Curriculum Vitae

Updated November 15, 2024

**Michael Xi Zhu, PhD.**

**PRESENT TITLE:** Professor of Integrative Biology and Pharmacology

 The University of Texas Health Science Center at Houston

**ADDRESS:** The University of Texas Medical School at Houston

Department of Integrative Biology and Pharmacology,

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 Houston, Texas 77030

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**BIRTHDATE:** January 28, 1963

**CITIZENSHIP:** USA

**UNDERGRADUATE EDUCATION:**

B.S. Biology, 1984

Fudan University

Shanghai, China

**GRADUATE EDUCATION:**

M.S. Biochemistry, 1988

University of Houston

Houston, Texas, U.S.A.

Ph.D. Biochemistry, 1991

University of Houston

Houston, Texas, U.S.A.

**POSTGRADUATE TRAINING:**

Postdoctoral Training in Molecular and Cell Biology, 1991-1994,

Baylor College of Medicine

Houston, Texas, U.S.A.

**ACADEMIC APPOINTMENTS:**

2010-present Professor, Department of Integrative Biology and Pharmacology, The University of Texas Medical School at Houston, Houston, Texas

2003-2010 Associate Professor, Department of Neuroscience and Center for Molecular Neurobiology, Ohio State University, Columbus, Ohio

2000-2003 Assistant Professor, Department of Neuroscience and Neurobiotechnology Center, Ohio State University, Columbus, Ohio.

1997-2000 Assistant Professor, Department of Pharmacology and Neurobiotechnology Center, Ohio State University, Columbus, Ohio.

1994-1997 Assistant Researcher, Signal Transduction Laboratory, Department of Anesthesiology, University of California at Los Angeles, Los Angeles, California.

1991-1994 Postdoctoral Fellow/Research Associate, Department of Cell Biology, Baylor College of Medicine, Houston, Texas (with Dr. Lutz Birnbaumer).

1991 Postdoctoral Fellow, Department of Biochemical and Biophysical Sciences, University of Houston, Houston, Texas (with Dr. Joseph Eichberg).

**ADMINISTRATIVE AND HOSPITAL APPOINTMENTS:**

2007-2010 Co-director, Biophysics Graduate Program, Ohio State University, Columbus, Ohio

**OTHER PROFESSIONAL EXPERIENCE:**

2008-2010 Adjoined Professor, Department of Biochemistry, Ohio State University, Columbus, Ohio

**PROFESSIONAL ORGANIZATIONS**:

**Regional**

The Society of Chinese Bioscientists in America (SCBA) Texas Chapter, 2010 – Present

Serving as Treasurer of SCBA-Texas Chapter for 2014-2015.

Serving as President of SCBA-Texas Chapter for 2019-2020.

**National**

The Biophysical Society, 1996 - Present

 American Society for Pharmacology and Experimental Therapeutics, 2011 – present

 American Society for Biochemistry and Molecular Biology, 2013 - present

**HONORS AND AWARDS:**

Dean’s Teaching Excellence Award, 2023-2024, McGovern Medical School, The University of Texas Medical School in Houston.

Dean’s Teaching Excellence Award, 2022-2023, McGovern Medical School, The University of Texas Medical School in Houston.

Dean’s Teaching Excellence Award, 2021-2022, McGovern Medical School, The University of Texas Medical School in Houston.

Dean’s Teaching Excellence Award, 2018-2019, The University of Texas Medical School in Houston.

Distinguished Achievement Award, The Organization Committee of the 11th Symposium on Calcium Signaling in China, The Biophysical Society of China, 2016

Dean’s Teaching Excellence Award, 2014-2015, The University of Texas Medical School in Houston.

Dr. Elizabeth L. Gross Award for Faculty Excellence, 2010, Biophysics Program, The Ohio State University

Nichols Institute New Investigator Award, 1993.

American Society for Neurochemistry Travel Award, 1990.

Outstanding Research Award for Excellence in Teaching in the Department of Biochemical & Biophysical Sciences, University of Houston, Houston, TX, 1988.

CUSBEA (China-U.S. Biochemistry Examination and Admission) fellowship for graduate studies, 1984.

**EDITORIAL POSITIONS:**

Associate Editor, Journal of Cellular Physiology, 2006- present

Editorial Board Member, Pflügers Archiv - European Journal of Physiology, 2010-2018

Editorial Board Member, Acta Biophysica Sinica, 2011-2015

Editorial Board Member, Molecular Pharmacology, 2012-present

Editorial Board Member, Biophysics Reports, 2015-present

Editorial Board Member, Cells, 2018-present

Ad Hoc Reviewer for Manuscripts Submitted to:

ACS Chemical Neuroscience

ACS Omega

Acta Pharmacologica Sinica

Advances in Experimental Medicine and Biology

American Journal of Human Genetics

American Journal of Physiology

Apoptosis

Assay and Drug Development Technologies

Biochimica et Biophysica Acta - Molecular Basis of Disease

Biochemistry

Biomolecules

Biophysical Journal

Breast Cancer Research

British Journal of Pharmacology

Cancer letters

Cancer Research

Cancers

Cardiovascular Research

Cell and Bioscience

Cell Calcium

Cell Chemical Biology

Cell Metabolism

Cell Proliferation

Cell Reports

Cells

Cellular and Molecular Life Sciences

Circulation Research

Current Biology

Developmental Cell

eLife

EMBO Molecular Medicine

EMBO Journal

EMBO Reports

Expert Reviews in Molecular Medicine (ERMM)

FASAB J

FEBS Letters

Fitoterapia

Frontiers in Cellular and Infection Microbiology

Frontiers in Immunology

Frontiers Psychiatry

Human Molecular Genetics

International Journal of Biological Macromolecules

International Journal of Biological Sciences

International Journal of Molecular Sciences

iScience

Journal of the American Heart Association

Journal of Biological Chemistry

Journal of Cardiovascular Medicine

Journal of Cell Biology

Journal of Cell Science

Journal of Cellular Biochemistry

Journal of Cellular Physiology

Journal of Cellular and Molecular Medicine

Journal of Experimental Medicine

Journal of General Physiology

Journal of Inflammation

Journal of Medicinal Chemistry

Journal of Membrane Biology

Journal of Molecular Cell Biology

Journal of Natural Products

Journal of Neurochemistry

Journal of Neurophysiology

Journal of Neuroscience

Journal of Physiology (London)

Journal of Proteomic Res

JoVE

MethodsX

Molecular Brain

Molecular Endocrinology

Molecular Medicine

Molecular Neurobiology

Molecular Pain

Molecular Pharmacology

Molecular Therapy

Nature

Nature Cell Biology

Nature Communications

Nature Microbiology

Nature Reviews Neuroscience

Nature Structure & Molecular Biology

Neurochemical Research

Neuron

Neuropharmacology

Neuroscience Bulletin

Oncogene

Oxidative Medicine and Cellular Longevity

Pain

Pflugers Archiv European Journal of Physiology

Pharmacology Research & Perspectives

Pharmacology & Therapeutics

Physiological Review

Phytochemistry letters

PLoSONE

PLoSGenetics

PNAS Nexus

Proceedings of National Academy of Sciences, U. S. A.

PNAS Nexus

Protein and Cell

Science

Science Advances

Science Bulletin

Science Signaling

Science China Life Sciences

Science Translational Medicine

Scientific Reports

Stroke

Structure

The Canadian Journal of Physiology and Pharmacology

Toxicology

Trends in Biotechnology

Trends in Biochemical Sciences

 Vision Research

**SERVICE ON NATIONAL GRANT REVIEW PANELS, STUDY SECTIONS, COMMITTEES:**

**Local:**

Review for Pilot/Feasibility projects of Texas Medical Center Digestive Diseases (DDC), Dec. 2011.

Review for 2013 Dunn Collaborative Research Award, Gulf Coast Consortia community, Jun 2013

Review for 2016 Dunn Collaborative Events Award, Gulf Coast Consortia community, 2016

Review for 2017, 2018, and 2019 GSBS Fall Scholarships and Fellowships applications, Nov 2017, Nov 2018, Nov 2019

Review and interview of the finalists for 2018 Kopchick Fellowship of GSBS, Feb 2018

Review for 2018, 2019, and 2020 GSBS Spring Scholarships and Fellowships applications, May 2018, May 2019, Jun. 2020.

**National:**

National Institutes of Health (NIH) Study section MIST, Regular member, 2010-2014

National Institute of Dental and Craniofacial Research (NIDCR) Board of Scientific Counselors (BSC) meeting, Ad-hoc reviewer, Nov, 2012, Jun, 2017

National Institutes of Health (NIH) Study section PTHE, Ad-hoc Oct. 2013

National Institutes of Health (NIH) Study section MIST, Ad-hoc Feb. 2010, Jun 2015

National Institutes of Health (NIH) Study section BPNS, Ad-hoc Oct. 2009, Oct. 2019

National Institutes of Health (NIH) Study section NTRC, Ad-hoc Oct. 2004, Jun. 2005, Sep. 2015, Feb. 2016, Jun. 2018, Jun. 2020

National Institutes of Health (NIH) Study section ZRG1 MDCN-C 02 Ad-hoc Nov. 2005, Nov. 2006, Nov. 2007, Jun. 2008,

National Institutes of Health (NIH) Study section ZRG1 MDCN-C (04) S Ad-hoc Apr. 2016

National Institutes of Health (NIH) Study section ZGM1 TWD-9 (SC), Jul. 2015

NIH Special Emphasis Panel/Scientific Review Group, ZNS1 SRB-C 11, Jul. 2021

NIH\CSR Special Emphasis Panel, ZRG1 CN, Aug. 2023

NIH Study section 2024/05 ZRG1 F04-S (20), Chemistry, Biochemistry and Biophysics Fellowships, Feb. 2024

NIH Special Emphasis Panel/Scientific Review Group 2009/01 HLBP, Sep. 2008, Apr. 2009

NIH Study section ZRG1 MDCN-B 91 Ad-hoc Jul. 2006

NIH Study section ZRG1 MDCN-G 91 Ad-hoc Oct. 2007

NIH Study section Special Emphasis Panel/Scientific Review Group 2009/10 ZRG1 DKUS-A (58), Mail review, June, 2009

NIH Study section Special Emphasis Panel/Scientific Review Group 2009/10 ZRG1 MDCN-A (58) R, Mail review, June, 2009

NIH Study section Special Emphasis Panel/Scientific Review Group 2021/07 ZNS1 SRB-C (11) HEAL Initiative U19 Review, Teleconference, July, 2021

National Science Foundation (NSF): 2001, 2004, 2008

Medical Research Program (PRMRP) of the Department of Defense Congressionally Directed Medical Research Programs (CDMRP), Discovery Award Inflammatory Bowel Diseases Panel (DIS-IBD) peer review panel, 2016

**International:**

Anniversary Fund 2004

Austrian Science Fund 2005

Biotechnology and Biological Sciences Research Council, UK, 2018, 2020, 2024

Competitive Earmarked Research Grant of Hong Kong 2007, 2008, 2010

Council for Earth and Life Sciences, Netherlands Organization for Scientific Research, 2003

Flemish Science Foundation (Belgium), 2008

French National Research Agency, 2018

Israel Science Foundation, 2002, 2024

Medical Research Council, UK, 2007, 2012, 2013, 2014, 2017

Natural Science Foundation of China, 2006, 2007, 2008, 2012

Netherlands Organization for Scientific Research (NWO), review for candidate of Dutch Spinoza Prize, 2013

###### New Cornerstone Investigator Program, China, 2023

###### Schering Stiftung Young Investigator Fund (Germany), 2017

###### The Natural Sciences and Engineering Research Council of Canada, 2024

###### The Research Council of K.U. Leuven on evaluation of professorship (Belgium), 2007

###### The Research Council of K.U. Leuven grant review (Belgium), 2013

Research Foundation Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO, Belgium), 2012 (4), 2015 (2), 2016 (2)

Research Grants Council of Hong Kong, 2013, 2015, 2016, 2017, 2018, 2019, 2020, 2024.

