

The 17th ACRE-CAAC-CNAHA Joint Research Symposium 2022

7:00 PM, EST, Saturday, November 19, 2022

8:00 AM, Beijing, China, Sunday, November 20, 2022

7:00 PM, Canada, Saturday, November 19, 2022

Virtually available at



Meeting ID: 865 5706 8119

Passcode: 503882

Jointly organized by:

- **Academy of Cardiovascular Research Excellence (ACRE)**
- **Chinese American Academy of Cardiology (CAAC)**
- **Chinese American Heart Association (CNAHA)**

Program at-a-glance:

- **Opening**
- **Featured Presentations**
- **Young Investigator Award Competition**
- **CNAHA Bernard Lown Lectureship Presentation**
- **Keynote Presentation**
- **Award Ceremony**
- **Closing**

Free Registration & Abstract Submission at

<https://my-acre.org/>



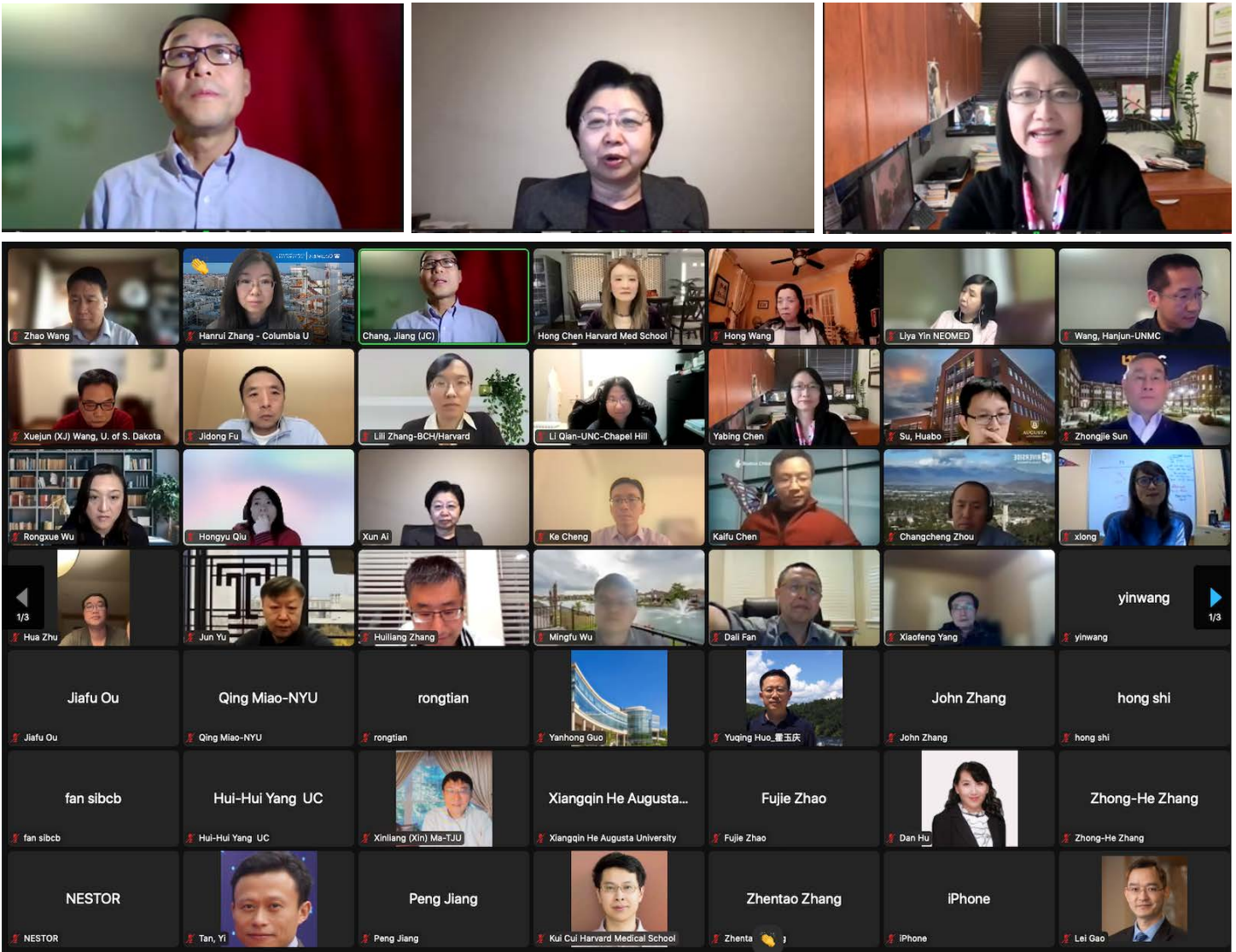
