



6th Chromosome Stability

13-17th December 2024, JNCASR
Bengaluru, India

DAY 1: Friday, 13 December 2024		
12:00-13:40	Registration and Lunch	
13:45-14:00	Inauguration and Introduction	
Session I: Chromatin and Genome Stability Chairpersons: K. Muniyappa and Kevin Hardwick		
Time	Speaker/Affiliation	Title
14:00-14:20	Shiv Grewal National Institutes of Health, Bethesda, USA	Unveiling the mechanism of heterochromatic transcriptional gene silencing
14:25-14:45	Jitendra Thakur Emory University, Atlanta, USA	Genomic and epigenomic maps of mouse centromeres and pericentromeres
14:50-15:10	Srimonta Gayen Indian Institute of Science, Bangalore, India	Gene regulation through the lens of Inactive X topology
15:15-15:35	Nitika Taneja Erasmus Medical Center, Rotterdam, Netherlands	Mechanisms of chromatin reorganization upon replication stress
15:40-16:10	Tea Break	
16:15-16:35	Marco Foiani FIRC Institute of Molecular Oncology (IFOM), Milan, Italy	Mechanisms mediating chromosome catenation
16:40-17:00	Chandrima Das Saha Institute of Nuclear Physics, Kolkata, India	Chromatin readers as drivers of breast tumor heterogeneity
17:05-17:25	Kaustuv Sanyal JNCASR Bangalore & Bose Institute, Kolkata, India	Heterochromatin-mediated genome stability
17:30-17:50	Arnab Ray Chaudhuri Erasmus Medical Center, Rotterdam, Netherlands	Modulating <i>RAD51</i> dynamics for genome stability
17:55-18:10	Short talk 1: Hiral Shah EMBL, Heidelberg, Germany	Diversity and evolution of MTOCs in close relatives of animals
18:15-18:35	Poster Teaser (2 min x 10)	
18:40-20:00	Dinner	
20:00-21:30	Poster Session I	
DAY 2: Saturday, 14 December 2024		
7:00-8:45	Breakfast	
Session II: Chromosome Segregation Chairpersons: Michael Lichten and Shweta Tyagi		
Time	Speaker/Affiliation	Title
9:00-9:20	Geert Kops Utrecht University, Utrecht, Netherlands	Kinetochore diversity in eukaryotes
9:25-9:45	Jeyaprakash Arulanandam University of Edinburgh, Edinburgh, UK	Mechanisms of chromosome segregation: Tale of two 'Cen's
9:50-10:10	Tatsuo Fukagawa Osaka University, Osaka, Japan	Comprehensive understanding of centromeres and kinetochores
10:15-10:35	Shweta Tyagi Center for DNA Fingerprinting and Diagnostics, Hyderabad, India	KMT2 family goes moonlighting in mitosis
10:40-11:00	Patrick Heun University of Edinburgh, Edinburgh, UK	Centromeres without the CCAN: lessons from <i>Drosophila</i>
11:05-11:35	Tea Break	

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11:40-12:00	Bungo Akiyoshi University of Edinburgh, Edinburgh, UK	Extreme biology of chromosome segregation: lessons from exceptions
12:05-12:25	Rita Tewari University of Nottingham, Nottingham, UK	Divide and rule: Atypical cell division in <i>Plasmodium</i>
12:30-12:50	Tapas Manna Indian Institute of Science Education and Research Thiruvananthapuram, India	Molecular insights of kinetochore expansion
13:00-14:00	Lunch	
Session III: Genome Dynamics Chairpersons: Umesh Varshney and Joesph Heitman		
Time	Speaker/Affiliation	Title
14:00-14:20	Kevin Hardwick University of Edinburgh, Edinburgh, UK	Aneuploidy and the spindle checkpoint in <i>Cryptococcus neoformans</i>
14:25-14:45	Nishant K.T. Indian Institute of Science Education and Research, Thiruvananthapuram, India	Regulation of LOH frequency and distribution in <i>S. cerevisiae</i>
14:50-15:10	Christophe d'Enfert Institut Pasteur, Paris, France	<i>Candida albicans</i> genome dynamics
15:15-15:35	Ranjith Padinhateeri Indian Institute of Technology Bombay, Mumbai, India	Predicting chromatin polymer properties at nucleosome resolution
15:40-15:55	Short talk 2: Ayantika Sen Gupta Stowers Institute for Medical Research, Kansas City, USA	Allele-based imbalances in human centromere function of chromosome segregation
16:00-16:50	Tea and Group Photo	
16:55-17:15	Joseph Heitman Duke University, Durham, USA	Karyotype evolution in the fungal kingdom
17:20-17:40	Kushagra Bansal Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India	Regulators of genome superstructure in the immune system
17:45-18:00	Short talk 3: Satya Dev Polisetty Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India	<i>Cryptococcus neoformans</i> dynamic 3D genome: A tale of conformational states
18:05-18:20	Sponsor talk by Zeiss	
18:25-18:45	Poster Teaser (2 min x 10)	
18:50-20:00	Dinner	
20:00-21:30	Poster Session II	
DAY 3: Sunday, 15 December 2024		
7:00-8:45	Breakfast	
Session IV: Mitotic DNA Repair Chairpersons: Geert Kops and Ganesh Nagaraju		
Time	Speaker/Affiliation	Title
9:00-9:20	Umesh Varshney Indian Institute of Science, Bangalore, India	Mechanism of uracil excision by UdgX
9:25-9:45	Anjana Badrinarayanan National Center for Biological Sciences, Bangalore, India	Tracking living machines - insights into bacterial DNA double-strand break repair
9:50-10:10	Wolf Heyer University of California, Davis, USA	Mechanism of homologous recombination: Analysis of pathway intermediates and influence of chromatin structure
10:15-10:35	Benu Brata Das Indian Association for Cultivation of Science, Kolkata, India	Decoding disease: How mitotic DNA breaks lead to genomic instability

