

08:00 - Registration Open

09:15-09:45 - Conference Inauguration &amp; Host Introductions - Chair: Dr. Sekar Seshagiri

## Session - 01 - SGRF Awards Lectures

[Ballroom]

Chair: Dr. Sekar Seshagiri

09:45-10:15 - Keynote lecture 01 - Dr. Gagandeep Kang, CMC Vellore, India. *The Value of Human Infection Studies in Vaccine Development*10:15-10:45 - Keynote lecture 02 - Dr. John Kuriyan, UC Berkeley, USA. *Structural Analysis of the Activation of B-Raf Kinase*10:45-11:15 - Keynote lecture 03 - Dr. Jon Pines, Institute of Cancer Research: Royal Cancer Hospital, UK. *Cyclin B1 and the Spindle Assembly Checkpoint: a 15 year odyssey*

## 11:15-11:30 - Break

## Session 02 - Keynote Lectures

[Ballroom]

Chair: Dr. Krishna Rajalingam

## Session 03 - Genomics of Spices, Aromatic and Medicinal Plants

[Malabar]

Chair: Dr. George Thomas

11:30-11:50 - Keynote lecture 04 - Dr. Andrew Peterson, Medgenome Inc, USA. *Characterization of 10,000 South Asian genomes to decipher genome and population structure and to improve the effectiveness of disease association studies*11:50-12:10 - Keynote lecture 05 - Dr. Dev Sidhu, Uni of Toronto, Canada. *From Systems Biology to Systems Biologics*12:10-12:30 - Keynote lecture 06 - Dr. Hans Jorg Schild, Johannes Gutenberg-Universität, Mainz, Germany. *Regulatory levels in control of DC function and induction of specific immunity*12:30-12:50 - Keynote lecture 07 - Dr. Kanneganti Thirumala-Devi, St. Jude Children's Research Hospital, USA. *Targeting the inflammasome for the treatment of inflammatory and infectious diseases*11:30-11:45 - Talk 08 - Dr. Sowdhamini R, NCBS, Bangalore, India. *Protein domain superfamilies in the herbal plant Tulsi*11:45-12:00 - Talk 09 - Dr. V. B. Reddy, AgriGenome, India. *The Genome of Cardamom provides insight into the evolution of bioactive compounds involved in its fragrances and medicinal properties*12:00-12:15 - Talk 10 - Dr. Kantipudi Nirmal Babu, Indian Institute of Spices Research (IISR), India. *Spices genomics: Current status and future needs*12:15-12:30 - Talk 11 - Dr. Ajit Kumar Shasany, CSIR-Central Institute of Medicinal and Aromatic Plants, India. *Genomics for Metabolic Pathways for synthetic Biology vs Chemical synthesis*12:30-12:45 - Talk 12 - Dr. R. Nagaraja Reddy, ICAR-Directorate of Medicinal and Aromatic Plants Research, India. *Isabgolomics: Where we are, where does it lead to ?*

## 12:50-14:00 Lunch Break

## Session 04 - Lunch and Learn : Career Connections

13:15-13:45 - Ms. Kavitha Harish, Cognizant technology solutions, India. *A fork in the road: Reflections on a transformative journey*

## Session 05- Clinical Genomics

[Salcette 1&amp;2]

Chair: Dr. Ramprasad V. L.

## Session 06- Technology developments

[Konkan]

Chair: Dr. Sameer Phalke

## Session 07- Technology/Single cell genomics/ Gene editing

[Malabar]