Wellcome Trust grant review, UK, 2009

U.S. Civilian Research and Development Foundation (CRDF)

**SERVICE ON THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON COMMITTEES:**

Chair: review committee for the 2017 UTHealth GSBS Dissertation Award, 2017

Chair and Committee member, GSBS Student Scholarship Committee, Oct 2017 – Sep 2018

Member of GSBS executive committee, Oct 2017 – Sep 2019

Committee member, GSBS Student Scholarship Committee, Oct 2018 – Sep 2020

Committee member, GSBS Curriculum Committee, Oct 2021 – Sep 2024

Committee member, GSBS Neuroscience Program Steering Committee, Oct 2021 – Sep 2024

**SERVICE ON THE UNIVERSITY OF TEXAS MEDICAL SCHOOL AT HOUSTON COMMITTEES**

Curriculum revision committee for Foundation Weeks 6-7, 2014

**DEPARTMENTAL COMMITTEES:**

Six-Year Faculty Review Committee, 2012

Departmental faculty search committee, Sep 2018 – Jan 2019

Departmental faculty search committee, Sep 2019 – Feb 2020

Departmental faculty review committee, Sep 2020 – Oct 2020

Departmental faculty search committee, Sep 2020 – Apr 2021

Departmental faculty review committee, Sep 2021 – Oct 2021

Six-Year Faculty Review Committee, 2022

Departmental faculty review committee, Oct 2022

Departmental faculty search committee, Oct 2022 – Feb 2023

**SERVICE TO THE COMMUNITY (**Internal and external to UT)

Lectures to first-year graduate students in Shanghai Institute of Biological Sciences, Shanghai, and Tsinghua/Peking University, Beijing, China, Course name, Bio2000, Diffusible and Electrical Signaling Factors, (Autumn, 2003-2016, 2018-2023)

Proposer and co-organizer: the 1st International Conference on Ion channels in Technology and Drug Discovery, Dalian, China, 2007

Vice chair and co-organizer: the 2nd International Conference on Ion channels in Technology and Drug Discovery, Harbin, China, 2009

Oversea chair and co-organizer: the 2010 symposium for Chinese Neuroscientists Worldwide, Nanchang, China, 2010

Scientific committee chair and co-organizer: the 17th International Symposium on Ca2+-Binding Proteins and Ca2+ Function in Health and Disease, Beijing, China, 2011

Chair and co-organizer: the 3rd International Ion Channel Conference-Ion Channels: Structure, Function & Therapeutics, Shanghai, China, 2011.

Oversea chair and co-organizer, the 9th Chinese Symposium on Calcium Signaling, Huangshan, China, 2012.

Proposer and co-organizer: International Symposium on Receptors, G Proteins and Integration of Ca2+ Signaling in the Cardiovascular System, MDC Communications Center, Berlin-Buch, Germany, 2014.

Co-organizer, China-US biomedical symposium on oncology and the 3rd SCBA-Texas international conference, Shijiazhuang, China, 2014

Served as Treasurer of The Society of Chinese Bioscientists in America (SCBA) Texas Chapter for 2014-2015.

Taught a 16 hr Summer English course on “From Cell Signaling to way of Biomedical Research and Drug Discovery” for the International Summer Course Program (ISCP) at China Pharmaceutical University, July 11-15, 2016.

Organization Committee member, the 11th Symposium on Calcium Signaling in China, Zunyi, China, 2016.

Proposed and organized the Gulf Coast Consortium Symposium on Membrane Biophysics, on May 6, 2016

Lectures on “Ion Channels and Neuronal Signal” in the first-year graduate student course, Frontiers in Neuroscience, at Shanghai Jiaotong University School of Medicine, Shanghai, China (Autumn 2016, 2017, 2018)

Co-Chair, Gordon Research Conference on Organellar Channels and Transporters, Mount Snow Resort, West Dover, Vermont, USA, Jul 31-Aug 4, 2017.

Organized the 1st JinLing Ion Channel Physiology and Drug Discovery (ICPDD) Mini-Symposium, China Pharmaceutical University, Nanjing, China, Nov 10, 2017.

Organization Committee member, the 12th Symposium on Calcium Signaling in China, Shenyang, China, 2018.

Served as a Steering Committee member of Molecular and Cellular Biophysics Cluster of Gulf Coast Consortium, 2018 - 2020

Organized the 2nd JinLing Ion Channel Physiology and Drug Discovery (ICPDD) Mini-Symposium, China Pharmaceutical University, Nanjing, China, Nov 29-Dec 1, 2018.

Served as President of The Society of Chinese Bioscientists in America (SCBA) Texas Chapter for 2019-2020.

Steering Committee member, GCC Cellular and Molecular Biophysics Cluster, 2019 - present.

**SPONSORSHIP OF CANDIDATES FOR POSTGRADUATE DEGREE:**

1. Yufang Tang, 9/1998-05/2002, Graduate student, MCDB, The Ohio State University.
2. Craig K. Colton, 7/2001-11/2006, Graduate student, OSBP, The Ohio State University

# Chunbo Wang, 1/2003-6/2006, Graduate student, MCDB, The Ohio State University

1. Rui Xiao, 01/2004-01/2009, Graduate Student, Biophysics program, The Ohio State University
2. Emilia Iscru, 03/2004-07/2008, Graduate Student, Biophysics program, The Ohio State University
3. Dhananjay Thakur, 10/2009-06/2010, Graduate Student, Biophysics program, The Ohio State University; 07/2010-07/2015, Graduate Student, Graduate School of Biomedical Sciences at Houston, The University of Texas
4. Yu Huang, 8/2011-07/2017, Graduate Student, Graduate School of Biomedical Sciences at Houston, The University of Texas
5. Jian Xiong, 8/2012-12/2020, Graduate Student, Graduate School of Biomedical Sciences at Houston, The University of Texas.
6. Cuauhtemoc Gonzales, 3/2021-7/2021, Rotation Graduate Students, Graduate School of Biomedical Sciences at Houston, The University of Texas.

**GRADUATE ADVISORY COMMITTEE MEMBERS (current)**

1. Elia Lopez, 2017-04/2021, Graduate Student, BCB program of Graduate School of Biomedical Sciences at Houston, The University of Texas
2. Savannah West, 2017- 01/2023, Graduate Student, BCB program of Graduate School of Biomedical Sciences at Houston, The University of Texas
3. Paudyal Nabina, 2018 – 09/2021, Graduate Student, BCB program of Graduate School of Biomedical Sciences at Houston, The University of Texas
4. Cuauhtemoc Gonzales, 05/2021 – present, Graduate Student, BCB program of Graduate School of Biomedical Sciences at Houston, The University of Texas
5. Stephen M. Farmer, 11/2022 – present, Graduate Student, BCB program of Graduate School of Biomedical Sciences at Houston, The University of Texas

**SPONSORSHIP OF POSTDOCTORAL FELLOWS:**

1. Zhangguo Chen, 12/1997-8/1999, Postdoctoral research associate, The Ohio State University.
2. Zongming Zhang, 1/1998-01/2000, Postdoctoral research associate, The Ohio State University.

3, Jisen Tang, 7/1999-6/2004, 09/2006-06/2007, Postdoctoral research associate, The Ohio State University

1. Yakang Lin, 10/2000-04/02, Senior research associate, The Ohio State University
2. Mariko Kinoshita, 4/2002-03/04, Postdoctoral researcher, The Ohio State University
3. Jin-bin Tian 09/2005-06/2010, Research Scientist, The Ohio State University; 10/2010-present, Research Assistant Professor, UTHSC-Houston
4. Xuemei Hao, 9/2006-2/2008, Postdoctoral researcher, The Ohio State University
5. Yingmin Zhu, 9/2008-06/2010, Postdoctoral researcher, The Ohio State University; Yingmin Zhu, 7/2010-10/2013, Research Associate, UTHSC-Houston
6. Alexis Bavencoffe, 6/2010-3/2013, Postdoctoral researcher, UTHSC-Houston
7. Manjira Ghosh-Kumar, 3/2011-08/2011, Postdoctoral researcher, UTHSC-Houston
8. Yungang Lu, 4/2011-4/2014, Postdoctoral researcher, UTHSC-Houston
9. Pu Yang, 5/2011-5/2013, Postdoctoral researcher, UTHSC-Houston
10. Xinghua Feng, 6/2011-06/2015, Postdoctoral researcher, UTHSC-Houston
11. Bing Shen, 11/2011-1/2013, Postdoctoral researcher, UTHSC-Houston
12. Jiang Wu, 9/2012-7/2013, Postdoctoral researcher, UTHSC-Houston
13. Jaepyo Jeon, 5/2013-08/2019, Postdoctoral researcher, 09/2019-present, Instructor, UTHSC-Houston
14. Dhananjay Thakur, 07/2015-12/2015, Postdoctoral researcher, UTHSC-Houston
15. Qiaochu Wang, 09/2016-01/2020, Postdoctoral researcher, UTHSC-Houston
16. Yu Huang, 07/2017-08/2018, Postdoctoral researcher, UTHSC-Houston
17. Jian Xiong, 01/2021-01/2022, Postdoctoral researcher, UTHSC-Houston
18. Mehboob Ali, 12/2022-12/2023 Postdoctoral researcher, UTHSC-Houston
19. Wuguang Lu, 01/2023-02/2024, Postdoctoral researcher, UTHSC-Houston

**CURRENT TEACHING RESPONSIBILITIES:**

Courses to medical students:

MS PHYSIOLOGY, Membranes II-IV: Osmosis, Solute and Water transport across membranes/ Transepithelial Transport, Pathophysiology Correlate I: Fluid volumes and Capillary Exchange (Spring 2011, Spring 2012, Spring 2013, Spring 2014, Spring 2015, Spring 2016); GI PHYSIOLOGY, Digestion & Absorption I, Digestion & Absorption II, Cardiovascular and Gastrointestinal correlates (Spring 2014, Spring 2015, Spring 2016), The University of Texas Health Science Center at Houston

MS PHARMACOLOGY, General Anesthetics (2 hrs, Autumn 2015, Autumn 2016), The University of Texas Health Science Center at Houston

Medical School New Curriculum Foundation week 9, 4 lectures: Theme Introduction: Cystic Fibrosis; Membranes III: Osmosis; Membrane IV: Capillary Exchange; Membrane V: Transepithelial Transport (Autumn 2016), The University of Texas Health Science Center at Houston

Medical School New Curriculum Foundation week 2, 3 lectures: Membranes III: Osmosis; Membrane IV: Capillary Exchange; Membrane V: Transepithelial Transport (Autumn 2017, 2018, 2019, 2020, 2021,2022, 2023, 2024), McGovern Medical School, The University of Texas Health Science Center at Houston

Medical School New Curriculum Gastrointestinal (GI) Module, week 2, 1 lecture: Digestion; week 4, 1 lecture Absorption (Autumn 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024), McGovern Medical School, The University of Texas Health Science Center at Houston

Medical School New Curriculum Nervous System and Behavior (NSB) Module, week 1, 1 lecture: General Anesthetics (Autumn 2017, 2018), McGovern Medical School, The University of Texas Health Science Center at Houston

Medical School New Curriculum Foundations (MS1) Block 3, week 17, 1 lecture: Temperature Regulation (Autumn 2022, 2023, 2024), McGovern Medical School, The University of Texas Health Science Center at Houston

Courses to dental students:

DENF 1541 Physiology I, Membranes III: Osmosis, and how solutes and water can cross cells and capillaries, Problem Solving Session, Fluid volumes and Capillary Exchange, The University of Texas Health Science Center at Houston (Fall 2010, 2011)

DENF 1541 Physiology I, Membranes II: Generation of the Cellular Membrane Potential, The University of Texas Health Science Center at Houston (Fall 2011)

Courses to graduate students:

Molecular Basis of Cell Signaling, Overview of Ion Channels: Basic Functions (Spring 2017), Biophysical Properties of Ion Channels (Spring 2013, Spring 2014, Spring 2015, Spring 2017), Ion channels: overview structure/function/regulation (Spring, 2018, Spring 2019, Spring 2020, Spring 2022, Spring 2023, Spring 2024), Regulation of ion channels: 2nd messengers, kinases, ions and G proteins (Spring 2011, Spring 2012, Spring 2013, Spring 2014, Spring 2015, Spring 2017, Spring 2018, Spring 2019, Spring 2020, Spring 2022, Spring 2023, Spring 2024), GSBS course, The University of Texas Health Science Center at Houston

Seminar in Cell Signaling (GS04 1751) - Thermoregulation (Spring 2017) GSBS course, The University of Texas Health Science Center at Houston

Neurocircuits and Behavior, The Brain Stem function (Spring, 2020, Spring 2022, Spring 2024) GSBS course, The University of Texas Health Science Center at Houston

Scientific Writing (GS21 1152), Faculty Moderator for small group (NS/GE) (Spring 2022), GSBS course, MD Anderson Cancer Center UTHealth Graduate School of Biomedical Sciences

Sci Wrtng Grant Propsl (GS03 1111-222), Assistant Instructor (Summer 2022, Summer 2023, Summer 2024), GSBS course, The MD Anderson Cancer Center UTHealth Graduate School of Biomedical Sciences

**CURRENT GRANT SUPPORT:**

Principal Investigator: NIH grant R21 NS125167

 “Regulatory mechanisms of lysosomal degradation in neurodegenerative disease”

 09/20/21 – 02/28/25, NCE, Total Direct Cost: $275,000

Co-Investigator: NIH grant RF1 AG069076

 “Neuropathology in tauopathies stem from depolarization-induced alterations in the planar distribution of phosphoinositides”

 09/01/2020-08/31/2024, Total Direct Cost: $1,200,070

 PI: Kartik Venkatachalam

Principal Investigator: NIH grant R01 NS114716

 “Molecular Mechanism of Brain Regulation of Chronic Pain”

 02/01/2020-01/31/2025, Total Direct Cost: $750,000

Multiple Principal Investigators (Walters/Zhu): NIH grant R01 NS111521

 “Mechanisms in primary nociceptors that drive ongoing activity and ongoing pain”

 04/15/19 – 03/31/20225 NCE, Total Direct Cost: $1,359,700

 Contact PI: E. T. Walters

Collaborator: NSF grant IOS-1922428

 “Rapid testosterone signaling receptor TRPM8 regulates sexual reward and satiety”

 09/15/2019–08/31/2024, NCE, Total Direct Cost: $562,268

 PI: S. Asuthkar

**Current Pending support**

**PAST GRANT SUPPORT:**

Principal Investigator: NIH grant RO1 GM54235

 “Human *trp* Genes in Relation to Ca2+ Entry Channels”

 2/1/97-1/31/02, Total Direct Cost: $483,000.

Principal Investigator: University Seed Grant

“A Transgenic Approach to Evaluate the Functional Role of Trp Channels in Cerebellar Purkinje Cells”

1/1/00-12/31/00, Total Direct Cost: $10,000.

Principal Investigator: NIH grant RO1 NS42183

 “Mechanism of Conformational Coupling”

 8/1/01-7/31/05, Total Direct Cost: $750,000.

Co-investigator, director of Electrophysiology Core: NIH grant P30 NS045758-01

 “Ohio State Neuroscience Center Core” John Oberdick (PI)

 09/01/04-08/30/09, Total Direct Cost: $2,379,084

Principal Investigator: NIH grant R21 NS056942

 “High throughput screening of ligands of TRP channels”

 07/1/06-06/30/10, Total Direct Cost: $173,750.

Principal Investigator: American Heart Association Grant-in-Aid 0755277B

 “The role of PTX-sensitive G proteins in the activation of TRPC5”

 07/1/07-06/30/09, Total Direct Cost: $110,000.

Principal Investigator: NIH grant RO1 DK081654

 “Molecular mechanism of regulation of mI(CAT) in intestinal smooth muscle cells”

 2/1/09-1/31/14, Total Direct Cost: $915,000.

Principal Investigator: NIH grant RO1 GM081658

 “Molecular characterization of organelle channels”

 9/1/09-8/30/14, Total Direct Cost: $830,000.

Principal Investigator: NIH grant RO1 GM092759

 “The role of two-pore channels in integrative calcium signaling”

 9/30/10-8/31/14, Total Direct Cost: $780,000.

Co-investigator: NIH SBIR grant R43 DA031516 – 01 PI (J. M. Herz)

 “Analgesics Targeting TRPA1 for Treatment of Chronic Pain”

 8/1/11-7/31/13, Total Direct Cost: $150,000.

Sponsor: American Heart Association Predoctoral Fellowship SouthWest Affiliate 13PRE17200004

“Regulation of TRPC4/5 channels in vascular smooth muscle cells via synergistic GPCR signaling”

 7/1/13-06/30/15, Total Cost: $50,000 (PI: Dhananjay P. Thakur)

Principal Investigator: Service Contract with Procter & Gamble

“Electrophysiological examination of select Personal Health Care actives on TRPA1”

02/15/15-01/31/16, Total Direct Cost: $ 58,462.00

Principal Investigator: 2015 John S. Dunn Foundation Collaborative Event Award

“GCC Symposium on Membrane Biology”, held on May 6, 2016

01/01/16-06/30/16, Total Award amount of $8,000

Principal Investigator: American Heart Association Grant-in-Aid SouthWest Affiliate 15GRNT23040032

 “Mechanism of ASIC1a-mediated acidosis brain damage in stroke”

 01/01/15-12/31/16, Total Direct Cost: $126,000

Sponsor: American Heart Association Postdoctoral Fellowship SouthWest Affiliate 15POST22630008

“The role of TRPC channels in ischemic nerve damage”

 01/01/15-12/31/16, Total Cost: $95,704 (PI: Jaepyo Jeon)

Principal Investigator: NIH grant R13 TR002022-01

 “2017 Organellar Channels and Transporters Gordon Research Conference”

 04/01/2017 – 03/31/2018, Total Direct Cost: $20,000

Principal Investigator: National Science Foundation grant MCB-1719636

 “2017 GRC on Organellar Channels and Transporters”

 04/01/2017 – 09/01/2017, Total Direct Cost $10,000

Sponsor: American Heart Association Postdoctoral Fellowship 17POST33661282

“Molecular mechanism of TRPC4 regulation in endothelium permeability”

 07/01/17-06/30/19, Total Cost: $103,308 (PI: Qiaochu Wang)

Principal Investigator: NIH grant R01 NS092377

 “Excitatory neurotransmission by PTX-sensitive G proteins”

 02/01/15 – 01/31/20, Total Direct Cost: $1,090,000

Principal Investigator: NIH grant R01 NS102452

 “Molecular mechanism of acidotoxicity to neurons”

 06/15/17 – 04/30/23, NCE, Total Direct Cost: $1,090,000

Co-Investigator: NIH grant R01 GM130840

 “Regulation of Calcium Signaling by Protein Lipidation”

 09/01/2019–05/31/2023, Total Direct Cost: $1,077,040

 PI: D. Boehning

Principal Investigator: McGovern Medical School, UTHealth, Just Missed Grant Bridge Support

 “Molecular mechanism of acidotoxicity to neurons”

 05/16/22 – 05/15/23, Total Direct Cost: $30,000

**PUBLICATIONS:**

1. **Abstracts (\*presented).**

**1.** Eichberg, J., Berti-Mattera, L.N., Day, S-F., Lowery, J. and Zhu, X. Basal and Receptor-Stimulated Metabolism of Phosphoinositides in Peripheral Nerve Myelin. J. Neurochem. 52, Suppl. S24A, 1988\*

**2.** Eichberg, J. and Zhu, X. A *myo*-Inositol Pool Needed for Phosphatidylinositol Synthesis Is Depleted in Diabetic Nerve. Transact. Amer. Soc. Neurochem. 20, pp 102, no. 34, 1989\*

**3.** Zhu, X., Nguyen, P. and Eichberg, J. Effects of Elevated Glucose Concentration on CDP-Diacylglycerol Accumulation in Rat Peripheral Nerve. Proc. Soc. Exp. Biol. Med. 193, 3, 1990\*

**4.** Zhu, X. and Eichberg, J. Diacylglycerol Content in Normal and Diabetic Nerve. Transact. Amer. Soc. Neurochem. 21, pp 142, no. 111, 1990 \*