Opening and Welcome Speeches

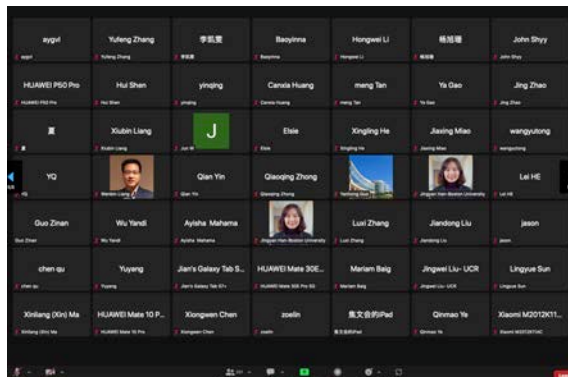
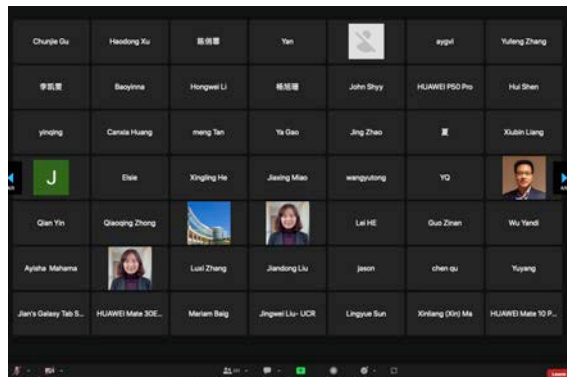
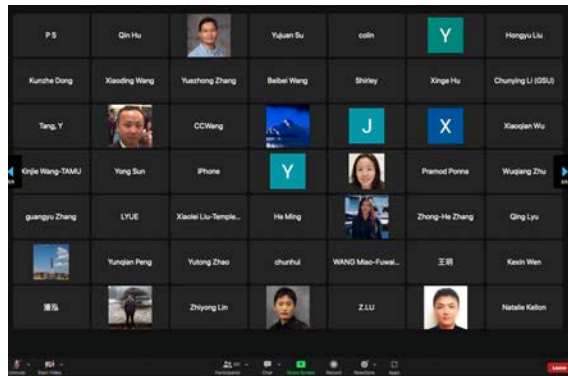
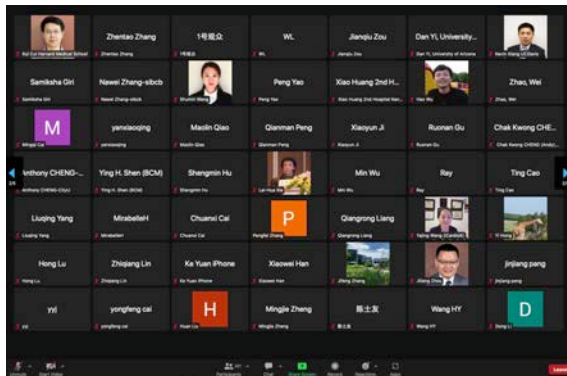
7:00 – 7:06 PM

Jiang JC Chang, MD, PhD, President of ACRE

Yabing Chen, PhD, President of CAAC

Xun Ai, MD, President of CNAHA







Featured Scientific Presentations

7:08 – 7:53 PM

Moderators: Lili Zhang, PhD, Boston Children's Hospital, Harvard Medical School

Changcheng Zhou, PhD, University of California, Riverside

Haoyi Zheng, MD, Catholic Health



7:08-7:23 PM Ke Cheng, PhD, North Carolina State University

Title: **Pericardial Exosome Delivery for Heart Repair and Mechanisms**



Pericardial exosome delivery for heart repair and mechanisms

Ke Cheng Ph.D.

