

## Curriculum Vitae

Name : Prof. **Faizan Ahmad**  
Designation : INSA Senior Scientist  
Office Address : Department of Biochemistry, School of Chemical and Life Sciences,  
Jamia Hamdard Jamia Nagar, New Delhi, India-110062  
Home Tel : 011-2692-0954  
Cell : +919810413115  
E-mail : [faizanahmad@jamiahamdard.ac.in](mailto:faizanahmad@jamiahamdard.ac.in); [Faizan.ahmad.jmi@gmail.com](mailto:Faizan.ahmad.jmi@gmail.com);  
Date of Birth : July 10, 1949

### Education:

1975 Ph.D.(Chemistry), Aligarh Muslim University.  
1972 M. Phil (Physical Chemistry), Aligarh Muslim University  
1970 M.Sc. (Chemistry), Aligarh Muslim University.  
1968 B.Sc. (Chemistry), Aligarh Muslim University.

### Work Experience:

2021- till-date **INSA Senior Scientist**, Department of Biochemistry, SCLS, Jamia Hamdard, New Delhi-110062  
2017- 2021 **INSA Senior Scientist**, CIRBSc, Jamia Millia Islamia (JMI), New Delhi  
2006- 2017 **Professor**, CIRBSc, JMI, New Delhi.  
2006-2012 **Professor & Director**, CIRBSc, JMI, New Delhi.  
2000-2006 **Dean of Students' Welfare**, JMI, New Delhi.  
1998-2006 **Professor**, Department of Biosciences, JMI, New Delhi.  
1994-1998 **Professor & Head**, Department of Biosciences, JMI, New Delhi.  
1993-1994 **Professor**, Department of Chemistry, JMI, New Delhi.  
1990-1993 **Professor & Head**, Department of Chemistry, JMI, New Delhi.  
1987-1990 **Reader**, Department of Biosciences, JMI, New Delhi.  
1981-1987 **Research Associate** for Dr. C.C. Bigelow, Chemistry Department, University of Manitoba, Winnipeg, Manitoba, Canada.  
1979-1980 **Research Associate** for Dr. R. S. Roche, Chemistry Department, University of Calgary, Calgary, Alberta, Canada.  
1979 (Jan-Aug) **NRC Research Associate**, Naval Medical Research Institute, Department of Navy, Bethesda, Maryland 20014, U.S.A.  
1976-1978 **Visiting Fellow** with Dr. P. McPhie, National Institutes of Health, Bethesda, Maryland, U.S.A.  
1975-1976 **Postdoctoral Fellow** for Dr. C.C. Bigelow, Biochemistry Department, M.U.N., St. John's, Newfoundland, Canada.  
1974-1975 **Research Assistant** for Dr. V.S. Anathanarayanan, Molecular Biophysics Unit, Indian Institute of Science, Bangalore 560012, India

### Research Interest

### **Specialization:**

Molecular Biophysics, Protein Folding: Protein Stability determination/Mechanism of Protein stabilization by osmolytes/Urea and Alcohol stresses/Protein folding intermediates

*We have contributed to the problems relating to the "protein folding and stability", namely:*

1. Development of methods of the structural characterization of the random coil state native state, of the folding equation, native state  $\leftrightarrow$  denatured state (Biochemistry (USA), 1974; Intl. J. Pept. Protein Res., 1975, 1980; Intl. J. Biochem., 1978; etc.);
2. conformational and thermodynamic characterization of partial denatured states (BBA, 1977, 1994, 1996; J. Mol. Biol., 1979; J. Biol. Chem. 1983a, 1983b, 1984, 1985; Biochemistry (USA), 2003, 2006; PlosOne, 2015; etc.);
3. Development of methods of estimation of  ${}_D\Delta G^0_D$ , the protein stability under physiological conditions (J. Biol. Chem., 1982; Biopolymers, 1986, 1990; Biochem. J., 1992, 2000; J. Biochem., 1994; Biochemistry (USA), 1996, 1999, 2003, 2006; Anal. Biochem., 2000; PINSA, 2002; BBA, 2003; JICS, 2004; Biophys. Chem., 2008; J. Chem. Therm., 2013; Front. Mol. Biosc., etc.).
4. Estimation of  $\Delta G^0_D$  (Biochemistry (USA), 1976, 1978, 1996, 1999, 2003, 2006, BBA, 2008; J. Biol. Inorg. Chem., 2009, 2010; JBDS, 2013, 2015; ABB, 2014; etc.)
5. Characterization of the phenomenon of stabilization of proteins by osmolytes against environmental stresses (Biochem. J., 1994, 1998; BBA, 2000, 2007, 2017; J. Biol. Chem., 2005; FEBS Lett., 2005, Biophys. Chem., 2005, 2006; FEBS J., 2009; JBSD, 2009; JICS, 2011; PINSA, 2013; PLOS ONE, 2013, 20015; Biochemistry, 2015; Int JBiol Macromol, 2017, etc.)
6. Characterization of folding intermediates (pre-molten and molten globules) of proteins (BBA, 2003, 2007; Biochemistry (USA), 2003, 2006; BBA, 2007; Boiphys. Chem., 2007; J. Biol. Inorg. Chem, 2009, 2010; Metallomics, 2011; I. J. Biol. Macromol., 2015, 2016, 2017; PLOS ONE, 2015; JBSD, 2015; etc.).

