



# Dr. Zahid Mehmood

Institute of Biochemistry  
University of Balochistan, Quetta

## Personal

Born: July 1<sup>st</sup>, 1961 Married: Four Children  
Designation: Assistant Professor  
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## Education

2013 Ph.D. Biochemistry, Institute of Biochemistry, University of Balochistan, Quetta.  
1994 M.Phil. Institute of Biochemistry, University of Balochistan, Quetta.  
1984 M.Sc. Chemistry (Organic). Department of Chemistry, University of Balochistan, Quetta.  
1981 B.Sc. Chem/Biology. Government Science College, Quetta. University of Balochistan, Quetta.

## Research & Professional Experience

2<sup>nd</sup> Oct., 2010-9<sup>th</sup> Oct., 2013 Director, Institute of Biochemistry, University of Balochistan, Quetta.  
12<sup>th</sup> Dec., 1993-till date Assistant Professor, Institute of Biochemistry, University of Balochistan, Quetta.  
15<sup>th</sup> April, 1987-11<sup>th</sup> Dec., 1993 Lecturer, Institute of Biochemistry, University of Balochistan, Quetta.  
1<sup>st</sup> May, 1986-31<sup>st</sup> March, 1987 Research Officer Institute of Biochemistry, University of Balochistan, Quetta, on research project No.B-Bu/MED(89), Biochemistry of Gallbladder Mucin Glycoprotein, Sponcered by Pakistan Science Foundation, Islamabad.

## Major Research Intrest

Chemistry & biochemistry of complex carbohydrates (glycoconjugates), structure function relationship of glycoproteins, glycoproteins of epithelial cells and cell surface malaria glycoproteins, role of trace metals in human cervical mucus, pesticides/biopesticides, chemistry of free redicals.

## Experience

- i. Teaching Experience: over 26 (twenty six years)
- ii. Research Experience: ~ 23 (twenty three years)
- iii. Administrative Experience: 03 (three years)

## **Teaching Intrest:**

Biochemistry, Bioorganic Chemistry, Bioanalytical Chemistry, Complex Carbohydrtes

## **Analytical techniques used in research**

- i. Column Chromatography
- ii. Gas Chromatography
- iii. High Performance Liquid Chromatography
- iv. Electrophoresis (SDS PAGE, Agarose)
- v. UV/Visible Spectroscopy
- vi. Atomic Absorption Spectroscopy
- vii. Infra-red Spectroscopy

## **Membership of professional societies**

- i. Exececutive Council member (Associate Secretary Balochistan). The Pakistan Society for Biochemistry & Molecular Biology. 1998.
- ii. Member Biological Science Society of Pakistan.
- iii. Member National Geographic Society.
- iv. Member Board of Studies of the Institute of Biochemistry, University of Balochistan, Quetta.
- v. Member Academic Council, University of Balochistan (2010-2013).

## **Additional Professional Activities**

(Seminars, Confrences, Symposia, Trainings, Scientific exhibitions and others)

1. Participated in “All Balochistan Scientific Information Program 83” Organized by PASTIC sub center Balochistan.
2. Participated in workshop on Glycoconjugates. Organized by Institute of Biochemistry, University of Balochistan, Quetta. From October 06-09, 1986.
3. Short training in instrumentation used in Biochemistry, for the period of one month, at HEJ Research Institute of Chemistry, University of Karachi, 1987.
4. Participated in 7<sup>th</sup> Pakistan Congress of Zoology. Organized by Zoology Department, University of Balochistan, Quetta from April 25-27, 1987.
5. Training course on Personal Computer hard ware maintenance from Sept., 3-8, 1994. By National Academy Higher Education, UGC, Islamabad.
6. Participated in Workshop on “The state of the Art and Science of Vaccinology” organized by VRI, Quetta. On dated October 05, 1995.
7. Participated in 6<sup>th</sup> International Symposium on Natural Product Chemistry from January 04-08, 1996, Jointly organized by HEJ Research Institute of Chemistry, University of Karachi and the Chemical Society of Pakistan.
8. Attended Cell Biology Workshop (Lectures and Lab works) held from 22<sup>nd</sup> to 26<sup>th</sup> Septemer, 1996 organized by Karolinska Institute, Sweden and The Hospital for sick Children (HSC) Canada, at Agha Khan University Karachi.

