

Professor Dr. Huma Arshad Cheema

MRCP UK, DPGN London (Gold medal)

Qualifications:

MBBS (Pb) 1984 with distinction Punjab University Lahore

MRCP UK Pediatrics Feb 1992 Royal College of Physicians,

London, UK **DPGN - Diplomat Pediatric Gastroenterology &**

Nutrition with distinction and Gold Medal Nov 1995 **University of London UK**

Director Foundation for Research In Medical Genetics and Genomics

Professor (Emeritus) Pediatric Gastroenterology Hepatology

University of Child Health Lahore, Pakistan (June 2007-to April 2020 13 years)

Supervisor Fellowship program in Pediatric Gastroenterology-Hepatology and Nutrition: College of Physicians & Surgeons Pakistan

Chairperson Pakistan Pediatric Association Gastroenterology-Hepatology and Nutrition group

Director Pediatric Liver Transplant Bahria Orchard multiorgan Transplant center Lahore

Honors / Awards & Distinctions

- **Received lifetime Achievement Award from the International Society of Genetic and rare diseases for life long dedication to research, global patient care and clinical counselling in the field of Lysosomal storage disorders**
- **Professor Emeritus University of Child Health Sciences Lahore**
- **Distinction from University of London and a Gold medal** in examination for Diploma in Pediatric Gastroenterology & Nutrition 1995.
- **Dr. Rahim Khan Gold Medal for first position in Punjab University** in MBBS 1984.
Distinction from University of the Punjab in Preventive Medicine 1984 with Pir **Bux Gold Medal** from Punjab University. 1984
- **Declared the Best all round Graduate of FJ Medical College Lahore** based on performance in all 5 years of medical studies. Awarded a **Gold medal** it
- Awarded 2 **Gold medals** and 2 silver medals by FJ Medical College Lahore for securing positions
- **Invited by Yale University Connecticut, USA as visiting Professor** to speak to the faculty on “ Rare

Pediatric Liver Diseases in Pakistan – Challenges and Opportunities” Sept 2016

Services to the cause of Pediatric and Child Health

- 1. Pioneered the discipline of Pediatric Gastroenterology Hepatology in Pakistan.and trained maximum fellows in the country in this discipline Introduced a CPSP certified Fellowship in Pediatric Gastroenterology Hepatology Presently 23 fellows have been trained and working in different parts of the country.** These young consultants have established pediatric Gastroenterology services in all the major cities of Pakistan including Rawalpindi, Islamabad, Faisalabad, Multan, Peshawar and Karachi. 3 left abroad to serve in middle east. Starting from a 6 bedded GI and Hepatology wing in 1998 it flourished to a full 36 bedded Gastroenterology Hepatology unit by 2001 which was further expanded to a 45 bedded unit including a 6 bedded ICU. A state-of-the-art Endoscopy suite was added in 2002. **This was the first dedicated unit of its kind in the country and caters to the needs of 4 provinces.** It provided an enormous relief to children suffering from liver and GI diseases and soon became an internationally renowned center. **I designed the Curriculum for second fellowship in Pediatric Gastroenterology Hepatology** and got the department approved and recognized as a center of excellence for fellowship training in Pediatric Gastroenterology Hepatology .

2. PIONEERED THE FIRST CENTER IN THE COUNTRY FOR DIAGNOSIS AND TREATMENT OF LYSOSOMAL STORAGE DISORDERS RECOGNISED INTERNATIONALLY AS THE RARE DISEASE CENTER OF PAKISTAN

Children suffering from LSDs like Gaucher disease and Mucopolysaccharidosis had no access to proper diagnosis and tests as no lab in Pakistan was capable of doing these tests.

After diagnosis patients had no access to treatment, as it was costly and not in reach. International links were utilized and access to free testing for all LSDs was provided to all the major teaching hospitals of Pakistan.

National database for these diseases was created in the liver unit of Children's hospital. International charitable access programs and organizations were approached for treatment. **Today therapy worth 12 million dollars (180 Crores) comes to Children's hospital Lahore as donation from Europe and USA for the treatment of children with Gaucher disease and MPS I & II**

With donation we made a special bay for these children who come from all over the country to receive infusions. This is the **only department to treat LSD patients in the entire country**

A database and local registry was first created in the liver unit at Childrens Hospital lahore and from 2018 it is part of the Global registry It is the only unit in Pakistan to be awarded a global registry for any disease. This award is based not only on research and work

done in the required field but a high level of trust of the international community in the principal investigator.

