# Siddhesh S. Kamat, Ph.D.

Associate Professor (Biology) SwarnaJayanti Fellow EMBO Young Investigator

#### Indian Institute of Science Education and Research

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#### **Educational Qualifications**

2007-12 Ph.D., Department of Chemistry, Texas A&M University (Advisor: Frank M. Raushel)
 2003-07 B. Tech. (Pharmaceuticals & Fine Chemicals), UDCT Mumbai (Advisor: K. G. Akamanchi)

#### **Professional Positions**

2022 – present	SwarnaJayanti Fellow, IISER Pune, India.
2021 - present	Chairperson, National Facility for Gene Function in Health and Disease, IISER Pune, India.
2020 - present	EMBO Young Investigator, IISER Pune, India.
2020 - present	Adjunct Faculty, Department of Biological Sciences, TIFR Mumbai, India.
2020 - present	Associate Professor (with tenure), Department of Biology, IISER Pune, India.
2016 – 2021	Adjunct Faculty, Department of Chemistry, IISER Pune
2016 – 2021	Intermediate Fellow, DBT/Wellcome Trust India Alliance, IISER Pune, India.
2016 – 2019	Assistant Professor, Department of Biology, IISER Pune, India.
2013 – 2016	9 <sup>th</sup> Irving S. Sigal ACS Postdoctoral Fellow, Scripps Research, CA, USA (Advisor: Benjamin F. Cravatt).

#### Awards & Fellowships (since joining IISER Pune)

2021	SwarnaJayanti Fellowship (Life Sciences category)
2021	CDRI Award for Excellence in Drug Research (Life Sciences category)
2020	EMBO Young Investigator Award
2019	Merck Young Scientist Award in Biological Sciences
2019	Indian National Science Academy (INSA) Young Scientist Medal
2019	UDCT Distinguished Alumni Award – Young Achiever
2017	Early Career Research Award (SERB)
2016	DBT/Wellcome Trust India Alliance, Intermediate Fellowship

### Research Grants (since joining IISER Pune)

2024-27	Extramural Centre for Advanced Research grant, ICMR (co-PI, Rs. ~ 9,00,00,000 to IISER Pune)
2023-25	Infectious Biology Special grant, DBT (co-PI, Rs. 2,64,91,600 to IISER Pune)
2022-27	SwarnaJayanti Fellowship, DST-SERB (PI, Rs. 4,98,95,600)
2020-25	Young Investigator Grant, EMBO (PI, ~ Rs. 45,00,000)
2020-24	Core Research Grant, DST-SERB (PI, Rs. 60,19,400)
2020-23	STAG on Medical Biotechnology, DBT (Co-PI, Rs. 34,38,360 to IISER Pune)
2017-20	Early Career Research Award, DST-SERB (PI, Rs. 46,92,671)
2016-21	Intermediate Fellowship, DBT/Wellcome Trust India Alliance (PI, Rs. 3,51,18,504)

#### **Memberships** (since joining IISER Pune)

- Elected Memberships: Royal Society of Chemistry (RSC) (2022); Guha Research Conferences (2022)
- Life Member: Society of Biological Chemists (India) (SBCI); Chemical Research Society of India (CRSI); UDCT Alumni Association (UAA); International Chemical Biology Society (ICBS); American Chemical Society (ACS)

#### **Professional Activities** (since joining IISER Pune)

- Editorial Board Member: British Journal of Pharmacology (December 2022 present), Journal of Biological Chemistry (July 2023 – present)
- Department of Biotechnology (DBT) (i) Technical Evaluation Committee (TEC) Member on Chronic Disease and Neurobiology (2022 – present); (ii) Selection Committee Member of the MK Bhan Research Fellowship (2022 – present), (iii) Biotech Cluster Management Committee of Pune Biotech Cluster: Model Organisms to Human Disease (2024 – present)
- Member: Research Area Panel Scientific Advisory Committee (RAP-SAC), NCCS Pune (2023 present)
- Adhoc Reviewer for Nature, Nature Chemical Biology, Cell Chemical Biology, Nature Communications, JACS, Angewandte Chemie, EMBO J., ACS Chemical Biology, Disease Models and Mechanisms, Biochemistry.

