Curriculum Vitae

Bong Sook Jhun, PhD, FAHA, FCVS

PROFESSIONAL ADDRESS

Heart Institute, Hypertension and Kidney Research Center
Department of Molecular Pharmacology & Physiology
University of South Florida Morsani College of Medicine

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IDENTIFYING INFORMATION

Education

Postdoctoral Appointment — 2007 - 2012
University of Rochester School of Medicine and Dentistry

Postdoctoral Appointment — 2006 - 2007
Los Angeles Biomedical Research Institute (LA BioMed)
at Harbor-UCLA Medical Center

PhD, Kyung Hee University — 2006
College of Medicine
Department of Medicine
Seoul, Republic of Korea
Major: Biochemistry and Molecular Biology

MS, Kyung Hee University — 2001
College of Liberal Arts and Sciences
Department of Chemistry
Seoul, Republic of Korea
Major: Biochemistry

BS, Kyung Hee University — 1999
College of Liberal Arts and Sciences
Department of Chemistry
Seoul, Republic of Korea
Major: Chemistry

Academic Appointments

Associate Professor (Tenure-Track)
University of South Florida — 2024 - Present
Morsani College of Medicine and Heart Institute
Department of Molecular Pharmacology & Physiology
Tampa, Florida

Assistant Professor
University of Minnesota Medical School — 2018 - 2024
Department of Medicine
Cardiovascular Division
Lillehei Heart Institute
Minneapolis, Minnesota

Assistant Professor
The Warrant Alpert Medical School of Brown University — 2017 - 2018
Department of Medicine
Cardiovascular Research Institute
Providence, Rhode Island

Instructor
The Warrant Alpert Medical School of Brown University — 2016 - 2017
Department of Medicine
Cardiovascular Research Institute
Providence, Rhode Island

Instructor
Thomas Jefferson University — 2015 - 2016
Sidney Kimmel Medical College
Department of Medicine
Center for Translational Medicine
Philadelphia, Pennsylvania

Research Associate I
Thomas Jefferson University — 2012 - 2015
Sidney Kimmel Medical College
Department of Medicine
Center for Translational Medicine
Philadelphia, Pennsylvania

Clinical/Hospital Appointments

Research Scientist
Rhode Island Hospital — 2016 - 2018

Current Membership in Professional Organizations

Heart Rhythm Society (HRS)	2021 - Present
Central Society for Clinical and Translational Research (CSCTR)	2019 - Present
American Physiological Society (APS)	2015 - Present
International Society for Heart Research (ISHR)	2013 - Present
American Heart Association (AHA)	2012 - Present
Biophysical Society (BPS)	2012 - Present
Cardiac Muscle Society	2012 - Present

HONORS AND AWARDS FOR RESEARCH WORK, TEACHING, PUBLIC ENGAGEMENT, AND SERVICE

External Sources

Fellow of the American Heart Association (FAHA), conferred by the Council on Basic Cardiovascular Sciences	2025
Speaker for "Cardiovascular Disease/Therapy" Session at 11th Annual Conference on Translational Research in Mitochondria, Aging & Disease, US Northeastern Mitochondrial Research and Innovation Group	2024
Speaker for "Featured Topic Session" at American Physiology Summit, APS Cell and Molecular Physiology Section (CaMPS)	2024
Speaker for "Oral Communications" at PANAM Physiological Sciences, Chilean Society of Physiological Sciences & Latin American Association of Physiological Sciences	2023
Speaker for "Feature Topic Session" at Experimental Biology Meeting, APS, CaMPS	2022
COVID Relief Supplement Award, AHA	2021
Fellow of the Cardiovascular Section (FCVS), APS	2019
Oral Abstract Award, CSCTR	2019
Career Development Award, AHA	2018
Medical Research Grant Award, Rhode Island Foundation	2018
New Investigator Award, APS, CaMPS	2018
Advance Clinical and Translational Research (Advance-CTR) Pilot Projects Program Award, National Institute of General Medical Sciences (NIGMS) and Brown University	2017
Young Investigator Travel Award, Society of General Physiologists	2011

RESEARCH AND SCHOLARSHIP

Grants and Contracts

External Sources

Current Supports

1. Role: Multiple-Principal Investigator
   Name of PI: Jin O-Uchi (Contact PI) & Bong Sook Jhun (co-PI)
   Grant Number: R01HL171710
   External Granting Agency: NIH/NHLBI
   Grant Title: Role of ER-mitochondria Contact Sites in Right Ventricular Fibrosis
   Project Dates: 07/01/2024 - 06/30/2028
   Direct Costs Per Year: $383,662
   % Effort/Salary Support: 30%

2. Role: Principal Investigator
   Grant Number: R01HL160699
   External Granting Agency: NIH/NHLBI
   Grant Title: Mitochondrial Fission, Calcium, ROS in Right Ventricular Fibrosis
   Project Dates: 07/01/2023 - 06/30/2027
   Direct Costs Per Year: $250,000
   % Effort/Salary Support: 40%

Completed Supports

1. Role: Co-Sponsor
   Name of PI: Brian Rhee
   Grant Number: 2024 Summer Undergraduate Research Fellowship
   Granting Agency: American Physiology Society
   Grant Title: Role of c-Src kinase in the calcium transport between endoplasmic reticulum and mitochondria
   Project Dates: 06/01/2024 - 04/31/2025
   Direct Costs Per Year: $5,300
   % Effort/Salary Support: 1%

2. Role: Subaward Co-Investigator
   Name of PI: Gaurav Choudhary
   Grant Number: R01HL148727
   External Granting Agency: NIH/NHLBI
   Grant Title: Role of Endothelial Anoctamin-1 in Pulmonary Arterial Hypertension
   Project Dates: 07/01/2019 - 06/30/2024 (Year 5: No-Cost Extension)
   Direct Costs Per Year: $32,061
   % Effort/Salary Support: 5%

3. Role: Co-Investigator
   Name of PI: Jin O-Uchi
   Grant Number: R01HL136757
   External Granting Agency: NIH/NHLBI
   Grant Title: Regulation of mitochondrial calcium uniporter in the heart
   Project Dates: 06/15/2017 - 05/31/2023 (Year 6: No-Cost Extension)
   Direct Costs Per Year: $250,000
   % Effort/Salary Support: 5%

4. Role: Principal Investigator
   Grant Number: COVID Relief Supplement to 18CDA34110091
   External Granting Agency: American Heart Association
   Grant Title: Role of PKD in right ventricular dysfunction during pulmonary arterial hypertension
   Project Dates: 07/01/2021 - 06/30/2022
   Direct Costs Per Year: $31,818
   % Effort/Salary Support: 10%

5. Role: Principal Investigator
   Grant Number: 18CDA34110091 (Career Development Award)
   External Granting Agency: American Heart Association
   Grant Title: Role of PKD in right ventricular dysfunction during pulmonary arterial hypertension
   Project Dates: 07/01/2018 - 06/30/2022 (Year 4: No-Cost Extension)
   Direct Costs Per Year: $70,000
   % Effort/Salary Support: 25%

6. Role: Principal Investigator
   Grant Number: Medical Research Grant #20174335

External Granting Agency: Rhode Island Foundation
Grant Title: Role of PKD in right ventricular dysfunction under pulmonary arterial hypertension
Project Dates: 04/01/2018 - 03/31/2019
Direct Costs Per Year: $25,000
% Effort/Salary Support: 1%
** The grant was relinquished because of an institutional transfer to the University of Minnesota on April 30, 2018.*

7. Role: Pilot Project Principal Investigator
   Name of PI: James Padbury
   Grant Number: U54GM115677
   External Granting Agency: NIH/NIGMS
   Grant Title: A novel therapy to reduce cardiac injury and dysfunction after myocardial infarction
   Project Dates: 07/20/2017 - 04/29/2018
   Direct Costs Per Year: $75,000
   % Effort/Salary Support: 25%

8. Role: Pilot Project Co-Investigator
   Name of PI: Sunil Shaw
   Grant Number: P30GM1114750
   External Granting Agency: NIH/NIGMS
   Grant Title: Role of mitochondrial Ca^{2+} and ROS in the early postnatal cardiac development
   Project Dates: 05/01/2017 - 04/29/2018
   Direct Costs Per Year: $50,000
   % Effort/Salary Support: 1%