We established and registered the **Pakistan LSD foundation** which is a parent advocacy group linked to international LSD groups

3 PIONEERED THE FIRST AND ONLY GENETIC DISEASE DIAGNOSIS CENTER IN THE COUNTRY FOR FREE OF COST TESTING IN THE DEPARTMENT OF HEPATOLOGY CHILDREN'S HOSPITAL .THIS OFFERS TESTING ,COUNSELLING ,TREATMENT COMPLETELY FREE OF COST

Genetic diseases are a huge burden in Pakistan due to high rate of consanguinity but there was no access to genetic testing in our country with lack of available infrastructure and high cost of sending abroad . **In collaboration with Yale Genome center USA and later German centers Centogene and Arcensus I established a charity-testing program starting in 2017** whereby patients from all over the country with suspected genetic disease are tested along with parents and siblings **completely free of cost.**

We have so far tested more than 32000 Pakistani families with genetic diseases from all over Pakistan completely free of cost .This has not only benefited families but at same time contributed enormously to our understanding of genetic diseases in Pakistan .**This has transformed clinical care in pediatrics completely.** Not only does the patient get a diagnosis many times this will translate into appropriate

therapy. Patients from Sindh and Baluchistan who cannot travel collaborate through their physicians and bloods are sent with clinical summary

Diagnosis of Patients in ICU has facilitated treatment.

4 ORGANISING AND CONDUCTING REGULAR CHARITY CLINICS IN ALL MAJOR CITIES OF PAKISTAN THREE TIMES A YEAR

I travel with a team of doctors and scientists as well as technical staff to **Islamabad ,Karachi ,Peshawar and Multan** to major teaching hospitals of the country to hold clinics for patients with suspected genetic disorders .**Almost 200 to 250 families are seen in each city** ,their blood or salivary samples taken for testing after examining the patients

In every city we organise a workshop /seminar for understanding and awareness along with doing a one or two day clinical service .This is done completely free of cost for the patients

5 ARRANGING TREATMENTS OF DISEASES DIAGNOSED ON TESTING

By using the network of rare diseases, I arranged Orphan drugs like **Nitisinone, Orphazyme , Cholic acid** etc which are life saving drugs and completely cure the child

These drugs are provided through us completely free of cost

I have been working with Charitable organisations like Direct relief and getting very expensive orphan drugs for our poor patients free of cost

The center at Childrens Hospital Lahore has been recognised internationally as the **First Rare disease Center In Pakistan**

6 ESTABLISHING THE FOUNDATION FOR RESEARCH IN MEDICAL GENETICS AND GENOMICS IN PAKISTAN

I have been actively involved over past years in training of human resource to establish these services in Pakistan .Finally in January 2021 we established and registered this foundation which offers non profit low cost testing for genetic diseases in Pakistan

This has been a big milestone and a big break through for children with Genetic diseases .For the first time we are able to provide genetic testing at low cost on our door step .The project of the Migenes diagnostic lab under the FRMGAG is a breakthrough for Pakistan

7 PRENATAL TESTING FOR GENETIC DISEASES THROUGH CVS FREE OF COST

Thalassemia testing is the only one available to couples in Pakistan .CVS for other genetic disease or inborn error of Metabolism was not routinely available and some centers in Karachi and Lahore were sending privately at very exorbitant costs which are not in reach of majority .I started the program of prenatal testing for genetic diseases completely free of cost again in collaboration with partners abroad .With partners we tested almost 150 families .In past one year we have performed CVS in our

foundation lab for 100 families with genetic diseases .This has been done free of cost for 50 percent patients

8 ESTABLISHMENT OF PEDIATRIC LIVER TRANSPLANT

CENTER at Bahria Orchard Hospital Lahore. Until recently Pediatric liver transplant services were absent in our country and most of the children had to go to either India or China for life saving surgery. Establishing a center in Pakistan was my dream as well as a dire need. We needed a place where it would be possible to get a poor child done free of cost as well. After much efforts I was able to establish a state of art facility with help of donors which attracted two transplant surgeons to join the program. We have done 18 very small children successfully over past 7 months. 16 were done completely free of cost

9 APPOINTED FOCAL PERSON PEDIATRIC BONE MARROW TRANSPLANT IN PUNJAB AND PIONEERED THE FIRST BONE MARROW TRANSPLANT PROGRAM AT

CHILDREN'S HOSPITAL ALONG WITH THE HEMATOLOGY ONCOLOGY GROUP AND NIBD. Today this is the largest Public sector program in Pakistan where BMT is done in Children completely free of cost

10 **WORK WITH INTERNATIONAL NGOS & PATIENT ORGANIZATION FOR CHILD HEALTH**

In order to support patients with genetic liver diseases I established the **LSD society of Pakistan**, which has the parents as active members and reach out nationally and internationally for help and support of patients with LSDs

I established the **National Tyrosinemia patient parent society to support families with Tyrosinemia**

Work with NGOs

1. Since 2005 I have worked with Direct Relief which is a California based NGO for providing access to treatment for patients with LSDs as well as other genetic diseases This NGO has provided therapy worth over 90 million us dollars since 2013
2. Worked with Direct relief on ground for the Earthquake afflicted families and Children in 2005 in Balakot
3. I work with the Niemann Pick disease foundation (NPDF) for helping patients with Niemann Pick disease since 2019
4. I have worked very closely with International Gaucher Association IGA since 2012 to provide access to diagnosis and treatment for Patients with Gaucher disease