9. Participated in workshop on Contemporary Research Methodology held on 22-23 April, 2002 at University of Balochistan, Quetta.
10. Participated in five days Operational/Trouble-shooting Training courses on Gas Chromatography, sponsored by the Ministry of Science & Technology, Government of Pakistan. Held at PCSIR Laboratories Complex, Karachi from 29<sup>th</sup> June to 3<sup>rd</sup> July, 2002.
11. Participated in One day workshop on writing research grants, jointly organized by Balochistan University of Information Technology & Management Sciences (BUIITMS), Quetta and Higher Education Commission on 09<sup>th</sup> September, 2003.
12. Participated in 29<sup>th</sup> National PAP Conference and Scientific Exhibition from 16<sup>th</sup> -18<sup>th</sup> November, 2005. Held at Karachi Expo Center.
13. Participated in workshop on Teaching Techniques, Communication Skills and Management, held at University of Balochistan, Quetta on February 27-28, 2007, sponsored by Higher Education Commission, Pakistan.
14. Participated in 1<sup>st</sup> International Conference on the Role of Chemistry & Biochemistry in the National Development, held at the Department of Chemistry & Institute of Biochemistry on 16-18 April, 2007.
15. Participated in the workshop/seminars on "Techniques in Biotechnology: Theory and Practice" jointly organized by the Institute of Biochemistry and Center for Advanced Studies in Vaccinology and Biotechnology (CASVAB), University of Balochistan, Quetta, on April 24-29, 2006.
16. Participated in One Day Training Session on "Leadership in Era of Globalization" held on 2<sup>nd</sup> June, 2007 at Quetta Serena Hotel.
17. Participated in workshop on Research Methodology. Held at University of Balochistan, Quetta on November 05-10, 2007. Sponsored by HEC, Pakistan.
18. Participated in "English Language Proficiency Program" for the University teachers for 3 months at English Language Center (ELC), University of Balochistan, Quetta.
19. Participated in workshop on "Research Methods and Proposal writing" held on March 03-07, 2008 at University of Balochistan, Quetta, sponsored by HEC, Islamabad, Pakistan.
20. Participated in the training workshop on Institutional Ethical Review Board (IERB) on 9<sup>th</sup> March, 2011. At Post Graduate Medical Institute, Sandeman Provincial Hospital, Quetta, sponsored by Pakistan, Medical Research Council (PMRC) and World Health Organization (WHO).
21. Participated in One Day workshop on Zoonotic Diseases Prevention, held at Quetta Serena Hotel, Quetta. August 27<sup>th</sup> 2013. Jointly sponsored by University of Balochistan/Relief International, Balochistan, Quetta.
22. Participated in One Day workshop on Zoonotic Diseases Prevention, held at University of Balochistan, Quetta. August 31<sup>st</sup> 2013. Jointly sponsored by University of Balochistan/Relief International, Balochistan, Quetta.

### **Award/Appreciation/Honor conferred**

1. Appreciation letter from The Governor/Chancellor, University of Balochistan, Quetta for organizing 1<sup>st</sup> International Conference on the Role of Chemistry & Biochemistry in National Development. Held on 16-18 April, 2007.
2. Appreciation letter from Director, Student Affairs and the Vice Chancellor, University of Balochistan, Quetta for Golden Week. Held on 19-24 August, 2002.

## Major professional services.

- Member, Higher Education Commission (HEC) National curriculum revision committee (NCRC). 2012-13. HEC, Islamabad, Pakistan.
- Member of Internal review committee for the manuscript of Chemistry (U.M) for secondary school class X. 2013, Nominated by Balochistan, Text Book Board, Quetta.
- In-charge Bio-Organic laboratory for BS/M.Sc. practicals/thesis research work.
- Member admission committee of the Institute of Biochemistry.
- Member of the committee for course/syllabus contents development.
- Member of Program Team (Self Assessment Procedure) of the Institute of Biochemistry.

