

PROGRAMME

30/01/2016, Saturday

Arrive at Lonavala from Mumbai and check into room. Pick up name tags and meeting schedule, put up posters. Arrivals between 9:30am and 11am will be provided breakfast.

12:30-2:00

Lunch

2:00-2:10

Mahabaleshwar seminar series: Spirit of discussion, promote scientific interactions between students/post-doctoral fellows and faculty

Session I: *elegans* cell biology

Session chairs: **Virupakshi Soppina**, IIT-Gandhinagar and **Anoopkumar Thekkuveetil**, Sree Chitra Institute for Medical Sciences and Technology

2:10-3:00

Ronen Zaidel-Bar, National University of Singapore: Regulation of actomyosin contractility (45 min talk)

3:00-3:20

Anup Padmanabhan, National University of Singapore: Non-junctional adhesion-independent E-cadherin clusters regulate the actomyosin cortex and slow cytokinesis (12min talk)

3:20-3:40

Parul Sood, TIFR: Crowded locations along the neuronal process regulate cargo flux (12min talk)

3:40-4:10

Tea break

4:10-4:45

Sachin Kotak, IISc: Aurora A kinases dictates proper spindle positioning from worms to humans (30 min talk)

4:45-5:05

Swati Pal, The hospital for sick children Toronto: *C. elegans* CCM-3 promotes biological tube development by regulating vesicle trafficking and polarity (12min talk)

5:05-5:25

Sharika Rajashekar, Alagappa University: Analysis of differentially regulated proteins during Gram positive and Gram negative bacterial infection in *Caenorhabditis elegans* (12min)

5:30-7:30

Posters and Tea

7:30-9:00

Dinner

8:30

"Getting the most out of graduate school". Panel members: Kavita Babu (IISER-Mohali), K. Subramaniam (IIT-Madras), Antony Jose (University of Maryland), Arjumand Ghazi (University of Pittsburgh), Sudip Mondal (University of Texas) and Abhishek Bhattacharya (Columbia University)

31/01/2016, Sunday

7:30-9:00

Breakfast

Session II: Molecules to circuitry

Session chairs: **Jaya Bandyopadhyay**, Maulana Abdul Kalam University of Technology and **Ashwini Godbole**, Institute of Trans-disciplinary Sciences and Technology

9:00-9:50

Michael Nonet, WUSM: Cellular mechanisms controlling mechanosensory neuron synapse development (45 min talk)

9:50-10:25

Sandhya Koushika, DBS-TIFR: Regulation of cargo transport in neurons (30 min talk)

10:25-10:45

Abhishek Bhattacharya, Columbia University: Stress induced plasticity of the *C. elegans* electrical synapse network (12 min talk)

10:45-11:15

Tea Break

11:15-11:50

Kavita Babu, IISER-Mohali: Understanding the molecular mechanism of RIG-3 functioning at the synapse (30 min talk)

11:50-12:25

Varsha Singh, IISc: An odorsensory circuit for aversion response of *C. elegans* to bacterial pathogens (30 min talk)

12:25-12:45

Madhushree Kamak, TIFR: UNC-16/JIP-3 regulates early steps of synaptic vesicle protein trafficking via LRK-1/LRRK-2 and the AP1 complex (12min talk)

12:45-1:05

Pratima Pandey, IISER-Mohali: Understanding the role of RIG-3 at the *C. elegans* neuromuscular junction (12min)

1:05-2:15

Lunch

Session III: Circumventing ageing

Session chair: **Rakesh Pandey**, CSIR-CIMAP

- 2:15-3:05 Arnab Mukhopadhyay, NII: A panoply of post-transcriptional regulatory events determine dietary restriction-induced longevity (45 min talk)
- 3:05-3:40 Arjumand Ghazi, University of Pittsburgh: Fat, Fertility and Aging Worms (30 min talk)
- 3:40-4:00 Jamuna Subramaniam, Sri Ramachandra Medical University: Reserpine utilizes novel neuronal pathways for lifespan extension and alleviation of Amyloid beta toxicity in *Caenorhabditis elegans* (12min talk)
- 4:00-4:20 Akanksha Pant, CSIR-CIMAP: b-caryophellene ameliorates age-related decline in mitochondrial turnover and b-amyloid induced toxicity in *Caenorhabditis elegans* (12min)