CONTRIBUTION TO RESEARCH AND ACADEMICS

MULTICENTER MULTINATIONAL CLINICAL TRIALS AND STUDIES

I was Principal investigator in Multiple clinical trials and research projects

- World famous Lysoproof study looking at LysoGb1 as a biomarker for diagnosis and monitoring of Gaucher Disease .We were the biggest

partner with maximum recruited patients and received an ovation at the World congress in Florida 2021

- Biometabol clinical study with 12 countries studying blood biomarkers of 158 genetic diseases which just concluded this year .My department again was biggest partner
- Metaprint clinical study with 8 countries and 4 centers in Pakistan .We continue to be biggest partner with Maximum recruited partners
- We have been approved for PHASE 3 clinical trial “The Ellikikids clinical trial” looking at Eliglustat as substrate reduction therapy in neurological Gaucher

PUBLICATIONS IN HIGH IMPACT JOURNALS

1. Secondary findings in a large Pakistani Cohort tested with whole Genome Sequencing :Aliaksandr Skrahin ,**Cheema HA** ,Volha Skrahina. **Life Science Alliance**: Jnauary 2023 : 202201673 vol 6 | no 3 | e202201673
2. Corticosterone Methyl Oxidase Type 1 (CMO1) deficiency due to CYP11B2 Mutation :Two case reports,Saad Rehman ,Sommya Aftab **Cheema HA** :May 18 ; 15(5) 2023 Cureus
3. **Book chapter** on Immune deficiency related liver disease **in Text book of Pediatric Hepatology (PARAS medical books) first edition January 2023**
4. Clinical spectrum and diagnostic challenges of Vitamin D dependent Rickets type 1A (VDDR1A) caused by CYP27B1 mutation in resource limited countries .Sommya Aftab ,Munir Malik ,**Cheema**

- HA :December 2022 **Journal of Pediatric Endocrinology and Metabolism** 36(2) DOI :10.1515/jpem-0550
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 9. Management Challenges of Rabson Mendenhall syndrome in a resource limited country : Summiya Aftab ,Nadeem Anjum Anjum Saeed H A Cheema :September 2022 **Journal of Pediatric Endocrinology and Metabolism** 35(11)

- 10.** Bi –allelic loss of function variants in TMEM147 Cause moderate to profound intellectual disability with facial dysmorphism and pseudo Pelger –Huet anomaly .Quentin Thomas , Bruno Riversade ,Cheema H A ,Aida Bertoli-Avelia :**American Journal of Human Genetics**
- 11.** An integrated multiomic approach as an excellent tool for the diagnosis of metabolic diseases: our first 3720 patients: Peter Baur Ligia S. Almeida Catarina Pereira Ruxandra Anicai **Cheema HA European Journal of Human Genetics** May 2022
- 12.** A disorder clinically resembling cystic fibrosis : caused by biallelic variants in the *AGR2* gene Bertoli-Avella A, Hotakainen R, Al Shehhi M, **Cheema HA**, Ameziane N, Al-Muhsen S, Bauer P. **Journal of Med Genet.** 2021 Dec 24;jmedgenet-2021-108150
- 13.** **Book Chapter: Pediatric liver tumors. Author: Prof Huma Arshad Cheema. Textbook of Pediatric Gastroenterology, Hepatology and Nutrition: Anupam Sibal, Sarath Gopalan (eds), Akshay Kapoor, Vidyut Bhatia (co-eds) Published by Jaypee Brothers A Medical Publishers (P) Ltd, New Delhi, India; First Edition: 2015; ISBN: 978-93-5152-740-4**
- 14.** Loss of UGP2 in brain leads to severe epileptic encephelopathy, emphasizing that bi-allelic isoform specific start-loss mutation of essential genes can cause genetic diseases. Ellena Parenthelar, **Cheema et al. Acta neuropathologica 139**, pages415–442(2020)

15. Very early onset Inflammatory bowel disease: spectrum of clinical presentation, diagnostic tools and outcome in Children: Huma Cheema ,Nadia Waheed , Anjum Saeed **JPMA** 71:2350 2021
16. Combining exome/genome sequencing with data repository analysis reveals novel gene–disease associations for a wide range of genetic disorders :Aida M Bertolli-Avella Arndt Rolfs and Peter Bauer **Genetics in Medicine** (2021)23:1551-1568
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23. Phenotypic Diversity of Niemann Pick Disease type C in Pakistani Children: Cheema HA, Anjum Saeed ,Nadeem Anjum **Molecular Genetics and Metabolism** feb 2020 Volume 126 , Issue 2 , February 2019
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28. Celiac Disease in Children. Saeed A, Assiri A, Cheema HA, **J Nat Set Med** 2019;2:23-8.
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30. **BMJ Case reports** Unusual case of Juvenile Tay-Sachs disease. **Cheema HA**, Waheed N, Saeed A Case report 2019 Sep 12 : 12(9)
31. Antifungals in a case of basidiobolomycosis: role and limitations. Saeed A, Assiri A, Bukhari I, Assiri R. **BMJ Case Rep** 2019;12:e230206. doi:10.1136/bcr-2019- 230206
32. Genetic analysis of Tyrosinemia Type 1 and Fructose-1, 6 Bisphosphatase deficiency affected Pakistani cohorts. Zahoor MY , **Cheema HA Fetal and Pediatric Pathology**, 2019 Oct 4;1-11.