Randall B. Terry, Jr. Distinguished Professor of Regenerative Medicine

Dept. of Biomedical Engineering, UNC-Chapel Hill & NC State U

Dept. of Molecular Biomedical Sciences, NC State U





7:23-7:38 PM

Yabing Chen, PhD, University of Alabama at Birmingham

Title: **Vascular Aging: Mechanisms and Therapeutic Potential**

The screenshot shows a video conference interface. On the left is a presentation slide with a blue background. The title 'Vascular Aging: Mechanisms and Therapeutic Potential' is in yellow. Below it is the speaker's name 'Yabing Chen, PhD' in white. Further down are the affiliations: 'Department of Pathology, University of Alabama at Birmingham, Birmingham VA Medical Center'. Logos for the University of Alabama at Birmingham (UAB) and the Department of Veterans Affairs are also present. On the right is a small video window showing a woman with glasses, identified as Yabing Chen, speaking from her office.

7:38-7:53 PM

Hanjun Wang, MD, PhD, University of Nebraska Medical Center

Title: **Neural Crosstalk between Heart and Lungs in Cardiopulmonary Diseases**

The screenshot shows a video conference interface. On the left is a presentation slide with a red and blue geometric background. The title 'Neural Crosstalk between Heart and Lungs in Cardiopulmonary Diseases' is in yellow. Below it is the speaker's name 'Hanjun Wang, M.D.' in white, followed by his affiliation: 'Department of Anesthesiology, University of Nebraska Medical Center' and his email 'hanjunwang@unmc.edu'. The University of Nebraska Medical Center logo is at the bottom right. On the right is a small video window showing a man with glasses, identified as Hanjun Wang, speaking from his office.



Special Presentation

7:55 – 8:03 PM

Animal Models for Cardiovascular Diseases

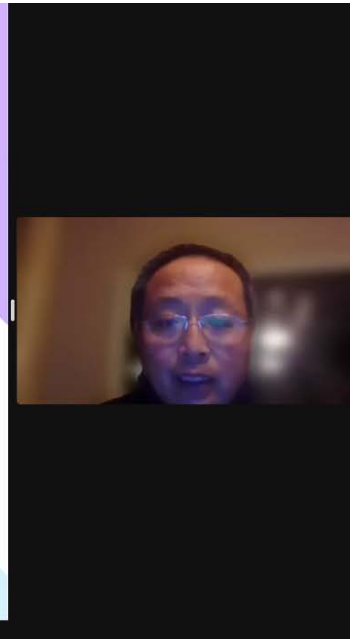
Dongxiao Feng, PhD

Shanghai Model Organisms Center (USA), LLC



The Animal Models in Cardiovascular Disease

Shanghai Model Organisms Center (SMOC-USA) LLC
2022-11-19



Moderator: Huabo Su, PhD, Augusta University



Young Investigator Award (YIA) Competition

8:05 – 9:33 PM

Moderators: Zhongjie Sun, MD, PhD, University of Tennessee Health Science Center

Hanrui Zhang, MB, PhD, Columbia University Irving Medical Center

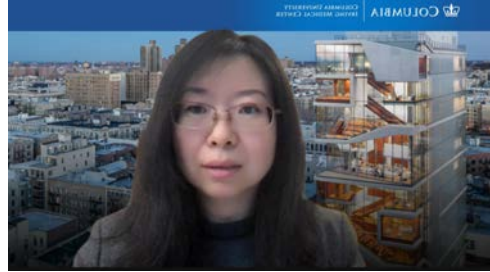
Lai-hua Xie, PhD, Rutgers New Jersey Medical School

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The Academy of Cardiovascular Research Excellence (ACRE) <http://www.my-acre.org>

Chinese American Academy of Cardiology (CAAC) <http://www.mycac.org>

Chinese American Heart Association (CNAHA) <http://www.cnaha.org>



8:05-8:13 PM

Zhentao Zhang, The Ohio State University

Title: **Gata4 Regulates Cardiac Fibrosis via Inhibiting Myofibroblasts Senescence**

Gata4 regulates cardiac fibrosis via inhibiting myofibroblasts senescence

Zhentao Zhang

*Department of Surgery, Davis Heart and Lung
Research Institute, The Ohio State University*





8:13-8:21 PM

Yang Cao, University of California, Los Angeles

Title: **Liver-heart Cross-talk Medicated by Coagulation Factor XI Protects against Heart Failure**