## List of Publications Impact Factor=25.56

1. Jawaria Munir, Zeeshan Iqbal, Muhammad Saleem, Farah Rauf Shakoori, Abdul Rauf Shakoori, **Zahid Mahmood** and Nasir-ud-Din. The 3D Modeling and Characterization of Wild Type and Mutated Plasmodium falciparum Cytochrome b: A Computational Approach. Pakistan J. Zool. 2014. Vol. 46(3), pp. 841-851. **Impact Factor=0.31**
2. Muhammad Hassham Hassan Bin Asad, Ghulam Murtaza, Muhammad Ubaid, Durr-e-Sabih, Ashif Sajjad, Rubada Mehmood, Qaisar Mahmood, Muhammad Muzzmil Ansari, Sabiha Karim, **Zahid Mehmood**, and Izhar Hussain. *Naja naja karachiensis* Envenomation: Biochemical Parameters for Cardiac, Liver, and Renal Damage along with Their Neutralization by Medicinal Plants. BioMed Research International, **2014**. Volume 2014, 13 pages Article ID 970540, <http://dx.doi.org/10.1155/2014/970540>. **Impact Factor=2.88**
3. Israr Ahmed, Ashif Sajjad, **Zahid Mehmood**, Norhad Amir, Durr-e-Sabih, Muhammad Hassham Hassan Bin Asad, Syed Nisar Hussain Shah, Bilal Ahmed, Muhammad Jamal Taha, Shujaat Ali Khan, Fareeha Anwar, Muhammad Haneef and Ghulam Murtaza. Preparation and Radiochemical Control of <sup>99m</sup>Tc Labeled Blood Pool Agent for in vivo Labelling of the Red Blood Cells. Acta Poloniae Pharmaceutica-Drug Research, **2014**. Vol. 71 No. 2 pp. 245-248. **Impact Factor=0.67**
4. Ghulam Murtaza, Kuo Gao, Tiegang Liu, Imran Tariq, Ashif Sajjad, Muhammad Rouf Akram, Meiyang Niu, Guokai Liu, **Zahid Mehmood**, and Guihua Tian. Current and Future Lymphatic Imaging Modalities for Tumor Staging. BioMed Research International. **2014**. Volume 2014, pp 1-10. Article ID 714674, <http://doi.org/10.1155/2014/714674>. **Impact Factor=2.88**.
5. Khalid Mahmood, Saleem Eijaz, Moazzam Ali Khan, Aamir Alamgir, Syed Shahid Shaukat, **Zahid Mehmood** and Ashif Sajjad. Effects of Biopesticides against Jassid [*Amrasca Devastans* (Dist.)] and White Fly [*Bemisia Tabaci* (Genn.)] on Okra. Int. J. Biol. Biotech., **2014**, 11 (1), pp. 161-165. **Impact Factor=N.A (HEC Z Category acceptable for BPS appointment)**
6. Niamatullah kakar, Asmatullah, Habib Ur-Rehman, **Zahid Mehmood**, Ashif sajjad, Qudratullah, Mohammad Ashraf. Thrombocytopenia as a Diagnostic Marker for Identifying Patients with Malaria in Endemic Regions. International Journal of Advanced Research. **2014**, Volume 2, Issue 4, pp. 35-42. **Impact Factor=N.A**
7. Khalid Mahmood, Hasan Salman Siddiqi, Ashif Sajjad, Sohail Shoukat, **Zahid Mehmood**, Amir Wasim, Alia B. Munshi. Iron-deficiency anemia. A study of risk factors among adult population

of Quetta Valley. *Health*, **2012**. Vol 4 No 9, pp. 607-611. doi: 10.4236/health.2012.49095. **Impact Factor=0.16**

8. Khalid Mahmood, **Zahid Mehmood**, Ashif Sajjad and Abbas Haider Khan: Biological Role of Carbohydrate Moeity of Plasmodium Falciparum in immune Response to malaria. Res.J.U.O.B., **2003**, pp, 1-11. **Impact Factor: N.A**

9. **Zahid Mehmood**, Abbas H. Khan, M. Masoom Kasi, Khalid Mehmood, Ayaz Ahmed Khan, Danial C. Hoessli, Elisabeth Ruungger-Braendle, Roger W. Jeanloz and Nasir-ud-Din. Structural studies on sialylated oligosaccharides of bonnet monkeys (*Maccacca radiata*) luteal phase cervical mucus glycoprotein. J. Chem. Soc. Pak. **1997**, Vol 19, No. 2, pp, 162-171. **Impact Factor: 1.38**

10. Massom M. kasi, Fatima Mahrukh, Shenaz M .Naseer Baloch, Nadeem H.Shah, Abbas H.Khan, Ayaz A.khan, **Zahid Mahmood**, Khalid Mahmood and Nasiruddin: Studies on human cervical mucus: The effect of proteases on cervical mucus Glycoproteins functions. J.Chem.Soc.Pak. **1997**, Vol. 19, pp, 153-162. **Impact Factor: 1.38**

11. Khalid Mehmood, Abbas H. Khan, **Zahid Mehmood**, Maroof Ahmed, Mohammad Nawaz, Daniel C. Hoessli and Nasiruddin: Structural studies on acidic oligosaccharides of bonnet monkey (*macacca radiata*) luteal phase cervical mucus. J.Chem.Soc.Pak. **1996**, Vol. 18, pp, 237-245. **Impact Factor: 1.38**

12. Abbas H. Khan, Daniel. C. Hoessli, **Zahid Mehmood**, Ayaz A. Khan and Nasiruddin. Carbohydrate moiety of Plasmodium falciparum glycoproteins. Glycoconjugate J. 13: 879-904 (pp, 880). **Impact Factor: 1.882**

13. Khalid Mahmood, **Zahid Mehmood** and S.Altaf Hussain, Vitamin in milk, A comperative study using Hplc, J.Sc, Res. **1995**, Vol. XXIV. pp, 23-29. **Impact Factor:**