9. Role: Co-Investigator
   Name of PI: Shey-Shing Sheu
   Grant Number: R01HL093671
   External Granting Agency: NIH/NHLBI
   Grant Title: Ca^{2+} and ROS Crosstalk Signaling in Cardiac Mitochondria
   Project Dates: 07/11/2014 - 01/31/2016
   Direct Costs Per Year: $250,000
   % Effort/Salary Support: 50%

10. Role: Co-Investigator
    Name of PI: Shey-Shing Sheu & Gyorgy Csordas (Multi-PIs)
    Grant Number: R01 HL122124
    External Granting Agency: NIH/NHLBI
    Grant Title: Mitochondria-SR Tethering: Its Role in Cardiac Bioenergetics and Ca^{2+} Dynamics
    Project Dates: 02/12/2014 - 01/31/2016
    Direct Costs Per Year: $237,200
    % Effort/Salary Support: 50%

University Sources

Current Supports
N/A

Completed Supports

1. Role: Sponsor
   Name of PI: Matthew Dugan
   Grant Number: Medical Student Research Grant
   Granting Agency: University of Minnesota Foundation
   Grant Title: Role of anoctamin-1 on hyperproliferation of endothelial cells in pulmonary arterial hypertension
   Project Dates: 04/01/2024 - 03/31/2025
   Direct Costs Per Year: $3,000
   % Effort/Salary Support: 1%

2. Role: Sponsor
   Name of PI: Matthew Dugan
   Grant Number: Willson Scholars: Summer Research Grant Program
   Granting Agency: Lillehei Heart Institute, University of Minnesota
   Grant Title: N/A
   Project Dates: 07/01/2024 - 08/23/2024
   Direct Costs Per Year: $6,000
   % Effort/Salary Support: 1%

3. Role: Principal Investigator
   Grant Number: COVID-19 Rapid Response Grant
   Granting Agency: Office of Academic Clinical Affairs, University of Minnesota Medical School
   Grant Title: Use of PDE5 inhibitor for preventing cardiac damage by SARS-CoV-2 in COVID-19 patients with cardiopulmonary diseases
   Project Dates: 07/01/2020 - 06/30/2021
   Direct Costs Per Year: $10,000
   % Effort/Salary Support: 1%

4. Role: Co-Investigator
   Name of PI: Samuel Dudley, Jin O-Uchi, and Alena Talkachova (Multi-PIs)
   Grant Number: 2019 Group Program Grant
   Granting Agency: Institute of Engineering in Medicine, University of Minnesota
   Grant Title: Cardiac Working Group targeting multi-scale mechanisms of arrhythmia
   Project Dates: 02/01/2019 - 08/31/2020
   Direct Costs Per Year: $60,000
   % Effort/Salary Support: 1%

Publications

Asterisk(*) - indicates co-first author

Peer-Reviewed Publications

1. Polina*, I., Mishra*, J., Cypress, M. W., Landherr, M., Valkov, N., Chaput, I., Nieto, B., Rhee,

B., Ahrari, A., DeMichaelis, N., Jeon, K., Mende, U., Zhang, P., **Jhun, B. S.**, O-Uchi, J. (2026). Mitochondrial Ca^{2+} Uniporter (MCU) variants form plasma-membrane Channels. *Communications Biology* (*Online ahead of print*). PMID: 42162263 DOI: 10.1038/s42003-026-10285-x

2. Landherr, M., Polina, I., Cypress, M.W., Rhee, B., Jeon, K., Chandran, S., Chaput, I., Nieto, B., Bae, Y. M., **Jhun, B. S.**, O-Uchi, J. (2025). SARS-CoV-2-ORF3a variant Q57H reduces its pro-apoptotic activity in host cells. *F1000Research*, 13:331. PMID: 41480481 PMCID: PMC12754350 DOI: 10.12688/f1000research.146123.2

3. **Jhun*, B. S. (Corresponding Author)**, O-Uchi*, J., Rhee B., Ahrari A., DeMichaelis, N., Jeon, K., Booth D. M., Sheu, S.S. (2025). Sarcoplasmic Reticulum-Mitochondria Microdomains: Hugging and Kissing in the Heart. *American journal of physiology. Cell physiology, 329* (2), C599-C610. PMID: 40643460 PMCID: PMC12403979 DOI: 10.1152/ajpcell.00435.2025

4. Nieto, B., Cypress, M. W., **Jhun, B. S. (Corresponding Author)**, O-Uchi, J. (2024). Adeno-associated virus-based approach for genetic modification of cardiac fibroblasts in rat hearts. *Physiological Reports*, *12*(6), e15989. [**Cover Image**] PMID: 38538007 PMCID: PMC10972676 doi: 10.14814/phy2.15989

5. Kazmirczak, F., Hartweck, L., Vogel, N., Mendelson, J., Park, A., Raveendran, R., O-Uchi, J., **Jhun, B. S.**, Prisco, S., Prins, K. (2023). Intermittent Fasting Activates AMP-Kinase to Restructure Right Ventricular Lipid Metabolism and Microtubules in Two Rodent Models of Pulmonary Arterial Hypertension. *Journal of the American College of Cardiology: Basic to Translational Science, 8*(3), 239-254. PMID: 37034280 PMCID: PMC10077124 doi: 10.1016/j.jacbts.2022.12.001

6. Vang, A., da Silva Gonçalves Bos, D., Fernandez-Nicolas, A., Zhang, P., Morrison, A., Mancini, T., Clements, R., Polina, I., Cypress, M., **Jhun, B. S.**, Hawrot, E., Mende, U., O-Uchi, J., Choudhary, G. (2021). α7 Nicotinic Acetylcholine Receptor Mediates Right Ventricular Fibrosis and Diastolic Dysfunction in Pulmonary Hypertension. *JCI Insight 6*(12), e142945. PMID: 33974567 PMCID: PMC8262476 doi: 10.1172/jci.insight.142945

7. Adaniya*, S. M., O-Uchi*, J., Cypress, M. W., Kusakari, Y., **Jhun, B. S. (Corresponding Author)** (2019). Posttranslational modifications of mitochondrial fission and fusion proteins in cardiac physiology and pathophysiology. *American journal of physiology. Cell physiology, 316*(5), C583-C604. PMID: 30758993 PMCID: PMC6580160 doi: 10.1152/ajpcell.00523.2018

8. Cao, J. L., Adaniya, S. M., Cypress, M. W., Suzuki, Y., Kusakari, Y., **Jhun, B. S.**, O-Uchi, J. (2019). Role of mitochondrial Ca^{2+} homeostasis in cardiac muscles. *Archives of biochemistry and biophysics, 663*, 276-287. PMID: 30684463 PMCID: PMC6469710 doi: 10.1016/j.abb.2019.01.027

9. **Jhun*, B. S. (Corresponding Author)**, O-Uchi*, J., Adaniya, S. M., Cypress, M. W., Yoon, Y. (2018). Adrenergic Regulation of Drp1-Driven Mitochondrial Fission in Cardiac Physio-Pathology. *Antioxidants (Basel, Switzerland), 7*(12), E195. PMID: 30567380 PMCID: PMC6316402 doi: 10.3390/antiox7120195

10. Allawzi, A. M., Vang, A., Clements, R. T., **Jhun, B. S.**, Kue, N. R., Mancini, T. J., Landi, A. K., Terentyev, D., O-Uchi, J., Comhair, S. A., Erzurum, S. C., Choudhary, G. (2018). Activation of Anoctamin-1 Limits Pulmonary Endothelial Cell Proliferation via p38-Mitogen-activated Protein Kinase-Dependent Apoptosis. *American journal of respiratory cell and molecular biology, 58*(5), 658-667. PMID: 29100477 PMCID: PMC5946325 doi: 10.1165/rcmb.2016-0344OC

11. **Jhun*, B. S. (Corresponding Author)**, O-Uchi*, J., Adaniya, S. M., Mancini, T. J., Cao, J. L., King, M. E., Landi, A. K., Ma, H., Shin, M., Yang, D., Xu, X., Yoon, Y., Choudhary, G., Clements, R. T., Mende, U., Sheu, S. S. (2018). Protein kinase D activation induces mitochondrial fragmentation and dysfunction in cardiomyocytes. *The Journal of physiology, 596*(5), 827-855. PMID: 29313986 PMCID: PMC5830422 doi: 10.1113/JP275418

12. Mishra*, J., **Jhun*, B. S.**, Hurst, S., O-Uchi, J., Csordás, G., Sheu, S. S. (2017). The Mitochondrial Ca^{2+} Uniporter: Structure, Function, and Pharmacology. *Handbook of experimental pharmacology, 240*, 129-156. PMID: 28194521 PMCID: PMC5554456 doi: 10.1007/164_2017_1