Chair: Dr. Mallika Singh

14:00-14:20 - Talk 13 - Dr. Shrikant Mane, Yale University School of Medicine, USA. *Genomic Approaches to Tackle Undiagnosed Diseases*14:00-14:20 - Talk 17 - Dr. Thamarai Kannan Paramasivam, Perkin Elmer, India. *Extraction to Analysis- NGS workflow Solutions from PerkinElmer*14:00-14:20 - Talk 21 - Dr. Merone Roose-Girma, Genentech USA. *Capitalizing on Novel CRISPR/Cas9 Approaches to Generate Genetically Engineered Mouse Models*14:20-14:40 - Talk 14 - Dr. Babu Rao V, National Institute of Immunohaematology, India. *Molecular characterization of Fanconi anemia using next-generation sequencing*14:20-14:40 - Talk 18 - Dr. Naveen Ramalingam, Fluidigm Corporation USA. *A nanoscale automated workflow solution for full-length mRNA NGS library preparation*14:20-14:40 - Talk 22 - Dr. Zora Modrusan, Genentech, USA. *Development and utility of novel single cell sequencing approaches*14:40-15:00 - Talk 15 - Dr. Kavita Venkatraman, NUS, Singapore. *Deteriorating glycaemic control in patients with Type 2 diabetes mellitus: genetic correlates and clinical outcomes.*14:40-15:00 - Talk 19 - Dr. Anup Gupta, Agilent, India. *An Introduction to Agilent Genomics Workflow Solutions for Germline and Oncology Applications*14:40-15:00 - Talk 23 - Dr. Savita Jayaram, Medgenome, India. *Combined single-cell gene expression and TCR profiling reveals the phenotype of clonally amplified T cells to predict tumor immunogenicity*15:00-15:20 - Talk 16 - Dr. Hilary Martin, Wellcome Sanger Institute, UK. *Quantifying genetic architecture in over 10,000 exome-sequenced developmental disorder patients*15:00-15:20 - Talk 20 - Dr. John Picuri, Illumina, USA. *Unlocking the Power of the Genome: Illumina Technology and The Future of Genomics*15:00-15:20 - Talk 24 - Ms. Yong Qui, MGI Tech Co., Ltd, India. *From Sample to Report: MGI's DNBSQ™ Clinical Whole Solutions*

## 15:20-15:30 Break

## Session 08 - Cell Biology, Immunology and Signaling

[Salcette 1&amp;2]

Chair: Dr. Sekar Seshagiri

## Session 09 - Metagenomics and communicable diseases

[Malabar]

Chair: Dr. Boney Kuriokose

15:30-15:50 - Major Talk 25 - Dr. Sanjay Joshi, Indusstry CTO, Healthcare and Life Sciences at Dell EMC, USA. *Best practices for clinical studies of the microbiome: a time-series machine learning approach to causal inference*15:30-15:50 - Talk 28 - Dr. Yogesh Shouche, NCCS, India - *A glimpse in the diversity of human microbiome in India*15:50-16:10 - Major Talk 26 - Dr. Andrey Shaw, Genentech, USA. *High Precision Transcriptome Profiling of the Kidney Glomerulus Identifies Key Cell Types and Elucidates Cellular Responses to Injury*15:50-16:05 - Talk 29 - Dr. Vineet K Sharma, IISER, Bhopal, India. *Indian gut and scalp microbiomes revealed through multiomics approaches*16:10-16:30 - Major Talk 27 - Dr. Domagoj Vucic, Genentech, USA. *Regulation of Inflammatory Cell Death Signaling by RIP Kinases*16:05-16:20 - Talk 30 - Dr. Niyaz Ahmed, International Center for Diarrheal Disease Research, Bangladesh. *Modern insights in to enteric disease outbreaks in the Bengal region: seasonality, conflict and climate change*16:20-16:35 - Talk 31 - Dr. Fred Fellouse, Uni of Toronto, Toronto, Canada. *Synthetic antibodies to identify neutralizing epitopes against East Coast fever*

## 16:35-16:50 - Break

## Session 10 - Keynote Lectures [Ballroom]

[Ballroom]

Chair: Dr. Sekar Seshagiri

16:50-17:15 - Keynote lecture 32 - Dr. Steve Turner, PacBio, USA. *The End of the Beginning- reflections on the 19 years of PacBio*17:15-17:40 - Keynote lecture 33 - Dr. Joe Beechem, Nanostring, USA. *The Spatial Biology Revolution: development of spatially resolved technologies with unlimited multiplexing of RNA and Proteins for biobanked (FFPE) tissue samples (Digital Spatial Profiling, DSP)*17:40-18:00 - Keynote lecture 34 - Mr. James Brayer, Nanopore, USA. *Overview of recent advances in Nanopore Sequencing and the applications it is enabling*18:00-18:15 - Keynote lecture 35 - Dr. Mike Lucero, 10X Genomics, USA. *Accelerating biology: 10x Genomics products and vision*