Hybrid Mouse Diversity Panel (HMDP)

- About 100 commercially available, diverse, inbred strains of mice
- Large diversity in clinical traits
- Generate multi-omics datasets
- Genetic analysis of complex traits in mice

✓ Causality ✓ Correlations

Bennett et al., Genome Res., 2010
<https://systems.genetics.ucla.edu/>

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8:21-8:29 PM

Mariam Baig, Saint Louis University Hospital

Title: **Imaging Conundrum: The Diagnosis of Unusual Partial Anomalous Pulmonary Venous Return with Dual Connections**

Imaging Conundrum: The Diagnosis of Unusual Partial Anomalous Pulmonary Venous Return with Dual Connections

Mariam Baig¹, MD, Jiafu Ou², MD, Ammar Nasir, MD¹.
John Cochran VA Medical Center, St. Louis MO
¹SSM Health Saint Louis University
²Washington University St. Louis MO



8:29-8:37 PM Pramod Ponna, Arizona Heart Rhythm Center

Title: **Substrate Mapping Facilitated Isthmus Identification and Ablation for Atypical Atrial Flutter**

The screenshot shows a video conference interface. On the left, a presentation slide titled "Substrate Mapping Facilitated Isthmus Identification and Ablation for Atypical Atrial Flutter" by Pramod Ponna and others is displayed. On the right, a small video window shows a man in a red shirt, presumably the speaker, Pramod Ponna.

Substrate Mapping Oral Presentation

Substrate Mapping Facilitated Isthmus Identification and Ablation for Atypical Atrial Flutter

Pramod Ponna, Dominika Zoltowska, Kun Xiang, Ele Wu, Art Davis, Samy Elayi, Jialin Su

8:37-8:45 PM Zhong-He Zhang, Renmin Hospital of Wuhan University

Title: **Clinical Characteristics and Electrophysiologic Properties of SCN5A Variants in Fever-Induced Brugada Syndrome**

The screenshot shows a video conference interface. On the left, a presentation slide titled "Clinical Characteristics and Electrophysiologic Properties of SCN5A Variants in Fever-Induced Brugada Syndrome" by Zhong-He Zhang, MD is displayed. On the right, a small video window shows a man in a suit and glasses, presumably the speaker, Zhong-He Zhang.

The 2022 ACRE-CAAC-CNAHA YIA Competition

Clinical Characteristics and Electrophysiologic Properties of *SCN5A* Variants in Fever-Induced Brugada Syndrome

Zhong-He Zhang, MD

Department of Cardiology

Renmin Hospital of Wuhan University, China

Nov. 19th, 2022



8:45-8:53 PM

Liuqing Yang, University of South Dakota

Title: **Genetic Mimicry of the Activation of 26S Proteasomes by cAMP-dependent Protein Kinase Protects against Proteotoxicity**

The slide features a light blue background with a faint DNA double helix and molecular structures. The title is prominently displayed in bold black text. Below the title, the event name and speaker's details are listed. A small red dot is visible on the right side of the slide.

Genetic Mimicry of the Activation of 26S Proteasomes by cAMP-dependent Protein Kinase Protects against Proteotoxicity

2022 ACRE/CAAC/CNAHA Virtual Symposium

Liuqing Yang
PhD candidate
Division of Basic Biomedical Sciences
University of South Dakota Sanford School of Medicine

November 19th, 2022

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8:53-9:01 PM

Chak Kwong Cheng, The Chinese University of Hong Kong

Title: **The Antioxidant Mitochondrial Protein UCP2 in Endothelial Cells is a Mechanosensitive Suppressor of Atherosclerosis and Inflammation**



2022 ACRE/CAAC/CNAHA Joint Symposium

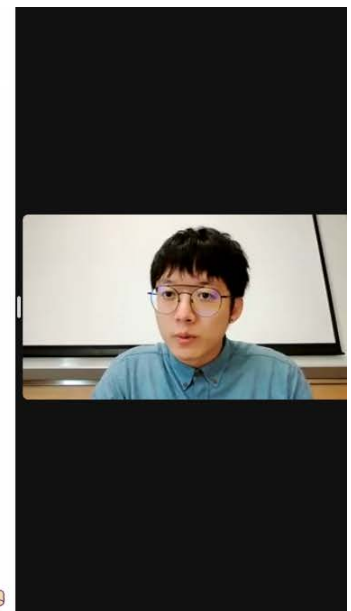
The antioxidant mitochondrial protein UCP2 in endothelial cells is a mechanosensitive suppressor of atherosclerosis and inflammation