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10:40-11:00	Sachin Kotak Indian Institute of Science, Bangalore, India	Material property of spindle poles determine the 3-dimensional nuclear architecture
11:05-11:35	Tea Break	
11:40-12:00	K. Muniyappa Indian Institute of Science, Bangalore, India	<i>Saccharomyces cerevisiae</i> Rev7 promotes non-homologous end-joining by blocking Mre11 nuclease and Rad50's ATPase activities and homologous recombination
12:05-12:25	Sagar Sengupta National Institute of Biomedical Genomics (NIBMG), Kalyani, India	Phosphorylated BLM peptide acts as an agonist for DNA damage response
12:30-12:50	Ganesh Nagaraju Indian Institute of Science, Bangalore, India	Role of RNF20 and RAD51 paralogs in replication stress responses and genome stability
13:00-14:00	Lunch	
Session V: Genomes I Chairpersons: Shiv Grewal and Paula Cohen		
Time	Speaker/Affiliation	Title
14:00-14:20	Nishana Mayladumveetil Indian Institute of Science Education and Research Thiruvananthapuram, India	Chromatin architecture in crisis: How altered organization drives disease
14:25-14:45	Devyani Haldar Center for DNA Fingerprinting and Diagnostics, Hyderabad, India	Replication stress response in chromatin context: cross talk between checkpoint, chromatin regulators and the replisome
14:50-15:10	Ullas Kolthur Center for DNA Fingerprinting and Diagnostics, Hyderabad, India	Metabolic tuning of chromatin structure and function
15:15-15:35	Santanu Ghosh Indian Institute of Technology Bombay, Mumbai, India	Centromere-specific histone 3 (CENP-A) chaperone has CENP-A independent functions on chromosome stability
15:40-16:00	Sabari Thirupathi Indian Institute of Science Education and Research Thiruvananthapuram, India	Genomic order and disorder by replication-transcription collisions
16:05-16:35	Tea Break	
16:40-16:55	Short talk 4: Arvind Panday Mayo Clinic, Rochester, USA	Chromatin remodeling regulates repair pathway choices at the stalled replication forks
17:00-17:15	Sponsor talk by Toshniwal Co.	
17:15-18:00	Cultural Performances	
18:00-19:00	Travel to JVH	
19:00-22:00	Gala Dinner (JVH Lawns, IISc)	
DAY 4: Monday, 16 December 2024		
7:00-8:45	Breakfast	
Session VI: Meiosis Chairpersons: Valerie Borde and Dimple Notani		
Time	Speaker/Affiliation	Title
9:00-9:20	Akira Shinohara Osaka University, Osaka, Japan	<i>RAD51</i> and <i>DMC1</i> regulators in homologous recombination
9:25-9:45	Mridula Nambiar Indian Institute of Science Education and Research, Pune, India	Centromere-proximal crossovers disrupt proper homologous chromosome disjunction during meiosis
9:50-10:10	Michael Lichten National Institutes of Health, Bethesda, USA	Choosing partners earlier and later in meiotic recombination

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10:15-10:35	Viji Subramanian Indian Institute of Science Education and Research, Tirupati, India	Mechanisms of meiotic chromosome inheritance
10:40-11:00	Gunjan Mehta Indian Institute of Technology Hyderabad, Hyderabad, India	Single-molecule tracking reveals the dynamics of Ipl1 (Aurora kinase B) recruitment to the kinetochores and spindles in <i>S. cerevisiae</i>
11:05-11:35	Tea Break	
11:40-12:00	Valerie Borde Institut Curie, Paris, France	Single molecule analyses reveal the hidden part of meiotic recombination
12:05-12:25	Miki Shinohara Kindai University, Osaka, Japan	Functions of the 3'-5' exonuclease activity of Mre11 in meiotic recombination and DSB repair
12:30-12:50	Paula Cohen Cornell University, Ithaca, USA	Investigating mechanisms of crossover designation in mammals
13:00-14:00	Lunch	
Session VII: Genomes II Chairpersons: V Nagaraja and Usha Vijayraghavan		
Time	Speaker/Affiliation	Title
14:00-14:20	Yamini Dalal National Institutes of Health, Bethesda, USA	The pulsing brain- measuring the impact of chromatin defects in adult glioblastoma
14:25-14:45	Dimple Notani National Center for Biological Sciences, Bangalore, India	RNA as a regulator of transcription factor binding patterns
14:50-15:10	Yathish Achar Centre for DNA Fingerprinting and Diagnostics, Hyderabad, India	Topological and structural dynamics of the genome in stem cell differentiation
15:15-15:35	Altat Bhat University of Kashmir, Srinagar, India	Role of RNA binding protein, Vigilin in gene silencing and genome stability
15:40-16:00	Ram Mani University of Texas, Texas, USA	3D genome architecture and transcriptional dysregulation in Cancer
16:05-16:35	Tea Break	
16:40-17:00	Shantanu Chowdhury Institute of Genomics and Integrative Biology, New Delhi, India	Global chromatin changes are telomere-sensitive
17:05-17:20	Short talk 5: Saravanan Palani Indian Institute of Science, Bangalore, India	Uncovering the ancestral roots of the eukaryotic cytoskeleton: Insights from Asgard Archaea
17:25-17:55	Poster Prizes	
18:00-19:00	Panel Discussion with Journal Editors Moderator: Yamini Dalal	
19:00-19:15	Vote of Thanks	
19:30 onwards	Free Evening/ Dinner	
DAY 5: Tuesday, 17 December 2024		
7:30-9:00	Departure	

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