

# MEETING PROGRAM

## (LAS VEGAS TIME)

### Day 1, Monday, Dec. 19<sup>th</sup>, 2022

13:00 - 16:30 Meeting Registration

16:30 - 17:30 Evening Reception

17:30 – 18:00 Opening remarks

18:00 - 20:00 **Keynote Lectures**

Dr. Vishva Dixit, Genentech  
**Why so many ways to die?**

Dr. Xiaoliang (Sunney) Xie, Peking University  
(ONLINE VIA ZOOM WITH HANGZHOU SITE)  
**Single-cell Genomics: Coming of Age for Biology and Medicine**

### Day 2, Tuesday, Dec. 20<sup>th</sup>, 2022

07:00 - 09:00 Breakfast (Included in registration)

09:00 - 10:30 **Breakout Sessions #1 – 4**

#### **BREAKOUT SESSION 1: EPIGENETICS AND 3D GENOME SESSION 1**

Co-chairs: Bing Ren, University of California San Diego  
Liling Wan, University of Pennsylvania

1. Liling Wan, University of Pennsylvania  
**Chromatin regulators in cancer: new mechanisms and therapeutic opportunities**
2. Xiaobing Shi, Van Andel Institute  
**Histone acetylation: reading, writing, and beyond**
3. Yali Dou, University of Southern California  
**Non-canonical function of histone methyltransferase in cancer**
4. Wei Li, University of California Irvine  
**RNA therapies targeting alternative polyadenylation**
5. Fulai Jin, Case Western Reserve University  
**Robust and affordable Hi-C analysis at kilobase resolution**
6. Sheng Li, The Jackson Laboratory  
**Extend the health-span: decipher the epigenome of aging and leukemogenesis**

#### **BREAKOUT SESSION 2: INFECTION AND HOST DEFENSE**

Co-chairs: Shan-Lu Liu, Ohio State University  
Tongqing Zhou, Structural Bioinformatics Core Section, NIH

1. Siyuan Ding, Washington University School of Medicine in St. Louis  
**Small-molecule inhibitor screen reveals novel biology of SARS-CoV-2**
2. Shan-Lu Liu, The Ohio State University

**Immune responses to SARS-CoV-2 infection and mRNA vaccination**

3. Tina Wang, University of Texas Medical Branch  
**Investigating acute and long-term impacts of SARS-CoV-2 infection on the central nervous system**
4. Jun Wang, Rutgers, the State University of New Jersey  
**SARS-CoV-2 main protease inhibitor design and a comprehensive study of nirmatrelvir drug resistance**
5. Kai Xu, The Ohio State University  
**Structure, Function and Antigenicity of Henipavirus Surface Glycoproteins**
6. Tongqing Zhou, Vaccine Research Center, NIH  
**Immunization in NHP with Diverse HIV-1 Envelope Trimers Elicits Broadly Neutralizing CD4-Binding Site-targeting Antibodies**

**BREAKOUT SESSION 3: INFLAMMATION AND AUTOIMMUNE DISEASES**

Co-chairs: James Chen, University of Texas Southwestern Medical Center  
Jianzhu Chen, MIT

1. Yong-Jun Liu, Innovent Biologics Group  
**pDC: a cell specialized in sensing nucleic acids**
2. Genhong Cheng, UCLA  
**Type I Interferon-Mediated Antiviral and Anti-inflammatory Responses**
3. Lishan Su, Institute of Human Virology, UMSOM  
**The pDC-type I interferon axis in inflammatory diseases: Lessons from viruses**
4. Liman Zhang, Oregon Health Science University  
**Structural Mechanisms of NAIP Receptor in Bacterial Detection and Inflammasome Activation**
5. Ning Zhang, Peking University  
**TBD**
6. Ai Ling Lim, Princeton University  
**Pre-birth Immune Education**

**BREAKOUT SESSION 4: CANCER CELL BIOLOGY AND THERAPY**

Co-chairs: Guo-Min Li, UT Southwestern Medical Center  
Zhiyuan Shen, Rutgers Cancer Institute of New Jersey