**5.** Eichberg, J. and Zhu, X. Alterations in Diacylglycerol Levels and Molecular Species in Experimental Diabetic Neuropathy. Diabetes 39, Suppl. 1, pp 144A, no. 574, 1990\*

**6.** Eichberg, J., Abe, S., Berti-Mattera, L.N., Eggen, B., Lowery, J. and Zhu, X. Phospholipid Metabolism and Cell Signaling in PNS Myelin. Transact. Amer. Soc. Neurochem. 22, pp 263, 1991\*

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**Invited Articles (Reviews, Editorials, etc.) in Journals**

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**4.** **Zhu, X**. and Birnbaumer, L. Calcium Channels Formed by Mammalian TRP Homologues. **NIPS**, 13, 211-217, 1998

**5**. Birnbaumer, L., Boulay, G., Brown, D., Jiang, M., Dietrich, A., Mikoshiba, K., **Zhu, X.**, and Qin, N. Mechanism of capacitative Ca2+ entry (CCE): interaction between IP3 receptor and TRP links the internal calcium storage compartment to plasma membrane CCE channels. **Recent Prog Horm Res**. 55:127-61; discussion 161-2, 2000

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7. Zhu, M.X. and Tang, J. TRPC channel interactions with calmodulin and IP3 receptors. Novartis Found Symp. *258*:44-58; discussion 58-62, 98-102, 263-266, 2004

**8**. **Zhu, M.X**. Multiple roles of calmodulin and other Ca2+-binding proteins in the functional regulation of TRP channels. **Pflugers Arch.** 451, 105-115, 2005

**9.** Colton, C.K. and **Zhu, M.X.** 2-Aminoethoxydiphenyl borate as a common activator of various TRPV channels. Handb Exp Pharmacol. 179:173-187, 2007

**10**. **Zhu, M.X.** Understanding the role of voltage gating of polymodal TRP channels. J Physiol. 585(Pt 2):321-322, 2007

**11.** Galione, A., Evans, A.M., Ma, J., Parrington, J., Arredouani, A., Cheng, X., and **Zhu, M.X.** The acid test: the discovery of two-pore channels (TPCs) as NAADP-gated endolysosomal Ca2+ release channels. **Pflugers Arch.** 458(5):869-876, 2009

**12. Zhu, M.X.**, Evans, A.M., Ma, J., Parrington, J., and Galione, A. Two-pore channels for integrative calcium signaling. **Commun Integr Biol**. 3(1):12-17, 2010

**13**. **Zhu, M.X.**, Ma, J., Parrington, J., Calcraft, P.J., Galione, A., and Evans, A.M. Calcium signaling via two-pore channels: local or global, that is the question. **Am J Physiol Cell Physiol**. 298(3):C430-C441, 2010

**14.** **Zhu, M.X.**, Ma, J., Parrington, J., Galione, A., and Evans, A.M. TPCs: endolysosomal channels for calcium mobilization from acidic organelles triggered by NAADP. **FEBS Lett**. 584(10):1966-1974, 2010

**15**. Arredouani, A., Evans, A.M., Ma, J., Parrington, J., and **Zhu, M.X.**, Galione, A. An emerging role for NAADP-mediated Ca2+ signaling in the pancreatic β-cell. **Islets** 2(5):323-330, 2010, *PMCID: PMC3230560*

**16**. Wang, S.Q., **Zhu, M.X.**, and Carafoli, E. Ca2+: a versatile master key for intracellular signaling cascades. **Sci China Life Sci**. 54(8):683-685, 2011, *PMID: 21786190*

**17.** Fu, J., Gao, Z., Shen, B., and **Zhu, M.X.** Canonical transient receptor potential 4 and its small molecule modulators**. Sci China Life Sci.** 58(1): 39-47, 2015, doi: 10.1007/s11427-014-4772-5. *PMCID: PMC4458143*

**18.** Venkatachalam, K., Wong, C.O., and **Zhu, M.X.** The Role of TRPMLs in Endolysosomal Trafficking and Function. **Cell Calcium** 58(1):48-56, 2015, doi: 10.1016/j.ceca.2014.10.008. *PMCID: PMC4412768*

**19.** Xiong, J. and **Zhu, M.X.** Regulation of lysosomal ion homeostasis by channels and transporters. **Sci China Life Sci.** 59(8):777-791, 2016, doi: 10.1007/s11427-016-5090-x. Review. *PMCID: PMC5147046*

**20.** **Zhu, M.X.**, Tuo, B., and Yang, J.J. The hills and valleys of calcium signaling. **Sci China Life Sci**. 59(8):743-8, 2016, doi: 10.1007/s11427-016-5098-2. Editorial

**21**. **Zhu, M.X**. A well-known potassium channel plays a critical role in lysosomes. **J Cell Biol**. 216(6):1513-1515, 2017, doi: 10.1083/jcb.201704017. *PMCID: PMC5461035.* Spotlight

**22**. Tian, Y. and **Zhu, M.X**. A novel TRPC6-dependent mechanism of TGF-β-induced migration and invasion of human hepatocellular carcinoma cells. **Sci China Life Sci**. 61(9):1120-1122, 2018. doi: 10.1007/s11427-018-9365-7

**23**. Wang, H., Cheng, X., Tian, J., Xiao, Y., Tian, T., Xu, F., Hong, X., and **Zhu, M.X.** TRPC channels: Structure, function, regulation and recent advances in small molecular probes. **Pharmacol Ther**. 209:107497, 2020. doi: 10.1016/j.pharmthera.2020.107497. Review. *PMCID: PMC7183440*

**24**. Jeon J., Tian, J.B., **Zhu, M.X**. TRPC4 as a coincident detector of Gi/o and Gq/11 signaling: mechanisms and pathophysiological implications. **Curr Opin Physiol**. 17:34–41, 2020. doi: 10.1016/j.cophys.2020.06.008

**25**. Alexander SP, Mathie A, Peters JA, Veale EL, Striessnig J, Kelly E, Armstrong JF, Faccenda E, Harding SD, Pawson AJ, Southan C, Davies JA, Aldrich RW, Attali B, Baggetta AM, Becirovic E, Biel M, Bill RM, Catterall WA, Conner AC, Davies P, Delling M, Virgilio FD, Falzoni S, Fenske S, George C, Goldstein SAN, Grissmer S, Ha K, Hammelmann V, Hanukoglu I, Jarvis M, Jensen AA, Kaczmarek LK, Kellenberger S, Kennedy C, King B, Kitchen P, Lynch JW, Perez-Reyes E, Plant LD, Rash L, Ren D, Salman MM, Sivilotti LG, Smart TG, Snutch TP, Tian J, Trimmer JS, Van den Eynde C, Vriens J, Wei AD, Winn BT, Wulff H, Xu H, Yue L, Zhang X, **Zhu, M**. THE CONCISE GUIDE TO PHARMACOLOGY 2021/22: Ion channels. **Br J Pharmacol**. 178 Suppl 1:S157-S245. 2021. doi: 10.1111/bph.15539. PMID: 34529831.

**26**. Blair, N.T., Carvacho, I., Chaudhuri, D., Clapham, D.E., DeCaen, P., Delling, M., Doerner, J.F., Fan, L., Ha, K., Jordt, S.E., Julius, D., Kahle, K. T., Liu, B., McKemy, D., Nilius, B., Oancea, E., Owsianik, G., Riccio, A., Sah, R., Stotz, S. C., Tian, J., Tong, D., Van den Eynde, C., Vriens, J., Wu, L.-J., Xu, H., Yue, L., Zhang, X. **Zhu, M.X.** (2021) “Transient Receptor Potential channels (TRP) in GtoPdb v.2021.3”, IUPHAR/BPS Guide to Pharmacology CITE, 2021(3). doi: 10.2218/gtopdb/F78/2021.3.

**27**. Wang, W., Liu, P., Zhang, Y, Yan, L., **Zhu, M.X.**, Wang, J., and Yu, Y. Expression and functions of transient receptor potential channels in liver diseases. **Acta Pharm Sin B**. 13(2):445-459, 2023. doi: 10.1016/j.apsb.2022.09.005. Review. *PMCID: PMC9978971*

**28**. Ma, S., and **Zhu, M.X**. Transient receptor potential channels in cardiovascular and renal diseases. **Cells** 11(24):3960, 2022. doi: 10.3390/cells11243960. *Commentary*. *PMCID: PMC9777033*

**29**. **Zhu, M.X**. High resolution cryo-EM structures of TRPC5-Gαi3 complexes reveal direct activation of an ion channel by Gαi-GTP. **Cell Calcium** 113:102767, 2023. doi: 10.1016/j.ceca.2023.102767. *Commentary*.

1. **Book Chapters**

**1.** Eichberg, J., Berti-Mattera, L.N., Schrama, L.H., Lin, C.J., Lowery, J.M., Rowe-Rendleman, C., **Zhu, X.** and Peterson, R.G. Phosphoinositide Metabolism, Protein Phosphorylation and the Pathogenesis of Diabetic Neuropathy, in Bazan, N.G., Horrocks, L.A. and Toffano, G. (eds) Phospholipids in the Nervous System: Biochemical and Molecular Pathology. Livania Press, Padova, Italy, 157-166, 1989

**2.** Eichberg, J. and **Zhu, X.** Diacylglycerol Composition and Metabolism in Peripheral Nerve, in Bazan, N.G., Murphy, M.G. and Toffano, G. (eds) Neurobiology of Essential Fatty Acids Plenum Press, New York, pp. 413-425, 1992

**3.** Miller, M, Wu, M., Xu, J., Weaver, D., Li, M., and **Zhu, M.X.** High-throughput screening of TRPC channel ligands using cell-based assays. In: Zhu MX, editor. TRP Channels. CRC Press, Boca Raton (FL), Chapter 1, pp1-20, 2011. *PMID: 22593970*

4. Bavencoffe, A. and **Zhu, M.X.** TRPC proteins as a link between plasma membrane ion transport and intracellular Ca2+ stores, in Groschner, K., Graier, W.F. and Romani, C. (eds) Store-Operated Ca2+ Entry (SOCE) Pathways: Emerging Signaling Concepts, Springer Press, Vienna, Austria, Chapter 12, pp.163-175, 2012

**5.** Tian, J, Thakur, D.P. and **Zhu, M.X**. TRPC channels, in Zheng, J. and Trudeau, M.C. (eds) Handbook of Ion Channels, CRC press, Chapter 27: 411-426, 2014

**6.** Yang, P. **and Zhu, M.X.** TRPV3, in Nilius, B. and Flockerzi, V. (eds) Mammalian Transient Receptor Potential (TRP) Cation Channels, Springer Press, Handb Exp Pharmacol, 222: 273-291, 2014

7. Bavencoffe, A. **Zhu, M.X.** and Tian, J.B. New Aspects of the Contribution of ER to SOCE Regulation: TRPC proteins as a link between plasma membrane ion transport and intracellular Ca2+ stores, **Adv Exp Med Biol.** 993:239-255, 2017. *doi: 10.1007/978-3-319-57732-6\_13*