13. **Jhun*, B. S.**, Mishra*, J., Monaco, S., Fu, D., Jiang, W., Sheu, S. S., O-Uchi, J. (2016). The mitochondrial Ca^{2+} uniporter: regulation by auxiliary subunits and signal transduction pathways. *American journal of physiology. Cell physiology, 311*(1), C67-80. PMID: 27122161 PMCID: PMC4967134 doi: 10.1152/ajpcell.00319.2015

14. O-Uchi, J., Sorenson, J., **Jhun, B. S.**, Mishra, J., Hurst, S., Williams, K., Sheu, S. S., Lopes, C. M. (2015). Isoform-specific dynamic translocation of PKC by α1-adrenoceptor stimulation in live cells. *Biochemical and biophysical research communications, 465*(3), 464-70. PMID: 26277396 PMCID: PMC4564329 doi: 10.1016/j.bbrc.2015.08.040

15. O-Uchi*, J., **Jhun*, B. S.**, Xu, S., Hurst, S., Raffaello, A., Liu, X., Yi, B., Zhang, H., Gross, P., Mishra, J., Ainbinder, A., Kettlewell, S., Smith, G. L., Dirksen, R. T., Wang, W., Rizzuto, R., Sheu, S. S. (2014). Adrenergic signaling regulates mitochondrial Ca^{2+} uptake through Pyk2-dependent tyrosine phosphorylation of the mitochondrial Ca^{2+} uniporter. *Antioxidants & redox signaling, 21*(6), 863-79. PMID: 24800979 PMCID: PMC4116095 doi: 10.1089/ars.2013.5394

16. O-Uchi, J., Ryu, S. Y., **Jhun, B. S.**, Hurst, S., Sheu, S. S. (2014). Mitochondrial ion channels/transporters as sensors and regulators of cellular redox signaling. *Antioxidants & redox signaling, 21*(6), 987-1006. PMID: 24180309 PMCID: PMC4116125 doi: 10.1089/ars.2013.5681

17. Jakob, R., Beutner, G., Sharma, V. K., Duan, Y., Gross, R. A., Hurst, S., **Jhun, B. S.**, O-Uchi, J., Sheu, S. S. (2014). Molecular and functional identification of a mitochondrial ryanodine receptor in neurons. *Neuroscience letters, 575*, 7-12. PMID: 24861510 PMCID: PMC4122666 doi: 10.1016/j.neulet.2014.05.026

18. O-Uchi, J., **Jhun, B. S.**, Hurst, S., Bisetto, S., Gross, P., Chen, M., Kettlewell, S., Park, J., Oyamada, H., Smith, G. L., Murayama, T., Sheu, S. S. (2013). Overexpression of ryanodine receptor type 1 enhances mitochondrial fragmentation and Ca^{2+}-induced ATP production in

cardiac H9c2 myoblasts. *American journal of physiology. Heart and circulatory physiology, 305*(12), H1736-51. PMID: 24124188 PMCID: PMC3882548 doi: 10.1152/ajpheart.00094.2013

19. O-Uchi, J., Komukai, K., Kusakari, Y., Morimoto, S., Kawai, M., **Jhun, B. S.**, Hurst, S., Hongo, K., Sheu, S. S., Kurihara, S. (2013). Alpha1-adrenenoceptor stimulation inhibits cardiac excitation-contraction coupling through tyrosine phosphorylation of beta1-adrenoceptor. *Biochemical and biophysical research communications, 433*(2), 188-93. PMID: 23454381 PMCID: PMC6554199 doi: 10.1016/j.bbrc.2013.02.072

20. **Jhun, B. S.**, Lee, H., Jin, Z. G., Yoon, Y. (2013). Glucose stimulation induces dynamic change of mitochondrial morphology to promote insulin secretion in the insulinoma cell line INS-1E. *PLoS one, 8*(4), e60810. PMID: 23565276 PMCID: PMC3614983 doi: 10.1371/journal.pone.0060810

21. Galloway, C. A., Lee, H., Nejjar, S., **Jhun, B. S.**, Yu, T., Hsu, W., Yoon, Y. (2012). Transgenic control of mitochondrial fission induces mitochondrial uncoupling and relieves diabetic oxidative stress. *Diabetes, 61*(8), 2093-2104. PMID: 22698920 PMCID: PMC3402299 doi: 10.2337/db11-1640

22. **Jhun*, B. S.**, O-Uchi*, J., Wang, W., Ha, C. H., Zhao, J., Kim, J. Y., Wong, C., Dirksen, R. T., Lopes CMB, Jin, Z. G. (2012). Adrenergic signaling controls RGK-dependent trafficking of cardiac voltage-gated L-type Ca^{2+} channels through PKD1. *Circulation research, 110*(1), 59-70. PMID: 22076634 PMCID: PMC4232192 doi: 10.1161/CIRCRESAHA.111.254672

23. Yu, T., **Jhun, B. S.**, Yoon, Y. (2011). High-glucose stimulation increases reactive oxygen species production through the calcium and mitogen-activated protein kinase-mediated activation of mitochondrial fission. *Antioxidants & redox signaling, 14*(3), 425-37. PMID: 20518702 PMCID: PMC3025178 doi: 10.1089/ars.2010.3284

24. Yoon, Y., Galloway, C. A., **Jhun, B. S.**, Yu, T. (2011). Mitochondrial dynamics in diabetes. *Antioxidants & redox signaling, 14*(3), 439-57. PMID: 20518704 PMCID: PMC3025181 doi: 10.1089/ars.2010.3286

25. Ha, C. H., Kim, J. Y., Zhao, J., Wang, W., **Jhun, B. S.**, Wong, C., Jin, Z. G. (2010). PKA phosphorylates histone deacetylase 5 and prevents its nuclear export, leading to the inhibition of gene transcription and cardiomyocyte hypertrophy. *Proceedings of the National Academy of Sciences of the United States of America, 107*(35), 15467-72. PMID: 20716686 PMCID: PMC2932618 doi: 10.1073/pnas.1000462107

26. Wang, W., Ha, C. H., **Jhun, B. S.**, Wong, C., Jain, M. K., Jin, Z. G. (2010). Fluid shear stress stimulates phosphorylation-dependent nuclear export of HDAC5 and mediates expression of KLF2 and eNOS. *Blood, 115*(14), 2971-9. PMID: 20042720 PMCID: PMC2854437 doi: 10.1182/blood-2009-05-224824

27. Ma, Z., **Jhun, B.**, Jung, S. Y., Oh, C. K. (2008). Binding of upstream stimulatory factor 1 to the E-box regulates the 4G/5G polymorphism-dependent plasminogen activator inhibitor 1 expression in mast cells. *Journal of Allergy and Clinical Immunology, 121*(4), 1006-1012.e2.

PMID: 18234320 doi: 10.1016/j.jaci.2007.11.015

28. Ha, C. H., **Jhun, B. S.**, Kao, H. Y., Jin, Z. G. (2008). VEGF stimulates HDAC7 phosphorylation and cytoplasmic accumulation modulating matrix metalloproteinase expression and angiogenesis. *Arteriosclerosis, thrombosis, and vascular biology, 28*(10), 1782-8. PMID: 18617643 PMCID: PMC2746922 doi: 10.1161/ATVBAHA.108.172528

29. Xu, X., **Jhun, B. S.**, Ha, C. H., Jin, Z. G. (2008). Molecular mechanisms of ghrelin-mediated endothelial nitric oxide synthase activation. *Endocrinology, 149*(8), 4183-92. PMID: 18450953 PMCID: PMC2488251 doi: 10.1210/en.2008-0255

30. Ha, C. H., Wang, W., **Jhun, B. S.**, Wong, C., Hausser, A., Pfizenmaier, K., McKinsey, T. A., Olson, E. N., Jin, Z. G. (2008). Protein kinase D-dependent phosphorylation and nuclear export of histone deacetylase 5 mediates vascular endothelial growth factor-induced gene expression and angiogenesis. *The Journal of Biological Chemistry, 283*(21), 14590-9. PMID: 18332134 PMCID: PMC2386927 doi: 10.1074/jbc.M800264200

31. Ma, Z., **Jhun, B.**, Oh, C. K. (2007). Upstream stimulating factor-1 mediates the E-box-dependent transcriptional repression of the plasminogen activator inhibitor-1 gene in human mast cells. *FEBS Letters, 581*(23), 4485-4490. PMID: 17765897 doi: 10.1016/j.febslet.2007.08.034