# Research Publications: From IISER Pune (2016 – present) (\*denotes corresponding author)

- 1. Chandramouli, A., <u>Kamat, S. S.</u>\* (2024) A facile LC-MS method for profiling cholesterol and cholesteryl esters in mammalian cells and tissues, <u>Biochemistry</u> (Accepted, Online). To feature on the September 2024 issue front cover of Biochemistry
- 2. Talwadekar, M., Khatri, S., Balaji, C., Chakraborty, A., Basak, N. P., <u>Kamat, S. S.</u>\*, Kolthur-Seetharam, U.\* (2024) Metabolic transitions regulate global protein fatty acylation, *J. Biological Chemistry* 300 (1), 105563, 1-14.
- 3. Vaidya, K., Rodrigues, G., Gupta, S., Devarajan, A., Yeolekar, M., Madhusudhan, M. S.\*, **Kamat, S. S**.\* (2023) Identification of sequence determinants for the ABHD14 enzymes, *Proteins: Structure, Function & Bioinformatics* (*Accepted, Online*).
- Sen, D., Maniyadath, B., Khatri, S., Chakraborty, A., Mehendale, N., Chowdhury, S., Nadagouda, S., Kaur, A., <u>Kamat, S. S.</u>, Kolthur-Seetharam, U. (2023) Interplay between CTCF and feed-fast cycles rewires hepatic transcription and metabolism, *iScience* 26 (7), 107128.
- Kumari, P., Kaul, G., Kumar, A., Akhil, A., Shukla, M., Sharma, S., <u>Kamat, S. S.</u>\*, Chopra, S.\*, Chakrapani, H.\* (2023) Heterocyclic diaryliodonium-based inhibitors of Carbapenem-resistant *Acinetobacter baumannii* (CRAB), <u>Microbiology</u> <u>Spectrum</u> 11 (2), e04773-22.
- Mehdiratta, K., Nain, S., Sharma, M., Singh, S., Srivastva, S., Dhamale, B D., Mohanty, D., <u>Kamat, S. S.</u>, Natarajan, V. T., Sharma, R., Gokhale, R. S. (2023) Respiratory quinone switch from menaquinone to polyketide quinone during the development cycle in Streptomycin sp. MNU77, *Microbiology Spectrum* 11 (1), e02597-22.
- 7. Mondal, S., Kinatukara, P., Singh, S., Shambhavi, S., Patil, G. S., Dubey, N., Singh, S. M., Pal, B., Shekar, P. C., **Kamat, S. S.**, Sankarnarayanan, R. (2022) Dip2 is a unique regulator of diacylglycerol lipid homeostasis in eukaryotes, **eLife** 11, e77665.
- 8. Rajendran, A., Soory, A., Khandelwal, N., Ratnaparkhi, G. S., <u>Kamat, S. S.</u>\* (2022) A multi-omics analysis reveals that the lysine deacetylase ABHD14B influences glucose metabolism in mammals, *J. Biological Chemistry* 298 (7), 102128, 1-14.
- 9. Kumar, S., Khan, M. Z., Khandelwal, N., Chongtham, C., Singha, B., Dabla, A., Behera, D., Singh, A., Gopal, B., Arimbasseri, G. A., <u>Kamat, S. S.</u>, Nandicoori, V. K. (2022) *Mycobacterium tuberculosis* transcription factor, EmbR, regulates the expression of key virulence factors that aid in ex vivo and in vivo survival, *mBio* 13 (3), e03836-21.
- Mehdiratta, K., Singh, S., Sharma, S., Bhosale, R. S., Choudhary, R., Masal, D. P., Manocha, A., Dhamale, B. D., Khan, N., Vivekanand, A., Sharma, P., Ikeh, M., Brown A. C., Parish, T., Ojha, A., Michael, J. S., Faruq, M., Medigeshi, G. R., Mohanty, D., Reddy, D. S., Natarajan, V. T., <u>Kamat, S. S.</u>\*, Gokhale, R. S.\* (2022) Kupyaphores are zinc homeostatic metallophores required for colonization of *Mycobacterium tuberculosis*, *PNAS* 119(8), e2110293119.
- 11. Mehendale, N., Mallik, R. M., Kamat, S. S.\* (2021) Mapping sphingolipid metabolism pathways during phagosomal maturation, ACS Chemical Biology 16(12), 2757-2765. Featured on the December 2021 issue front cover of ACS Chemical Biology