8. Gumpper, K., Sermersheim, M., **Zhu, M.X.,** and Lin, P.H. Skeletal Muscle Lysosomal Function via Cathepsin Activity Measurement. **Methods Mol Biol**. 1854:35-43, 2019. doi: 10.1007/7651\_2017\_64. *PMCID: PMC5828979*

9. Xiong, J., He, J., **Zhu, M. X.**, and Du, G. Rapid Isolation of Lysosomes from Cultured Cells Using a Twin Strep Tag, in Gasnier, B. and Zhu, M.X. (eds) Ion and Molecule Transport in Lysosomes. CRC Press, Boca Raton (FL), Chapter 9, pp199-208, 2020

10. Lu, H.Y., Xiong, J., Perera, D.N., Rajapakshe, K., Wang, X., Jia, F., Costello, M., Holloway, K.R., Wu, D., Ramos, C., Callaway, C.G., Grimm, S.L., Wulfkuhle, J., Coarfa, C., Edwards, D.P., **Zhu, M.X.**, Huang, S. High Throughput Evaluation of Metabolic Activities Using Reverse Phase Protein Array (RPPA) Technology, in Tong, Q (ed) Neuron Signaling in Metabolic Regulation. CRC Press, Boca Raton (FL), Chapter 13, pp293-317, 2021

11. Liu, M.G., **Zhu, M.X.**, and Xu, T.L. Acid-Sensing Ion Channels and Synaptic Plasticity: A Revisit, in Xu, T.L. and Wu, L.J. (eds) Nonclassical Ion Channels in the Nervous System. CRC Press, Boca Raton (FL), Chapter 2, pp29-44, 2021

12. Wang, Y.Z. and **Zhu M.X.** Ion Channel Conformational Coupling in Ischemic Neuronal Death, in Xu, T.L. and Wu, L.J. (eds) Nonclassical Ion Channels in the Nervous System. CRC Press, Boca Raton (FL), Chapter 14, pp249-267, 2021

13. Wang, Q. and **Zhu, M.X.** NAADP-Dependent TPC Current. In Wahl-Schott, C. and Biel, M. (eds) Handb Exp Pharmacol. Springer, Berlin, Heidelberg. 278:35-56. doi: 10.1007/164\_2022\_606.

14. Tian, J.B. and **Zhu, M.X**. TRPC Channels. In Zheng, J. and Trudeau, M. (eds) Textbook of Ion Channels. CRC Press/Taylor & Francis. 2022

**E. Books**

**1. TRP Channels** (CRC Methods in Signal Transduction Series), Edited by Michael Xi Zhu, CRC Press, Taylor & Francis Group, published on April 26, 2011

**2.** **Ion and Molecule Transport in Lysosomes** (CRC Methods in Signal Transduction Series), Edited by Bruno Gasnier and Michael X. Zhu, CRC Press, Taylor & Francis Group, published on June 9, 2020.

**3. TRP-mediated Signaling** (CRC Methods in Signal Transduction Series), Edited by Michael X. Zhu, CRC Press, Taylor & Francis Group, scheduled to publish on Dec. 3, 2024.

* + 1. **Other Professional Communications**

**Invited Symposium Presentations:**

June, 1995: Gordon Research Conference on Ca2+ Signaling, New England College, Henniker, NH. “Mammalian trp”.

March, 1997: International Symposium on Molecular Mechanism of Intracellular Signaling, Tokyo, Japan. “Mammalian Trp Homologues Involved In Capacitative Ca2+ Entry”.

September, 1997: 70th Annual Meeting of Japanese Biochemistry Society, Kanazawa, Japan. Symposium on Molecular structure, function, and interaction of receptors, ion channels and transporters: “Receptor-controlled capacitative Ca2+ entry in Trp or Trpl Ca channels”.

September, 2001: Workshop on ‘*Mucolipin, TRPs, and Human Disease*’, sponsored by the National Institutes of Health and the Mucolipidosis Type IV Foundation, Bethesda, MD. “Regulation of TRP proteins by IP3 receptors and Ca2+/calmodulin”.

Sep. 20, 2002, Mechanism of activation of TRPC channels. Hunt-Curtis Symposium on Translational Neuroscience “*Neurological Disorders: Perspectives from Basic Neurobiology*” Hyatt on Capital Square, Columbus, OH

Mar. 25, 2003, TRPC channel interactions: CaM and IP3R. Novartis Foundation Symposium 258 on “*Mammalian TRP channels as molecular targets*”, London, UK.

Apr. 19, 2004, TRPC channels and their associated proteins. Symposium on “*The TRP superfamily of cation channels: emerging roles in epithelial physiology*", Experimental Biology 2004 meeting, Washington DC, USA.

Sep. 16, 2005, Mechanism of activation of TRPV3. Special Symposium on “*TRP channels: Unique players in cell function*”, Katholieke Universiteit Leuven, Leuven, Belgium

Oct. 8, 2005, Multiple roles of calmodulin and calcium-binding proteins in the functional regulation of TRP channels. 4th World Congress of Cellular and Molecular Biology, Symposium on ”*Protein interactions and the formation of signalsome*” Poitiers France

Feb. 26, 2006, Ca2+-dependent regulation of TRPV3. The Minerva Gentner Symposia on *TRP channels and Ca2+ signaling*, Eilat, Israel

Mar. 18, 2006, Thermosensitive TRP channels in pain and other sensory functions. 2006 Annual Scientific Meeting of Chinese Association for the Study of Pain (CASP, Taiwan), Kaohsuing, Taiwan

Jun. 28, 2006, Old Drugs on New Targets. Is there anything out there for TRP Channels? 4th Annual Ion Channel Retreat: *From Current Perspectives to Future Possibilities*. Vancouver, Canada

Jul. 20, 2007, Ion Channel-based Multipanel High Throughput Evaluation of Candidate Compounds for Therapeutic Development. 2007 Dalian Conference on Ion channels in Technology and Drug Discovery, Dalian, Liaoning, China

Oct. 18, 2007, Diverse Physiological Functions and Regulatory Mechanisms of TRPC channels. 2007 IBC Conference on Assays & Cellular Targets (ACT2007), San Diego, CA, USA

Jul. 23, 2008, Two-pore channels for intracellular Ca2+ mobilization. The 7th Chinese Symposium on Calcium Signaling, Yichang, Hubei, China

Jul. 17, 2009, Two-pore channels in intracellular Ca2+ mobilization induced by NAADP and functional coupling to other Ca2+ release channels. 2009 Harbin Conference on Ion channels in Technology and Drug Discovery, Harbin, Helongjiang, China

Oct. 11, 2010, Two-pore channels as receptors for NAADP-induced calcium release from acidic organelles. Conference on New Horizons in Calcium Signaling, Beijing, China

Mar. 25, 2011, Translational Pain Research at UTHSC-H, Third Annual Golf Coast Consortia Translational Pain Research Symposium on Friday, March 25, 2011, Houston, Texas, USA

Jun. 27, 2011, Two-pore channels in calcium signaling originating from acidic organelles. Gordon Research Conference on Calcium Signaling. Colby College, Waterville, ME, USA

Jul. 17, 2011, The Gi/o link of TRPC4 and TRPC5 channel activation. The 17th International Symposium on Ca2+-Binding Proteins and Ca2+ Function in Health and Disease, Beijing, China

Jul. 30, 2011, High throughput screening of novel inhibitors for TRPC4/C5 channels. The biennial meeting of the Chinese Neuroscience Society, Zhengzhou, China.

Oct. 27, 2011, Two-pore channels in integrative calcium signaling. Joined symposium on “Ca2+-signals: Molecular mechanisms and integrative functions” by SFB 894, the graduate school 1326 of Saarland University, Germany, and the doctoral college MCBO, Innsbruck, Austria, Homburg, Saarland, Germany.

Oct. 31, 2011, Two-pore channels for NAADP-gated calcium release from endolysosomes. First International Meeting on “Ion Channel Signaling Mechanisms: From Basic Science to Clinical Application”, Marrakesh, Morocco.

Dec. 7, 2011, Two-pore channels in integrative calcium signaling. A Themed Meeting of The Physiological Society on “Vascular and Smooth Muscle Physiology”, Edinburgh, Scotland, UK.

May 19, 2012, Endolysosomal functions of Two-pore Channels. The first European Calcium Channel Conference, Alpbach, Austria.

Jun. 19, 2012, Integration of Multiple Neuronal Inputs through TRPC4 Channels at the Lateral Septum. International Mini Symposium for Neuronal Development, Functions and Diseases, Nanjing, China

Jun. 28, 2012, Functional regulation and pharmacology of TRPC channels. 4th International Congress on Cell Membranes and Oxidative Stress Focus on: Calcium Signaling and TRP Channels, Isparta, Turkey.

Jul. 17, 2012, Signal integration and coincidence detection by TRPC channels. The 9th Chinese Symposium on Calcium Signaling, Huangshan, China

Sep. 15, 2012, Coincidence detection and signal integration of multiple neurologic inputs by TRPC4 channels in lateral septal neurons. The Second Biennial International Symposium of the Society of Chinese Bioscientists in America-Texas Chapter, Jiangsu-Texas Biomedical Symposium, Frontier on Cancer and Other Human Diseases: From Mechanisms to Bedside, Nanjing, China

Sep. 20, 2012, TRPC channels in coincidence detection and signal integration of multiple signaling pathways. The 2012 Cold Spring Harbor Asia Conference on Ion Channels: Biophysics, Diseases and Therapeutics, Suzhou, China

Sep. 23, 2012, Modulation of Purkinje cell firing in mouse cerebellum by p75-dependent Rac1 activation. 5th International Symposium of the Society for Research on the Cerebellum, Hangzhou, China

Jul. 1, 2013, Bi-directional modulation of neuronal excitability by TRPC4-containing channels in mouse lateral septal nuclei. The 4th International Ion Channel Conference, Ion Channels: Structure, Function & Therapeutics, Shijiazhuang, China

Oct. 30, 2013, Dual depolarization responses generated within the same lateral septal neurons by TRPC4-containing channels. The 1st International and 13th Chinese Biophysics Congress (ICBC 2013), Nanchang, China

May 29, 2014, TRP channels as novel targets of drug therapies. 2014 International Symposium on Clinical and Translational Medicine, Sub-session on “ The Translational Medicine in Drug Innovation”, Shanghai, China

Jun. 27, 2014, Dissecting the computing role of TRPC4 channels in neurons. Symposium for Chinese Neuroscientists Worldwide 2014, Suzhou, Jiangsu province, China

Jun. 29, 2014, Dissecting the computing role of TRPC4 channels in neurons. Neuropharmacology Forum, Shanghai Institute of Material Medica, Chinese Academy of Sciences, Shanghai, China

