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Jijumon A. S.

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Bio

BIO

I am Jijumon, a biologist, mostly trained in molecular biology, cell biology, and protein biochemistry. Currently, I am a postdoctoral researcher in Manu Prakash's lab at Stanford University. I did my Bachelor's and Master's degrees in Biological Sciences at the Indian Institute of Science Education and Research-Kolkata (IISER-K). After that, I moved to Europe and worked in the BRC, Hungarian Academy of Sciences as an ITC fellow. There I did a one-year training course on contemporary experimental biology and state-of-the-art techniques, together with a project in sarcomeric actin regulation. In 2016, I moved to Paris and started my Ph.D. in Biological Sciences (Marie Curie fellow) in Carsten Janke's lab at Institut Curie, University of Paris-Saclay. My broader research interests are cytoskeleton, tool development, and proteomics. I use both biochemical and bioengineering tools to tackle my project. Beyond my academic pursuits, I enjoy activities such as reading, photography, shuttle badminton, and cycling.

HONORS AND AWARDS

- IAS, INSA, NASI Summer Research Fellowship (Ethology), Indian Academy of Sciences (2011)
- IAS, INSA, NASI Summer Research Fellowship (Applied physics), Indian Academy of Sciences (2012)
- 5 years INSPIRE Scholarship - Integrated BS-MS, Department of Science and Technology, Govt. of India (2010-2015)
- 5 years INSPIRE Scholarship - PhD (Declined), Department of Science and Technology, Govt. of India (2015-2020)
- 1 year ITC fellowship, Biological Research Centre, Hungarian Academy of Sciences, Hungary (2015-2016)
- Marie Skłodowska-Curie actions-ITN PhD Fellowship, European Commission (2016-2019)
- Research grant: ARC foundation for cancer research (Declined), ARC foundation for cancer research, France (2019-2020)
- Research grant: FRM (Fondation pour la Recherche Médicale), Fondation pour la Recherche Médicale, France (2019-2021)

PROFESSIONAL EDUCATION

- Bachelor of Science, IndianInstituteScienceEducationResearchKolkata (2013)
- Master of Science, Indian Institute of Science Education and Research, Kolkata, India , Biology (2015)
- ITC diploma, Biological Research Centre, Hungarian Academy of Sciences, Hungary , Contemporary experimental biology and state-of-the-art techniques (2016)
- Doctor of Philosophy, Institut Curie, University of Paris-Saclay, France , Cell Biology and Biochemistry (2021)

STANFORD ADVISORS

- Manu Prakash, Postdoctoral Faculty Sponsor

LINKS

- Google Scholar: https://scholar.google.com/citations?user=yydQ6iYAAAAJ&hl=en

- LinkedIn: https://www.linkedin.com/in/jijumon-a-s-bab516106

Publications

PUBLICATIONS

- **A Platform for Medium-Throughput Cell-Free Analyses of Microtubule-Interacting Proteins Using Mammalian Cell Lysates.** *Current protocols*
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- **Peripheral thickening of the sarcomeres and pointed end elongation of the thin filaments are both promoted by SALS and its formin interaction partners.** *PLoS genetics*
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  2024; 20 (1): e1011117

- **H-ABC- and dystonia-causing TUBB4A mutations show distinct pathogenic effects.** *Science advances*
  Krajka, V., Vulinovic, F., Genova, M., Tanzer, K., Jijumon, A. S., Bodakuntla, S., Tennstedt, S., Mueller-Fielitz, H., Meier, B., Janke, C., Klein, C., Rakovic, A.
  2022; 8 (10): eabj9229

- **Lysate-based pipeline to characterize microtubule-associated proteins uncovers unique microtubule behaviours.** *Nature cell biology*
  Jijumon, A. S., Bodakuntla, S., Genova, M., Bangera, M., Sackett, V., Besse, L., Maksut, F., Henriot, V., Magiera, M. M., Sirajuddin, M., Janke, C.
  2022

- **Solid-State NMR Spectroscopy for Studying Microtubules and Microtubule-Associated Proteins** *STRUCTURAL PROTEOMICS, 3 EDITION*
  Luo, Y., Xiang, S., Paioni, A., Adler, A., Hooikaas, P., Jijumon, A. S., Janke, C., Akhmanova, A., Baldus, M., Owens, R. J.
  2021; 2305: 193-201

- **Purification of Tubulin with Controlled Posttranslational Modifications and Isotypes from Limited Sources by Polymerization-Depolymerization Cycles.** *Journal of visualized experiments : JoVE*
  Bodakuntla, S., Jijumon, A. S., Janke, C., Magiera, M. M.
  2020

- **Genetically encoded live-cell sensor for tyrosinated microtubules.** *The Journal of cell biology*
  Kesarwani, S., Lama, P., Chandra, A., Reddy, P. P., Jijumon, A. S., Bodakuntla, S., Rao, B. M., Janke, C., Das, R., Sirajuddin, M.
  2020; 219 (10)

- **ATAT1-enriched vesicles promote microtubule acetylation via axonal transport.** *Science advances*
  Even, A., Morelli, G., Broix, L., Scaramuzzino, C., Turchetto, S., Gladwyn-Ng, I., Le Bail, R., Shilian, M., Freeman, S., Magiera, M. M., Jijumon, A. S., Krusy, N., Malgrange, et al
  2019; 5 (12): eaax2705

- **Microtubule-Associated Proteins: Structuring the Cytoskeleton.** *Trends in cell biology*
  Bodakuntla, S., Jijumon, A. S., Villablanca, C., Gonzalez-Billault, C., Janke, C.
  2019; 29 (10): 804-819

- **Presence of actin binding motif in VgrG-1 toxin of Vibrio cholerae reveals the molecular mechanism of actin cross-linking.** *International journal of biological macromolecules*
  Dutta, P., Jijumon, A. S., Mazumder, M., Dileep, D., Mukhopadhyay, A. K., Gourinath, S., Maiti, S.
  2019; 133: 775-785

- **Purification of tubulin with controlled post-translational modifications by polymerization-depolymerization cycles.** *Nature protocols*
  Souphron, J., Bodakuntla, S., Jijumon, A. S., Lakisic, G., Gautreau, A. M., Janke, C., Magiera, M. M.
  2019; 14 (5): 1634-1660

- **Identifying regions for conservation of sloth bears through occupancy modelling in north-eastern Karnataka, India** *URSUS*
  Das, S., Dutta, S., Sen, S., Jijumon, A. S., Babu, S., Kumara, H., Singh, M.
  2014; 25 (2): 111-120