- 12. Singh, S., <u>Kamat, S. S.</u>\* (2021) The loss of enzymatic activity of the PHARC associated lipase ABHD12 results in increased phagocytosis that causes neuroinflammation, *European Journal of Neuroscience* 54(10), 7442-7457.
- 13. Bora, P., Manna, S., Nair, M., Sathe, R. R., Singh, S., Adury, V. S. S., Gupta, K., Mukherjee, A., Saini, D. K., <u>Kamat, S. S.</u>, Hazra, A. B., Chakrapani, H. (2021) Leveraging an enzyme/artificial substrate system to enhance cellular persulfides and mitigate neuroinflammation, *Chemical Science* 12, 12939-12949.
- Khandelwal, N., Shaikh, M., Mhetre, A., Singh, S., Sajeevan, T., Joshi, A., Balaji, K. N., Chakrapani, H., <u>Kamat, S. S.</u>\* (2021)
   Fatty acid chain length drives lysophosphatidylserine dependent immunological outputs, *Cell Chemical Biology* 28, 1169-1179. *Featured on August 2021 issue front cover of Cell Chemical Biology*
- 15. Kumar, K., Mhetre, A., Ratnaparkhi, G. S., <u>Kamat, S. S.</u>\* (2021) A superfamily-wide activity atlas of serine hydrolases in *Drosophila melanogaster*, *Biochemistry* 60 (16), 1312-1324.
- Kinatukara, P., Subramaniyan, P. S., Patil, G. S., Shambhavi, S., Singh, S., Mhetre, A., Madduri, M. K., Soundararajan, A., Patel, K. D., Shekar, P. C., <u>Kamat, S. S.</u>, Kumar, S., Sankaranarayanan, R. (2020) Peri-natal growth retardation rate and fat mass accumulation in mice lacking Dip2A is dependent on the dietary composition, *Transgenic Research* 29, 553-562.
- 17. Lote-Oke, R., Pawar, J., Kulkarni, S., Sanas, P., Kajale, N., Gondhalekar, K., Khadilkar, V., <u>Kamat, S. S.</u>, Khadilkar, A. (2020) A LC-MS method for 25-hydroxy-vitamin D3 measurements from dried blood spots for an epidemiological survey in India, *Scientific Reports* 10, 19873.
- 18. Singh, S., Joshi, A., <u>Kamat, S. S.</u>\* (2020) Mapping the neuroanatomy of ABHD16A-ABHD12 & lysophosphatidylserines provides new insights into the pathophysiology of the human neurological disorder PHARC, *Biochemistry* 59 (24), 2299-2311.
- 19. Chattopadhyay, T., Maniyadath, B., Bagul, H. P., Chakraborty, A., Shukla, N., Budnar, S., Rajendran, A., Shukla, A., <u>Kamat, S.</u> <u>S.</u>, Kolthur-Seetharam, U. (2020) Spatiotemporal gating of SIRT1 functions by O-GlcNAcylation is essential for liver metabolic switching and prevents hyperglycemia, *PNAS* 117, 6890-6900.
- 20. Rajendran, A., Vaidya, K., Mendoza, J., Bridwell-Rabb, J., <u>Kamat, S. S.</u>\* (2020) Functional annotation of ABHD14B, an orphan serine hydrolase enzyme, *Biochemistry* 59 (2), 183-196. *Featured in Future of Biochemistry Asia Pacific issue*
- 21. Kumar, M., Ojha, S., Rai, P., Joshi, A., <u>Kamat, S. S.</u>\*, Mallik, R. M.\* (2019) Insulin activates intracellular transport of lipid droplets to release triglycerides from the liver, *J. Cell Biology* 218, 3697-3713.
- 22. Kulkarni, A., Soni, I., Kelkar D. S., Dharmaraja, A. T., Sankar, R. K., Beniwal, G., Rajendran, A., Tamhankar, S., Chopra, S.\*, <u>Kamat, S. S.</u>\*, Chakrapani, H.\* (2019) Chemoproteomics of an indole-based quinone-epoxide identifies druggable vulnerabilities in Vancomycin-resistant *Staphylococcus aureus*, *J. Medicinal Chemistry* 62, 6785-6795.

- 23. Malik, S. A., Acharya, J., Mehendale, N., <u>Kamat, S. S.</u>, Ghaskadbi, S. (2019) Pterostilbene reverses palmitic acid mediated insulin resistance in HepG2 cells by reducing oxidative stress and triglyceride accumulation, *Free Radical Research* 53, 815-827.
- 24. Kelkar, D. S., Ravikumar, G., Mehendale, N., Singh, S., Joshi, A., Sharma, A. K., Mhetre, A., Rajendan, A., Chakrapani, H., <u>Kamat, S. S.</u>\* (2019) A chemical genetic screen identifies ABHD12 as an oxidized phosphatidylserine lipase, *Nature Chemical Biology* 15, 169-178.
- Chaplot, K., Pimpale, L., Ramalingam, B., Deivasigamani, S., <u>Kamat, S. S.</u>, Ratnaparkhi, G. S. (2019) SOD1 activity thresholds and TOR signaling modulate VAP(P58S) aggregation via ROS-induced proteasomal degradation in a *Drosophila* model of Amylotrophic Lateral Sclerosis, *Disease Models & Mechanisms* 12, dmm.033803, 1-15. *Featured on February 2019 issue* front cover of *Disease Models & Mechanisms*
- Abhyankar, V., Kaduskar, B., <u>Kamat, S. S.</u>, Deobagkar, D., Ratnaparkhi, G. S. (2018) *Drosophila* DNA/RNA methyltransferase contributes to robust host defense in ageing animals by regulating sphingolipid metabolism, *J. Experimental Biology* 221 (22), 1-10
- 27. Joshi, A., Shaikh, M., Singh, S., Rajendran, A., Mhetre, A., <u>Kamat, S. S.</u>\* (2018) Biochemical characterization of the PHARC associated serine hydrolase ABHD12 reveals its preference for long chain lipids, *J. Biological Chemistry* 293, 16953-16963. *Featured on the November 2018 issue front cover of JBC*
- 28. Pathak, D., Mehendale, N., Singh, S., Mallik, R. M., <u>Kamat, S. S</u>.\* (2018) Lipidomics suggests a new role for ceramide synthase in phagocytosis, *ACS Chemical Biology* 13, 2280-2287. *Featured on the August 2018 issue front cover of ACS Chemical Biology*
- 29. Rai, P., Kumar, M., Sharma, G., Barak, P., Das, S., <u>Kamat, S. S.</u>, Mallik, R. M. (2017) Kinesin-dependent mechanism for controlling triglyceride secretion from the liver, *PNAS* 114, 12958-12963.

#### Book Chapters, Reviews, News Articles: From IISER Pune (2016 – present) (\*denotes corresponding author)

- Chakraborty, A., <u>Kamat, S. S.</u>\* (2024) Lysophosphatidylserine: a signaling lipid with implications in human diseases, <u>Chemical Reviews</u> 124 (9), 5470 5504. <u>Featured on May 2024 issue front cover of Chemical Reviews</u>
- 2. Saharan, O., <u>Kamat, S. S.</u>\* (2023) Mapping lipid pathways during phagocytosis, <u>Biochemical Society Transactions</u> 51 (3), 1279 1287. Featured on June 2023 issue front cover of Biochemical Society Transactions
- 3. Shanbhag, K., Sharma, K., <u>Kamat, S. S.</u>\* (2023) Photoreactive bioorthogonal lipid probes and their applications in mammalian biology, *RSC Chemical Biology* 4, 37 46. *Featured on January 2023 issue front cover of RSC Chemical Biology*
- 4. Saharan, O., Mehendale, N., <u>Kamat, S. S</u>.\* (2022) Phagocytosis: A (Sphingo)Lipid Story, *Current Research in Chemical Biology* 2, article: 10030.
- 5. Voices of Chemical Biology (2021) *Nature Chemical Biology* 17, 1-4. (Question: What is the most exciting frontier area in chemical biology and what key technology is needed to advance knowledge and applications in this area?)
- 6. Voices of Chemical Biology (2020) *Nature Chemical Biology* 16, 598-599. (Question: What was the most exciting research achievement or technology innovation in chemical biology in the last five years?)
- 7. Shanbhag, K., Mhetre, A., Khandelwal, N., <u>Kamat, S. S</u>.\* (2020) The Lysophosphatidylserines an emerging class of signaling lysophospholipid, *J. Membrane Biology* 253, 381-397.
- 8. <u>Kamat, S. S.</u>\*, Singh, S. S., Rajendran, A., Gama, S., Zechel, D. L. (2020) Enzymatic strategies for the catabolism of organophosphates, *Comprehensive Natural Products III: Chemistry & Biology*: Vol 4: Enzymes and Enzyme Mechanisms, Chapter 16, 399-429.
- 9. <u>Kamat, S. S.</u>\* (2019) Understanding the role of molecular motors in living cells: an odyssey from physics to biology, *Current Science* 116, 14-16.
- 10. Ulrich, E., <u>Kamat, S. S.</u>\*, Hove-Jensen, B.\*, Zechel, D. L.\* (2018) Methylphosphonic acid biosynthesis and catabolism in pelagic bacteria, <u>Methods in Enzymology</u> Vol. 605, 351-426.