32. **Jhun, B. S.**, Lee, J. Y., Oh, Y. T., Lee, J. H., Choe, W., Baik, H. H., Kim, S. S., Yoon, K. S., Ha, J., Kang, I. (2006). Inhibition of AMP-activated protein kinase suppresses IL-2 expression through down-regulation of NF-AT and AP-1 activation in Jurkat T cells. *Biochemical and Biophysical Research Communications, 351*(4), 986-92. PMID: 17097050 doi: 10.1016/j.bbrc.2006.10.138

33. Lee, J. Y., **Jhun, B. S.**, Oh, Y. T., Lee, J. H., Choe, W., Baik, H. H., Ha, J., Yoon, K. S., Kim, S. S., Kang, I. (2006). Activation of adenosine A3 receptor suppresses lipopolysaccharide-induced TNF-alpha production through inhibition of PI 3-kinase/Akt and NF-kappaB activation in murine BV2 microglial cells. *Neuroscience Letters, 396*(1), 1-6. PMID: 16324785 doi: 10.1016/j.neulet.2005.11.004

34. **Jhun, B. S.**, Oh, Y. T., Lee, J. Y., Kong, Y., Yoon, K. S., Kim, S. S., Baik, H. H., Ha, J., Kang, I. (2005). AICAR suppresses IL-2 expression through inhibition of GSK-3 phosphorylation and NF-AT activation in Jurkat T cells. *Biochemical and Biophysical Research Communications, 332*(2), 339-46. PMID: 15910743 doi: doi: 10.1016/j.bbrc.2005.04.126

35. **Jhun, B. S.**, Jin, Q., Oh, Y. T., Kim, S. S., Kong, Y., Cho, Y. H., Ha, J., Baik, H. H., Kang, I. (2004). 5-Aminoimidazole-4-carboxamide riboside suppresses lipopolysaccharide-induced TNF-alpha production through inhibition of phosphatidylinositol 3-kinase/Akt activation in RAW 264.7 murine macrophages. *Biochemical and Biophysical Research Communications, 318*(2), 372-80. PMID: 15120611 doi: 10.1016/j.bbrc.2004.04.035

36. Jin, Q., **Jhun, B. S.**, Lee, S. H., Lee, J., Pi, Y., Cho, Y. H., Baik, H. H., Kang, I. (2004). Differential regulation of phosphatidylinositol 3-kinase/Akt, mitogen-activated protein kinase, and AMP-activated protein kinase pathways during menadione-induced oxidative stress in the

kidney of young and old rats. *Biochemical and Biophysical Research Communications, 315*(3), 555-61. PMID: 14975736 doi: 10.1016/j.bbrc.2004.01.093

37. Lim, J. I., Bae, B. N., **Jhun, B. S.**, Kang, I., Kim, S. J. (2003). A simple preparative polyacrylamide gel electrophoresis for the purification of chymotrypsin inhibitor isoforms from ganoderma lucidum. *Bulletin of the Korean Chemical Society, 24*(10), 1531-1534.

38. Hong, F., Kwon, S. J., **Jhun, B. S.**, Kim, S. S., Ha, J., Kim, S. J., Sohn, N. W., Kang, C., Kang, I. (2001). Insulin-like growth factor-1 protects H9c2 cardiac myoblasts from oxidative stress-induced apoptosis via phosphatidylinositol 3-kinase and extracellular signal-regulated kinase pathways. *Life Sciences, 68*(10), 1095-105. PMID: 11228094 doi: 10.1016/s0024-3205(00)01012-2

39. Kim, S. J., Kim, Y. J., Seo, M. R., **Jhun, B. S.** (2000). Regulatory mechanism of L-alanine dehydrogenase from bacillus subtilis. *Bulletin of the Korean Chemical Society, 21*(12), 1217-1221.

Abstract

1. Bae Y. M., Rhee B., Jeon K., **Jhun B. S.**, O-Uchi J. (2026) *Mitochondrial calcium uniporter forms plasma-membrane channels and regulates human platelet activation* (vol. 41 (S1), p. 2301499). Physiology.

2. Lee H., Sung D. J., Park S., Park S. W., Jeon K., **Jhun B. S.**, O-Uchi J., Bae Y. M. (2026). *Upregulation of the sodium-leak channel NALCN contributes to arterial hyperexcitability and excessive vasoconstriction in mineralocorticoid-induced hypertension* (vol. 41 (S1), p. 2300240). Physiology.

3. Slotabec L., Rhee B., **Jhun B. S.**, O-Uchi J. (2026). *c-Src phosphorylates the C-terminal tail of Mfn2 and modulates the microdomain function of endoplasmic reticulum and mitochondrial contact sites* (vol. 41 (S1), p. 2347236). Physiology.

4. Jeon K., O-Uchi J., Rhee B., Bae Y. M., **Jhun B. S.** (2026). *Protein kinase D regulates mitochondrial Ca^{2+} uptake by changing mitochondrial morphology* (vol. 41 (S1), p. 2299742). Physiology.

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Book Chapter

1. O-Uchi, J., **Jhun, B. S.**, Ahrari, A., Sheu, S. S. (2026). Organellar Ion Channels and Transporters. *Cardiac Electrophysiology: From Cell to Bedside* (9th ed., *in press*). Elsevier.

2. O-Uchi, J., **Jhun, B. S.**, Polina, I., Sheu, S. S. (2021). Organellar Ion Channels and Transporters. *Cardiac Electrophysiology: From Cell to Bedside* (8th ed., pp. 70-84). Elsevier.

3. O-Uchi, J., **Jhun, B. S.**, Mishra, J., Sheu, S. S. (2018). Organellar Ion Channels and Transporters. *Cardiac Electrophysiology: From Cell to Bedside* (7th ed., pp. 66-79). Elsevier.

4. O-Uchi, J., **Jhun, B. S.**, Mishra, J., Sheu, S. S. (2013). Structural and Molecular Basis of Mitochondrial Ion Channel Function. *Cardiac Electrophysiology: From Cell to Bedside* (6th ed., pp. 71-84). Elsevier.

Published Erratum

1. Lee, J. Y., **Jhun, B. S.**, Oh, Y. T., Lee, J. H., Choe, W., Baik, H. H., Ha, J., Yoon, K. S., Kim, S. S., Kang, I. (2019). *Corrigendum to "Activation of adenosine A3 receptor suppresses lipopolysaccharide-induced TNF-alpha production through inhibition of PI 3-kinase/Akt and NF-kappaB activation in murine BV2 microglial cells" [Neurosci. Lett. 396 (2006):1-6].* (vol. 712, pp. 134486). Neuroscience Letters. PMID: 31526548 doi: 10.1016/j.neulet.2019.134486

Presentations

Invited Oral Presentations at International Professional Meetings, Conferences, etc.

1. **Jhun, B. S.** "Mitochondria-Targeted Therapy for Pulmonary Arterial Hypertension", COOL (Communication with Outstanding Leaders) Symposium, Cardiovascular and Metabolic

Diseases Medical Research Center, Inje University, Busan, Republic of Korea (September 10, 2025)

2. **Jhun, B. S.** "Role of Mitochondrial c-Src in Right Ventricular Fibrosis", The 9th Gwangju-Boston Joint Cardiology Symposium, Heart Center of Chonnam National University Hospital, Gwangju, Republic of Korea. (May 9, 2025)

3. **Jhun, B. S.** "Inhibition of mitochondrial protein kinase D protects right ventricles from cardiac fibrosis and dysfunction under pulmonary arterial hypertension", PANAM Physiological Sciences 2023, Chilean Society of Physiological Sciences (SCHCF) & Latin American Association of Physiological Sciences (ALACF), Puerto Varas, Chile. (November 28, 2023).

4. **Jhun, B. S.** "Mitochondrial Shape and Function as Therapeutic Targets in Heart Failure", Smart-Aging Convergence Research Center Lecture Series, University College of Medicine, Daegu, Republic of Korea. (March 11, 2019).

