



Kajal Kanchan

Associate Professor & Ramalingaswami fellow

**Specialization: Biochemistry, Protein structure and function, Proteomics
Host-pathogen Interaction, Cell Signaling and Gene Regulation**

Email: kajal.kanchan@gmail.com

Dr. Kajal Kanchan obtained her PhD from University of Tuebingen, Germany. Subsequently, she worked as a Marie Curie Postdoctoral fellow at University of Debrecen, Hungary and later moved to University of Cambridge, UK for her second post doc. She returned to India after receiving the prestigious Ramalingaswami fellowship from DBT. She worked initially at School of Biotechnology, JNU for three years before joining Amity Institute of Molecular Medicine and Stem Cell research. Her interest lies in exploring how bacteria can sense and respond to changes in the environment. Her goal is to understand the molecular basis of sensory perception and signal transduction and how these regulate the development and virulence of the Mycobacteria. To achieve her goals she is using genomics, proteomics and computational approaches to model transcriptional, post-transcriptional and translational regulation of this pathogen in the hope to find novel intervention measures to treat this costly disease.

Current Research Projects:

DBT-Ramalingaswami fellowship funded research project entitled “**Temperature sensing mechanism in M. tuberculosis and its role in pathogenesis**”

Fellowships, Honors and Awards

1. Ramalingaswami Fellowship Award, DBT (2016-2020)
2. Start-up research grant, DST (not availed)
3. Dr. DS Kothari Postdoctoral Fellowship, UGC
4. Postdoctoral research funded by Marie Curie Program-European Research and Innovation (2011-2013)
5. Postdoctoral research funded by Hungarian Scientific Research Fund (OTKA) (2013-2014)
6. PhD research funded by German Research Foundation (DFG), Germany (2006-2011)

Selected important Publications

1. Elvan Ergülen, Bálint Bécsi, István Csomós, László Fésüs and **Kajal Kanchan*** (2016) Identification of DNAJA1 as a novel interacting partner and a substrate of human transglutaminase 2. **Biochemical Journal** 473, 3889–01. (***Corresponding author**) (IF- 4.8)
2. **Kajal Kanchan**, Mónika Fuxreiter and Fésüs László (2015), Physiological, pathological and structural implications of non-enzymatic interactions of multifunctional transglutaminase 2. **Cellular and Molecular Life Science** 72 (16), 3009-35 (IF- 5.8)
3. Joachim E Schultz, **Kajal Kanchan** and Miriam Ziegler (2014) Intra-protein signal transduction by HAMP domains: a balancing act. **International journal of Medical Microbiology** (305), 243-51 (IF- 3.6)
4. **Kajal Kanchan**, Elvan Ergulen, Róbert Király, Zsófia Simon-Vecsei, Mónika Fuxreiter and Fésüs László (2013) Identification of a specific one amino acid change in recombinant human transglutaminase 2 that regulates its activity and calcium sensitivity. **Biochemical Journal**. 455 (3), 261-272 (IF- 4.8)
5. **Kajal Kanchan**, Jürgen Linder, Karin Winkler, Klaus Hantke, Anita Schultz, and Joachim E. Schultz (2010) Transmembrane Signaling in Chimeras of the *Escherichia coli* Aspartate and Serine Chemotaxis Receptors and Bacterial Class III Adenylyl Cyclases. **Journal of Biological Chemistry** 285, 2090-2099 (IF- 5.3)