Dr. CHENG Chak Kwong, Andy

Postdoctoral Fellow

Department of Biomedical Sciences, City University of Hong Kong
School of Biomedical Sciences, The Chinese University of Hong Kong

Hong Kong SAR, China





9:01-9:09 PM

Fujie Zhao, University of Alabama at Birmingham

Title: **Adenosine A2A Receptor Deficiency Exacerbates Heart Failure through Promoting Macrophage Recruitment via Cardio-splenic Network**



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The 17th ACRE-CAAC-CNAHA Joint Research Symposium 2022

Adenosine A2A Receptor Deficiency Exacerbates Cardiac Remodeling through Promoting Macrophage Recruitment via Cardio-splenic Network

Fujie Zhao, MD, PhD

Department of Biomedical Engineering

University of Alabama at Birmingham

UAB THE UNIVERSITY OF ALABAMA AT BIRMINGHAM

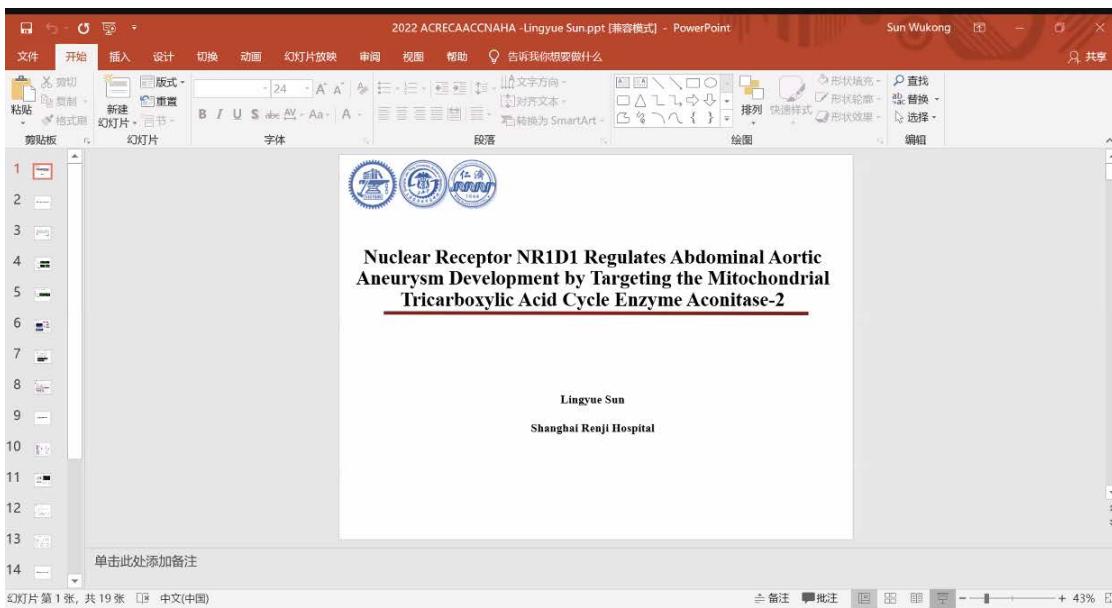
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Fujie Zhao

9:09-9:17 PM

Lingyue Sun, Shanghai Renji Hospital

Title: **Nuclear Receptor NR1D1 Regulates Abdominal Aortic Aneurysm Development by Targeting the Mitochondrial Tricarboxylic Acid Cycle Enzyme Aconitase-2**



Lingyue Sun



9:17-9:25 PM Yong Sun, University of Alabama at Birmingham




Title: **O-GlcNAc Modification on Runx2 Promotes Vascular Calcification**

O-GlcNAc modification on Runx2 promotes vascular calcification

Chang Hyun Byon^{1*}, Yong Sun^{1*}, Jack M Heath¹, Xia Mao¹, Xinyang Zhao², Hui Wu³ and Yabing Chen^{1,4}