Invited Oral Presentations at National Professional Meetings, Conferences, etc.
Underline - indicates student presenter

1. Rhee, B. (Author & Presenter), **Jhun, B. S. (Mentor)** "c-Src Modulates Endoplasmic Reticulum-Mitochondria Distance", American Physiology Summit, Featured Topics Symposium - Cellular Signaling: Proteins, Pathways and Mechanisms, American Physiological Society Cell and Molecular Physiology Section, Baltimore, Maryland. (April 26, 2025)

2. DeMichaelis, N. (Author & Presenter), **Jhun, B. S. (Supervisor & Mentor)** "Protein Kinase D Modulates the Mitochondrial Permeability Transition Pore", American Physiology Summit, Featured Topics Symposium - Channels, Transporters, and Pumps in Health and Disease, American Physiological Society Cell and Molecular Physiology Section, Baltimore, Maryland. (April 25, 2025).

3. **Jhun, B. S.** "Inhibition of mitochondrial PKD attenuates right ventricular fibrosis and dysfunction in pulmonary arterial hypertension", 11th Annual Conference on Translational Research in Mitochondria, Aging & Disease, US Northeastern Mitochondrial Research and Innovation Group, Rochester, New York (October 7, 2024)

4. **Jhun, B. S.** "Targeting Mitochondrial PKD for the Treatment of Right Ventricular Fibrosis in Pulmonary Hypertension", Visiting Scholar Seminar, Center for Translational Medicine, Department of Medicine, Thomas Jefferson University, Philadelphia, Pennsylvania. (July 15, 2024).

5. **Jhun, B. S.** "Mitochondrial Fission, Calcium, and ROS in Right Ventricular Fibrosis", Visiting Scholar Seminar, Department of Biomedical Sciences, Marshall University, Huntington, West Virginia. (June 13, 2024).

6. **Jhun, B. S.** "Role of Mitochondrial PKD in Pulmonary Arterial Hypertension", Special Lecture, Sol Sherry Thrombosis Research Center, Temple University, Philadelphia, Pennsylvania. (June 5, 2024).

7. **Jhun, B. S.** "Role of Protein Kinase D in Right Ventricular Fibrosis", Hypertension and Kidney Center Seminar Series, Heart Institute, University of South Florida, Tampa, Florida. (April 18, 2024).

8. Kelly, M., (Author & Presenter), **Jhun, B. S., (Mentor)** "c-Src activates cardiac fibroblasts and promotes right ventricular fibrosis in pulmonary arterial hypertension", Midwest Clinical &

Translational Research Meeting, Central Society for Clinical and Translational Research (CSCTR) & Midwestern Section of the American Federation for Medical Research (MWAFMR), Chicago, Illinois. (April 9, 2024).

9. **Jhun, B. S.** "c-Src facilitates ER-to-mitochondria Ca^{2+} transport and activates cardiac fibroblasts under pulmonary arterial hypertension", American Physiology Summit, Featured Topic Session - Cellular Signaling: Proteins, Pathways and Mechanisms, American Physiological Society Cell and Molecular Physiology Section, Long Beach, California. (April 6, 2024).
10. Nieto, B., (Author & Presenter), **Jhun, B. S., (Supervisor & Mentor)** "Role of mitochondrial PKD on right ventricular fibrosis under pulmonary hypertension", American Physiology Summit, Featured Topics Symposium - Cellular Mechanisms of Stress, Inflammation and Metabolism, American Physiological Society Cell and Molecular Physiology Section, Long Beach, California. (April 22, 2023).
11. **Jhun, B. S.** "Mitochondrial PKD Activates Mitochondrial Fission and Proliferative Signaling in Cardiac Fibroblasts", Experimental Biology Annual Meeting, APS Featured Topics Symposium - Disease Related Physiology: Translational Medicine, American Physiological Society Cell and Molecular Physiology Section, Philadelphia, Pennsylvania. (April 4, 2022).
12. **Jhun, B. S.** "Gq-Mediated PKD Activation Induces Aberrant Mitochondrial Fission Through Phosphorylation of DLP1 in Cardiomyocytes", 2019 Midwest Clinical & Translational Research Meeting, Chicago, Illinois. (April 5, 2019).
13. **Jhun, B. S.** "Targeting Abnormal Mitochondrial Morphology for the Treatment of Heart Failure", Special Lecture, University of Maryland School of Medicine, Baltimore, Maryland. (September 19, 2017).
14. **Jhun, B. S.** "Targeting Mitochondrial Morphology: A New Therapeutic Direction for Heart Failure?", Special Lecture, Lillehei Heart Institute, University of Minnesota. (July 10, 2017).
15. **Jhun, B. S.** "Role of GqPCR-PKD Signaling in Cardiac Mitochondria", Special CVRC Seminar, Cardiovascular Research Center, Rhode Island Hospital, Providence, Rhode Island. (November 17, 2015).
16. **Jhun, B. S.** "Role of PKD Signaling in Cardiac Mitochondria", Mitochondrial Research Group Seminar, Cardiovascular Research Center, Rhode Island Hospital, Providence, Rhode Island. (March 27, 2015).

Invited Oral Presentations at Local and Regional Professional Meetings, Conferences, etc.

1. **Jhun, B. S.** “Role of Mitochondrial c-Src on Right Ventricular Fibrosis in Pulmonary Hypertension” Hypertension & Kidney Center Seminar Series, Hypertension & Kidney Center, University of South Florida, Tampa, Florida. (June 26, 2025).
2. **Jhun, B. S.** "Targeting Mitochondrial c-Src Kinase for the Treatment of Right Ventricular Fibrosis", LHI Lecture Series, Lillehei Heart Institute, Department of Medicine, University of Minnesota, Minneapolis, Minnesota. (May 22, 2024).
3. **Jhun, B. S.** "Role of Mitochondrial PKD in Cardiac Fibrosis", 14th Annual Cardiovascular Retreat (Cardio Palooza 14), Department of Integrative Biology & Physiology, University of Minnesota, Minneapolis, Minnesota. (July 26, 2023).
4. **Jhun, B. S.** "Role of mitochondrial PKD on right ventricular fibrosis under pulmonary hypertension", LHI Monthly Faculty Meeting, Lillehei Heart Institute, Department of Medicine,

University of Minnesota, Minneapolis, Minnesota. (April 26, 2023).

5. **Jhun, B. S.** "Novel therapeutic strategies for reducing right ventricular fibrosis and failure", LHI Lecture Series, Lillehei Heart Institute, Department of Medicine, University of Minnesota, Minneapolis, Minnesota. (May 11, 2022).
6. **Jhun, B. S.** "Cell-Type Specific Roles of Mitochondria for the Development of Heart Failure", LHI Lecture Series, Lillehei Heart Institute, Department of Medicine, University of Minnesota, Minneapolis, Minnesota. (March 25, 2020).
7. **Jhun, B. S.** "Mitochondrial Shape and Function as Therapeutic Targets in Heart Failure", Department of Medicine Research Conference, University of Minnesota, Minneapolis, Minnesota. (February 11, 2019).
8. **Jhun, B. S.** "Targeting Abnormal Mitochondrial Morphology for the Treatment of Heart Failure", Lillehei Heart Institute Floor Meeting, Lillehei Heart Institute, University of Minnesota, Minneapolis, Minnesota. (August 10, 2018).
9. **Jhun, B. S.** "A novel therapy to reduce cardiac injury and dysfunction after myocardial infarction", Advance-CTR Seminar Series, Alpert Medical School of Brown University. (March 8, 2018).
10. **Jhun, B. S.** "Role of Protein Kinase D Signaling in Cardiac Mitochondria", CVRC Data Club, Cardiovascular Research Center, Rhode Island Hospital, Providence, Rhode Island. (May 24, 2017).
11. **Jhun, B. S.** "Mitochondrial Dynamics and its Role in Insulin Secretion of Pancreatic β-Cells", Mitochondrial Research and Innovation Group Seminar Series, Department of Anesthesiology, University of Rochester School of Medicine and Dentistry, Rochester, New York. (October 21, 2010).

Poster Abstract Presentations at Professional Meetings, Conferences, etc.
Underline - indicates student/collaborator presenter

1. Slotabec, L. (Author & Presenter), Rhee, B., **Jhun, B. S. (Mentor)**, O-Uchi, J. "c-Src phosphorylates the C-terminal tail of Mfn2 and modulates the microdomain function of endoplasmic reticulum and mitochondrial contact sites", American Physiology Summit, American Physiological Society, Minneapolis, Minnesota. (2026).

2. Rhee, B. (Author & Presenter), Jeon, K., Bae, Y. M., **Jhun, B. S. (Mentor)**, O-Uchi, J. "SARS-CoV-2-ORF3a Variant Q57H Reduces the Activation of the Extrinsic Apoptotic Pathway in Host Cells" American Physiology Summit, American Physiological Society, Minneapolis, Minnesota. (2026).