Jul. 3, 2014, How is phospholipase C coupled to TRPC4 activation? The 10th Chinese Symposium on Calcium Signaling, Yichun, Jiangxi province, China

Sep. 11., 2014, TRP channels in intracellular organelles. The 5th International Congress on Cell Membranes and Oxidative Stress: Focus on Calcium Signaling and TRP Channels, Isparta, Turkey

Sep. 15, 2014, Dissecting the computing role of TRPC4 channels. Ion Channels and Calcium Signaling Workshop, Ege University, Faculty of Pharmacy, Department of Pharmacology, Izmir, Turkey

Oct. 20, 2014, Intracellular channels involved in vesicle trafficking, lysosome exocytosis and autophagy. China-US biomedical symposium on oncology and the 3rd SCBA-Texas international conference, Shijiazhuang, Hebei province, China

Nov. 22, 2014, TRPs, TPCs and what else to come? International Symposium on Receptors, G Proteins and Integration of Ca2+ Signaling in the Cardiovascular System, MDC Communications Center, Berlin-Buch, Germany

Jan. 14, 2015, TRPC channels, Discovery, Function and Regulation. 2015 International Symposium on Ion Channel Research, Seoul National University College of Medicine, Seoul, Korea

Mar. 31, 2015, Regulation and function of endolysosome two-pore channels. Experimental Biology 2015, APS , Cell and Molecular Physiology Section/Symposium on Cation Channels Controlling Intracellular Functions, Boston, MA

Jun. 27, 2015, Neuronal functions mediated by TRPC4 channels in response to coincident stimulation of Gi/o proteins and phospholipase C. The 5th International Ion Channel Conference, Luzhou, China,

Jun. 30, 2015, Lysosomal Channels-old and new kids on the block. 2015 Third Military Medical University Neuroscience Symposium: Ion Channels, Chongqing, China

May 7, 2016, TRPC4 channels in neurological disorders, 2016 Annual Symposium of SCBA -Texas Chapter, Baylor College of Medicine, Houston, TX

Jul. 24, 2016, Information processing – the analog-to-digital conversion of metabotropic inputs in lateral septal neurons. The 11th Symposium on Calcium Signaling in China, Zunyi, Guizhou, China

Sep. 30, 2016, Two-pore channels and their cellular functions. International Symposium on Regulation of cell functions by Transient Receptor Potential channels. Herrsching, Germany

Oct. 16, 2016, Information processing – the analog-to-digital conversion of metabotropic inputs in lateral septal neurons. China-US biomedical symposium on oncology and the 4th SCBA-Texas international conference, Baoding, Hebei province, China

Jun. 28, 2017, Intracellular Ca2+ signaling and TRP channels: functional regulation and physiological significance. 2017 Ion Channel Symposium II, Zhejiang University, Hangzhou, Zhejiang province, China

Sep. 17, 2017, TRP Channels: Physiology, Disease, and Drug Discovery. The First Li River International Forum of Pharmaceutical Science, Guilin, China

Oct. 7, 2017, Excitatory Neurotransmission Mediated by TRPC4. The 42nd Symposium on Hormones and Cell Regulation, European Society of Endocrinology, Mont Ste Odile, Alsace, France

Nov. 4, 2017, Analog-to-digital conversion of metabotropic inputs to neurons by TRPC4 and GIRK. The 15th Chinese Biophysics Congress, Shanghai Tech University, Shanghai, China

Nov. 10, 2017, TRP Channels: Physiology, Disease, and Drug Discovery. The 1st JinLing Ion Channel Physiology and Drug Discovery (ICPDD) Mini-Symposium, China Pharmaceutical University, Nanjing, China

May 12, 2018, Two-Pore Channels in Calcium signaling and Cellular Function, The 3rd European Calcium Channel Conference, Alpbach, Austria

May 29, 2018, Endolysosomal Two-Pore Channels in Calcium signaling and Cellular Function, International Conference on Subcellular Organelles 2018, Shanghai, China

Jul. 8, 2018, Calcium, Ion Channels, and Cancer, The 2nd Annual Conference of Yunnan Cancer Hospital and MD Anderson Cancer Center, Kunming, China

Jul. 20, 2018, TRPC4 channel dual regulation by phospholipase C and Gi/o proteins and physiological implications, The 12th International Symposium on Calcium Signaling in China, Shenyang, China

Sep. 1, 2018, TRP channels in inflammatory thermal hyperalgesia, Wyoming Sensory Biology Symposium, UW-NPS Station, Grand Teton National Park, Wyoming, USA

Sep. 20, 2018, How Do Neurons Decipher Variable Metabotropic Neurotransmitter Inputs? Sino-US Forum on Experimental Biology and Translational Medicine & 5th International Conference of SCBA-Texas, Taiyuan, China

Oct. 26, 2018, Excitatory neurotransmission mediated by Gi/o-coupled receptors. 2018 Jiangnan International Symposium on Receptor and Health, Jiangnan University Medical School, Wuxi, China

Dec. 1, 2018, Excitatory neurotransmission mediated by Gi/o-coupled receptors. The Second JinLing Membrane Protein Physiology and Drug Discovery Mini-Symposium, Nanjing, China

Dec. 8, 2018, Excitatory neurotransmission mediated by TRPC4 channels. The 49th NIPS International Symposium “Ion Channels”, Okazaki, Japan

Jun. 18, 2019, Conformational signaling of ASIC1a channel-mediated acidotoxic neuronal cell death. The 7th International Ion Channel Conference, Hangzhou, China

Jun. 23, 2019, TRP channels and cancer. The 2019 Zunyi Forum on Gastrointestinal Cancer and Digestive Diseases, Zunyi, China,

Aug. 4, 2019, What is in it for bioscientists in the 21st century? Mentorship, Jumpstart Your Career, Gordon Research Seminar on Organellar Channels and Transporters, West Dover, VT, USA

Sep 27, 2019, Two-Pore Channels in Calcium signaling and Cellular Function. The 2nd Lijiang International Forum on Pharmaceutical Sciences, Guilin, Guangxi, China

Oct. 30, 2019, Calcium Signalling Conference in Fez. Fez Marriott Hotel Jnan Palace, Fez, Morocco

Jan. 28, 2020, TRPC4 in Dendritic Arborization of Hippocampal Neurons. EMBO Symposium on Calcium Signaling: Molecular mechanisms to role in health and diseases, Bangalore, India

Jan. 31, 2020, Ca2+ Signaling, TRP Channels, and TRPC4 in Dendritic Arborization of Hippocampal Neurons. FS-BIO 2020, The Indian Institute of Science Education and Research Thiruvananthapuram (IISER TVM), India

May 26, 2022, Mechanism of two-pore channel regulation of mTORC1 during macroautophagy. 4th European Calcium Channel Conference ECCC 2022, Alpbach, Austria

Jun. 20, 2022, TRP channels in information coding, pain and itch. 2022 Gordon Research Conference on Calcium Signaling, Ventura, CA, USA

May 15, 2023, New function of TRPC4 in cell-cell and cell-extracellular matrix interactions. Cellular and Organellar Calcium Signalling Conference, Haifa, Israel

June 29, 2023, New function of TRPC4 in cell-cell and cell-extracellular matrix interactions. FASEB Summer Conference on Ca2+ and Cell Function, Malahide, Ireland

Feb. 10, 2024, Dysfunctional calcium signaling in cutaneous T-cell lymphoma. 2nd International Conference on Cancer Health Disparities (ICHHD) – The University of Texas Rio Grande Valley School of Medicine (UTRGV SOM) Research Symposium 2024, Mission, TX

May 16, 2024, Decoding the calcium signal of TRPC channels. The 13th International Symposium on Calcium Signaling, Wuhan, China

Aug. 30, 2024, Regulation and function of lysosomal two-pore channels. Symposium on EndolysosomalIon Channels and Diseases 2024, National Taiwan University, College of Medicine, Taipei, Taiwan

**Research Seminars:**

Nov., 1989: Effects of Elevated Glucose Concentration on CDP-Diacylglycerol Accumulation in Rat Peripheral Nerve. Ann. Meet. for Soc. of Exp. Biol. Med., Uni. of Houston, Houston, TX.

Feb. 1991: 1,2-Diacylglycerol Content, Glycerolipid Molecular Species, and Studies on *myo*-Inositol Metabolism in Sciatic Nerve from Normal and Diabetic Rats. Dissertation Seminar, Dept. of Biochem. & Biophys. Sci., Uni. of Houston, Houston, TX.

Jan. 1993: Activation of Phospholipase C by Gs-Coupled Receptors. Reproduc. and Develop. Biol. Workshop, Dept. of Cell Biol., Baylor Col. Med., Houston, TX.

Feb. 1996: Trp, from Drosophila to Human, Store-operated Ca2+ Channel Still? Special Guest Seminar. National Institute of Dental and Craniofacial Research, NIH, Bethesda, MD.

Sep. 1996: Mammalian *trp* genes. Signal Transduction Similar Series, Veteran Administration-CURE, UCLA, Los Angeles, CA.

Jul. 1997: Trp Proteins and Their Functions. CUSBEA85 Research Conference: Biomedicine and the Next Decade-Promises and Challenges. Providence, RI.

Sep. 1997: Calcium Channels Formed by Mammalian TRP Homologues. Special Guest Seminar. Research Institute of Physiological Science, Okazaki, Japan.

Feb. 1998 In Search for the Molecular Basis for Capacitative Calcium Entry: a Story of Mammalian *trp* Genes. Physiology Seminar, the Ohio State University, Columbus, OH.

May 1998 Molecular Basis of Capacitative Calcium Entry: Roles of Mammalian TRP Channels. Seminar to the Committee on Cell Physiology, the University of Chicago, Chicago, IL.

Nov. 1999 Regulation of Mammalian Trp Channel Function by Conformational Coupling. Seminar to the Institute of Pharmakology und Toxikology, University of Saarlandes, Homburg, Germany.

Nov. 1999 Regulation of Mammalian Trp Channel Function by Conformational Coupling. Seminar to the Department of Pharmacology and Toxikology, University of Graz, Graz, Austria.

Feb. 2000 Mechanism of Conformational Coupling of Trp Channels. Seminar to College of Pharmacy, University of Kentucky, Lexington, Kentucky, U.S.A.

May 2000 Mammalian Trp Channels and Their Mechanism of Gating by Calmodulin and IP3 Receptors. Seminar to the Department of Pathology, Wayne State University, Detroit, Michigan, U.S.A.

Mar. 2001 Activation of TRP Ca2+ channels by IP3 Receptors and Negative Regulation by calmodulin, Seminar to the Division of Pharmacology, College of Pharmacy, The Ohio State University, Columbus, OH.