**University of Alabama at Birmingham
VA Medical Center, Birmingham, AL**

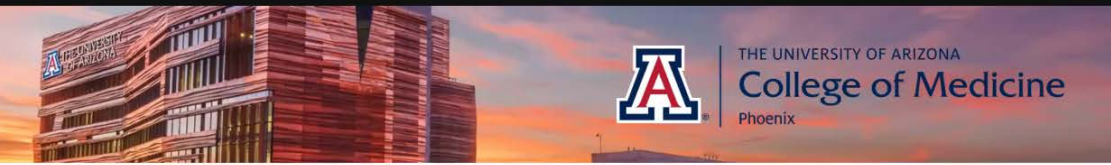
Disclosure: NONE



Yong Sun

9:25-9:33 PM Yi Dan, University of Arizona

Title: **SOX17 Deficiency Induces Pulmonary Hypertension through E2F1/BRD4 Signaling**




Sox17 Deficiency Induces Pulmonary Hypertension Through E2F1 Signaling

Dan Yi, PhD

Postdoctoral Research Associate
Dr. Zhiyu Dai Lab, Department of Internal Medicine
The University of Arizona College of Medicine – Phoenix

The 17th ACRE-CAAC-CNAHA
Joint Research Symposium 2022

Young Investigator Award (YIA) Competition





Special Presentation

9:35 – 9:43 PM

Lab Animal Diet – A Critical Part of Your In Vivo Research

Jia-Yu (Holly) Ke, PhD
Research Diet, Inc

RESEARCH
DIETS
INC.

Jia-Yu Ke, Ph.D
Senior Scientist

Lab Animal Diet – A Critical Part of Your In Vivo Research

Moderator: Hong Chen, PhD, Boston Children's Hospital, Harvard Medical School





CNAHA Bernard Lown Lectureship

9:45 – 10:15 PM

Takotsubo Syndrome: Many Faces of a Stressed Heart

Kan Liu, MD, PhD
University of Iowa

Acknowledgement

Linda Cadaret MD, Roy Shubha MD, Rakesh Ponnappureddy MD

University of Iowa

Christian Templin MD, Jelena-Rima Ghadri MD

University of Zurich, Switzerland

Benico Barzilai, MD, Bruce Lindsay, MD

Cleveland Clinic, Ohio

Pamela Woodard, MD, Ronald Krone, MD

Washing University in St Louis, MO

Dali Fan MD, PhD

University of California Davis

David Feiglin MD, Ernie Scalzetti MD, Eric J Rashban MD

SUNY (Syracuse and Stony Brook)

Mahmoud Abdelghany, MD

Boston University



Moderator: Xinge Hu, MD, PhD, The Permanente Medical Group





Keynote Speech

10:17 – 10:47 PM

Target Mitochondrial Mechanisms for Heart Failure Therapy

Rong Tian, MD, PhD
University of Washington

2022 ACRE-CAAC-CNAHA Joint Symposium

Target Mitochondria for Heart Failure Therapy

 Rong Tian (rongtian@uw.edu)
Mitochondria and Metabolism Center
University of Washington



