

## Curriculum Vitae

**Bong Sook Jhun, PhD, FCVS**

### PROFESSIONAL ADDRESS

Department of Molecular Pharmacology & Physiology  
 Morsani College of Medicine and Heart Institute  
 University of South Florida  
 560 Channelside Drive, Rm#:MDD803B, Tampa, FL 33602  
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### IDENTIFYING INFORMATION

#### Education

Postdoctoral Appointment University of Rochester School of Medicine and Dentistry	2007 - 2012
Postdoctoral Appointment Los Angeles Biomedical Research Institute (LA BioMed) at Harbor-UCLA Medical Center	2006 - 2007
PhD, Kyung Hee University College of Medicine Department of Medicine Seoul, Republic of Korea Major: Biochemistry and Molecular/Cell Biology	2006
MS, Kyung Hee University College of Liberal Arts and Sciences Department of Chemistry Seoul, Republic of Korea Major: Biochemistry	2001
BS, Kyung Hee University College of Liberal Arts and Sciences Department of Chemistry Seoul, Republic of Korea Major: Chemistry	1999

#### Academic Appointments

Associate Professor University of South Florida Department of Molecular Pharmacology & Physiology Morsani College of Medicine and Heart Institute Tampa, Florida	2024 - Present
Assistant Professor University of Minnesota Medical School Department of Medicine	2018 - 2024

Cardiovascular Division  
Lillehei Heart Institute  
Minneapolis, Minnesota

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

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

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

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

**Clinical/Hospital Appointments**

Research Scientist 2016 - 2018  
Rhode Island Hospital

**Current Membership in Professional Organizations**

Heart Rhythm Society 2021 - Present  
Central Society for Clinical and Translational Research 2019 - Present  
American Physiological Society 2015 - Present  
International Society for Heart Research 2013 - Present  
American Heart Association 2012 - Present  
Biophysical Society 2012 - Present  
Cardiac Muscle Society 2012 - Present

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

**External Sources**

Speaker for “Cardiovascular Disease/Therapy Section” at 11<sup>th</sup> Annual Conference on Translational Research in Mitochondria, 2024

Aging & Disease, US Northeastern Mitochondrial Research and Innovation Group	
Speaker for "Featured Topic Session" at American Physiology Summit, American Physiological Society Cell and Molecular Physiology Section	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 Section" at Experimental Biology Meeting, American Physiological Society Cell and Molecular Physiology Section	2022
COVID Relief Supplement Award, American Heart Association	2021
Fellow, Cardiovascular Section of American Physiological Society	2019
Oral Abstract Award, Central Society for Clinical and Translational Research	2019
Career Development Award, American Heart Association	2018
Medical Research Grant Award, Rhode Island Foundation	2018
New Investigator Award, American Physiological Society, Cell and Molecular Physiology Section	2018
Advance Clinical and Translational Research (Advance-CTR) Pilot Projects Program Award, National Institute of General Medical Sciences (NIGMS)	2017
Young Investigator Travel Award, Society of General Physiologists	2011
Academic Research Scholarship, Kyung Hee University	2005
Excellent Poster Presentation Award, International Conference of Korean Society of Medical Biochemistry and Molecular Biology	2005
Research Abroad Scholarship, Kyung Hee University	2005
Research Presentation Scholarship, Kyung Hee University	2005
Superiority Scholarship, Kyung Hee University	2005
Academic Research Scholarship, Kyung Hee University	2004
President Scholarship, Kyung Hee University	2004
Research Presentation Scholarship, Kyung Hee University	2004
Superiority Scholarship, Kyung Hee University	2004
President Scholarship, Kyung Hee University	2003
Excellent Graduate Award, Kyung Hee University	2000

**RESEARCH AND SCHOLARSHIP**

**Grants and Contracts**

**External Sources**

**Current Supports**

1. 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: 50%

2. 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%
3. 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%

### **Completed Supports**

1. Role: 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%
2. 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%
3. 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%

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: 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: 0%  
**\* The grant was relinquished because of an institutional transfer to the University of Minnesota on April 30, 2018.**
  
6. 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%
  
7. Role: Pilot Project Co-Investigator  
 Name of PI: Sunil Shaw  
 Grant Number: P30GM1114750  
 External Granting Agency: NIH/NIGMS  
 Grant Title: Role of mitochondrial Ca<sup>2+</sup> 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%
  
8. Role: Co-Investigator  
 Name of PI: Shey-Shing Sheu  
 Grant Number: R01HL093671  
 External Granting Agency: NIH/NHLBI  
 Grant Title: Ca<sup>2+</sup> 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%

9. 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<sup>2+</sup> Dynamics  
Project Dates: 02/12/2014 - 01/31/2016  
Direct Costs Per Year: \$237,200  
% Effort/Salary Support: 50%

## University Sources

### Current 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%

### Completed Supports

1. 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%
2. 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%
3. Role: Co-Investigator  
Name of PI: Samuel Dudley, Jin O-Uchi, 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. 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. PMID: 38538007 PMCID: PMC10972676 [doi: 10.14814/phy2.15989](https://doi.org/10.14814/phy2.15989)
2. 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](https://doi.org/10.1016/j.jacbts.2022.12.001)
3. 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).  $\alpha 7$  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](https://doi.org/10.1172/jci.insight.142945)
4. 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](https://doi.org/10.1152/ajpcell.00523.2018)
5. 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](https://doi.org/10.1016/j.abb.2019.01.027)
6. **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 Physiology. *Antioxidants (Basel, Switzerland)*, 7(12), E195. PMID: 30567380 PMCID: PMC6316402 [doi: 10.3390/antiox7120195](https://doi.org/10.3390/antiox7120195)
7. 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](https://doi.org/10.1165/rcmb.2016-0344OC)