33. Identification of a novel GLB1 mutation in a consanguineous Pakistani family affected by rare infantile GM1 gangliosidosis. Zubaida B, Cheema Et al. **Journal of Genetics** volume 97, pages 1445–1449 (2018)
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91. Pediatric Gastroenterological Diseases in Pakistan—A Better Understanding for Better Management. Cheema HA Editorial; Pak Pediatr J 2013; 37(2): 71-73.
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93. Etiology presentation and management of liver abscesses at the children's Hospital Lahore. Cheema HA. Annals of King Edward Med Coll vol 14 No 4 (2008)

94. Hookworm infestation in children presenting with Melena. Cheema HA, Saeed Anjum. Pakistan Journal of Medical Research, 47(4), 98-100.
95. Recommendations for the Treatment of Chronic Hepatitis B infection in children. Shah U, Memon I, Cheema HA Tobani S, et al. J Pak Med Assoc 2007; 57(4): 204-7.
96. Recommendations for the treatment of chronic Hepatitis C infection in children. Mirza R, Memon I, Cheema H A, Salman Ali , Sohail Thobani, Uzma Shah. J Pak Med Assoc 2007; 57(8): 419-20
97. Endoscopic Balloon Dilatation of Esophageal Strictures in Children. Cheema HA. Ann King Edward Med Coll Dec 2006;12(4):408-11.
98. Galactosaemia - presentation, diagnosis and management. Cheema H A. Biomedica Jun 2004; 20(1):45-7.
99. Misses and near misses: Drug administration errors. Cheema HA, Majeed H, Cheema MA. Ann King Edward Med Coll Jun 2004; 10(2):34.
100. Neonatal cholestasis and congenital Malaria, Experience from a tertiary care Hospital .Sara Batool ,Huma Cheema :Pakistan Pediatric Journal Sept 2019

101. A young girl with dysphagia lusoria. Batool SS, Cheema HA, Saeed A, Fayyaz Z, Anjum MN, Alvi MA, Waheed N. *Pak Pediatr J* 2020; 44(3): 284-86.
102. Diagnosis, management and outcome of Wilson's disease in children. Cheema HA. *Pak J Gastroenterology* 2004; 18(1):19-23.
103. Utility of Endoscopy in Infantile Hypertrophic Pyloric Stenosis. Cheema H A. *J Pak Med Assoc* Oct 2003; 53(10):482-3.
104. Severe neuromuscular paralysis associated with hypophosphatemia. Anwar H. (*Maiden Name*). ***Ann Saudi Med*** 1993; 13(5): 456-7.

INTERNATIONAL COLLABORATIONS

1. Prof Arndt Rolfs Arcensus Germany for all genetic diseases and their detailed genomics for diagnosis management and treatment
2. Prof Peter Bauer Centogene Germany
3. Yale university: Indeterminate liver failure and Biliary Atresia
4. University Children's hospital Munich Germany. Early onset IBD
5. Boston Children's Hospital for rare immunodeficiency disorders
6. Prof Roberto Colombo Catholic University of Sacred Heart Italy
Collaboration on Channarin Dorfmann syndrome
7. Prof Timothy Cox Cambridge University UK research collaboration on neuronopathic Gaucher Disease
8. Professor James Shayman University of Michigan Collaboration on Gaucher disease

INVITED SPEAKER IN INTERNATIONAL MEETINGS

1. **Invited Keynote speaker CAPGHAN Toronto** Topic: Establishing Pediatric GI Hepatology services and fellowship program in a developing country. Canada Oct 2019
2. **Invited speaker to World congress of Pediatric Gastroenterology Hepatology June 2020 in Denmark to speak on Hereditary Pancreatitis in Children.**
3. **Invited by Yale University Connecticut, USA as visiting Professor** to speak to the faculty on “Rare Pediatric Liver Diseases in Pakistan – Challenges and Opportunities” Sept 2016
4. **Invited Speaker** WORLD Symposium on Lysosomal Storage Diseases topic Rare Diseases in Pakistan: Challenges and the way forward San Deigo USA 2018
5. **Invited Speaker** WORLD Symposium Lysosomal Storage Diseases topic “Unmet needs of children with Gaucher’s disease in Pakistan San Deigo USA 2017
6. Invited speaker to 3rd **World Congress of Pediatric Gastroenterology Hepatology & Nutrition** Non-Viral Infections of Liver Iguassu Falls Brazil 2008
7. **Invited Keynote Speaker** to the 6th Gaucher leadership forum in Berlin 2015 Topic “Unmet needs of children with Gaucher’s disease in Pakistan” Berlin Germany
8. Invited speaker 4th **World Congress of Pediatric Gastroenterology Hepatology & Nutrition** Varying faces of Abdominal TB in Children Taipei Taiwan Nov 2012
9. Invited speaker 5th World Congress of Pediatric Gastroenterology Hepatology & Nutrition Montreal Canada 2016

