Sulakshana P. Mukherjee, PhD

Dept. Biotech., IIT-Roorkee
Roorkee, UT 247667, India

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EDUCATION

2000 – 2006 **PhD, Chemistry**
Thesis: Calcium Sensor Proteins: Structure, Dynamics and Folding
Supervisor: Kandala V. R. Chary, PhD
Tata Institute of Fundamental Research, Mumbai, India

1998 – 2000 **MSc, Inorganic Chemistry**
Mumbai University, Mumbai, India

1995 – 1998 **BSc, Chemistry**
Mumbai University, Mumbai, India

RESEARCH EXPERIENCE AND EMPLOYMENT

Jul 2014 – present **Assistant Professor**
Indian Institute of Technology, Roorkee
Roorkee, Uttarakand-247667, India

Jul 2013 – Jun 2014 **Research Associate**
Project: NMR Analysis of mechanism of stripping NF-kappaB from DNA by IkappaB proteins
Supervisor: H. Jane Dyson, PhD
The Scripps Research Institute
La Jolla, CA-92037

Oct 2013 – Jun 2014 **Visiting Scholar**
Project: To study the NF-kappaB:CBP/p300 complex on the genomic scale
Supervisor: Gourisankar Ghosh, PhD
University of California, San Diego
La Jolla, CA-92093

Dec 2011 – Jun 2013 **Assistant Research Scientist**
Project: To study the functional role of NF-kappaB:CBP/p300 complex
Supervisor: Gourisankar Ghosh, PhD
University of California, San Diego
La Jolla, CA-92093

Sep 2011 – Nov 2011 **Professional Scientific Collaborator**
Project: To determine the structure of two interacting domain of NF-kappaB and CBP using NMR spectroscopy
Supervisor: Peter E. Wright, PhD
The Scripps Research Institute
La Jolla, CA-92037

Oct 2006 – Nov 2011 **Post doctoral Fellow**
Project: To study the interaction of NF-kappaB and CBP
Supervisor: Gourisankar Ghosh, PhD
University of California, San Diego
La Jolla, CA-92093

Jun 2005 – Sep 2005 **Visiting Scholar**
Project: NMR study of neuronal calcium sensor-1 (NCS-1) protein

Supervisor: Thomas Szyperski, PhD
University at Buffalo, The State University of New York
Buffalo, NY-14260

PUBLICATIONS

Journal Articles

1. **Mukherjee SP**, Behar M, Birnbaum HA, Hoffmann A, Wright PE and Ghosh G. Structural analysis of the RelA:CBP/p300 interaction reveals its functional role in RelA-driven transcription. (2013) Plos Biol 11(9).
2. Mohan PM, **Mukherjee S**, Chary KV. Differential native state ruggedness of the two Ca^{2+}-binding domains in a Ca^{2+} sensor protein (2008) Proteins 70:1147-53.
3. **Mukherjee S**, Mohan PM, Kuchroo, K, Chary KV. Energetics of Native Energy Landscape of a Two-domain Calcium Sensor Protein: Distinct Folding Features of the Two Domains. (2007) Biochemistry 46:9911-9.
4. **Mukherjee S**, Mohan PM, and Chary KV. Magnesium promotes conformational switching action of a Calcium sensor protein. (2007) Biochemistry 46(12) 3835-45
5. **Mukherjee S**, Muralidhar D, Atreya HS, Szyperski T, Jeromin A, Sharma Y, Chary KV. Letter to the Editor: 1H, 13C and 15N resonance assignments for the myristoylated neuronal calcium sensor (NCS-1). (2006) J.Biomol.NMR 36 Suppl 5:48
6. Mustafi SM, **Mukherjee S**, Chary KV, Cavallaro G. Structural basis for the observed differential magnetic anisotropic tensorial values in calcium binding proteins. (2006) Proteins 65:656-69
7. **Mukherjee S**, Fairwell T, Sharma Y, Chary KV. Importance of a single hydrophobic residue in calcium binding affinity to EF-hand peptides. (2006) Calcium Binding Proteins 1:115-19
8. **Mukherjee S**, Kuchroo K, Chary KV. Structural characterization of the apo form of a calcium binding protein from Entamoeba histolytica by hydrogen exchange and its folding to the holo state. (2005) Biochemistry 44: 11636-45
9. **Mukherjee S**, Mustafi SM, Atreya HS, Chary KV. Measurement of $^{1}J(N_i, Cai)$, $^{1}J(N_i, C'_{i-1})$, $^{2}J(Ni, Cai-1)$, $^{2}J(HN_i, C'_{i-1})$ and $^{2}J(HN_i, C_{ai})$ values in $^{13}C/^{15}N$ labeled proteins. (2005) Magn Reson Chem. 43:326-329
10. **Mukherjee S**, Mustafi SM, Sheth AA, Atreya HS, Chary KV. NMR of EF-hand calcium binding proteins. (2004) Proc Indian Natn Sci Acad, 70A: 615-25 (Review Article)
11. Mustafi SM, **Mukherjee S**, Chary KV, Bianco CD, Luchinat C. Energetics and Mechanism of Ca^{2+} displacement by lanthanides in a calcium binding protein. (2004) Biochemistry 43: 9320-31
12. Atreya HS, **Mukherjee S**, Chary KV, Lee YM, Luchinat C. Structural basis for sequential displacement of Ca^{2+} by Yb^{3+} in a protozoan EF-hand calcium binding protein. (2003) Protein Science 12:412-25