## Session 11- Special Lectures

[Ballroom]

Chair: Dr. Sekar Seshagiri/Dr. K. K. Narayanan/ Dr. Vishva Dixit

18:20-18:45 - Special Talk 36 - Dr. K. V. Prabhu, PPVFR Authority, India. *IP Protection on Plants Produced through Genetic Engineering and Genomics in India*18:45-19:10 - Special Talk 37 - Dr. Ursula Weiss, Nature, UK. *Science publishing – behind the scenes at Nature*



08:30 - Registration Open

## 08:00-09:00 - Session 13 - Poster competition presentations

09:00-09:15- Mumbai Movie

Session 14 - Keynote Lectures

[Ballroom]

Chair: Dr. Sekar Seshagiri

09:30-10:00 - Keynote lecture 38 - Dr. Sunil Badve, Indiana School of Medicine, USA. *Prognostic and Predictive factors in breast cancer*10:00-10:30 - Keynote lecture 39 - Dr. Arul Chinnaiyan, Univ of Michigan, USA. *The Fast, Furious, and Loud: The Role of FoxA1 in Prostate Cancer Progression*10:30-11:00 - Keynote lecture 40 - Dr. Vishva Dixit, Genentech, USA. *Unexpected Cross talk between Major Death Pathways*

## 11:00-11:15: Short break

## Session 15 - Cancer Genomics

[Salcette 1&amp;2]

Chair: Dr. Amit Dutt

## Session 16 - Crop Genomics and Bioinformatics

[Malabar]

Chair: Prof. P. K. Gupta

11:15-11:35 - Major Talk 41 - Dr. Katherine A. Hoadley, UNC School of Medicine, USA. *TCGA pancancer integrated molecular classifications*11:35-11:55 - Major Talk 42 - Dr. Kumar Prabash, TMH, Mumbai, India. *EGFR mutations in lung cancer- how far have we reached.*11:55-12:15 - Major Talk 43 - Dr. Anton Wellstein, Lombardi Comprehensive Cancer Center, Georgetown University, Washington DC, USA. *Impact of intratumoral clonal heterogeneity on phenotype and drug response*12:15-12:40 - Major Talk 44 - Dr. Sudeep Gupta, ACTREC, India. *The Peri-Operative Window of Opportunity*11:15-11:30 - Talk 45 - Dr. M. S. Sheshshayee, University of Agricultural Sciences (UAS), Bangalore, India. *Is Finger millet a potential food grain crop for food and nutrient security? Generation of genomics resources and trait values to improve yield and Bioavailability*11:30-11:45 - Talk 46 - Dr. Boney Kuriakose, Agrigenome, India. *Employing CRISPR/Cas9 for editing genomes of plants: Trait alterations achieved in rice and tomato.*11:45-12:00 - Talk 47- Dr. Nagesh Kancharla, Reliance Industries Limited, India. *De Novo sequencing and hybrid assembly of biofuel crop *Jatropha curcas* L: Insights on gene annotation, comparative genomics and transcriptome analysis with identification of quantitative trait loci for geminivirus resistance*12:00-12:15 - Talk 48 - Dr. Lambodar Behera, ICAR-National Rice Research Institute, India. *Genome-wide association mapping to identify novel QTLs for grain yield under reproductive stage drought stress in rice (*Oryza sativa* L.)*12:15-12:30 - Talk 49 - Dr. Mukesh Jain, JNU, India. *Long non-coding RNAs: A novel prediction tool and regulatory aspects in plants*  
12:30-12:40 - Discussion

## 12:40-14:00 Lunch Break

## Session 17: 13:15-13:45 - Art meets Science: Art Exhibition inauguration by Ms. Rupika Chawla

## Session 18- Cancer Biology

[Salcette 1&amp;2]

Chair: Dr. Volker Dotsch

## Session 19- Human diseases/personalized medicine

[Konkan]

Chair: Dr. Arka Ghosh

## Session 20 - Next-Generation Plant Breeding

[Malabar]