Sep. 2001 The Roles of IP3 Receptors and Calmodulin on the Regulation of Trp Channels. Seminar to Centre for Cardiovascular Biology and Medicine, King's College London, London, United Kingdoms

Nov. 2001, Activation of TRP Ca2+ channels by IP3 Receptors and Negative Regulation by Calmodulin, Physiology and Cell Biology Seminar, University of Nevada, School of Medicine, Reno, NV

Feb. 24, 2002, Regulation of Trp channel activity by IP3 receptors and calmodulin. Platform presentation at the 46th Annual Meeting of Biophysical Society, San Francisco, CA

Jun. 13, 2002, Molecular cloning and characterization of two-pore calcium channels. Research seminar to the Neurobiotechnology Center, The Ohio State University, Columbus OH.

Oct. 8, 2002, Molecular Biology and Functional Regulation of TRP channels. Ion channel seminars, Institute of Neuroscience, Chinese Academy of Sciences, Shanghai, China

Oct. 10, 2002, Molecular Biology and Functional Regulation of TRP channels. Special Neuroscience seminar, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China

Oct. 13, 2002, Molecular Biology and Functional Regulation of TRP channels. Special seminar, Medical College of Sanxia University, Yichang, China

Dec. 3, 2002, Mechanisms of activation of TRPC channels. Pharmacology seminar, Department of Pharmacology, The Ohio State University, Columbus, OH

Jan. 30, 2003, Functional analysis of L7/Pcp2: does it regulate Ca2+ channels through G proteins? Research seminar to the Neurobiotechnology Center, The Ohio State University, Columbus OH. Joint presentation by Mariko Kinoshita and Mike Zhu

Jul. 31, 2003, Ion channels for Ca2+ signaling. Seminar to the Biophysics Program, The Ohio State University, Columbus OH.

Oct. 15, 2003, Ion channels for Ca2+ signaling. Seminar to the Neuroscience Graduate Studies Program, The Ohio State University, Columbus OH.

Nov. 6, 2003, Ion channels for Ca2+ signaling. Postdoctoral seminar at the Mathematical Biosciences Institute, The Ohio State University, Columbus OH.

Nov. 26, 2003, Structural and functional studies of mammalian TRP channels. Physiology seminar, University of Kentucky, Lexington, Kentucky, U.S.A

Dec. 22, 2003, Structural and functional studies of mammalian TRP channels. Special Neuroscience seminar, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China

Feb. 12, 2004, Ion channels for Ca2+ signaling. IBGP distinguished lecturer series, The Ohio State University, Columbus OH.

Mar. 4, 2004, Structural and functional studies of TRP channels. Department of Chemistry, the Biological Chemistry Division seminar, The Ohio State University, Columbus OH.

April 19, 2004, Mechanism of activation of TRPV3. NIDCR/NIH research seminar, Bethesda, MD

Aug. 23, 2004, Ion channel for calcium signaling. Physiology and Cell Biology Seminar, University of Nevada, School of Medicine, Reno, NV

Sep. 23, 2004, Signal fine-tuning, a new model for the role of L7/Pcp-2 in neural plasticity of cerebellar Purkinje cells. Research seminar to the Center of Molecular Neurobiology, The Ohio State University, Columbus OH.

Nov. 16, 2004, Molecular and functional characterization of TRP channels. Seminar to the College of Life Sciences, Fudan University, Shanghai, China

Nov. 19, 2004, Molecular biology and functional studies of TRP channels. Seminar to the Institute of Cell Biology, Beijing Normal University, Beijing, China

Dec. 8, 2004, Molecular biology and functional studies of TRP channels. Seminar to the Department of Pharmacology, Medical College of Ohio, Toledo, OH

Feb. 15, 2004, Regulation of TRPV3 function by unsaturated fatty acids. Platform presentation at the 49th annual meeting of the Biophysical Society, Long Beach, CA. My graduate student, Chunbo Wang presented the paper.

Sep. 13, 2005, Mechanisms of Regulation of TRP Channels. Seminar to the Departments of Anesthesia and Research, Universitätsspital Basel, Basel Switzerland

Oct. 6, 2005, Calcium-dependent regulation of TRP channels. Research seminar to the Center of Molecular Neurobiology, The Ohio State University, Columbus OH.

Nov. 16, 2005, Regulation of TRP channels by calcium-calmodulin. Seminar to the Department of Bio-Nano Science and Engineering, Institute of Micor-Nano Science and Technology, Shanghai JiaoTong University, Shanghai, China

Nov. 17, 2005, Ca2+-dependent regulation of TRP channels. Seminar to Institute of Molecular Medicine, Peking University, Beijing, China

Nov. 21, 2005, Ca2+-dependent regulation of TRP channels. Seminar to the Institute of Cell Biology, Beijing Normal University, Beijing, China

Mar. 22, 2006, Mechanisms of regulation of TRP channels. Seminar to the Department of Pharmacology, National Defense Medical Center, Taipei, Taiwan.

May 5, 2006, Thermosensitive channels: functional regulations and physiological roles. Pharmacology seminar, Department of Pharmacology, The Ohio State University, Columbus, OH

Jul. 24, 2006, Functional regulation of TRP channels. Seminar at The Guangzhou Institute of Biomedicine and Health Chinese Academy of. Sciences, Guangzhou, Guangdong, China

Oct. 31, 2006, The emerging role of TRP channels in cognition and as potential drug targets. Seminar to the School of Biological Sciences, Shanghai JiaoTong University, Shanghai, China

Oct. 31, 2006, Fine-tuning Purkinje cell firing by G protein modulation via L7/Pcp2 and its potential implications in sexual dimorphism and human autism. Seminar to the Department of Bio-Nano Science and Engineering, Institute of Micor-Nano Science and Technology, Shanghai JiaoTong University, Shanghai, China

Feb. 6, 2007, Molecular characterizations and functional studies of TRP channels. Invited lecture to Institute of Pharmacology and Toxicology, University of Saarland, Homburg, Germany

Feb. 12, 2007, Molecular characterizations and functional studies of TRP channels. Research Seminar on Cell & Metabolic Signalling, School of Medicine and Dentistry, Queen’s University Belfast, Belfast, UK

Feb. 15, 2007, Molecular characterizations and functional studies of TRP channels. Bute Seminar Series of School of Biology and the School of Medicine, University of St. Andrews, St. Andrews, UK

Aug. 15, 2007, TRPC channels as coincidence detectors. Research seminar to the Center for Molecular Neurobiology, The Ohio State University, Columbus OH.

Nov. 5, 2007, TRP channels and cell signaling. Seminar to the Institute of Neuroscience, Chinese Academy of Sciences, Shanghai, China

Dec. 7, 2007, Somatosensory and chemosensory functions of TRP channels. Seminar to Miami Valley Innovation Center, Procter and Gamble, Cincinnati, Ohio, USA

Jul. 11, 2008, A quest on novel molecular candidates of ion channels for calcium signaling. Seminar to College of Life Sciences, Peking University, Beijing, China

Sep. 3, 2008, Molecular characterization of novel ion channels for calcium signaling. Seminar to Department of Biology and Biochemistry, University of Houston, Houston, Texas

Nov. 13, 2008, Molecular mechanism of regulation of TRP channels. Seminar to China Capital Medical University, Beijing, China

Nov. 21, 2008, Functional regulation of TRP channels by calmodulin. Seminar to Department of Biochemistry, College of Biological Sciences, The Ohio State University, Columbus, Ohio.

Feb. 11, 2009, Two-pore channels for NAADP-induced intracellular calcium release from acidic organelles. Seminar to the Center of Molecular Neurobiology, The Ohio State University, Columbus, Ohio

March 3, 2009, Two-pore channels for calcium mobilization from acidic organelles and cell signaling by NAADP. Platform presentation in the Session Title: TRP Channels & Intracellular Ca2+ Channels, at Biophysical Society 53rd Annual Meeting, Boston, MA, USA

January 29, 2010, Two-pore channels in integrative Ca2+ signaling. Seminar to Wright State University, Dayton, OH, USA

September 16, 2010, Novel ion channels for calcium signaling. Guest speaker for the seminar series of the Center for Molecular Medicine, University of Cologne (CMMC), Institute for Neurophysiology, Cologne, Germany

September 21, 2010, Novel ion channels for calcium signaling. Guest speaker to Laboratory of Cell Physiology, INSERM U 800, Bat. SN 3, UFR de Biologie, Université de Lille 1, Lille, France

October 15, 2010, Pcp2(L7), a small Purkinje cell specific G protein modulator implicated in a novel mechanism of sensorimotor learning. Special seminar to Zhejiang University School of Medicine, Department of Neurobiology, Hangzhou, Zhejiang, China

November 26, 2010, Novel Calcium Permeable Channels In Physiology and Diseases. 21st Century Innovation Forum Series #182, Shanghai Jiao Tong University School of Medicine, Shanghai, China

December 6, 2010, Novel ion channels for calcium signaling. Seminar to Department of Biochemistry and Molecular Biology, The University of Texas Medical School – Houston, Houston, TX, USA

December 9, 2010, Novel channels for calcium signaling and their physiological functions. Seminar to Division of Anesthesiology and Clinical Care, MD Anderson Cancer Center, Houston, TX, USA

January 20, 2011, Novel channels for calcium signaling and their physiological functions. Seminar to Department of Biochemistry and Molecular Biology, Baylor College of Medicine, Houston, TX, USA

February 11, 2011, Novel ion channels for calcium signaling and their physiological functions. Seminar to Department of Pharmacology & Toxicology, The University of Texas Medical Branch, Galveston, TX, USA

October 17, 2011, Novel ion channels for calcium signaling and physiological implications. Seminar to Department of Molecular Biophysics and Physiology Rush University Medical Center, Chicago, IL, USA

December 9, 2011, Mechanisms of regulation and physiological functions of TRPC4 channels. Seminar to Division of Diabetes, Endocrinology and Metabolism Hull York Medical School, Hull, UK

March 12, 2012, Novel ion channels for calcium signaling and physiological functions. Seminar to Department of Physiology, University of Texas Southwestern Medical Center, Dallas, TX, USA

May 4, 2012, Novel ion channels for calcium signaling, Seminar to School of Medicine and Health Sciences, University of North Dakota, Grand Forks, ND, USA

September 21, 2012, Neurological function and regulation of TRPC channels. Seminar to Jiangnan University School of Medicine and Pharmacy, Wuxi, China

November 12, 2012, Regulation and pharmacology of TRPC channels. Seminar to Boehringer Ingelheim Pharmaceuticals, Inc. Ridgefield, Connecticut

January 24, 2013, A Quest to Understanding the Function of TRP Channels. Seminar to Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan

January 25, 2013, New aspects of calcium signaling by channels on acidic organelles. Seminar to Institute of Zoology, School of Life Science, National Taiwan University, Taipei, Taiwan

February 18, 2013, TRP channels, polymodal regulation, coincident detection, and physiological implications, Tri-Departmental seminar at UMDNJ New Jersey Medical School, Newark, NJ

