

**Symposium on “Accelerating Biology 2020: SNIps to SPiNs”**  
**February 4-6, 2020**  
**Venue: IISER, Pune**  
**Technical Programme**

**Day 1: February 4, 2020**

<b>Time</b>	<b>Title</b>	<b>Speaker</b>
08:00 – 08:30	<i>Breakfast</i>	
08:00 – 09:00	Registration	
	<b>Session I: Keynote Talks</b>	
	<b>Session Chair:</b> Dr. Vijay Bhatkar, Nalanda University	
09:00 – 09:45	Biomedical Data Science – Does Anything Change?	Prof. Philip Bourne, University of Virginia, USA
09:45 – 10:30	The American Exascale Computing Project	Prof. Laxmikant Kale, University of Illinois, USA
	<b>Session II: Exascale / Quantum Computing</b>	
	<b>Session Chair:</b> Shri S. A. Kumar, MeitY	
10:30 – 11:00	Quantum Algorithms for Search and Optimization	Dr. Debajyoti Bera, IIT Delhi
11:00 – 11:15	<i>Tea Break</i>	
	<b>Session III: Cancer Research</b>	
	<b>Session Chair:</b> Shri. Anil Srivastava, OHSL, USA & Shri. S. A. Kumar, MeitY	
11:15 – 11:45	Cancer Research and Colossus	Dr. Jeff Buchsbaum NCI, USA
11:45 – 13:00	<i>Inaugural Programme</i>	
13:00 – 14:00	<i>Lunch Break</i>	
14:00 – 15:30	<b>Session IV: Poster Session I</b>	
	<b>Session V: NGS Applications in Medicine and Agriculture</b>	
	<b>Session Chair:</b> Prof. B. Gopal, IISc	
15:45 – 16:30	Role of Deep Learning in Biology: An Example on Estimating the Concentration Class of An Agriculturally Important Metabolite	Dr. Binay Panda, GANIT labs, Bangalore
16:30 – 17:15	The ‘Big B’s of biological sciences: ‘Big Data’ and ‘Biocuration’	Prof. Saurabh Raghuvanshi, Delhi University, New Delhi
17:15 – 17:30	<i>Tea Break</i>	
17:30 – 18:15	An introduction to clinical next generation sequencing and its application in facilitating precision medicine	Dr. Aditya Phatak, PierianDx India, Pune
19:00 – 21:00	<i>Dinner at C-DAC Innovation Park, Rooftop Area, Pune</i>	

**Day 2: February 5, 2020**

<b>Time</b>	<b>Title</b>	<b>Speaker</b>
08:00 – 08:45	<b><i>Breakfast</i></b>	
	<b>Session VI: Biomolecular Simulations and Dynamics</b> <b>Session Chair:</b> Dr. Urmila Kulkarni Kale, SPPU	
09:00 – 09:45	Revisiting India's pride: The Ramachandran map - all over again	Dr. N. Srinivasan, IISc, Bangalore
09:45 – 10:30	Deciphering the effects of disease associated mutations on structure/function of proteins and protein-DNA complexes	Dr. Debasisa Mohanty, NII, Delhi
10:30 – 10:45	<b><i>Tea Break</i></b>	
10:45 – 11:30	Stoichiometric Constraints in Primary Sequences of Natural Proteins	Dr. Aditya Mittal, IIT Delhi
11:30 – 13:30	<b>Session VII: Poster Session II</b>	
13:30 – 14:15	<b><i>Lunch Break</i></b>	
	<b>Session VIII: Genome Analytics and Drug Design</b> <b>Session Chair:</b> Prof. Alok Bhattacharya, Ashoka University, Delhi	
14:30 – 15:15	Genomic DNA Sequence and Structure: Implications in Drug Design	Prof. Manju Bansal, IISc, Bangalore
15:15 – 16:00	Target protein(s) identified by metabolic pathway analysis and strategy to combat persistent tuberculosis.	Prof. Indira Ghosh, IISER, Kolkata
16:00 – 16:15	<b><i>Tea Break</i></b>	
16:15 – 17:00	DNA is Talking!	Prof. B. Jayaram, IIT Delhi
17:00 – 17:45	Applications of Artificial Intelligence in biological sciences	Dr. Dinesh Gupta, ICGEB, Delhi
17:45 – 18:00	Presentation on Bioinformatics Group activities performed at C-DAC: <b>Mr. Vinod Jani, C-DAC, Pune</b>	
19:00 – 19:30	<b><i>Banquet talk by Dr. Jeff Buchsbaum NCI, USA</i></b> <b><i>Chaired by: Shri. Anil Srivastava, OHSL, USA</i></b>	
19:30 – 21:00	<b><i>Dinner at Orchid Hotel, Pune</i></b>	

**Day 3: February 6, 2020**

<b>Time</b>	<b>Title</b>	<b>Speaker</b>
08:00 – 08:45	<b>Breakfast</b>	
	<b>Session IX: AI, BIGDATA and Deep Learning in Biology</b> <b>Session Chair:</b> Dr. Sangeeta Sawant, SPPU	
09:00 – 09:45	Harnessing the power of AI for global health	Dr. Anurag Agrawal, IGIB, New Delhi
09:45 – 10:30	Identifying disease modules in biological networks	Dr. Karthik Raman, Robert Bosch Centre, IIT Madras
10:30 – 10:45	<b>Tea Break</b>	
10:45 – 11:30	Disease co-morbidities: Genes and pathway modelling	Dr. S. Ramachandran, IGIB, New Delhi
	<b>Session X: Collaborations, Industry and Startups</b> <b>Session Chair:</b> Dr. Chetan Gadgil, NCL	
11:30 – 12:15	Advance and opportunities in rare disease diagnosis	Dr. Vamsi Veeramachaneni, Strand Life Sciences, Bangalore
12:15 – 13:00	Unveiling Genomics & proteomics insights for potential vaccine candidate against Leptospirosis	Dr. Jayshankar Das, Siksha 'O' Anusandhan, Bhubaneswar
13:00 – 14:00	<b>Lunch Break</b> <i>(Followed by announcement of posters selected for oral presentation)</i>	
14:15 – 15:00	Building ecosystem for fostering cutting-edge lifescience / healthcare innovation	Dr. Taslimarif Saiyed, C-CAMP, Bangalore
15:00 – 16:00	<b>Session XI: Young Speakers Programme</b> <b>Session Chairs:</b> Dr. Samiron Phukan, Dr. Chetan Gadgil, Dr. M. Karthikeyan <b>Selected oral poster presentation</b>	
16:00 – 16:45	<b>Session XII: Valedictory Session and Poster Awards</b> Dr. Venkata Palle, Lupin Ltd. <b>Session Chair:</b> Dr. Rajendra Joshi, Convenor, Symposium on “Accelerating Biology 2020: SNIps to SPiNs”	
16:45 – 17:00	<b>Tea and Good Bye</b>	