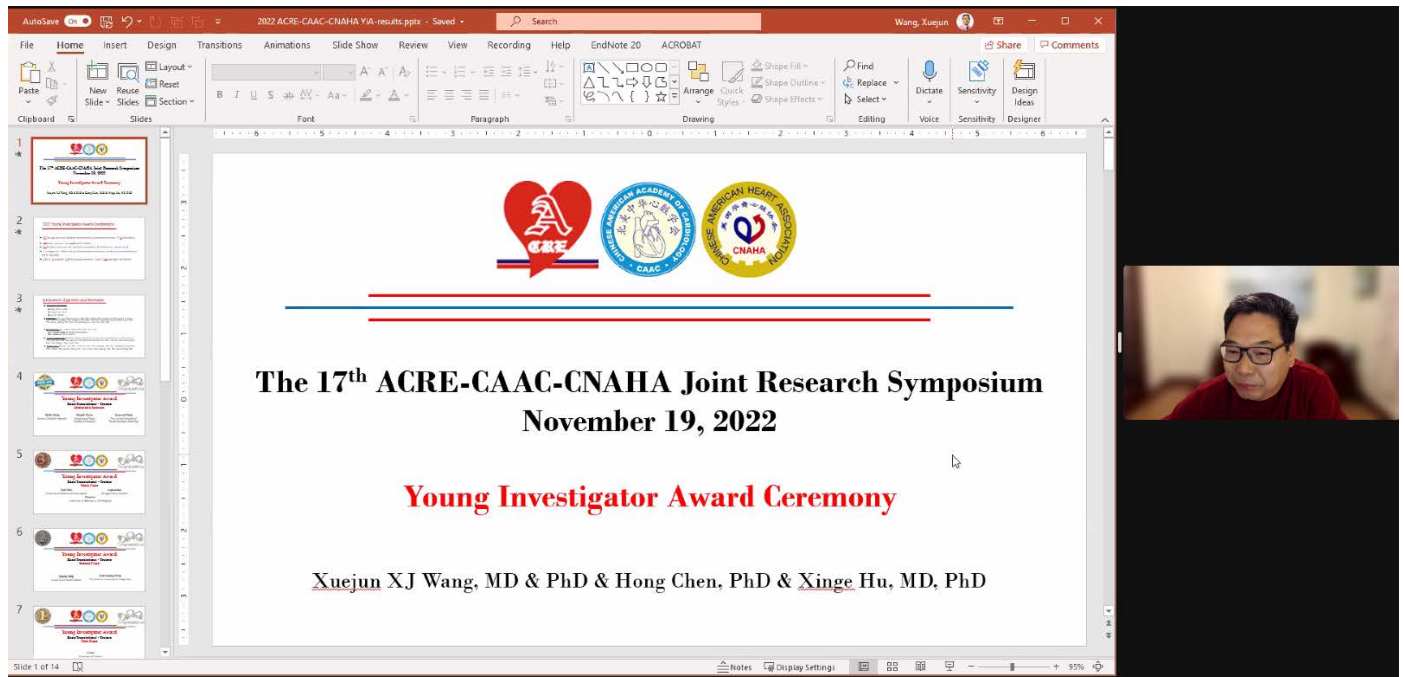
Moderator: Jiang JC Chang, MD, PhD, Texas A&M University



YIA Ceremony and Closing

10:50 – 11 PM

Xuejun XJ Wang, MD, PhD, ACRE
Hong Chen, PhD, CAAC
Xinge Hu, MD, PhD, CNAHA



Symposium Organizers and Reviewers

- Symposium co-chairs
 - Jiang Chang, ACRE
 - Hong Chen, CAAC
 - Xun Ai, CNAHA
- Members: Yun Fang, PhD; Jidong Fu, MD, PhD; Li Qian, PhD; Huabo Su, PhD; Xuejun XJ Wang, MD, PhD; Zhao Wang, PhD; Rongxue Rosie Wu, MD, PhD; Yang Kevin Xiang, PhD; Lai-hua Xie, PhD; Hanrui Zhang, MB, PhD; Changcheng Zhou, PhD; Hua Zhu, PhD
- YIA co-Chairs: Zhao Wang, Hanrui Zhang & Lai-hua Xie
 - Dr. **Y. Kevin Xiang** for the Basic/Translational
 - Dr. **Laihua Xie** for the Clinical
- Abstract reviewers: Zhaokang Cheng, PhD; Mei-Zhen Cui, PhD; Hongsheng Guo, MD; Yi Hong, PhD; Jian Shan, MD; Dan Amanda Tong, MD, PhD; Huaizhu Wu, MD; Feng Xie, MD; Haodong Xu, MD, PhD; Mingtao Zhao, DVM, PhD
- Final judges: Dali Fan, MD, PhD; Jidong Fu, MD, PhD; Xinge Hu, MD, PhD; Qiangrong Liang, MD, PhD; Li Qian, PhD; Hanjun Wang, MD; Jun Yu, MD; Hanrui Zhang, MB, PhD; Haoyi Zheng, MD



Young Investigator Award

Basic/Translational - Trainee

Honorable Mention

Beibei Wang

Boston Children's Hospital

Mingjie Zheng

University of Texas
Health at Houston

Yunpeng Zhang

The Second Hospital of
Tianjin Medical University



Young Investigator Award

Basic/Translational - Trainee

Third Place

Fujie Zhao

University of Alabama at Birmingham

Lingyue Sun

Shanghai Renji Hospital

Yong Sun

University of Alabama at Birmingham



Young Investigator Award

Basic/Translational - Trainee

Second Place

Liuqing Yang

University of South Dakota

Chak Kwong Cheng

The Chinese University of Hong Kong



Young Investigator Award

Basic/Translational - Trainee

First Place

Yi Dan

University of Arizona



Young Investigator Award

Basic/Translational - Junior Faculty

Honorable Mention

Kunzhe Dong
Augusta University

Chaoshan Han
Southern University of
Science and Technology

Yichen Ding
University of Texas at Dallas
University of Texas Southwestern
Medical Center