### **Preprints and/or Manuscripts Under Review:**

- Shanbhag, K., Mhetre, A. B., Saharan, O., Thakral, P., Devarajan, A., Rai, A., Madhusudhan, M. S., Chakrapani, H., <u>Kamat, S.</u> <u>S.</u>\* (2024) Chemical proteomics identifies protein ligands for monoacylglycerol lipids (Under review at <u>Nature</u> Communications).
- 2. Kumar, K., Pazare, M., Ratnaparkhi, G. S., <u>Kamat, S. S.</u>\* (2024) CG17192 is a phospholipase that regulates signalling lipids in the Drosophila gut upon infection (Under review at <u>Biochemistry</u>).
- 3. Wong, T. Y., Sharma, S., Mehdiratta, K., Bhosale, R., Nimmkayala, K., Wilharm, R. K., Chakraborty, A., Orimoloye, M., Liu, Q., <u>Kamat, S. S.</u>, Pierre, V. C., Gokhale, R. S., Aldrich, C C. (2024) Modular synthesis and machinery of kupyaphores-Zn2+ metallophores in Mycobacterium tuberculosis (Under review at *Angewandte Chemie*).
- Tripathi, V., Bhandari, P. D., Chakraborty, A., Bhaskar, A. K., Chandramouli, A., Jain, S., Jaisinghani, N., Besra, G., <u>Kamat, S.</u>
   <u>S.</u>, Gandotra, S. (2024) Phosphatidyl inositol phosphate remodeling is achieved by a cytosolic patatin in mycobacteria (Under review at <u>JBC</u>).

- 5. Chakraborty, A., Punnamraju, P., Sajeevan, T., Kaur, A., Kolthur-Seetharam, U., **Kamat, S. S.**\* (2024) Identification of ABHD6 as a regulator of lysophosphatidylserines in the mammalian liver and kidneys [bioRxiv: https://doi.org/10.1101/2024.06.02.597019] (In revision at *JBC*)
- 6. Kapoor, Y., Khuarana, H., Chakraborty, A., Dutta, D., Singh, N. K., Priya, A., Singh, A., Sowpati, D. T., <u>Kamat, S. S.</u>, Dhar, N., Pucadyil, T. P., Nandicoori, V. K. (2024) Wag31, a membrane tether, is crucial for cellular homeostasis in mycobacteria (Revision submitted to <u>PNAS</u>).
- Shambhavi, S., Mondal, S., Chakraborty, A., Panda, B. K., Shukla, N., Kumar, S., Kinatukara, P., Pal, B., <u>Kamat, S. S.</u>, Sankarnarayanan (2024) Emergence of Dip2 mediated specific DAG-based PKC signalling axis in eukaryotes (Revision submitted to <u>EMBO J</u>).
- 8. Sarkar, B., Singh, J., Yadav, M., Sharma, P., Sharma, R. D., Singh, S., Chandramouli, A., Kumar, A., <u>Kamat, S. S.</u>, Ghorpade, D. S., Mohanty, D., Kumar, D., Gokhale, R. S. (2024) PPAR-gamma mediated enhanced lipid biogenesis fuels Mycobacterium tuberculosis growth in hepatocytes