3. Jeon, K., O-Uchi, J. (Author & Presenter), Slotabec, L., Rhee, B., Bae, Y. M., **Jhun, B. S. (Mentor & Collaborator)** "Protein kinase D (PKD) regulates mitochondrial Ca^{2+} uptake by changing mitochondrial morphology", American Physiology Summit, American Physiological Society, Minneapolis, Minnesota. (2026). **Selected for Oral Presentation at the Featured Topic Session Titled "Cellular Signaling: Proteins, Pathways and Mechanisms"**

4. Bae, Y.M. (Author & Presenter), Rhee, B., Jeon, K., **Jhun, B.S. (Author & Collaborator)**, O-Uchi, J. "Mitochondrial calcium uniporter forms plasma-membrane channels and regulates human platelet activation", American Physiology Summit, American Physiological Society, Minneapolis, Minnesota. (2026). **Selected for Oral Presentation at the Featured Topic Session Titled "Cellular Mechanisms of Stress, Inflammation, and Metabolism"**

5. Lee, H. (Author & Presenter), Sung, D.J., Park, S., Park, S. W., Jeon, K., **Jhun, B.S. (Author & Collaborator)**, O-Uchi, J., Bae, Y. M. "Upregulation of the sodium-leak channel NALCN contributes to arterial hyperexcitability and excessive vasoconstriction in mineralocorticoid-induced hypertension", American Physiology Summit, American Physiological Society, Minneapolis, Minnesota. (2026). **Selected for Oral Presentation at the Featured Topic Session Titled "Channels, Transporters, and Pumps in Health and Disease"**

6. **Jhun, B.S. (Author & Presenter)**, O-Uchi, J. "Short Variant of Mitochondrial Calcium Uniporter Forms Plasma-Membrane Channels in Human Platelets", The 14th International Congress on Lipid & Atherosclerosis (ICoLA), Korean Society of Lipid and Atherosclerosis (KSoLA), Seoul, Republic of Korea. (2025). **Selected for the Excellent Moderated Poster Presentation Award**

7. **Jhun, B. S. (Author & Presenter)**, Rhee, B., DeMichaelis, N., O-Uchi, J. "Targeting mitochondrial c-Src and ER-mitochondrial microdomains for reducing right ventricular fibrosis in pulmonary arterial hypertension", XXV World Congress, International Society for Heart Research, Nara, Japan. (2025).
   Published in Journal of Molecular and Cellular Cardiology Plus, vol. 15, p. 100699.

8. O-Uchi, J. (Author & Presenter), **Jhun, B.S. (Collaborator)** "Pathological impact of SARS-CoV-2 viroporins on the cardiomyocyte function", XXV World Congress, International Society for Heart Research, Nara, Japan. (2025). **Selected for Oral Presentation at Symposium**
   Published in Journal of Molecular and Cellular Cardiology Plus, vol. 15, p. 100702.

9. Rhee, B. (Author & Presenter), Chandra, S., Dugan, M., Landherr, M., DeMichaelis, N., **Jhun, B. S. (Mentor)**, O-Uchi, J. "c-Src Modulates Endoplasmic Reticulum-Mitochondria Distance", American Physiology Summit, American Physiological Society, Baltimore, Maryland. (2025). **Selected for Oral Presentation and Barbara A. Horwitz and John M. Horowitz Undergraduate Research Award**
   Published in Physiology, vol. 40 (S1), p. 0147, 2025.

10. DeMichaelis, N. (Author & Presenter), Rhee, B., O-Uchi, J., **Jhun, B. S. (Supervisor & Mentor).** "Protein Kinase D Modulates the Mitochondrial Permeability Transition Pore", American Physiology Summit, American Physiological Society, Baltimore, Maryland. (2025). **Selected for Oral Presentation and the Cell & Molecular Physiology Section Robert Gunn Student Award**
    Published in Physiology vol. 40 (S1), p. 1549, 2025.

11. **Jhun, B. S. (Author & Presenter)**, Nieto, B., Cypress, M. W., Yang, B., Suckow, M. A., O-Uchi, J. "c-Src facilitates ER-to-mitochondria Ca^{2+} transport and activates cardiac fibroblasts under pulmonary arterial hypertension", American Physiology Summit, American Physiological Society, Long Beach, California. (2024). **Selected for Oral Presentation for Featured Topic Session - Cellular Signaling: Proteins, Pathways and Mechanisms**

    Published in Physiology, vol. 39 (S1), p. 997, 2024.

12. Yang, B. (Author & Presenter), Cypress, M. W., Nieto, B., **Jhun, B. S. (Mentor)**, O-Uchi, J. (Mentor) "Genetic enhancement of mitochondrial Ca^{2+} buffering capacity prevents apoptotic signaling activation in response to cytosolic Ca^{2+} elevation", American Physiology Summit, American Physiological Society, Long Beach, California. (2024). **Selected for Barbara A. Horwitz and John M. Horowitz Undergraduate Research Award**
    Published in Physiology, vol. 39 (S1), p. 2074, 2024.

13. Nieto, B. (Author & Presenter), Cypress, M. W., Chandran, S., Dugan, M., O-Uchi, J., **Jhun, B. S. (Supervisor & Mentor)** "Genetic modification of cardiac fibroblasts in adult rats using adeno-associated virus serotype 9", American Physiology Summit, American Physiological Society, Long Beach, California. (2024).
    Published in Physiology, vol. 39 (S1), p. 2536, 2024.

14. Dugan, M. (Author & Presenter), Cypress, M. W., D'Silva, N., Zhang, P., Nieto, B., Chandran, S., Rhee, B., O-Uchi, J., Chaudhary, G., **Jhun, B. S. (Supervisor & Mentor)** "Mitochondrial Ca^{2+}-activated chloride channel anoctamin-1 induces cell proliferation", Midwest Clinical & Translational Research Meeting, Central Society for Clinical and Translational Research (CSCTR) & the Midwestern Section of the American Federation for Medical Research (MWAFMR), Chicago, Illinois. (2024). **Selected for Trainee Abstract Award**
    Published in Journal of Investigative Medicine vol. 72 (7), p. 154, 2024.

15. Nieto, B. (Author & Presenter), Cypress, M., O-Uchi, J., **Jhun, B. S. (Supervisor & Mentor)** "AAV-mediated gene expression and deletion in cardiac fibroblasts in vivo", American Physiology Summit, American Physiological Society, Long Beach, California, United States. (2023).
    Published in Physiology vol. 38 (S1), 2023.

16. **Jhun, B. S. (Author & Presenter)**, O-Uchi, J. "Inhibition of mitochondrial protein kinase D protects right ventricles from cardiac fibrosis and dysfunction under pulmonary arterial hypertension", PANAM Physiological Sciences 2023, Chilean Society of Physiological Sciences (SCHCF) & Latin American Association of Physiological Sciences (ALACF), Puerto Varas, Chile. (2023). **Selected for Oral Presentation**

17. **Jhun, B. S. (Author & Presenter)**, Cypress, M. W., Nieto, B., O-Uchi, J. "Novel Variants of Mitochondrial Calcium Uniporter Form Plasma-Membrane Channels in Human Platelets", Scientific Sessions 2023, American Heart Association, Philadelphia, Pennsylvania, United States. (2023). **Late Abstract**

18. Zhou, X., Adhikari, N., Cypress, M. W., Polina, I., Landherr, M., Chaput, I., Suckow, M. A., Choudhary, G., O-Uchi, J., **Jhun, B. S. (Author & Presenter)** "Mitochondrial PKD Activates Mitochondrial Fission and Proliferative Signaling in Cardiac Fibroblasts", Experimental Biology Meeting, Philadelphia, Pennsylvania. (2022). **Selected for Oral Presentation**
    Published in FASEB J. 36(S1), Abstract ID: R6274, 2022

19. **Jhun, B. S. (Author & Presenter)**, Suzuki, Y., Cypress, M. W., Zhang, P., Mende, U., O-Uchi, J. "Mitochondrial Calcium Uniporter Regulates Proliferative Activity of Cardiac Fibroblasts under Angiotensin II Stimulation", American Heart Association: Basic Cardiovascular Sciences Sessions, Boston, Massachusetts. (2019).
    Published in Circ Res. 125, Suppl: 1.251, 2019

20. **Jhun, B. S. (Author & Presenter)**, Adaniya, S. M., Cypress, M. W., Suzuki, Y., Mende, U., Choudhary, G. "Gq-mediated PKD activation induces aberrant mitochondrial fission through phosphorylation of DLP1 in cardiomyocytes", Midwest Clinical & Translational Research Meeting, Chicago, Illinois. (2019).
    Published in J Investig Med. 67(5), p868: Abstract No. C05, 2019

21. **Jhun, B. S. (Author & Presenter)**, Adaniya, S., King, M. E., Sheu, S. S., O-Uchi, J. "Mitochondrial calcium uptake-mediated superoxide production induces cardiac fibroblast proliferation under Gq-protein coupled receptor stimulation", Biophysical Society 62nd Annual Meeting, San Francisco, California. (2018).