14. Abbas H. Khan, Khalid. Mahmood, **Zahid Mahmood**, M. Akram. Kinetics of the Reduction of Oxyhalogens with Dimeric Tungsten (V) in Aqueous Acidic Medium. J. Chem. Soc. Pak. **1995**, Vol. 17, No. 2. pp, 78-81. **Impact Factor: 1.38**

15. Nasiruddin, R.W.Geanloz, E.Walker Nasir, Faizuddin, Khalid Mehmood, **Zahid Mehmood** Abbas H.Khan and F.S. Rehmani. A water soluble fragment of Mirococcus lysodeikticus cell wall, Biochem. Mol. Biol. Int. **1994**, Vol. 32, pp, 1129-1137. **Impact Factor: 2.789\***

\* Biochemistry and Molecular Biology International

<http://taylorandfrancis.metapress.com/link.asp?id=120048>

*Publisher: Taylor & Francis, On Thursday, January 01, 1998 this publication was renamed IUBMB Life (International Union of Biochemistry and Molecular Biology: Life), IUBMB Life, Edited By: Angelo Azzi and William J. Whelan*

Impact Factor: 2.789<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291521-6551/issues>

16. Nasiruddin, M.A.Kazi, G.Senaldi, A.H.Khan, Kkalid Mahmood, **Zahid Mehmood**, M.H.Qazi , D.C. Hoessli and E. Walker Nasir: Role of Cell surface Carbohydrate in Malaria. Pure & Appl. Chem (UK). **1994**, Vol. 66, pp, 2259-2262. **Impact Factor: 3.386**

17. Nasir-ud-Din, E. Walker-Nasir, Fayyaz-ud-Din, **Zahid Mahmood**, A. Khan. Sialytransferases of the bonnet monkey cervical epithelium: Isolation and characterization. Biochemical Society Transactions. **1994**, Vol. 22, pp, 363S. **Impact Factor: 3.71**

18. Nasir-ud-Din, E. Walker-Nasir, **Zahid Mahmood** and Fayyaz-ud-Din. The Chemical Structure of a High Molecular Weight Fragment of *Micrococcus lysodeikticus* Cell Wall. J. Chem. Soc. Pak. **1993**, Vol. 15, No. 1, pp, 71-77. **Impact Factor: 1.38**

## Book Chapters

1. Nasir-ud-Din, Khalid Mahmood, **Zahid Mahmood**, Abbas H. Khan, Aamir M.Qazi, Danial C. Hoessli and E. Walker-Nasir. Malarial vaccine candidate: The nature of carbohydrate –peptide linkage in 42-53 kDa glycoprotein. *New trends in natural product*. Ed. Att-ur-Rehman, Harwood Academic Publishers gmbh. 221-234, (1998).
2. M. Masoom Kasi, **Zahid Mahmood**, Khalid Mahmood, Ayaz A. Khan, Abbas H. Khan and Nasiruddin: Glycoprotein in health and disease: an overview relevant to cervical mucus. *Contemporary Biology*, Edts, Nasiruddin, Faizuddin and M.H. Qazi. (1997).

## Papers/Posters Presented

1. Fouzia Noreen, Ashif Sajjad, **Zahid Mehmoood**, Hashim Jan and Dildar ali. Azo-Napthalene light harvesting oligomers & block copolymers via satable free redical polymerization (SFRP). *Chemical trends 2013 A Conference on Recent Trends in Chemical Research*. 27 September 2013, Lahore, Pakistan.
2. Fouzia Noreen, **Ashif Sajjad**, **Zahid Mehmoood**, Hashim Jan and Dildar ali. Azo-naphthalene Light Harvesting Oligomers & Block Copolymers Via Stable Free Radical Polymerization (SFRP). *Conference on Energy and Sustainability*, 27 April, 2013. Ogranized by NED University of Engineering and Technology, Karachi, Pakistan.
3. Ashif Sajjad, Sabeena Rizwan. Ayesha Ubaid, Dildar Ali, **Zahid Mehmoood**. “Purification and electrophoretic (SDS-PAGE) profile of Pistachio (*pistacia atlantica*) Phospholipase-D”. 11<sup>th</sup> International & 23<sup>rd</sup> National Chemistry Conference 2012. October 15-17, 2012. University of Peshawer, Pakistan.
4. F. Rehmani, Imran Ali Fateh, **Zahid Mehmoood**, Quarban Ali and Qudsia Kausar. Expression of Siderophores on the disease of Pasterella Multocida vitro Studies. *AKU National Symposium*, September 20-21, 1999. Aga Khan University Karachi.
5. A. H. Khan, E. A. Dadidson, **Zahid Mehmoood**, K. Mahmood and Nasir-ud-Din. Inhibition of parasitemia and glycosylation in malarial parasite plasmodium in vitro by mannosamine. *AKU National Symposium*, September 20-21, 1999. Aga Khan University Karachi.