Chair: Prof. Deepak Pentel

14:00-14:15 - Talk 50 - Dr. Anwesha Dey, Genentech, USA. *Hippo pathway deregulation in cancers*14:00-14:15 - Talk 54 - Dr. Srini Subramanian, The Scripps Research Institute, USA. *Super Resolution Translatome Reveals Ribosome Stalling in Neurodegenerative Disease*14:00-14:15 - Talk 58 - Dr. Akshay Pradhan, Delhi University, South Campus, India. *Application of genomics in trait breeding of oilseed mustard (*Brassica juncea*)*14:15-14:30 - Talk 51 - Dr. Anguraj Sadanandam, The Institute of Cancer Research, UK. *When and Where to Divide to Conquer: Personalised Cancer Therapy using Integrative Biology Approach*14:15-14:30 - Talk 55 - Dr. Vidita Vaidya, TIFR, India. *Serotonin boosts neuronal powerplants protecting against stress*14:15-14:30 - Talk 59 - Dr. A. K. Singh, ICAR-Indian Agricultural Research Institute, New Delhi, India. *Nextgen breeding for development of climate smart basmati rice varieties*14:30-14:45 - Talk 52 - Dr. Yesim Gokmen-Polar, Indiana University, USA. *Transcriptomics to decipher the mechanisms of endocrine resistance in breast cancer*14:30-14:45 - Talk 56 - Dr. Harsha Gowda, QIMR, Brisbane, Australia. *Proteogenomic landscape of esophageal squamous cell carcinoma*14:30-14:45 - Talk 60 - Dr. Suren Tikoo, Tierra Seed Science Pvt Ltd, India. *Advances in Technologies Offer Best Opportunity to Unlock New Traits From Interspecific (Crop Wild Relatives) and Intraspecific m, Precisely and Quickly.*14:45-15:00 - Talk 53 - Dr. Ray Ong, Thermo Fisher, Singapore. *Enhance Clinical Decision for Cancer Patients – with Next Generation Sequencing*14:45-15:00 - Talk 57 - Mr. Akhil Gupta, Genes2me pvt ltd, India. *New Era of Personalized Genomics with Exome Sequencing and Personalized Medicine!*14:45-15:00 - Talk 61 - Dr. Vai Ramanathan, Metahelix Life Sciences Ltd, India. *Novel Technology for Rice Blastolerance*

## 15:00-15:20 Break

## Session 21 - Disease biology

[Salcette 1&amp;2]

Chair: Dr. Domagoj Vucic

## Session 22 - Next-Generation Plant Breeding

[Malabar]

Chair: Prof. Deepak Pentel

15:20-15:40 - Major Talk 62 - Dr. Sridhar Sivasubbu, IGIB, India. *A Decade of Genomics in India - Implications in Diagnosis and Prevention of Inherited Diseases*15:20-15:35 - Talk 65 - Dr. Sudhakar D, Tamil Nadu Agricultural University (TNAU), India. *Genome Editing for Trait Improvement in Rice*15:40-16:00 - Major Talk 63 - Dr. Ramprasad V.L., Medgenome Labs, India. *Spit-Seq: Whole genome Sequencing approach for rapid detection of Mycobacterium tuberculosis and comprehensive detection of drug resistance mutations from direct sputum sequencing*15:35-15:50 - Talk 66 - Dr. Paresh Verma, Bioseed Research India Pvt Ltd, India. *NBTs: Opportunities and Challenges in India*16:00-16:20 - Major Talk 64 - Dr. Volker Dotsch, University of Frankfurt, Germany. *p63 sets the threshold for induction of apoptosis using a kinetically encoded 'doorbell-like' mechanism.*15:50-16:05 - Talk 67 - Dr. Manoj Prasad, National Institute of Plant Genome Research (NIPGR), India. *Engineering abiotic stress tolerance in plants: A study on *SisHSP27* of foxtail millet (*Setaria italica* L.)*

16:05-16:20 - Discussion

16:20-16:30 - Break

Session 23 - Keynote Lectures

[Ballroom]