1. Zhiyuan Shen, Rutgers Cancer Institute of New Jersey  
**Roles of KU70 methylation in cell fate determination after DNA damage**
2. Li Lan, Harvard Medical School  
**Understanding and Targeting mRNA-dependent DNA Repair in Cancer**
3. Yanbin Zhang, University of Miami  
**Targeting a DNA repair protein for breast cancer intervention**
4. Bin Wang, MD Anderson Cancer Center  
**Replications stress response and cancer**
5. Guang Peng, MD Anderson Cancer Center  
**ARID1A in cancer and therapy**
6. Bing Xia, Rutgers Cancer Institute of New Jersey  
**Regulation of DNA replication by BRCA2 after DNA damaging therapies.**

10:30 - 11:00 Coffee Break

11:00 - 12:30 **Breakout Sessions #5 - 8**

**BREAKOUT SESSION 5: NEUROSCIENCE**

Co-chairs: Hongwei Dong, UCLA  
Zhiping Pang, Rutgers University

1. Ye Zhang, UCLA  
**Oligodendrocyte-lineage cell exocytosis and L-type prostaglandin D synthase promote oligodendrocyte development and myelination**
2. Rui Chang, Yale University  
**The coding logic of interoception**
3. Zhuhao Wu, Icahn School of Medicine at Mount Sinai  
**Holistic imaging approach to appreciate brain structural and functional complexity**
4. Longjun Wu, Mayo Clinic  
**Neuroimmune interaction: how microglia sense neuronal activity**
5. Huizhong Tao, University of Southern California  
**A bottom-up sensory pathway for reward-related behavior**
6. Tianyi Mao, Oregon Health and Science University  
**Dissecting Brain Circuitry Using Connectomic and Novel Imaging Approaches**

**BREAKOUT SESSION 6: NEUROLOGICAL DISORDERS/NEURODEGENERATION**

Co-chairs: Zhenyu Yue, Icahn School of Medicine at Mount Sinai  
Fen-Biao Gao, UMass Chan Medical School

1. Fenghua Hu, Cornell University  
**TMEM106B regulates microglial proliferation and survival in response to demyelination**
2. Jianfu (Jeff) Chen, University of Southern California  
**Reversing lysosome-mTORC1-ribosome axis dysregulation mitigates C9FTD/ALS neurodegeneration and behaviors**
3. Yin Zhang, MIT and Assistant Professor at Tsinghua University  
**Thalamic function in health and disease**
4. Chao Peng, UCLA  
**Post-translational Modifications of Soluble  $\alpha$ -Synuclein Regulate the Amplification of Pathological  $\alpha$ -Synuclein**
5. Jie Jiang, Emory University  
**Repeat-RNA-mediated toxicity in C9orf72 ALS/FTD**
6. Willam Yang, UCLA  
**Brain Gene Coexpression Map and Application to Decipher Perturbation and Disease Gene Signatures**

**BREAKOUT SESSION 7: RNA BIOLOGY**

Co-chairs: Chuan He, University of Chicago  
Xiangdong Fu, UCSD

1. Ailong Ke, Cornell  
**CRISPR structure and function**
2. Emily Wang, UCSD  
**Exosome in cancer**
3. Yanhong Shi, City of Hope  
**RNA programs in brain diseases**

4. He Lin, UC Berkeley  
**miRNAs in development**
5. Chuan He, University of Chicago  
**RNA epigenetics in health and disease**
6. Xiangdong Fu, UCSD  
**Global regulators of RNA splicing and polyadenylation**

#### **BREAKOUT SESSION 8: PLANT BIOLOGY**

Co-chairs: Xuehua Zhong, Washington University in St. Louis  
Yunde Zhao, UCSD

1. Li Li, Cornell  
**Regulation of pigment accumulation in plants**
2. Hong Qiao, The University of Texas at Austin  
**Chromatin regulation in plant hormone and stress responses?**
3. Juan Dong, Rutgers  
**Precisions in time and space: signaling control in plant asymmetric cell division**
4. Xiuren Zhang, Texas A&M  
**Regulation of miRNA production in plants.**
5. Yunde Zhao, UCSD  
**From biochemistry to plant biotechnology: a colorful story**
6. Xuehua Zhong, Washington University in St. Louis  
**Epigenetic regulation of plant traits and environmental adaptation**