10. Invited speaker **6th World Congress of Pediatric Gastroenterology Hepatology & Nutrition Hereditary Pancreatitis** in Children Copenhagen Denmark June 2020 (Postponed to next year because of Covid)
11. **Invited speaker** International Gaucher forum annual meeting London 2016
May: title “Bone marrow transplant in Gaucher disease “
12. **Invited speaker** annual international Gauchers Disease Forum London 2017
13. **Invited speaker** to International Gaucher’s Disease Forum annual meeting London UK 2019
14. **Invited speaker** European Working Group on Gaucher Disease EWGGD Clermont Ferrand France July 2019
15. **Invited speaker** European Working Group on Gaucher Disease topic: Working within Government capabilities to support Gaucher’s patients in Pakistan – an alternative strategy Zaragoza Spain July 2016
16. **Invited Speaker** 1st Pediatric Infectious Disease Topic Viral Hepatitis in developing countries” Kota Kina Balu Malaysia 2013
17. **Invited speaker** International Gaucher Forum
18. **Invited Keynote Speaker** 1st Elite Pediatric GI Conference topic “Art of managing Wilson’s Disease” Dubai UAE 2015
19. **Invited speaker** Invited speaker CAPGHAN title: Lusaka Zambia Sept 2017
20. Invited speaker CAPGHAN BIENNEAL Delhi India Oct 2015
21. Invited speaker CAPGHAN BIENNEAL meeting Columbo Sri Lanka Dec 2013
22. **Invited speaker** Enteromeet Dubai Topic: Acute Diarrhea in developing countries- a perspective from Pakistan Dubai UAE Octt 2018
23. **Invited speaker** Enteromeet Topic: Gut immunity and probiotics - Dubai UAE Sept 2017
24. Invited speaker in European Gaucher Association Meeting April 28, 2014
London UK titled “Experience of managing Gaucher Disease in Pakistan”

25. Invited Plenary speaker International Ped GI / Hepatology Conference topic
Inflammatory Bowel Disease in Children Delhi India Sept 2015
26. Invited speaker International Ped GI / Hepatology Conference topic
“Pediatric Liver Tumors” Delhi India Sept 2014
27. Invited speaker International Ped GI / Hepatology Conference /topic
“Pancreatitis revisited” Delhi India Sept 2013
28. **Invited plenary speaker** 3rd International Pediatric Liver Symposium Topic
Progressive Intrahepatic Cholestasis” Gurgaon India April 2016
29. Invited plenary speaker International Pediatric Liver Symposium Topic
“Wilson Disease – an overview” Gurgaon India April 2015
30. Invited speaker International Gaucher’s Meeting Topic: National Registry for
lysosomal storage disease in Pakistan. London UK Oct 2017
31. Invited faculty APPSGHAN Meeting Bangkok Thailand Oct 2018
32. Invited speaker Ped GI Meeting Topic: Management of Food Allergies in
Children” Dhaka Bangladesh 2018

**PRESENTATIONS OF POSTERS AND ORAL PRESENTATIONS AT
INTERNATIONAL CONFERENCES AND BEST POSTER AWARDS**

1. **Deficiency of Interleukin-1 Receptor antagonist (IL1RN) and Pancreatitis,
Novel Mutation in a Pakistani Child. Hybrid WCPGHAN 2020, Vienna.**
2. **XIRP2 Deficiency: A Disorder of Deafness, Recurrent Pancreatitis and
Cardiomyopathy. Hybrid WCPGHAN 2020, Vienna.**
3. **Spectrum of Gastrointestinal manifestation and role of genetics in primary
immunodeficiency states in children. WCPGHAN 2020**
4. **Very early onset inflammatory bowel disease; spectrum of clinical
presentation,diagnostic tools and outcome in children. Hybrid WCPGHAN
2020, Vienna.**