Chair: Dr. K. K. Narayanan

16:30-16:50 - Keynote lecture 68 - **Dr.Arjula R. Reddy**, Professor Emeritus, University of Hyderabad, India. *Dynamic plant genomes*

Session 24 - SGRF Awards Lectures

[Ballroom]

Chair: Dr. K. K. Narayanan and Dr. Krishna Rajalingam

16:50-17:10 - Keynote lecture 69 - **Dr. Pushendra Kumar Gupta**, Meerut University, India. *Transcriptomics and Epigenomics of Host-Pathogen Interactions*

17:10-17:35 - Keynote lecture 70 - **Dr. Vivek Malhotra**, CRG, Spain. *Building a machine for secretion of bulky collagens from endoplasmic reticulum*

Session 25 - Special Lecture

[Ballroom]

Chair: Dr. Sekar Seshagiri

17:35-17:45 - Keynote lecture 71 - **Dr. Anand Deshpande**, Persistent systems, Pune, India. *The need for an Indian Cancer Genome Atlas Project*

Session 26 - Author Talk

[Ballroom]

Chair: Dr. Sekar Seshagiri

17:45-18:15 - Author Talk 72 - **Mr. Navin Chawla**, Former Chief Election Commissioner of India. *Every vote counts: The story of India's election*

Session 27 - Posters [Seaside lawn]

18:15-19:30 - Poster Viewing # 111-210

Book signing by Mr. Navin Chawla

19:45 - 20:30 cultural program

Conference Dinner

08:30 - Registration begins

08:00-09:00 - Session 28 - Poster competition presentations

Session - 29 - Keynote Lectures  
[Ballroom]

Chair: Dr. Vishva Dixit/Dr. Sekar Seshagiri

09:30-10:00 - Keynote lecture 73 - Dr. K. J. Patel, Cambridge Biomedical Campus, Cambridge, UK. *From Gin and tonics to formalin pots - how simple aldehydes impact human health*10:00-10:30 - Keynote lecture 74 - Dr. Ivan Dikic, Goethe University, Germany. *Bacterial Infection and Unconventional Serine Ubiquitination*10:30-11:00 - Keynote lecture 75 - Dr. Steve Michnick, Uni of Montreal, Canada. *Mapping genetic and environmental origins of disease traits to molecular mechanisms*11:00-11:30 - Keynote lecture 76 - Dr. Stephan Schuster, NTU, Singapore. *Air microbiome: A missing eco-system?*

11:30-11:45: Short break

Session 30 - Precision Medicine  
[Salcette 1&2]

Chair: Dr. Anwesha Dey

Session 31 - Genome regulation & Precision medicine  
[Malabar]

Chair: Dr. Rakesh Mishra

11:45-12:05 - Major Talk 77 - Dr. Connie R. Jimenez, VU University Medical Center, Netherlands. *Clinical (phospho)proteomics for precision medicine*11:45-12:00 - Talk 80 - Dr. Deepti Deobagkar, Pune University, India. *High throughput NGS analysis reveals that micro RNAs and DNA methylation are important epigenetic players in human cells with altered X chromosome to autosome balance*12:05-12:25 - Major Talk 78 - Dr. Amit Dutt, ACTREC, India. *ERBB2 and KRAS Alterations Mediate Response to EGFR Inhibitors in Early Stage Gallbladder Cancer*12:00-12:15 - Talk 81 - Dr. Kundan Sengupta, IISER Pune, India. *Impact of mechanical signals on genome organization and transcription*12:25-12:45 - Major Talk 79 - Dr. Aakrosh Ratan, Center for Public Health Genomics, University of Virginia, USA. *Molecular subtyping using nonnegative matrix tri-factorization*12:15-12:30 - Talk 82 - Dr. Vidur Mahajan, Mahajan Imaging, Delhi, India. *Merging Imaging and Genomics - The Future of Advanced Diagnostics*

12:45-14:00 Lunch Break

Session 32 - Lunch and Learn : Science meets Art

13:15-13:45- Ms. Rupika Chawla, India.