22. **Jhun, B. S. (Author & Presenter)**, Adaniya, S. M., King, M. E., Zhang, P., O-Uchi, J.

"Mitochondrial calcium influx-mediated superoxide generation induces cardiac fibroblast proliferation under angiotensin II stimulation", Experimental Biology Meeting, San Diego, California. (2018).
Published in FASEB J. 32(1), Suppl:750.20, 2018

23. **Jhun, B. S. (Author & Presenter)**, Adaniya, S. M., Zhang, P., Mende, U., Sheu, S. S., O-Uchi, J. "Mitochondrial calcium influx-mediated superoxide generation induces cell proliferation under Gq-protein coupled receptor stimulation in rat cardiac fibroblasts", Gordon Research Conference: Cardiac Regulatory Mechanisms, New London, New Hampshire. (2018).

24. **Jhun, B. S. (Author & Presenter)**, O-Uchi, J., Mishra, J., Xu, X., Hurst, S., Mende, U., Sheu, S. S. "PKD Translocation to the Outer Mitochondrial Membrane Induces Mitochondrial Fragmentation and Cell Death via DLP1 Phosphorylation in Cardiomyocytes", Experimental Biology Meeting, San Diego, California. (2016).
Published in FASEB J. 30(1), Suppl:742.7, 2016

25. **Jhun, B. S. (Author & Presenter)**, O-Uchi, J., Zhang, P., Mende, U., Sheu, S. S. "GqPCR-mediated PKD activation induces mitochondrial fragmentation and dysfunction via phosphorylation of DLP1 in cardiomyocytes", Gordon Research Conference: Cardiac Regulatory Mechanisms, New London, New Hampshire. (2016).

26. **Jhun, B. S. (Author & Presenter)**, Xu, X., Mishra, J., Hurst, S., O-Uchi, J., Sheu, S. S. "Small-Molecule PKD Inhibitor Prevents Mitochondrial Fragmentation and Dysfunction during Gq-Protein Coupled Receptor Stimulation in Cardiac Cells", Biophysical Society 59th Annual Meeting, Baltimore, Maryland. (2015).
Published in Biophys J. 108(2), Suppl:608a, 2015

27. **Jhun, B. S. (Author & Presenter)**, O-Uchi, J., Mishra, J., Xu, X., Hurst, S., Mende, U., Sheu, S. S. "PKD Regulates Mitochondrial Morphology and Function via Phosphorylation of DLP1 in Cardiac Myocytes", Experimental Biology Meeting, Boston, Massachusetts. (2015).
Published in FASEB J. 29(1), Suppl:LB615, 2015

28. **Jhun, B. S. (Author & Presenter)**, O-Uchi, J., Hurst, S., Mende, U., Sheu, S. S. "Cardiac Gq-protein coupled receptor stimulation induces mitochondrial fragmentation and dysfunction through PKD-dependent phosphorylation of DLP1", Gordon Research Conference: Cardiac Regulatory Mechanisms, New London, New Hampshire. (2014).

29. **Jhun, B. S. (Author & Presenter)**, O-Uchi, J., Hurst, S., Sheu, S. S. "Adrenergic Stimulation Induces Mitochondrial Fragmentation and Cell Injury through PKD1-dependent Phosphorylation of DLP1 in H9c2 Cardiac Myoblasts", American Heart Association: Basic Cardiovascular Sciences Sessions, Las Vegas, Nevada. (2013).
Published in Circ Res. 113(4) Suppl:4 Supplement A093, 2013

30. **Jhun, B. S. (Author & Presenter)**, O-Uchi, J., Hurst, S., Sheu, S. S. "Alpha1-adrenoceptor stimulation induces mitochondrial fragmentation and dysfunction through PKD1 in H9c2 cardiac myoblasts", The International Society for Heart Research: XXI World Congress, San Diego, California. (2013).
Published in J Mol Cell Cardiol. 65: S152, 2013

31. **Jhun, B. S. (Author & Presenter)**, Lee, H., Yoon, Y. "Mitochondrial fission is an essential process for glucose-stimulated insulin secretion in pancreatic β cells", 65th Annual Meeting and Symposium of the Society of General Physiologists, Woods Hole, Massachusetts. (2011). **Selected for the Young Investigator Travel Award**

32. **Jhun, B. S. (Author & Presenter)**, Yoon, K. S., Baik, H. H., Kang, I. "AICAR suppresses IL-2 expression through inhibition of NF-AT and AP-1 activations in Jurkat T cells. inhibition of

nuclear factor of activated T cells in human leukemic Jurkat T cells.", 62nd Annual Meeting of Korean Society for Biochemistry and Molecular Biology, Seoul, Republic of Korea. (2005).

33. **Jhun, B. S. (Author & Presenter)**, Baik, H. H., Yoon, K. S., Kang, I. "Role of AMP-Activated Protein Kinase in Interleukin-2 Production from PMA/Ionomycin and anti-CD3/anti-CD28 Stimulated Human T Lymphocytes.", Fall International Conference of Korean Society of Medical Biochemistry and Molecular Biology, Seoul Kyoyuk Munhwa Heokwan, Korea, Republic of Korea. (2005). **Selected for the Excellent Poster Presentation Award**
34. **Jhun, B. S. (Author & Presenter)**, Yoon, K. S., Baik, H. H., Kang, I. "5-Aminoimidazole-4-carboxamide riboside suppresses interleukin-2 expression through inhibition of GSK-3 phosphorylation and NF-AT and AP-1 activations in human leukemic Jurkat T cells.", The 13th Federation Meeting of Korean Basic Medical Scientists, Seoul, Republic of Korea. (2005).
35. **Jhun, B. S. (Author & Presenter)**, Baik, H. H., Yoon, K. S., Kang, I. "5-Aminoimidazole-4-carboxamide riboside suppresses interleukin-2 expression through inhibition of nuclear factor of activated T cells in human leukemic Jurkat T cells.", The 13th International Conference of Women Engineers and Scientists, Seoul, Republic of Korea. (2005).
36. **Jhun, B. S. (Author & Presenter)**, Yoon, K. S., Cho, Y. H., Baik, H. H., Lee, J. H., Kang, I. "AICA riboside suppresses lipopolysaccharide-induced TNF-α productions through inhibition of phosphatidylinositol 3-kinase/Akt activation in murine macrophages.", The 12th Federation Meeting of Korean Basic Medical Scientists, Seoul, Republic of Korea. (2004).
37. **Jhun, B. S. (Author & Presenter)**, Lee, J. Y., Cho, Y. H., Yoon, K. S., Baik, H. H., Kang, I. "Effects of Adenosine, ATP and its Analogs on LPS-induced TNF-alpha Production in Microglia.", The 16th Annual Meeting of The Korean Society for Molecular and Cellular Biology, Seoul, Republic of Korea. (2004).
38. **Jhun, B. S. (Author & Presenter)**, Yoon, K. S., Cho, Y. H., Baik, H. H., Kang, I. "AICAR suppresses LPS-induced TNF-α productions through inhibition of phosphatidylinositol 3-kinase/Akt activation in Raw 264.7 murine macrophages.", The 61st Annual Meeting of Korean Society for Biochemistry and Molecular Biology, Seoul, Republic of Korea. (2004).
39. **Jhun, B. S. (Author & Presenter)**, Lee, J. H., Cho, Y. H., Baik, H. H., Kang, I. "AMPK Activation Stimulates DNA Synthesis and Protects Jurkat T Lymphocytes from Oxidative Stress-induced Apoptosis", The 14th Annual Meeting of The Korean Society for Molecular and Cellular Biology, Seoul, Republic of Korea. (2002).
40. **Jhun, B. S. (Author & Presenter)**, Kim, M. S., Kim, S. J. "Isolation and characterization of a proteinase inhibitor from Ganoderma Lucidum", Fall Scientific Meeting and General Assembly of The Biochemical Society of The Republic of Korea, Taejon, Republic of Korea. (2000).