  [bioRxiv: https://doi.org/10.1101/2024.02.02.578554] (Under review at *EMBO Molecular Medicine*).
- 9. Tripathi, S., Gupta, E., Naik, R., Khare, S., Mir, R., Desai, S., Humane, S., Yadav, S., Bal, M., Saklani, A., Patil, P., <u>Kamat, S.</u> <u>S.</u>, Galande, S. (2024) Statins attenuate Wnt/β-catenin signalling by targeting SATB family proteins in colorectal cancer (Under review at *NAR Cancer*).
- Walvekar, A., Pandey, S., <u>Kamat, S. S.</u>, Damodar, S., Ladher, R., Vyas, N. (2023) Morphogenic versus mitogenic roles of Shh are segregated on distinct exosomes regulated by cellular Rab7 levels
   [bioRxiv: https://doi.org/10.1101/2023.06.27.546648] (In revision at <u>Development</u>)

# Selected Publications from Postdoc and Ph.D. (2007 - 2016)

- <u>Kamat, S. S.</u>, Camara, K., Parsons, W. H., Chen, D. H., Dix, M. M., Bird, T. D., Howell, A. R., Cravatt, B. F. (2015) Immunomodulatory lysophosphatidylserines are regulated by ABHD16A and ABHD12 interplay, *Nature Chemical Biology* 11,164-171.
- 2. <u>Kamat, S. S.</u>, Williams, H. J., Dangott L. J., Chakrabarti, M., Raushel, F. M. (2013) The catalytic mechanism for the aerobic formation of methane by bacteria, *Nature* 497, 132-36.
- 3. <u>Kamat, S. S.</u>, Williams, H. J., Raushel, F. M. (2011) Intermediates in the transformation of phosphonates to phosphate by bacteria, *Nature* 480, 570-73.
- 4. <u>Kamat, S. S.</u>, Fan, H., Sauder, J. M., Burley, S. K., Shoichet, B. K., Sali, A., Raushel, F. M. (2011) Enzymatic deamination of the epigenetic base N-6-methyladenine, *JACS* 133, 2080-83.
- 5. <u>Kamat, S. S.</u>, Bagaria, A., Kumaran, D., Holmes-Hampton, G. P., Fan, H., Sali, A., Sauder, J. M., Burley, S. K., Lindahl, P. A., Swaminathan, S., Raushel, F. M. (2011) Catalytic mechanism and three-dimensional structure of adenine deaminase, *Biochemistry* 50, 1917-27.

#### Invited Talks since joining IISER Pune (\*\*denotes virtual talk)

- 2024 NIBMG Colloquium Talks, NIBMG Kalyani, Kolkata, India.
- 2024 Metabolomics in Drug Discovery Symposium, NIPER-A, Ahmedabad, India.
- 2024 Nencki Conference for Life Sciences Focus on Lipid Metabolism, Warsaw, Poland.
- 2024 EMBO Sectoral meeting in Metabolism and Lipid Biology, Warsaw, Poland.
- 2024 EMBO Global Investigator's Meeting, NTU Singapore City, Singapore.
- 2024 Annual YIN PhD Course, EMBO Heidelberg, Germany.
- 2024 ARUMDA Annual Meeting, TIFR Hyderabad, India.
- 2024 EMBO YIP: Global Network, Borderless Science, Impactful Research: IndiaBioscience Webinar\*\*
- 2024 Cutting Edge Lecture Series, ACTREC, Navi Mumbai, India.
- 2024 Bioconclave, Department of Biology, IISER Pune, India.
- 2023 NIUS Chemistry Camp, HBCSE, Mumbai, India.
- 2023 Chemsymphoria, Chemistry IISER Pune, Pune, India.
- 2023 Winter Symposium, BSBE IIT Kanpur, Kanpur, India.
- 2023 Proteomics Society of India 15th Annual Meeting\*\*, NIPGR, New Delhi, India.
- 2023 EMBO Day, Academia Sinica, Taipei, Taiwan.
- 2023 EMBO Day, National Cheng Kung University, Tainan, Taiwan.
- 2023 Institute Invited Lecture, InStem Bangalore, India.
- 2023 EMBO Young Investigator's Annual Meeting, Milan, Italy.
- 2023 Student Invited Talk, DBS TIFR Mumbai, India.
- 2023 Redox Biology of Health and Disease, IISER Pune, India.
- 2023 ARUMDA Annual Meeting\*\*, TIFR-Hyderabad, India.