Session 33 - Cancer Genomics

[Salcette 1&amp;2]

Chair: Dr. Harsha Gowda

Session 34 - Genomics/Venom biology

[Konkan]

Chair: Dr. Vidita Vaidya

Session 35 - Population Genomics

[Malabar]

Chair: Dr. Andrew Peterson

14:00-14:15 - Talk 83 - Dr. Santosh Dixit, Centre for Translational Cancer Research (CTCR) India. *Germline Mutational Profiling in Triple Negative Breast Cancers: Experiences from a Single Institutional Indian Cohort*14:00-14:15 - Talk 87 - Dr. Kalpana Pai, Pune University, India. *Comparative genomic study of clinical and field isolate of Leishmania donovani*14:00-14:15 - Talk 91 - Dr. Jeff Wall, University of California San Francisco, USA. *Recent population history inferred from more than 5,000 high-coverage South Asian genomes*14:15-14:30 - Talk 84 - Dr. Sushmita Jha, IIT Jodhpur, India. *Differential Expression Profile of NLRs and AIM2 in Glioma: Identification and correlation of NLRP12 as a possible prognostic marker*14:15-14:30 - Talk 88 - Dr. Shamitha Vodithala, Kakatiya University, India. *Next-Generation Sequencing (NGS) in populations of Indian Tropical Tasar Silkworm*14:15-14:30 - Talk 92 - Dr. Anlabha Basu, NIBMG, India. *Population diversity of Austroasiatic speakers: Complex substructure, multiple admixture and intricate layered network of dispersal*14:30-14:45 - Talk 85 - Dr. Jyotsna Batra, Translational Research Institute Pty Ltd (QUT) Australia. *A functional PSA prostate cancer susceptibility genetic variant confers both reduced and aggressive cancer risk*14:30-14:45 - Talk 89 - Dr. P. N. Krishnan, Malabar Botanical Garden and institute for Plant Sciences, Kozhikode, India. *Validation of anti-cobra venom activity in Aristolochia indica L.*14:30-14:45 - Talk 93 - Dr. Swarkar Sharma, University of Jammu, India. *Y chromosomal and mitochondrial DNA diversity in Jammu and Kashmir-India questions Aryan Invasion hypothesis*14:45-15:00 - Talk 86 - Dr. Nikhil Patkar, Tata memorial center, Mumbai, India. *Cutting edge affordable next generation molecular oncology diagnostics for Indian patients.*14:45-15:00 - Talk 90 - Dr. Shirin Ahmadi, Technical University of Denmark, Denmark. *Engineering broadly neutralizing human antibody fragments against cytotoxins from different cobras*14:45-15:00 - Talk 94 - Dr. Rakesh K. Mishra, CCMB, India. *Patterns of microsatellite distribution, phylogenetic relationships and evolution of complexity*

15:00-15:15 Break

Session - 36 Panel Discussion

[Ballroom]

Chair: Dr. K. K. Narayanan/Dr. Sekar Seshagiri

15:15-16:00 - Panel Discussion - *Leveraging Molecular Tools for Crop Improvement - Models for Public-Private Partnerships: Moderator: K. K. Narayanan (Agriculture). Panelist: Dr. Deepak Pental, Dr. George Thomas, Dr. Arjula Reddy, Dr. SR Rao, Dr. Paresh Verma, Dr. Suren Tikoo, Mr. Sam Santhosh*

Session - 37 SGRF Award Lecture

[Ballroom]

Chair: Dr. K. K. Narayanan

16:00-16:25 - Keynote lecture 95 - Dr. Deepak Pental, University of Delhi, India. *Assuring the best planting material for the farmers should be a national and global imperative*

Session 38 - Keynote lecture

[Ballroom]

Chair: Dr. Arjula Reddy

16:25-16:50 - Keynote lecture 96 - Dr. K. K. Narayanan, Tata Metahelix, India. *Future of Farming*

Session 39 - Special lecture:Venom to Drugs

[Ballroom]

Chair: Dr. Sekar Seshagiri

16:50-17:30 - Keynote lecture 97 - Dr. Zoltan Takacs, ToxinTech, New York, USA. *Deadliest Lifesavers - Therapeutic potential of animal venoms*

Closing ceremony

[Ballroom]

Chair: Dr. Sekar Seshagiri &amp; Dr. Krishna Rajalingam

17:45-18:30