-Ebad Khan  
OT Complex**

VISION TO REALITY