2023	Mitometab meeting, 42nd Mahabaleshwar seminar series, IISER Pune, Pune, India.
2023	MBU50 meeting, IISC Bangalore, India.
2022	Annual Meeting, Society of Biological Chemists of India, Kolkata, India.
2022	NII Seminar Series, NII, New Delhi, India
2022	FEBS Advanced Course: 360° Lysosome Meeting, Kusadasi-Izmir, Turkey.
2022	Asian Chemical Biology Initiative (ABCI) Annual Meeting, IISER Pune, India
2022	Cell Biology Lecture Series, NCCS Pune, India.
2022	EMBO Young Investigator's Annual Meeting, Heidelberg, Germany.
2022	EMBO-India Investigators Network (IIN)**, India.
2022	Guha Research Conference, Bhimtal-Nainital, Uttarakhand, India.
2022	10 <sup>th</sup> International Singapore Lipid Symposium (ISLS)**, National University of Singapore, Singapore.
2022	Mumbai Chapter Webinar**, Society of Biological Chemists of India, BARC Mumbai, India.
2021	Annual Meeting**, Society of Biological Chemists of India, Amity University, Haryana, India.
2021	OMICS 2021**, Proteomics Society of India Annual Meeting, CCMB Hyderabad, India.
2021	Contemporary Webinar Series**, Regional Centre for Biotechnology (RCB), Faridabad, NCR, India.
2021	Annual Talks**, Department of Biological Sciences, TIFR Mumbai, India.
2021	CDRI Award Ceremony, CDRI, Lucknow, Uttar Pradesh, India.
2021	Young Investigator's Meeting**, EMBO, Heidelberg, Germany.
2021	Annual Talks**, Department of Biological Sciences, TIFR Hyderabad, India.
2020	CCMB Biologue**, CCMB Hyderabad, India.
2020	The Cancer Genome Atlas Conference**, Center of Translational Cancer Research, Pune, India.
2020	International Symposium on Cell Surface Macromolecules, IISER Pune, India.
2019	International Chemical Biology Society, 8th Annual meeting, IICT Hyderabad, India.
2019	Young Investigator's Meeting, EMBO, Heidelberg, Germany.
2019	Advances in Mass Spectrometry Symposium, IISER Tirupati, India.
2019	Indo-UK Chemical Biology Symposium, University of Glasgow, Scotland.
2018	Proteomics Society of India 10th Annual meeting, NCCS, Pune, India.
2018	Indo-US Symposium on Understanding Biology by Proteomics & Metabolomics, NCCS, Pune, India.
2018	Proteomics Day, CSIR-NCL Pune, India.
2017	iCeMS-NCBS India Alliance Symposium, NCBS Bangalore, India.

Omics to Structural Basis of Disease National Symposium, MSU Baroda, India.

### **Current Lab Members**

2016

- 1. Dr. Kavita Sharma, Postdoctoral Research Associate, IISER Chemistry
- 2. Dr. Jyotsna Singh, Postdoctoral Research Associate, IISER Biology
- 3. Karthik Shanbhag, Int. Ph.D. student, IISER Biology (*PMRF Fellow*)
- 4. Arnab Chakraborty, Ph.D. student, IISER Biology
- 5. Kundan Kumar, Int. Ph.D. student, IISER Biology (joint with Girish Ratnaparkhi)
- 6. Sonali Gupta, Int. Ph.D. student, IISER Biology (PMRF Fellow)
- 7. Ojal Saharan, Int. Ph.D. student, IISER Biology (PMRF Fellow)
- 8. Aakash Chandramouli, Ph.D. student, IISER Biology
- 9. Pooja Thakral, Ph.D. student, IISER Chemistry (joint with Harinath Chakrapani)
- 10. Abhishek Kumar, Ph.D. student, IISER Chemistry (joint with Harinath Chakrapani)
- 11. Neeraj Kumar Yadav, Ph.D. student, IISER Biology
- 12. Adithya Kallathu, Int. Ph.D. student, IISER Biology
- 13. Manish Deshmukh, MS Thesis Student, IISER Biology
- 14. Mahamaya Dhaware, Project Fellow (SRF)
- 15. Saddam Shekh, Lab Technician (LCMS facility)