### **Grants/Projects (16)**

#### **Principal Investigator**

1. In Silico (Molecular Dynamics Simulation) and In Vitro Approaches to Understand Counteraction of Urea's Effects on Proteins by Kidney Osmolytes [April 2016 - till date] **Principal Investigator** (ICMR submission id 2014-3313)
2. Mechanism of Survival of Ethanol Producing Organisms: Role of Cellular Compatible Osmolytes in Counteracting the Deleterious Effects of Ethanol on Structure, Stability and Functions of Proteins [December, 2013- 2016] **Principal Investigator** (CSIR Ref. No. 3809/NS-EMR-II).
3. Protein Structural Biology (Protein Folding) [September 2013 till Five Years]. **Principal Coordinator:** FIST (Ref. No. PDB/PC-402/2013/FISR#: 185826)
4. The Critical Role of Five N-terminal Residues in the Folding and Stability of Yeast

- Iso-1 Cytochrome-C [ April 1, 2011 – Nov 30, 14] **Principal Investigator** - DST ( Ref. No. SR/SO/BB-7/2010)
5. Investigating the Involvement of Other Osmolytically Active solutes (Non-Methylamines) of urea Rich Cells in Counteracting the Urea's Effect on Protein Stability and Function [Dec 1, 2009 – Nov 2012] **Principal Investigator** - CSIR (Ref. No. 37(1377)/09/EMR-II)
  6. PROTEIN FOLDING: Would the Heat/Acid Denatured State Serve As Reference State for Protein Folding [May 1, 2009- Apr 30, 2012] **Principal Investigator** - UGC (Ref No. F. No. 36-112/2008(SR))
  7. In Vivo and In Vitro Paradox of the Compensatory Effect of Methylamines: Urea (1:2) on Stability and Function of Proteins [ April 1, 2006 – 2010], **Principal Investigator** - DST (Ref. No. SR/SO/BB-80/2004)
  8. PROTEIN FOLDING: Conformational and Thermodynamic Studies of the Effect of Amino Acid Substitution on Equilibrium, Native State  $\leftrightarrow$  Molten Globule State  $\leftrightarrow$  Denatured State of Cytochrome C [ Oct 1, 2005 – Sept 2009] **Principal Investigator** - CSIR ( Ref. No. 37(1232)/05/EMR-II)
  9. Stabilization of Industrial and Therapeutic Enzymes by Osmolytes [March 1, 2005 – 2008] **Principal Investigators-II** - Iran National Science Foundation
  10. Mechanism of Stabilization of Proteins by Naturally Occurring Polyol Osmolytes Accumulated in Response to Environmental Stresses [April 1, 2001 – Sept 30, 2005] **Principal Investigator** - CSIR (ref no. 37(1078)/01/EMR-II)
  11. Protein Folding: Determination of Stability of Molten Globules. [From April 1, 1998- March 31, 2002] **Principal Investigator** - CSIR (Ref no. 37(976)/98 EMR-II)
  12. Protein Folding: Estimation of Protein Stability from Conformational Transition Curves [October 1997-November 30, 2001], **Principal Investigator** - DST (Ref. no. SP/SO/D26/96)
  13. Mechanism of Stabilization of Proteins by amino acids and other Additives Accumulated in Response to Heat Stress [1-11-94 – 31-10-98] **Principal Investigator** - U.G.C. (Ref. no. 12-4/94(SR-I))
  14. Roll of Building Block Molecules Induced by Heat in the Stabilization of Proteins Under Hyperthermia. [1-4-94 – 31-3-97] **Principal Investigator** - CSIR (Ref. no. 37\0841\94\EMR-II)
  15. Fast reaction Kinetics of ATP Hydrolysis by Myosin ATPase. [17-11-79 - 17-5-92] **Principal Investigator** - DST (Ref. no. SP\SO\D51\87)
  16. Mechanism of Protein Denaturation: Effect of Physical and Chemical Denaturants on Cytochrome-c and Myoglobin. [1-4-89 - 30-6-92] **Principal Investigator** - CSIR (Ref. No. 9\295)

#### **Co- Principal Investigator**

17. Relation between Stability and Functional Activity of Proteins in the Presence of Different Sizes of Sugar Osmolytes. [2013-2017] – CSIR
18. *In Silico* (Molecular Dynamic Simulation) and *In Vitro* Approaches to Understand Counteraction of Urea's Effects on Proteins by Kidney Osmolytes. [2016-2019] -ICMR BIC/12(16)/2014).
19. Compilation of Useful Information for Indian Diseases through an Online Database Management: a Useful Resource for Researcher and Public Awareness. [01-11-2011 to 30-10-2014] – UGC