July 16, 2013, Functional diversity and regulation of TRP channels. Seminar to Third Military Medical University, Chongqing, China

July 20, 2013, Functional diversity and regulation of TRP channels. Seminar to Anhui Medical University, Hefei, China

September 4, 2013, Calcium release channels in the endolysosomes. Seminar to Department of Pharmacology, University of Illinois at Chicago, Chicago, IL

September 16, 2013, A Quest to Understanding the Function of TRP Channels. Seminar to Institute of Life Sciences, Southeast University, Nanjing, China

January 13, 2014, Co-incidence detection of multiple G protein signaling pathways by TRPC channels. Biochemistry & Molecular Biology Seminar Series, UTHealth, Houston, TX

March 11, 2014, Ion Channels for Ca2+ Signaling. Seminar to Institute of Materia Medica, Chinese Academy of Science, Shanghai, China

October 23, 2014, Coincident activation of TRPC4 channel by Gi/o and PLC pathways and its implication in neuronal function. Seminar to Institute of Zoology, Chinese Academy of Sciences, Beijing, China

October 24, 2014, Dissecting the computing role of TRPC4 channels. Seminar to IDG/McGovern Brain Institute, Tsinghua University, Beijing, China

November 4, 2014, Coincident activation of TRPC4 channel by Gi/o and PLC pathways and its implication in neuronal function. Seminar to China Pharmaceutical University, Nanjing, China

November 5, 2014, Coincident activation of TRPC4 channel by Gi/o and PLC pathways and its implication in neuronal function. Seminar to Wuhan University, Wuhan, China

November 24, 2014, Coincident activation of TRPC4 channel by Gi/o and PLC pathways and its implication in neuronal function. Seminar to University of Saarland, Homburg, Germany

November 27, 2014, Coincident activation of TRPC4 channel by Gi/o and PLC pathways and its implication in neuronal function. Seminar to Doctoral College “Metabolic & Cardiovascular Disease” and the Department of Biophysics, Medical University of Graz, Graz, Austria

January 13, 2015, Coincident activation of TRPC4 channel by Gi/o and PLC pathways and its implication in neuronal function. Seminar to Department of Physiology, Seoul National University College of Medicine, Seoul, Korea

January 16, 2015, Developing small molecular probes of TRPC channels. Seminar to Daewoong drug company, Seoul, Korea

April 21, 2015, Co-dependence of TRPC4 on Gi/o and phospholipase C. Frontiers in Biomedical Sciences seminar series, School of Biomedical Sciences, The Chinese University of Hong Kong, Hong Kong, China

April 22, 2015, Neuronal functions mediated by TRPC4 channels in response to coincident stimulation of Gi/o proteins and phospholipase C. Seminar to Peking University Shenzhen Graduate School, Shenzhen, China

July 1, 2015, Ion Channel Neuropharmacology. Seminar to Drug Discovery Center, Chongqing University, Chongqing, China

September 10, 2015, Coincident detection of phospholipase C and Gi/o protein signaling by TRPC4 and its implications in the nervous system. Seminar to Department of Pharmacology, The University of Oxford, Oxford, UK

September 11, 2015, From TRP channels to Two Pore Channels: diversity of function through evolution. Seminar to Center for Integrative Physiology, The University of Edinburgh, Edinburgh, UK

September 14, 2015, Regulation and function of endolysosome two-pore channels. Seminar to Department Pharmacology, Ludwig Maximilian University of Munich, Germany.

October 20, 2015, From TRP channels to Two Pore Channels: diversity of function through evolution. Seminar to China Pharmaceutical University, Nanjing, China.

November 3, 2015, Coincident sensing of Gi/o and phospholipase C signaling by TRPC4. Seminar to School of Life Science and Technology, ShanghaiTech University, Shanghai, China.

November 16, 2015, TRPC channels, Discovery, Function and Regulation. Seminar to Kunming Institute of Botany, Chinese Academy of Sciences, Kunming, China

November 17, 2015, TRPC channels, Discovery, Function and Regulation. Seminar to Wuhan University School of Pharmacy, Wuhan, China.

November 20, 2015, TRPC channels, Discovery, Function and Regulation. Seminar to Yantai University School of Pharmacy, Yantai, China.

December 10, 2015, From TRP channels to Two Pore Channels: diversity of function through evolution. Seminar to Department of Physiology & Biophysics, Dalhousie University, Halifax, NS, Canada.

December 15, 2015, Co-Regulation of TRPC4 by phospholipase C and Gi/o proteins and its implications in neuronal function. Cellular & Molecular Physiology Seminar Series, Penn State University College of Medicine, Hershey, PA, USA

March 10, 2016, Co-Regulation of TRPC4 by Phospholipase C and Gi/o Proteins and its Implications in Neuronal Function, University of Wyoming School of Pharmacy, Laramie, Wyoming

May 17, 2016, TRP channels: Discovery, Function and Regulation. Seminar to College of Basic Medicine, Beijing University of Chinese Medicine, Beijing, China

May 27, 2016, TRPC4 integrates multiple transmitter signals to regulate neuronal function. Seminar to Institute of Brain Functional Genomics, East China Normal University, Shanghai, China

September 22, 2016, TRPC4 channel regulation and function. Distinguished Scientist Series Seminar program, Department of Biochemistry and Molecular Biology, University of South Alabama, Mobile, AL

October, 21, 2016, Analog-to-digital conversion of differential metabotropic inputs at the lateral Septum, Jiangnan University, Wuxi, Jiangsu, China

October 28, 2016, Metabotropic neurotransmission: message taken and reported through G protein-regulated ion channels. Progress in Neuroscience 2016, Capital Medical University, Beijing, China

November 23, 2016, Metabotropic neurotransmission: message taken and reported through G protein-regulated ion channels. School of Life Sciences, East China Normal University, Shanghai, China

January 5, 2017, On the quest of new calcium permeable channels: function, regulation and drug discovery. Guangxi Normal University, Guilin, Guangxi, China

September 5, 2017, TRPC channels and G protein signaling. Center for Diagnostics and Therapeutics, Department of Chemistry, Georgia State University, Atlanta, GA

September 19, 2017, TRP Channels: Physiology, Disease, and Drug Discovery, Guangzhou Medical University, Guangzhou, China

September 20, 2017, TRP Channels: Physiology, Disease, and Drug Discovery, Guangzhou University of Chinese Medicine, Guangzhou, China

November 2, 2017, Analog-to-digital conversion of differential metabotropic inputs to lateral septal neurons by the combined action of TRPC4 and GIRK - Excitatory neurotransmission mediated by TRPC4. IDG/McGovern Institute for Brain Research, Tsinghua University School of Medicine, Beijing, China

February 8, 2018, Two-pore channels in calcium signaling and cellular function, Department of Physiology & Biophysics, Virginia Commonwealth University School of Medicine, Richmond, VA

March 15, 2018, Ca2+ signaling and ion channels- from functional regulation to physiological significance, Hunan Agricultural University, Changsha, Hunan, China

March 19, 2018, Excitatory neurotransmission mediated by TRPC4, College of Life Sciences, Beijing Normal University, Beijing, China

September 8, 2018, Ca2+ and ion channels in cell signaling and neurodegeneration, 2018 GSBS Neuroscience Graduate Program retreat, Galveston, TX

November 1, 2018, TRPC channels in excitatory neurotransmission and neuropsychiatric disorders. Shanghai Mental Health Center, Shanghai Drug Abuse Treatment Center, Shanghai Jiaotong University School of Medicine, Shanghai, China

November 5, 2018, Excitatory neurotransmission mediated by Gi/o-coupled receptors. Center for Molecular Systems Biology, Institute of Genetics and Developmental Biology, CAS, Beijing, China

November 6, 2018, Excitatory neurotransmission mediated by Gi/o-coupled receptors. Advanced Innovation Center for Biomedical Engineering, Beihang University, Beijing, China

December 2, 2018, TRPC channels in excitatory neurotransmission and neuropsychiatric disorders. Department of Biochemistry and Molecular Biology, Shandong University School of Medicine, Jinan, China

June 14, 2019, TRPC channels in excitatory neurotransmission and neuropsychiatric disorders, Seminar to China Pharmaceutical University, Nanjing, China

September 23, 2019, Two-Pore Channels in Calcium Signaling and Cellular Function. Institute of Chinese Medical Sciences, University of Macau, Macau, China

September 25, 2019, Two-Pore Channels in Calcium Signaling and Cellular Function. Southern University of Science and Technology Medical School, Shenzhen, China

October 25, 2019, Co-regulation of TRPC4 by phospholipase C and Gi/o proteins and its physiological implication. Seminar to School of Biomedical Sciences, University of Leeds, Leeds, UK

November 21, 2019, Two-Pore Channels in Calcium Signaling and Cellular Function. Frontiers in Cell Biology, Capital Medical University School of Basic Medical Sciences, Beijing Society for Cell Biology, Beijing, China

September 17, 2020, Conformational Signaling of ASIC1a Channel-mediated Acidotoxic Neuronal Cell Death. Biology Research Seminar, The University of Texas Rio Grande Valley, Virtual via Zoom

April 8, 2021, Regulatory mechanisms of lysosomal degradation in acute nutrient shortage – new roles of glutamine and MLKL. Verna and Marrs Mclean Department of Biochemistry and Molecular Biology and Department of Molecular and Cellular Biology Seminar Series, Baylor College of Medicine, Virtual via Zoom

August 27, 2022, Protein pleiotropy: mechanism and opportunity for disease therapy with minimal on-target side effect. Seminar to the International group of Molecular Physiology of Intracellular Membranes and Organelles. Virtual via Zoom

May 29, 2023, New function of TRPC4 in cell-cell and cell-extracellular matrix interactions. Seminar to Center for Diagnostics and Therapeutics, Georgia State University. In person and virtual via Zoom

November 9, 2023, Two-pore channels in endolysosomal function and albinism. Seminar to School of Integrative Biological and Chemical Sciences, The University of Texas at Rio Grande Valley, Edinburg, Texas

November 16, 2023, Mechanism of TRPC channel regulation of cell to extracellular matrix interaction. Seminar to Department of Cancer Biology and Pharmacology, University of Illinois College of Medicine Peoria. Virtual via Zoom

March 11, 2024, Endolysosomal two-pore channels: regulation and physiological function. Center for Mitochondrial and Epigenomic Medicine Seminar Series, The Children's Hospital of Philadelphia, University of Pennsylvania, Philadelphia, PA

March 12, 2024, TRPC channels: activators, signals, and decoders. Fels Seminar Series, Fels Cancer Institute for Personalized Medicine, Lewis Katz School of Medicine at Temple University, Philadelphia, PA

August 29, 2024, Regulation and function of lysosomal two-pore channels. Seminar to Tzu Chi University, Hualien, Taiwan