Abstract and Poster at Professional Meeting

1. Structural insights into NF-kB and coactivator CBP interaction. **Sulakshana P. Mukherjee**, Maria A. Martinez-Yamout, Peter E. Wright and Gourisankar Ghosh. 19th Annual International Cancer Immunotherapy Symposium, New York City, USA (Oct 3-5, 2011)
2. Structural insights into the transcription factor RelA and coactivator CBP interaction. **Sulakshana P. Mukherjee**, Maria A. Martinez-Yamout, Peter E. Wright and Gourisankar Ghosh. 18th Annual International Cancer Immunotherapy Symposium, New York City, USA (Oct 6- 8, 2010)
3. A role for RelA:CBP interaction in transcription regulation. **Sulakshana P. Mukherjee**, Maria A. Martinez-Yamout, Peter E. Wright and Gourisankar Ghosh. 17th Annual International Cancer Immunotherapy Symposium, New York City, USA (Sept 30- Oct 2, 2009)
4. Probing the folding energy landscape of an EF-hand calcium binding protein through hydrogen exchange. **Sulakshana Mukherjee**, Kavita Kuchroo, and K.V.R. Chary, XX ICMRBS, Hyderabad, India (Jan 16 -21, 2005)
5. Structural characterization of the molten-globular apo-form of a EF-hand calcium binding protein from a protozoan and its equilibrium folding to its completely folded holo state. **Sulakshana Mukherjee**, Kavita Kuchroo, Atul Srivastava and K.V.R. Chary. JASS'03-Winter School, Osaka, Japan (Jan 26-27 2004)

6. Calcium Induced Folding of a Protozoan Calcium-Binding protein. **Sulakshana Mukherjee** and K.V.R. Chary, National Magnetic Resonance Society Symposium (NMRS) held at IISc, Bangalore, India (Feb 3 –6, 2003)
7. Importance of a single hydrophobic residue in Ca^{2+} binding affinity to EF-hand peptides. **Sulakshana Mukherjee** and K.V.R. Chary, Second International Conference on Structural Biology and Functional Genomics held in Singapore (Dec 2 –4, 2002)

ORAL PRESENTATIONS

Jun 2013	**Structural basis for the functional role of RelA:CBP/p300 interaction in RelA driven transcription** Cancer/Mammals club monthly meeting, La Jolla, California, USA
Mar 2012	**Insights into the RelA:CBP interaction in transcription regulation** Keystone symposia: NF-kappaB Signaling and Biology: From Bench to Bedside Whistler, Canada
Nov 2005	**Magnesium promotes conformational switching action of a calcium sensor protein** RSC-West India Section Student Sumposium-05 Pune, India
Jan 2005	**Structural characterization of the apo-form of a EF-hand calcium binding protein and its equilibrium folding to its folded holo state** XX ICMRBS Hyderabad, India

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HONORS AND AWARDS

Awards

2007	TAA-Zita Lobo Memorial Award for the best thesis of the year 2006-2007
2005	Best oral presentation award at RSC-West India Section Student Symposium-05
1999	B C Haldar Prize for highest marks in Inorganic Chemistry MSc I
1999	N B Laxmeshwar Prize for highest marks in Chemistry MSc I

Fellowships

2009-2012	Irvington Institute Postdoctoral Fellowship of Cancer Research Institute 2009-2012
2005	Fellowship grant awarded under the Sarojini Damodaran International Fellowship programme to visit Prof. Thomas Szyperski's lab at University at Buffalo.
2004	Travel award from the organizers to attend JASS'03-Winter School on NMR Spectroscopy at the Frontier of Progress in the Life Sciences at Institute for Protein Research, Osaka University, Suita, Osaka, Japan
2002-2005	TIFR Alumini Association Scholarship for career development supported by TIFR endowment fund from 2002-2005
2002	Travel award from the organizers to attend 2nd International conference on structural biology and functional genomics at National University of Singapore, Singapore
2000-2006	Fellowship from Department of Atomic Energy, Govt. of India for pursuing PhD from August 2000-October 2006

PROFESSIONAL MEMBERSHIPS

- Life member of National Magnetic Resonance Society of India
- Life member of Indian Biophysical Society (membership #557)