# <u>Alum</u>ni

- 1. Ines Leleu (Raman Charpak Fellow, MS Thesis, August 2018 October 2018)
- 2. Sharvari Tamhankar (Project Student, January 2018 August 2018)
- 3. Alaumy Joshi (Research Fellow, November 2016 August 2019)
- 4. Dhanashree Kelkar, Ph.D. (Postdoc, January 2017 January 2020)
- 5. Theja Sajeevan (MS Thesis Student, January 2019 June 2020)
- 6. Shubham Singh, Ph.D. (Doctoral Student, August 2016 July 2021)

- 7. Neelay Mehendale, Ph.D. (Doctoral Student, August 2016 October 2021)
- 8. Minhaj Shaikh, Ph.D. (Doctoral Student, January 2017 October 2021)
- 9. Neha Khandelwal, Ph.D. (Postdoc, April 2018 November 2021)
- 10. Amol Mhetre, Ph.D. (Postdoc, August 2017 February 2022)
- 11. Abinaya Rajendran, Ph.D. (Doctoral Student, August 2016 June 2022)
- 12. Anisha Rai (MS Thesis Student, January 2022 May 2023)
- 13. Prajwal Punnamraju (MS Thesis Student, May 2022 May 2023)
- 14. Rohith C. S. (MS Thesis Student, January 2022 May 2023)
- 15. Mihika Yeolekar (Research Intern, June 2022 May 2023)
- 16. Kaveri Vaidya, Ph.D. (Doctoral Student & Research Associate, August 2017 April 2024)
- 17. Chaitanya Katkar (MS Thesis Student, January 2023 May 2024)
- 18. Sreedev H (MS Thesis Student, January 2023 May 2024)
- 19. Archit Devarajan (Intern, July 2023 June 2024)

### **Teaching Experience** (since joining IISER Pune)

- Advanced Biochemistry I (Course coordinator) (August Semester 2017-2024: 4 credit)
- Biology and Disease (Course instructor) (January Semester 2017-19: 3 credit) (January Semester 2020-24: 4 credit)
- 1st year Biology Practical Lab (Course Instructor) (August Semester 2020-21: 4 credit; January Semester 2024: 4 credit)

# Conferences/Meetings Organizations: From IISER Pune (2016 - present)

- 1. EMBO Young Investigator Network Ph.D. Course, IISER Pune (February 2025)
- 2. Lab Leadership Course, EMBO Solutions, IISER Pune (October 2024)
- 3. 43rd Annual conference of The Indian Association for Cancer Research, IISER Pune (January 2024)
- 4. Macromolecular Assemblies (structure, function and evolution), IISER Pune (August 2023)
- 5. EMBO India Delegation, various parts of India, including IISER Pune (March 2023)
- 6. IISER Pune Weizmann Institute of Science: Conference on Chemical Biology, IISER Pune (December 2018)
- 7. 10<sup>th</sup> Annual Proteomics Society of India meeting, NCCS Pune (December 2018).

### Science Outreach Activities: From IISER Pune (2016 - present)

- Mentor, National Initiative for Undergraduate Sciences (Chemistry & Biology Disciple), Homi Bhabha Center for Science Education, Mumbai (2018 – present)
- 2. Faculty Consultant, iGEM Synthetic Biology, iGEM Grand Jamboree (2018 present)
- 3. Faculty Volunteer, Science Day Open House at IISER Pune (2018 present)
- 4. Faculty Volunteer, SERB Karyashala Workshop for Hands-on training in biological mass spectrometry (2021 present)
- 5. Coordinator, EMBO Young Investigator Ph.D. Course for South East Asia (Sessions covered: Grant Game and Scientific Communication) (2023 present)
- 6. Faculty Mentor, India Bioscience Young Investigator Forum (2024 present)