12:30 - 15:00 Lunch

15:00 - 16:20 **Society Lectures #1** (online via zoom with Hangzhou site)

Dr. Haifan Lin, Yale University

**Uniting the genome: novel functions of the Piwi-piRNA pathway in the germline**

Dr. Guo-Li Ming, University of Pennsylvania Medical School

**Applying novel technologies to understand neurodevelopment and neurological disorders - A DISC1 story**

16:20 - 16:40 Coffee Break

16:40 - 18:00 **Society Lectures #2** (online via zoom with Hangzhou site)

Dr. Hai Qi, Tsinghua University

**The germinal center and B-cell memory**

Dr. Hailan Hu, Zhejiang University

**From Pecking Order to Ketamine: Neural Mechanisms of Social and Emotional Behaviors**

18:00 - 20:00 Dinner

20:00 - 21:00 **Legal Issues Discussions & Panelist Presentations**

Dr. Haifan Lin Yale University

## Legal issues associated with Chinese Investigators in the US

Dr. Haiyan Tang, Partner, Quinn Emanuel Urquhart & Sullivan, LLP 美国昆鹰律师事务所  
**A dialogue between CBIS community and Lawyer: Lesson and Protection**

### Day 3, Wednesday, Dec. 21, 2022

07:00 - 09:00 Breakfast (Included in registration)

09:00 - 10:30 **Breakout Sessions #9 – 12**

#### **BREAKOUT SESSION 9: STEM CELL BIOLOGY AND APPLICATIONS**

Co-chairs: Guo-li Ming, Univ. Penn Perelman medical school  
Hongjun Song, Univ. Penn Perelman medical school

1. Guo Huang, University of California, San Francisco  
**What do Whales tell us about Fractal, Endothermy and Organ Regeneration?**
2. Rong Lu, University of Southern California  
**Heterogeneity and coordination of individual hematopoietic stem cells**
3. Yanhong Shi, City of Hope  
**HUMAN IPSC-BASED DISEASE MODELING AND THERAPEUTIC DEVELOPMENT**
4. Zhexing Weng, Emory University  
**Modeling Fragile X syndrome with human iPSC models**
5. Hao Wu, University of Pennsylvania  
**Decoding RNA dynamics and cell state specific regulatory network with Time-resolved Single-cell RNA Sequencing**
6. Nan Yang, Icahn School of Medicine at Mount Sinai  
**Integrated proteomics reveals the autophagy landscape in human neurons and receptors in regulating neuronal activity**

#### **BREAKOUT SESSION 10: STRUCTURAL BIOLOGY**

Co-chairs: Ailong Ke, Cornell University  
Chi-Min Ho, Columbia University

1. XiaoChen Bai, UT Southwestern Medical Center  
**Structural basis for the activation of insulin receptor**
2. Leifu Chang, Purdue University, West Lafayette  
**Structure and mechanism of type V CRISPR-Cas12 nucleases**
3. Yifan Cheng, University of California San Francisco  
**Tagging endogenous proteins for structural studies by single particle cryo-EM**
4. Chi-Min (Mimi) Ho, Columbia University  
**Structural Parasitology of Malaria Parasites**
5. Dong Wang, University of California San Diego  
**A Scenic Byway: Molecular Basis of Transcription Elongation, Blockage, and Repair**
6. Kai (Jack) Zhang, Yale University  
**Toward dynein-driven ciliary motility and its regulation in atomic detail**

#### **BREAKOUT SESSION 11: SYSTEMS BIOLOGY AND OMICS**

Co-chairs: Bin Zhang, Icahn School of Medicine at Mount Sinai

Stephen Wong, Houston Methodist, Weill Cornell Medicine

1. Shanye Yin, Albert Einstein College of Medicine  
**SF3B1 mutation leads to diverse changes in CLL-related pathways**
2. Jingyi Li, University of California, Los Angeles  
**A unified framework for realistic in silico data generation and statistical model inference in single-cell and spatial omics**
3. Hong Zhao, Houston Methodist Academic Institute  
**Tumor-interacting astrocytic signaling restrains the pathogenesis of Alzheimer's disease**
4. Jiaqian Wu, University of Texas Health Science Center  
**Delineating the Heterogeneity and Regulation of Astrocytes in Spinal Cord Injury**
5. Yaping Liu, University of Cincinnati  
**Infer 1D and 3D epigenomes by the fragmentation patterns in circulating cell-free DNA**
6. Stephen Wong, Houston Methodist Academic Institute  
**Systems Biology and omics-driven approaches for target identification and drug discovery**

#### **BREAKOUT SESSION 12: TUMOR IMMUNOLOGY AND MICROENVIRONMENT**

Co-chairs: Yibin Kang, Princeton University  
Xin Lu, University of Notre Dame

1. Huiping Liu, Northwestern University  
**Machine learning assisted elucidation of circulating tumor stem cell clusters in cancer metastasis**
2. Di Zhao, UT MD Anderson Cancer Center  
**Novel Strategies Targeting Immune Checkpoint B7-H3 in Advanced Prostate Cancer**
3. Xiongbin Lu, Indiana University School of Medicine  
**Targeting antigen presentation to potentiate cancer immunotherapy**
4. Peiwen Chen, Northwestern University Feinberg School of Medicine  
**Circadian Regulator CLOCK Drives Immunosuppression in Glioblastoma**
5. Minhong Shen, Wayne State University  
**Targeting MTDH/SND1 Protein Complex to Boost Immunotherapy Response in Metastatic Breast Cancer**
6. Guangwen Ren, The Jackson Laboratory  
**Stromal cell-immune cell interactions in the lung pre-metastatic niche**

10:30 - 11:00 Coffee Break

11:00 - 12:30 **Breakout Sessions #13 – 16**

#### **BREAKOUT SESSION 13: EPIGENETICS AND 3D GENOME SESSION 2**

Co-chairs: Bing Ren, University of California San Diego  
Liling Wan, University of Pennsylvania

1. Jian Jin, Icahn School of Medicine at Mount Sinai  
**Discovery of novel small-molecule degraders for epigenetic targets**
2. Hong Wen, Van Andel Institute  
**Targeting histone acetylation reader in cancer**

3. Yan Li, Case Western Reserve University  
**Single cell multi-omics analysis of  $\beta$  cell heterogeneity**
4. Yin Shen, University of California San Francisco  
**Genomic insights into Alzheimer's disease**
5. Zhe Liu, Janelia Research Campus  
**Deciphering functional links between genome organization and gene regulation**

#### **BREAKOUT SESSION 14: NERVOUS SYSTEM AND DISEASES**

Co-chairs: Zhenyu Yue, Icahn School of Medicine at Mount Sinai  
Junmin Peng, St Jude Children Research hospital

1. Xuecai Ge, University of California  
**New tricks for old proteins: Numb regulates Hedgehog signaling in the cilium**
2. Jianxiong Jiang, University Of Tennessee Health Science Center  
**Targeting Neuroinflammation in Epilepsy and Glioma**
3. Junmin Peng, St Jude Children Research hospital  
**Tissue Proteomics Reveals RNA Splicing Dysfunction in Alzheimer's Disease: From Discovery to Animal Models**
4. Yingfei Wang, UT Southwestern Medical Center  
**AIF3 splicing, mitochondrial dysfunction and neurodegeneration**
5. Le Zhang, Yale University  
**Immune Network Dysregulation of the Central Nervous System in Neurodegenerative Disease**
6. Ying Zhang, Tsinghua University/MIT  
**Thalamic function in health and disease**

#### **BREAKOUT SESSION 15: CANCER-TUMOR AND OTHERS**

Co-chairs: Emily Wang, UCSD  
Weibo Luo, UT Southwestern Medical Center

1. Xiaoqi Liu, University of Kentucky  
**The kinase PLK1 promotes the development of Kras/Tp53-mutant lung adenocarcinoma through transcriptional activation of the receptor RET**
2. Weibo Luo, UT Southwestern Medical Center  
**Epigenetic regulation of breast cancer initiation and progression**
3. Yangnan Gu, University of California Berkeley  
**A karyopherin inhibits nuclear condensation of MOS4-associated complex to prevent aberrant immune activation in plants**