4:20-6:30 Posters and Tea

6:00-7:30 Murder in the *ELEGANS* mansion (team game)

7:30-9:00 Dinner and bonfire

8:30 "Academic careers in different settings in India: rewards and challenges" Panel members: Virupakshi Soppina (IIT-Gandhinagar), Kavita Babu (IISER-Mohali), Varsha Singh (IISc), Rakesh Pandey (CSIR-CIMAP), Jamuna Subramaniam (Sri Ramachandra Medical University), Medha Rajadhyaksha (Sophia College)

01/02/2016, Monday

7:30-9:00 Breakfast

Session IV: Genome editing and inheritance

Session chair: **Arnab Mukhopadhyay**, NII

- 9:00-9:50 Geraldine Seydoux, JHMI: High efficiency genome editing using Cas9 ribonucleoprotein complexes (45 min talk)
- 9:50-10:25 Antony Jose, University of Maryland: Inheritance of RNA from somatic cells to progeny in *C. elegans* (30 min talk)
- 10:25-11:10 Bhagwati Gupta, McMaster University: Genetic control of reproductive system development in nematodes (30 min talk)

11:10-11:30 Tea Break

Session V: Signalling and gene regulation

Session chair: **P. Rajini**, CFTRI

- 11:30-12:10 Gautam Kao, University of Gothenburg: ASNA-1 and insulin secretion: Lessons from worms for mammalian cell biology (30 min talk)
- 12:10-12:30 G. P. Manjunath, IISER-Mohali: *C. elegans* Homeodomain Protein DVE-1 regulates transcription in response to Insulin/Insulin like Growth Factor (IGF) Signaling (12min talk)
- 12:30-12:50 Syed Tabrez, NII: Non-sense helps, sometimes! Role of post-transcriptional gene regulation during dietary restriction (12min)
- 12:50-1:10 Medha Rajadhyaksha, Sophia College: Lithium alters behavior of *Caenorhabditis elegans* under hypoxia by modulating HIF-1 (12min)
- 1:10-1:30 Latika Matai, CSIR-IGIB: Oxidative quality control regulates response to ER stress through translation control (12min)

01:30-2:30 Lunch

Session VI: Newer technologies

Session chair: **Kisan Babu**, University of Agricultural Sciences

- 2:30-2:50 Crispr for gene knockout and targeted integration, Sigma Aldrich (12 min talk)
2:50-3:10 Siddharth Khare, IISc: Techniques to measure and exert forces in micro Newton range, applied to *C. elegans* (12min talk)
3:10-3:30 Sudip Mondal, University of Texas: A Large-scale high-throughput microfluidic screening platform for drug discovery using *C. elegans* disease models (12min talk)

3:30-5:30 Posters and Tea

5:30-7:30 Attendees can choose to walk to the dam or see other local attractions at Lonavala

7:30-9:00 Pool-side Dinner

9:00 Post Dinner party

02/02/2016, Tuesday

7:30-9:00 Breakfast and Check out

Session VII: Rewiring the nervous system after injury

Session Chair: **Apurba Koner**, IISER-Bhopal

- 9:00-9:35 Anindya Ghosh-Roy, NBRC: Functional restoration after neuronal injury (30 min talk)
9:35-10:10 Strahil Pastuhov, Nagoya University: Regulation of axon regeneration by axotomy-induced serotonin signaling (30 min talk)
10:10-10:30 Sucheta Kulkarni, NCBS: UNC-16/JIP3 inhibits the function of the regeneration promoting isoform of DLK-1 (12min talk)
10:30-11:00 Tea Break

Session VIII: Germline

Session chair: **Sachin Kotak**, IISc

- 11:00-11:50 K. Subramaniam, IIT-Madras: A decade-long obsession with puf-8 and germ cell decisions (45 min talk)
11:50-12:20 Anilkumar Ganga, IIT-Kanpur: PUF-8 facilitates synaptonemal complex formation by promoting the perinuclear localization of dynein (12min)
12:30-2:00 Lunch
2:00 Departure to Mumbai
Visit to Bhaja caves (for those leaving late or leaving on 03/02/2016)