CV- Akankshi Munjal

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PRESENT POSITION

01/2016-Present: Post-Doc, Prof. Sean Megason Lab (mentor), Prof. Timothy Mitchison (co-mentor), Dept. of Systems Biology, Harvard Medical School, USA

06/2019-Present: Principal Investigator of NIH K99/R00 Award (NICHD K99HD098918)

EDUCATION

2011-2015: PhD (Biology) Prof. Thomas Lecuit lab, IBDM, Aix-Marseille University, France 2008-2011: M.Sc. (Biology), Prof. Satyajit Mayor lab, National Centre for Biological Sciences, India 2005-2008: B.Sc. (Biology), University of Delhi, India

FELLOWSHIPS AND GRANTS

- 1. 06/2019 Present: NIH K99/R00 Pathway to Independence Award (NICHD K99HD098918)
- 2. 06/2016 -05/2019: HFSP (Human Frontiers Science Program) Long Term Post-Doc Fellowship
- 3. 11/2014 10/2015: ARC (Association pour la Recherche le Cancer) PhD Fellowship
- 4. 11/2011 10/2014: Ministère de l'Éducation nationale, France, PhD Fellowship
- 5. 08/2008 -08/2011: DBT (Department of Biotechnology), India, Masters Fellowship

PUBLICATIONS AND PREPRINTS

- Munjal, A.*, Hannezo, E., Mitchison, T. & Megason, S*. Extracellular hyaluronate pressure shaped by cellular tethers drives tissue morphogenesis. *bioRxiv*, doi:10.1101/2020.09.28.316042 (2020). (*corresponding author)
- Banerjee, D. S., Munjal, A., Lecuit, T. & Rao, M. Actomyosin pulsation and flows in an active elastomer with turnover and network remodeling. *Nature Communications* 8, 1121, doi:10.1038/s41467-017-01130-1 (2017).
- Kerridge, S.*, Munjal, A. *, et al. Modular activation of Rho1 by GPCR signalling imparts polarized myosin II activation during morphogenesis. *Nat Cell Biol* 18, 261-270, doi:10.1038/ncb3302 (2016). (*co-first author)
- 4. **Munjal, A**., Philippe, J.-M., Munro, E. & Lecuit, T. A self-organized biomechanical network drives shape changes during tissue morphogenesis. *Nature* 524, 351-355, doi:10.1038/nature14603 (2015).
- 5. **Munjal, A**. & Lecuit, T. Actomyosin networks and tissue morphogenesis. *Development* 141, 1789-1793, doi:10.1242/dev.091645 (2014).

RESEARCH PATENT

"Inhibitors to Target HIV-1 NEF-CD80/CD86 Interactions for therapeutic Intervention" (Akankshi Munjal, Satyajit Mayor, Taslimarif Saiyed, Anandi Karumabti and others), Indian Provisional Patent Application No.201841005491 filed.

MENTORING AND TEACHING EXPERIENCE

- I taught in the 9th Bangalore Benny Shilo Course on Developmental Biology (1st-11th January 2019), India, with two modules; first, an account of my academic journey to inspire students in India from under-privileged backgrounds for a career in scientific research; second, lectures on the latest research in tissue morphogenesis.
- 2) I mentored Jacob Schwartz (under-graduate intern, summer 2018) through the Systems Biology Summer Internship Program.
- 3) I supervised Priyadarshini Subramanain (Masters student) during Master's thesis (2010-2011).

LEADERSHIP AND OUTREACH EXPERIENCE

- 1) Co-founder of the "The SysBio Postdoc Group" (2018-Present): We create an inclusive environment for postdocs in the department focusing on career development.
- 2) Member of the Mentorship and Training Task Force (06/2020-Present): We are improving mentorship, diversity, equity and inclusion in the department through- seminar series and journal club series discussing social issues in biology, focusing on race; hiring professional consultants to build training programs at multiple levels; implementing K-12 outreach programs.
- 3) Organizer of the "Joint Development Group Meetings" (2017-Present)- We bring together students and postdocs interested in developmental biology to share preliminary findings of their research.
- 4) Participated in the outreach activities at the annual Fete de la in Marseille (2013-2014)

ORAL PRESENTATION AT INTERNATIONAL MEETINGS AND INVITED TALKS

- 1. Annual ASCB | EMBO Meeting Cell Bio Virtual 2020 (2-16 December, 2020)
- 2. Invited talk at the Mechanobiology Institute at Singapore (13th November, 2020)
- 3. Physics of Living Matter 15, Online (October 1-2, 2020)
- 4. Annual SDB Meeting 2020, Online (July 9-15, 2020)
- 5. Annual SDB Meeting 2019, Boston, USA (July 26-30, 2019)
- 6. Annual ASCB | EMBO Meeting 2018, San Diego, USA (8-12 December, 2018)
- 7. 18th HFSP Awardees Meeting, Toronto, Canada (8-11 July, 2018)
- 8. EMBO | EMBL Symposium Tissue Self Organization, Heidelberg, Germany (11-14, March 2018)
- 9. CNRS Jacques Monod Conference, Roscoff, France (13-17 September, 2015)
- 10. 1st FSER Laureates Meeting, Paris, France (15-17 December, 2014)
- 11. ASCB/IFCB Meeting, Philadelphia, USA (6-10 December, 2014)

COURSES

- EMBO Lecture Course 'Experimental and Theoretical approaches to cell mechanics', Bangalore, India (23 April - 6 May 2017).
- 2. Summer Course, Embryology 2016, Marine Biology Lab, Woodshole, USA (4 June -17 July 2016).
- 3. Labex INFORM advanced lecture course 'Quantitative Biology Of Signaling', Carry Le Rouet, France (29 September- 3 October 2014).
- 4. Summer Course, New Quantitative Approaches to Morphogenesis, Kavli Institute for Theoretical Physics, Santa Barbara, USA (1-31st August 2013).
- 5. Joint EMBO-FEBS Lecture Course 'Mesoscopic Origins of Cell Behaviors during Tissue Morphogenesis', Cargése, Corsica, France (29 April- 5 May 2012).
- 6. EMBO Global Exchange Lecture Course 'Molecular Mechanism of Protein Transport', NCBS, Bangalore, India (1-8 December 2010).
- 7. 2nd IMSc Complex Systems Summer School, The Institute of Mathematical Sciences, Chennai, India (January 2010).
- 8. Summer Research Fellowship Programme, Indian Academy of Sciences, Indian Institute of Science, Bangalore, India (May-July 2007).

LANGUAGE (CULTURAL) SKILLS

- 1. Native English and Hindi speaker.
- 2. Basic level of Punjabi, French and Italian.
- 3. Learnt German in middle school for five years.

4. I love cooking and travelling, meeting local people, talking to them in their language (if possible) about the food they eat and the recipe of their favorite meal.