8. **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](https://doi.org/10.1113/JP275418)
9. Mishra\*, J., **Jhun\***, B. S., Hurst, S., O-Uchi, J., Csordás, G., Sheu, S. S. (2017). The Mitochondrial Ca<sup>2+</sup> Uniporter: Structure, Function, and Pharmacology. *Handbook of experimental pharmacology*, 240, 129-156. PMID: 28194521 PMCID: PMC5554456 [doi: 10.1007/164\\_2017\\_1](https://doi.org/10.1007/164_2017_1)
10. **Jhun\***, B. S., Mishra\*, J., Monaco, S., Fu, D., Jiang, W., Sheu, S. S., O-Uchi, J. (2016). The mitochondrial Ca<sup>2+</sup> 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](https://doi.org/10.1152/ajpcell.00319.2015)
11. 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  $\alpha$ 1-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](https://doi.org/10.1016/j.bbrc.2015.08.040)
12. 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<sup>2+</sup> uptake through Pyk2-dependent tyrosine phosphorylation of the mitochondrial Ca<sup>2+</sup> uniporter. *Antioxidants & redox signaling*, 21(6), 863-79. PMID: 24800979 PMCID: PMC4116095 [doi: 10.1089/ars.2013.5394](https://doi.org/10.1089/ars.2013.5394)
13. 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](https://doi.org/10.1089/ars.2013.5681)
14. 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](https://doi.org/10.1016/j.neulet.2014.05.026)
15. 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<sup>2+</sup>-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](https://doi.org/10.1152/ajpheart.00094.2013)
16. 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-adrenoceptor 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](https://doi.org/10.1016/j.bbrc.2013.02.072)

17. **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](https://doi.org/10.1371/journal.pone.0060810)
18. 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](https://doi.org/10.2337/db11-1640)
19. **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<sup>2+</sup> channels through PKD1. *Circulation research*, 110(1), 59-70. PMID: 22076634 PMCID: PMC4232192 [doi: 10.1161/CIRCRESAHA.111.254672](https://doi.org/10.1161/CIRCRESAHA.111.254672)
20. 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](https://doi.org/10.1089/ars.2010.3284)
21. 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](https://doi.org/10.1089/ars.2010.3286)
22. 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](https://doi.org/10.1073/pnas.1000462107)
23. 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](https://doi.org/10.1182/blood-2009-05-224824)
24. 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](https://doi.org/10.1016/j.jaci.2007.11.015)
25. 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](https://doi.org/10.1161/ATVBAHA.108.172528)
26. 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](https://doi.org/10.1210/en.2008-0255)
27. 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](https://doi.org/10.1074/jbc.M800264200)
  28. 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](https://doi.org/10.1016/j.febslet.2007.08.034)
  29. **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](https://doi.org/10.1016/j.bbrc.2006.10.138)
  30. 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](https://doi.org/10.1016/j.neulet.2005.11.004)
  31. **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](https://doi.org/10.1016/j.bbrc.2005.04.126)
  32. **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](https://doi.org/10.1016/j.bbrc.2004.04.035)
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**Abstract**

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69. Ma, Z., **Jhun, B.**, Oh, C. K. (2008). *USF-1 regulates the 4G/5G polymorphism-dependent PAI-1 expression in human mast cells* (vol. 121 (2), pp. S216). *The Journal of Allergy and Clinical Immunology*.

### **Book Chapter**

1. O-Uchi, J., **Jhun, B. S.**, Polina, I., Sheu, S. S. (2021). Organellar Ion Channels and Transporters. In *Cardiac Electrophysiology: From Cell to Bedside* (8th ed., pp. 70-84). Elsevier.
2. O-Uchi, J., **Jhun, B. S.**, Mishra, J., Sheu, S. S. (2018). Organellar Ion Channels and Transporters. In *Cardiac Electrophysiology: From Cell to Bedside* (7th ed., pp. 66-79). Elsevier.
3. O-Uchi, J., **Jhun, B. S.**, Mishra, J., Sheu, S. S. (2013). Structural and Molecular Basis of Mitochondrial Ion Channel Function. In *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](https://doi.org/10.1016/j.neulet.2019.134486)

### **Publications in Submission or in Progress**

*Asterisk(\*) - indicates Co-First Author*

### **Peer-Reviewed Publications**

1. Polina\*, I., Mishra\*, J., Cypress, M. W., Landherr, M., Valkov, N., Chaput, I., Nieto, B., Mende, U., Zhang, P., **Jhun, B. S.**, O-Uchi, J. Mitochondrial Ca<sup>2+</sup> Uniporter (MCU) variants form plasma-membrane Channels.  
(under Revision in *Communications Biology*) bioRxiv [Preprint] 2023.07.31.551242. Available from <https://doi.org/10.1101/2023.07.31.551242> and PubMed PMID: 37577584; PubMed Central PMCID: PMC10418069
2. Zhang, P., Ford, K., Sung, J. H., Moeller, J., Suzuki, Y., Polina, I., Tachibana, T., Kusakari, Y., Cypress, M. W., Chaput, I., Drenkova, K., Adaniya, S. M., Mishra, J., Mende, U., **Jhun, B. S.**, O-Uchi, J. c-Src-dependent phosphorylation of Mfn2 regulates endoplasmic reticulum-mitochondria tethering.  
(under Revision in *EMBO Reports*) bioRxiv [Preprint] 2022.02.21.481295. Available from <https://doi.org/10.1101/2022.02.21.481295>
3. Landherr, M., Polina, I., Cypress, M. W., Chaput, I., