

Stanford



Jijumon A. S.

Postdoctoral Scholar, Bioengineering

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 & Research (2015)
- Doctor of Philosophy, Universite De Paris Xi (Paris-Sud) (2021)
- Bachelor of Science, Indian Institute of Science Education and Research Kolkata, India , Biology (2015)
- 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 , Medicine and Health (2021)

STANFORD ADVISORS

- Manu Prakash, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **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*
Farkas, D., Szikora, S., Jijumon, A. S., Polgár, T. F., Patai, R., Tóth, M. Á., Bugyi, B., Gajdos, T., Bíró, P., Novák, T., Erdélyi, M., Mihály, J.
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