

## **Aravind Penmatsa, PhD**

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**Molecular Biophysics Unit** 

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To The Organizers. Sun Pharma Research Awards 2024.

## **Undertaking of Research**

The following research publications that are being submitted for consideration for the Sun Pharma Research Awards 2024 have not been submitted elsewhere for award consideration. The research was funded through generous and competitive grants and fellowships by DBT, DST and India Alliance. The following publications are being submitted for consideration and the primary authors in these studies are my postdocs and graduate students and me being the corresponding author. A small part of the study was performed through a collaboration and consulting with a research group in Germany for the publication 3 in the following list. Besides that, all authors have in the manuscripts have been mentored within my lab.

- 1. Shabareesh, P., Mallela, A.K., Joseph, D. & Penmatsa, A.\* Structural basis of norepinephrine recognition and transport inhibition in neurotransmitter transporters. Nat. **Communs**. (2021) **12**:2199. (https://doi.org/10.1038/s41467-021-22385-9)
- 2. Joseph, D., Nayak, S.R., & Penmatsa, A.\* Structural insights into GABA transport inhibition using an engineered neurotransmitter transporter. *EMBO J.* (2022). 41:e110735.
- 3. Nayak, S.R., Joesph, D., Hoefner, G., Dakua, A., Athreya, A., Wanner, K.T., Kanner, B.,& Penmatsa, A.\* CryoEM structure of GABA transporter 1 reveals substrate recognition and transport mechanism. *Nat. Struct. Mol. Biol.* (2023). **30**, 1023–1032.

## Authors and roles.

- 1. Pidathala Shabareesh: DBT-RA postdoc. (involved in norepinephrine/inhibitor complexes)
- 2. Deepthi Joseph: PhD student (Involved in DAT<sub>GAT</sub> design and crystal structures)
- 3. Smruti R. Navak: PhD student (involved in solving GAT structure)
- 4. Aditya Mallela: Project JRF (involved in antibody overexpression and cloning)
- 5. Archishman Dakua: UG-MS student in my laboratory. (Involved in epitope engineering)
- 6. Arunabh Athreya: Phd Student (Involved in molecular simulations)
- 7. Aravind Penmatsa: Corresponding author and lead investigator.

Sincerely,

Aravind Penmatsa, PhD