5. **Congenital diarrheal disorders and enteropathies in Pakistani children. ESPGHAN 2022, Copenhagen, Denmark.**
6. **Bile acid synthetic defects - a treatable condition not to miss in highly inbred communities. ESPGHAN 2022, Copenhagen, Denmark.**
7. **Best poster award** “Safety and efficacy of treatment naïve children with hepatitis C infection” World congress of Pediatric Gastroenterology Hepatology and nutrition Montreal 2016
8. **Best poster award “Poster of distinction** on “Celiac crisis: still not a forgotten entity in developing countries” **ESPGHAN update meeting** Stockholm Sweden 2012
9. **Oral Presentation** at ESPGHAN Barcelona Spain 2007 “Wilson’s disease –an under reported entity in Pakistan “
10. **Oral presentation** at ESPGHAN Barcelona Spain 2007 “Liver abscesses in children spare the knife and save the children”
11. **Oral presentation** at ESPGHAN 2003 Paris “Celiac disease an under reported entity in Pakistan”
12. **Poster presentation** at WCPGHAN 2012 Taipei Taiwan “Mitomycin a break through in management of esophageal strictures”
13. **Poster presentation** at WCPGHAN 2016 Montreal Canada “Inflammatory Bowel disease in developing countries”
Poster presentation at ESPGHAN 2015 Netherlands Amsterdam “Biliary diversion in Progressive Familial Intrahepatic cholestasis”

National speaker Invitations

List is too lengthy for a CV. Following are a few

1. Invited speaker Rare Genetic Diseases in Pakistan - Agha Khan University Karachi Pakistan Mar 2020
2. Plenary speaker at the Pakistan Pediatric Association Biennial conference

- Islamabad 2018 “Management of Hepatitis B and C in Children “
3. Plenary speaker to the international Pediatric Congress in Karachi, March 2016 on “Diagnosis and Management of LSDS in a developing country ”
 4. Invited plenary speaker on “Recent Advances in Hepatitis B and C in Children ” Hyderabad National Pediatric congress October 2015
 5. **Plenary speaker** International Pediatric Congress Lahore December 2013 on “Priorities in Child health in Pakistan”
 6. Invited speaker at Gastrocon 2013 Faisalabad Pakistan and talked on management of Hepatitis C in Children
 7. Plenary speaker at National Institute of Child Health Karachi. “Recent Advances in Diagnosis and management of Pediatric Liver disease”. Dec 2013
 9. Invited speaker at Pakistan Pediatric Association Biennial meeting Karachi 2013
 10. Invited speaker at National Infectious diseases conference on management of Hep B & C in Children Karachi Pakistan Jan 2012
 11. **Cheema HA** presented a paper on “Fulminant hepatic Failure in children ” **ESPGHAN** 2011 Sorrento Italy
 12. A state of art lecture as Invited Speaker on Management issues in pediatric liver transplant recipients. New Delhi India, Oct 2006
 13. A state of art lecture as Invited Speaker on Status of Hepatitis A virus in Asian Countries: Is there a need for routine vaccinations? at 2nd **Pediatric Infectious Disease Symposium** Malaysia Sept 2004
 14. A state of art lecture as invited speaker in the International Congress of Gastroenterology and Hepatology held in Peshawar “Variceal bleeding in Children” March 2005

15. Invited speaker for the Pakistan liver day held in Lahore in April 2005 “Myths and misconceptions about hepatitis in our country”
16. Invited speaker to the Asian transplant association meeting in Karachi Dec 2005 “Wilson’s disease –the Children’s Hospital experience”
17. **Invited speaker on** Upper GI Bleeding in Children Presented at 14th national conference association of pediatric surgeons Pakistan Nov 2001, Lahore.
18. State of art lecture presented as invited speaker Management of chronic diarrhea to Asir Pediatric club, Abha Saudi Arabia May 1996.
19. High prevalence of celiac disease in Punjabi children. Presented to KEMC annual symposium Dec 1999
20. Misses and near misses: pharmacological mishaps in our setup presented to KEMC annual symposium Dec. 2002, Lahore.
21. **Invited speaker** Topic: Celiac Disease: presented at annual symposium of Armed Forces PGMI Dec 2002, Rawalpindi
22. **Invited speaker** Topic: Diet and Gastrointestinal Disease in Children. Presented at annual symposium of Lahore College of Economics Sept 2002 Lahore
23. **Invited speaker** Topic: Haemophagocytic Lymphohistiocytosis (HLH) the Children’s Hospital experience presented at international Pediatric Hematology congress Oct 2002 Lahore.
24. **Invited speaker** Topic: Diagnosis & Management of Celiac Disease presented at 16th biennial pediatric conference Pakistan Pediatric Association, Feb 2002 Karachi.
25. Presented state of art lecture as invited speaker on Pediatric Celiac Disease to 18th gastroenterology congress of Pakistan society of gastroenterology May 2002, Karachi.
26. Management of Esophageal varices in children, presented to update on gastroenterology seminar-management of difficult problems Oct 2000, Lahore
27. 11th Annual pediatric symposium **Liaquat University of Medical and health sciences Jamshoro Sindh** Topic LSDs in Pakistan

28. **Invited speaker Liaqat University of Medical and health sciences Jamshoro Sindh** Topic: “When and How for pediatric Hepatitis B and C “ October 2019

Invitation to speak as Motivational speaker

1. Invited to speak on “Stress and Resilience” at the Nestle corporate office Lahore 2018
2. Invited to speak on “How to tackle work stress” Lahore Chamber of commerce 2019
3. Invited to Home economics college for women to speak on “Women empowerment”
4. Invited to speak on “Inspiration versus Perspiration” by Army Public school 2016
5. Invited as a **Motivational speaker** for the Graduating Class of 2016 University of Punjab
- 5.