#### **BREAKOUT SESSION 16: IMMUNE/INFLAMMATION AND OTHERS**

Co-chairs: Zhe Han, University of Maryland, Baltimore  
Xiuren Zhang, Texas A&M University

1. Zhe Han, University of Maryland, Baltimore  
**Using Drosophila to study SARS-CoV-2 entry, pathogenesis, and therapeutics**
2. Fanyin Meng, Indiana University School of Medicine  
**The NF- $\kappa$ B-microRNA regulatory network tunes inflammatory responses in alcohol associated liver diseases**

3. Qinhui Rao, Yale University  
**Structural insights into dynein motor coordination**
4. Siyuan Wang, Yale University  
**High-content image-based CRISPR screening reveals regulators of 3D genome folding architectures**
5. Xiuren Zhang, Texas A&M University  
**Regulation of miRNA production in plants.**

12:30 - 15:00 Lunch

15:00 - 16:20 **Society Lectures #3** (online via zoom with Hangzhou site)

Zhijian James Chen, UT Southwestern Medical Center  
**TBD**

Dr. Yanli Wang, IBP, Beijing, China  
**How CRISPR-Cas9 cleaves DNA and is repressed?**

16:20 - 16:40 Coffee Break

16:40 - 18:00 **Society Lectures #4** (online via zoom with Hangzhou site)

Dr. Shengcai Lin, Xiamen University  
**Glucose as a messenger controlling life and death**

Dr. Nieng Yan, Shenzhen Medical Academy of Research and Translation (SMART)  
School of Life Sciences, Tsinghua University  
**Targeting Na<sub>v</sub> channels for pain relief**

18:00 - 20:00 Dinner

20:00 - 21:00 Industry Session: **Translate Research into Medicine**

Charlene Liao, Ph.D., Founder, CEO and Board Chair Immune-Onc Therapeutics, Inc.  
**Charting a New Course in Immunotherapy, and in Career --- from a drug developer in Genentech to CEO of a biotech startup**

Yibin Kang, Professor, Princeton University, Co-Founder, KayoThera Inc.  
**From Discovery to New Drug Candidates: Brings Research Beyond Ivory Tower**

Dr. David Li, Vice President of Sales, Marketing and Service. MedChemExpress LLC.

21:00 - 22:00 Publisher session – meet the press

Steve Mao, Editor-in-Chief, “Cancer Cell”

Di Jiang, Senior editor, “Science”



## **Day 4, Thursday, Dec. 22, 2022**

07:00 - 08:00 Breakfast (Included in registration)

08:00 - 10:00 **Society Lectures #5**

Dr. Bing Ren, UCSD  
**Single-cell Epigenomics in Health and Disease**

Dr. Ming-Ming Zhou, Icahn School of Medicine at Mount Sinai  
**Epigenetic Gene Transcription and Drug Discovery**

Dr. Hong-Wei Dong, UCLA  
**Assemble global neural networks of the mammalian brain**

10:00 - 10:30 Coffee Break

10:30 - 10:45 **CBIS Awards presentation to awardees by Yingzi Yang**

10:45 - 11:20 Ray Wu Awardee presentation  
**Chuan He, University of Chicago**  
**RNA methylation in gene expression regulation**

11:20 – 11:55 Ray Wu Awardee presentation  
**Manyuan Long, University of Chicago**  
**A Growing Concept: The Origin of Genes**

11:55 – 12:15 Young Investigator Awardee presentation  
**Chenqi Xu, Institute of Biochemistry and Cell Biology, Shanghai, China**  
**Immunoreceptor signaling and engineering**

12:15 – 12:35 Young Investigator Awardee presentation  
**Nan Hao, UCSD**  
**Engineering longevity - reprogramming single-cell aging in yeast**

12:35 - 18:00 Lunch & Free Afternoon Activities

18:00 - 20:00 **Meeting Banquet with Family Members** (Included in registration)

## **Day 5, Friday, Dec. 23, 2022**

**Departure – Bon Voyage!**