20. Structure and Functional Analysis of Putative Conserved Proteins from Common Indian Pathogens. [1-02-2012 to 31-01-2015] –ICMR
21. Folding and stability of naturally truncated photosynthetic pigment, C-phycoerythrin from cyanobacteria *Phormidium tenue*. [01-09-2012 to 30-10-2015]- DST

### Award and Honors

2021	<b>Selected among top 2% scientists of the world</b>
2020	<b>Fourth top scientist in India in the field of Biophysics</b>
2013 - 2022	<i>Adjunct Professor</i> , IBB, University of Tehran, Iran
2008: till date	<i>Fellow of Indian National Science Academy</i>
1997	<i>Pride of Delhi</i> , honoured by the Government of Delhi.
1997	<i>Norman H. Dill Memorial Gold Medal</i>
1996	<i>DAAD Fellow</i> , Center for Molecular Medicine, Buch, Berlin, Germany
1996: till date	<i>Member of Guha Research Conference</i>
1996: till date	<i>Fellow of National Academy of Sciences</i>
1978-1979	National level award by <i>National Research Council, Washington</i>

### Member of Societies

1. American Society of Biochemistry & Molecular Biology (1983-1989: 2005- to-date)
2. Canadian Biochemical Society(1981-1987)
3. Society of Biological Chemists (India)(1995-todate)
4. Indian Biophysical Society(1996-todate)
5. ITCP, Trieste (1996-todate)
6. Guha Research Conference(1996-todate)
7. Society of Biosciences(1996-todate)
8. Advisory Member of the Editorial Board, Journal of Iranian Chemical Society
9. On the Editorial Board of the Journal of Iranian Chemical Society

### PhD Degree Awarded: 53

\*Main Supervisor

S. No.	Name	Year	S. No.	Name	Year
1.	Luqmqn A Khan	1991	35	Sobia Zaidi	2015
2.	Zulfiqar Ahmad*	1992	36	Charu Thaplial	2015
3.	Sushma Yadav*	1992	37	Sheeza Khan*	2015
4.	Sperna Taneja*	1992	38	Md. Anzarul Haque*	2016
5.	Amita Sinha*	1995	39	Farha Naz	2016
6.	Syed Ehtaishamul Haque*	1997	40	Parvez Khan	2016
7.	Reena Gupta*	1998	41	Huma Naz	2016
8.	Tapas Saha*	1998	42	Danish Idreess	2016
9.	Viks Rishi*	1999	43	Syed Ausaf Ali*	2017
10.	Sunita Yadav*	2000	44	Mohd. Aasif Dar*	2017

11.	Farah Anjum*	2000	45	Shabab H. Khan *	2017
12.	Hanief M.Shahjee*	2001	46	Ilyas Beg	2017
13.	Mohammad Zaffrullah*	2002	47	Wahiduzzaman*	2017
14.	Beenu Moza*	2002	48	Moin Ishrat	2017
15.	Shabir H. Qureshi*	2003	49	Abdullah Naiyer*	2018
16.	Akalank Jain*	2005	50	Sumra Shahid	2018
17.	Ritu Singh*	2005	51	Khalida Nasreen	2019
18.	Inamul Haque*	2005	52	Shagufta Khan	2019
19.	L.R. Singh*	2006	53	Mohd. Amir	2020
20.	Madhvi Gupta*	2007			
21.	Humaira Farooqi	2008			
22.	Gul M. Mustafa	2008			
23.	Tanveer A. Dar*	2009			
24.	Md. H. Rahaman*	2009			
25.	Nitesh Poddar*	2009			
26.	Md. K.A.Khan*	2010			
27.	Asimul Islam*	2010			
28.	Rinky Minakshy*	2010			
29.	Shazia Jamal*	2011			
30.	Mohd. Wahid*	2011			
31.	Md. T. Rehman*	2012			
32.	Syed I. Hassan*	2012			
33.	Shafikur Rahman*	2012			
34.	Shah Ubaidullah*	2014			

### Invited talk delivered abroad

2021	IBB, University of Tehran, Tehran, Iran
2021	ISOBC & IASBS, Iran
2020	Institute of Biochemistry & Biophysics, Univ. Tehran, Iran
2016	Institute of Biochemistry & Biophysics, Univ. Tehran, Iran
2015	Biophysical Society of China, Hangzhou, China
2012	International Conference of Biophysical Chemistry, Ardabil, Iran.
2010	Gordon research Conferenc, N.C., USA.
2009	IBB, University of Tehran, Iran
2007	IBB, University of Tehran, Iran.
2006	Society of the Biophysical Chemistry (Iran), University of Tabriz, Tabriz, Iran
2006	Workshop on Protein Characterization, Institute of Biochemistry & Biophysics, University of Tehran, Iran
2005	University of Terbiat Mudarris, Iran
2005	University of Tehran, Iran
2004	University of Mashhad, Iran
2004	University of Tehran, Iran
2002	"The 2002 Colorado Protein Stability Conference" in Colorado, USA.
2000	"NIDKD, National Institutes of Health, Bethesda, MD, USA.
1999	"University of Texas Medical Centre, Galveston, TX, USA.

1999

"Dept. Biophysics and Biochemistry, A&M Univ. College Station, USA.