Services to the cause of PPA

Life member PPA

Active member of PPA from 1998 on returning to Pakistan

Administrative Services for the Pakistan Pediatric Association

- Served as executive member PPA Punjab 2013
- Executive member PPA center in 2012 to 2014 as well as 2020 to 2022
- Elected Chairperson PPA GI and liver Group three terms
- Organised the Scientific Programme of 2004 Biennial as Chair person Scientific committee
- Chair person Registration committee in PPA biennial 2014
- Chairperson Registration committee in PPA Punjab meeting in Lahore in 2019
- Since 2008 organized all the Gastroenterology Hepatology sessions of PPA biennials

Administrative, Academic and Training services as Chairperson PPA GI and liver Group

- Organized all the Gastroenterology Hepatology sessions of PPA biennials
- Introduced a **virtual monthly Case based discussion series** based on real life cases of Pediatric Gastroenterology Hepatology .Trainees and consultants in Pediatric Gastroenterology Hepatology as well as senior pediatricians from all over the country participate and discuss .This has been on going since past 2 years .
- **Organized yearly international Congresses of Pediatric Gastroenterology**

- Hepatology.** Professionals hugely attended these across the country. International speakers delivered state of art talks on important subjects
- **8 National Celiac disease days were organized** at the Children's Hospital to raise awareness over the rising incidence of celiac disease in Pakistan. Families were taught how to make gluten free food on the spot and information booklets were printed and disbursed
 - **Workshops on mother and child Nutrition** with empahsis on Breast feeding were conducted in Home economics college ,Lahore college for women and Punjab Univeristy
 - **Nutriton and feeding camps** were organised in Mardan and Bannu for the migrated famiies during Operation Zarbe Azab
 - **12 International symposia on genetic diseases were organized over the years** in major cities of Pakistan ie Karachi ,Lahore ,Multan and Peshawer .Renowned international Professors and Scientests delivered lectures in person.
 - **Every year from 2014 Rare disease day symposia and Public Awareness Programs** were organized on 28 February, which is a World Rare Disease day.
 - **Uptil now Ten rare disease day events have been organised .** Nine of these were organised in lahore and one in karachi
 - **In Feb 2020 a mega International symposium** was organized at AVARI LAHORE to raise awareness on genetic diseases in Pakistan. Families and children with genetic diseases from all over the country were invited along with international experts as well as

print and electronic media .A team of 9 international scientists and professors delivered talks .

- In March 2021 an International Seminar on Genetics titled **Genetics Matters to every one** was held at the German Cultural Institute .This was done to raise awareness on the high burden of genetic diseases in Pakistan .People from all walks of life including Parents ,Children with diseases ,Hockey and Cricket Players as well a senior Journalists participated in the seminar .Famous Cricketer Capt Misbah ul Haq pledged to be the Ambassador for prevention and diagnosis of Genetic diseases in Pakistani Children
- Organized **Four Preceptor ship courses for training of doctors** from all over the country in diagnosis and management of Inborn errors of metabolism where doctors from all over the country received training in diagnosis and management of these diseases .After completion of the modules certification was provided
- **Three Hands on endoscopy training workshops** to tutor difficult endoscopic procedures were conducted for fellows in Pediatric Gastroenterology hepatology
- Held **educational work shops and talks under the umbrella of local chapters of PPA punjab ie Sialkot ,Multan ,Bhawalpur ,Faisalabad , Gujranwala ,Okara , Rawalpindi**
Typhoid fever
Hepatitis A and other water born diseases

- Diarrhea And Malnutrition
- Management of Acute Diarrhea
- Rational use of Antimicrobials in acute Diarrhea in children
- Rational Use Of Probiotics
- Neonatal Cholestasis Guidelines
- Guidelines On Management Of Hepatitis B and C
- Guidlines On Managemnet Of Wilsons Disease
- Approach to Inborn errors of metabolism
- Approach to Chronic liver disease in Children
- Congenital diarrhea and Enteropathies
- Lysosomal storage disorders ,how to diagnose and manage
- Understanding Special milk formulas and diets
- When to refer for liver transplant and indications of liver transplant in Children
- Bone disease in Children and rationale use of Vitamin D
- Guidelines of managing Cows milk Protein Allergy
- Guidelines of managing Gastroesophageal Reflux disease in children
- Held **educational work shops and talks under the umbrella of local chapters in Sindh ie Karachi , Hyderabad and Sukkur**
- Approach to diagnosis and managment of LSDs
- Approach to Child with chronic hepatitis
- Guidelines on Hepatitis C and B management
- Held seminars in Peshawar at KTH for postgraduate teaching and training
- My team represented me in the **PPA KPK branch in Swat in 2018**
- **Participated in PPA KPK branch confeence in Nathia Gali**