TEACHING AND CURRICULUM DEVELOPMENT

University of South Florida

Course/Lecture List

Invited Lecturer, GMS 6002, “Success Skills for Biomedical Science Researchers” 2026
One class (2 hours) per year

SUPERVISING AND MENTORING

University of South Florida

Research Scientist

Lily Slotabec, B.S., B.A. — January 2026 - Present

Visiting Scholars Hosted

Neal Jani, B.S. (RENUM-FL Summer Program Scholar) — May 2026 - Present
Current position: Medical School Student
University of South Florida, Morsani College of Medicine

Junior Faculty

Kye-Im Jeon, Ph.D., Research Associate — July 2025 - January 2026

Graduate Student Activities

Matthew Dugan, B.A. (Volunteer, Remote Position) — October 2024 - March 2025
Current position: Medical School Student
University of Minnesota, Minneapolis, MN

Undergraduate Student Activities

Brian Rhee, B.S. (Volunteer, Remote Position) — October 2024 - April 2026
Current position: Upcoming Medical School Student
University of Minnesota, Minneapolis, MN

Nathan DeMichaelis, B.A. (Volunteer, Remote Position) — October 2024 - June 2025
Current position: Upcoming MD-PhD Program Student
The University of Chicago, Chicago, IL

University of Minnesota

Junior Faculty

Xiaoxu Zhou, M.D., Research Assistant Professor — October 2021 - May 2022
Current position: Research Assistant Professor
Rhode Island Hospital & Brown University, Providence, RI

Post-doctoral Researchers

Michael W. Cypress, Ph.D., Researcher IV — November 2018 - October 2024
Current position: N/A

Iullia Polina, Ph.D., Researcher V — July 2019 - July 2023
Current position: N/A

Neeta Adhikari, Ph.D., Researcher V — August 2019 - April 2021
Current position: N/A

Yuta Suzuki, M.D., Ph.D., Post-doctoral fellow — October 2018 - January 2020
Current Position: Researcher
Mayo Clinic, Rochester, MN

Graduate Student Activities

Matthew Dugan, B.A. — November 2023 - October 2024
Current Position: Medical School Student
University of Minnesota, Minneapolis, MN

Undergraduate Student Activities

Amelia Carrizales — June 2024 - October 2024

Brian Rhee — September 2023 - October 2024
Sanjana Chandran — September 2023 - October 2024
Isabel Chaput — October 2020 - May 2023
Hannah Thompson — January 2020 - June 2020
Current position: Administrator
University of Minnesota, Minneapolis, MN
Gayathri Dileepan — July 2019 - November 2020
Current position: Medical School Student
The Ohio State University, Columbus, OH

Visiting Scholars Hosted

Nathan DeMichaelis (AHA-LHI Scholar) — June 2024 - October 2024
Dartmouth College, Hanover, NH
Jacob Welch (AHA-LHI Scholar) — June 2024 - July 2024
Vanderbilt University, Nashville, TN
Maria Landherr (AHA-LHI Scholar) — June 2021 - June 2022
St. Olaf College, Northfield, MN
Current position: Medical School Student
University of Minnesota, Minneapolis, MN
Dora Azeudong Tsobze — July 2019 - August 2019
Normandale Community College, Bloomington, MN
Current position: N/A
Stephanie M. Adaniya (Undergraduate Research Awardee) — June 2018 - August 2018
Brown University, Providence, RI
Current position: Medical School Student
University of Washington, Seattle, WA

Research Assistant

Bridget Nieto, B.S., Researcher II — April 2022 - October 2024
Current position: Researcher (Veterinary Diagnostic Lab)
University of Minnesota, St Paul, MN
Maria Landherr, B.A., Researcher I — July 2022 - June 2023
Current position: Medical School Student
University of Minnesota, Minneapolis, MN
Hannah Thompson, B.A., Researcher I — July 2020 - April 2021
Current position: Administrator
University of Minnesota, Minneapolis, MN
Jordan Schlichting, B.A., Researcher I — May 2019 - August 2019
Current position: N/A

Rhode Island Hospital and Brown University

Undergraduate Student Activities

Henley Ma — September 2017 - April 2018
Current position: Medical School Student
Warren Alpert Medical School of Brown University
Providence, RI
Milla Shin — September 2017 - April 2018
Current position: Software Engineer
Amazon Web Services

Jessica Cao — June 2017 - April 2018
Current position: Residency
Department of Surgery, University of Chicago
Chicago, IL

Stephanie M. Adaniya — June 2017 - April 2018
Current position: Medical School Student
University of Washington
Seattle, WA

Visiting Scholars Hosted

Amy K. Landi — June 2017 - August 2017
Quinnipiac University, Hamden, CT
Current position: Principal Specialist
External QA Operations

Other Mentoring Activities

Dongqin Yang, B.S., Research Assistant — June 2017 - April 2018
Current Position: Research Assistant
Brown University, Providence, RI

Michelle (King) Sylvia, B.S., Research Assistant — January 2016 - April 2018
Current position: Analytical Development Scientist
GSK, Cambridge, MA

SERVICE AND PUBLIC ENGAGEMENT

Service to the Discipline/Profession/Interdisciplinary Area(s)

Ad Hoc Reviewer

American Journal of Physiology-Cell Physiology	2026 - Present
Frontiers in Cell and Developmental Biology	2023 - Present
Frontiers in Molecular Biosciences: Cellular Biochemistry	2020 - Present
American Journal of Physiology-Heart & Circulatory Physiology	2019 - Present
Antioxidants	2019 - Present
Biomedicine	2019 - Present
Biomolecules	2019 - Present
Cells	2019 - Present
Current Pharmaceutical Biotechnology	2019 - Present
International Journal of Molecular Sciences	2019 - Present
Journal of Molecular and Cellular Cardiology	2019 - Present
Laboratory Investigation	2019 - Present
Frontiers in Pharmacology	2018 - Present
Medical Science Monitor	2017 - Present

Editorial Board Member

Frontiers in Physiology	2021 - Present
Frontiers in Cardiovascular Medicine	2018 - 2022

Grant Reviewer

Fellowship Peer Reviewer (Basic Cell Sciences), AHA	2024 - Present

Session Chair

Abstract-Driven Session entitled “Cellular Signaling: Proteins, Pathways, and Mechanism" 2025
American Physiology Summit

Panelist

The 9th Gwangju-Boston Joint Cardiology Symposium 2025
Heart Center of Chonnam National University Hospital
Gwangju, Republic of Korea

Committee Member

Junior Scientific Program Committee Representative 2025 - Present
APS, Cell and Molecular Physiology Section (CaMPS)

Programming Subcommittee 2024 - 2025
APS, Cell and Molecular Physiology Section (CaMPS)

Service to the University/College/Department

University of South Florida

Campus

Poster Award Committee Member, USF Health Research Day March 2026

Department

Interviewer, Faculty Candidate Evaluation, Department of Internal Medicine and Heart Institute May 2026

Reviewer, Ealy-Stage Investigator Pilot Award Applications, Hypertension and Kidney Research Center, Department of Physiology & Pharmacology April 2025

University of Minnesota

Campus

Poster Award Committee Member, 15th Annual Cardiovascular Retreat (Cardio Palooza 15), Department of Integrative Biology & Physiology July 2024

Interviewer, Faculty Candidate Evaluation, Department of Genetics, Cell Biology and Development February 2024

Poster Award Committee Member, 13th Annual Cardiovascular Retreat (Cardio Palooza 13), Department of Integrative Biology & Physiology August 2022

Poster Award Committee Member, 10th Annual Cardiovascular Retreat (Cardio Palooza 10), Department of Integrative Biology & Physiology July 2018

Department

Reviewer, AHA-LHI Summer Scholars Program Applications February 2024
Lillehei Heart Institute, Department of Medicine

Reviewer, Collaborative Pilot Grant Applications Lillehei Heart Institute, Department of Medicine	April 2023
Reviewer, AHA-LHI Summer Scholars Program Applications Lillehei Heart Institute, Department of Medicine	February 2023
Search Committee Member, Searching Investigators at the Rank of Associate/Full Professor, Lillehei Heart Institute, Cardiovascular Division, Department of Medicine	2018 - 2019