Young Investigator Award

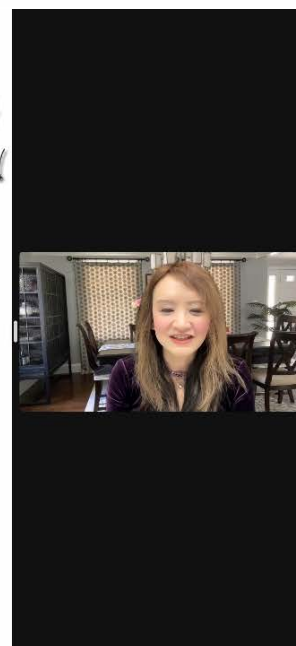
Basic/Translational - Junior Faculty

Honorable Mention

Kunzhe Dong
Augusta University

Chaoshan Han
Southern University of
Science and Technology

Yichen Ding
University of Texas at Dallas
University of Texas Southwestern
Medical Center





Young Investigator Award

Basic/Translational - Junior Faculty

Second Place

Zhentao Zhang
The Ohio State University



Young Investigator Award

Basic/Translational - Junior Faculty

First Place

Yang Cao
University of California, Los Angeles



Young Investigator Award Clinical Honorable Mention

Liang Lu

University of Washington

Lili Zhang

Montefiore Medical Center

Pengyang Li

Virginia Commonwealth University

Evelyn Song

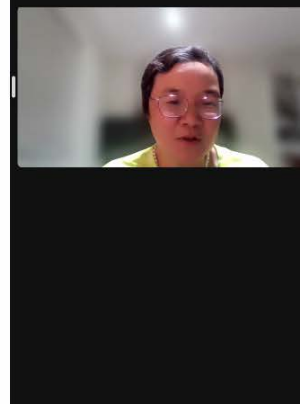
University of California, San Francisco



Young Investigator Award Clinical Third Place

Mariam Baig

Saint Louis University Hospital





Young Investigator Award

Clinical

Second Place

Pramod Ponna

Arizona Heart Rhythm Center



Young Investigator Award

Clinical

First Place

Zhong-He Zhang

Renmin Hospital of Wuhan University





The 2022 ACRE-CAAC-CNAHA Joint Symposium

acknowledges the following sponsors, **Shanghai Model Organisms**, **Research Diet**, **GemPharmatech**, **Frontiers in Physiology**, and **Cells**, and anonymous donors from **CNAHA**.



Shanghai Model Organisms Center, Inc.: Delivery the animal model(s) through our unmatched model repositories, advanced custom model generation capabilities, and flexible breeding solutions.

Research Diets Inc.: Research Diets, Inc is the leading manufacturer of custom, purified OpenSource diets and scientific instrumentation for Biological Data Acquisition in laboratory animal models worldwide.

Frontiers in Physiology is a leading journal in its field, publishing rigorously peer-reviewed research on the physiology of living systems, from the subcellular and molecular domains to the intact organism, and its interaction with the environment.

GemPharmatech is a leading provider of genetically modified mouse models and preclinical services to global R&D communities. GemPharmatech offers more than 20,000+ mouse models and can create new custom models based on your research needs.



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Scientific Taskforce: Zhaokang Cheng, PhD; Mei-Zhen Cui, PhD; Dali Fan, MD, PhD; Jidong Fu, MD, PhD; Hongsheng Guo, MD; Yi Hong, PhD; Xinge Hu, MD, PhD; Qiangrong Liang, MD, PhD; Li Qian, PhD; Jian Shan, MD; Dan Amanda Tong, MD, PhD; Hanjun Wang, MD; Huaizhu Wu, MD; Feng Xie, MD; Haodong Xu, MD, PhD; Jun Yu, MD; Hanrui Zhang, MB, PhD; Mingtao Zhao, DVM, PhD; Haoyi Zheng, MD