- **Organized training for the 3 fellows and 2 Nutritionist in centers of Excellence abroad in Austria, London, Turkey and Dubai and arranged funding for their travel and stay**

Developing and publishing Guidelines

As part of the PPA GI and liver group developed **guidelines for management of**

Hepatitis B and C in children in 2006 and 2007 which were published in JPMA .Updated these guidelines in 2018

Developed guidelines for Pediatric liver tumors and approach to diagnoses and management in consultation with experts from the region including India, Bangladesh, and Sri Lanka .**These guidelines were published in the Text Book of Pediatric Gastroenterology Hepatology** in 2017

Developed Nutritional guidelines for the management of Patients with

Glycogen storage diseases

Chylous disorders

Glucose Galactose malabsorption ,Galactosemia

Organic Acidemias and urea cycle defects

Published patient and Public information booklets for parents having children with Celiac disease

Wilson's disease

Glycogen storage diseases

Cows milk allergy

Intestinal lymphangiectasias

These information booklets have been disseminated all over the country to Public and private sector hospitals

Academic services for Pakistan Pediatric Association

Attendance of PPA academic events and Presentation of scientific papers

Attended all **The Biennial Conferences Of PPA** since 2002 except Quetta biennial in 2010

1. Was part of organising committee and participated in the 17th PPA Biennial meeting in Lahore in 2004 .Organised the Gastroenterology Hepatology session with televideo talks from USA and UK .Two international invited speakers travelled in person
2. Attended the **18th PPA Biennial conference** held in Islamabad 2-5 th March 2006 and spoke on *Chronic Diarrhea in children*
3. Participated in **19th PPA Biennial conference** Peshawer 6-9 March 2008 attended and presented on *Chronic liver disease in Children* .My trainees presented original paper on *Celiac disease in children :Data of Childrens Hospital lahore*
4. Participated in **21st PPA Biennial conference in Karachi** 2-4 November 2012 and presented on *Metabolic Liver disease*
5. Participated in **the 22nd Biennial conference** in Lahore 20-23 November 2014. Was **Chairperson Registration committee** .Presented **Plenary talk** on *Approach to a Child with Abdominal Pain* .Invited and Organised the lectures of two international speakars

- Held preconference workshops** on *Hands on Liver biopsy* as well as *Indications of upper and lower GI endoscopies*
6. Participated in the **23rd Biennial conference** in 2016 in Karachi. Presented on *Diagnosis and management of LSDs in developing country*
 7. Participated in the 24th **Biennial conference** in 2018 held in Serena Islamabad
 Organised the Gastroenterology Hepatology session with two invited speakers from outside Pakistan
 Held Preconference workshop on Genetic counselling
 Was Invited for a **Plenary talk** on Management of Hepatitis B and C In children
 8. Participated virtually in the 25th **Biennial conference** on April 1-4 2020 in Quetta and presented a talk on *Burden of Genetic Liver and Gastroenterological Diseases in Pakistan*
 9. Organised the Gastroenterology Hepatology session in PPA conference in Dec 2021 in Islamabad and was invited to talk on *Approach to Inborn errors of Metabolism*
 10. Attended all the PPA Punjab annual conferences since 2000 except the one held during Covid pandemic. Presented in most of the PPA Punjab annual conferences
 11. Attended the monthly meetings of PPA Punjab and presented interesting cases on at least 7 occasions
 12. Was part of the organising committee of PPA annual conference in 2019. Organised the Gastroenterology Hepatology session

MEMBERSHIPS / POSITIONS IN SOCIETIES

- **Chairperson Pakistan Pediatric Association (PPA) GI group**
- **Council member APPSPGHAN** (Asia Pan Pacific Society of Pediatric Gastroenterology Hepatology)
- **Member Nutrition committee APPSGHAN**
- **Council member CAPGAN**
- Member FISP GHAN (Federation of international Societies of Pediatric Gastroenterology Hepatology and Nutrition)
- **Member FISP GHAN committee on Ingestions and Foreign bodies in Pediatrics**
- **Member NASPGAN advisory board on Pediatric ERCP**
- Member National Advisory Board on Hepatitis, Pakistan Medical Research Council Islamabad Pakistan
- Member Pakistan Society of Gastroenterology & GI endoscopy
- Member Pakistan society of Hepatology
- Supervisor and Examiner for General Pediatrics Fellowship of College of Physicians and Surgeons (FCPS) Pakistan
- Supervisor and Examiner for Fellowship in Pediatric Gastroenterology and Hepatology of College of Physicians and Surgeons FCPS (Ped GI) Pakistan

Referees:

1: Professor Sajid Maqbool DABP, FACP

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2: Professor Timothy Cox Director of Research

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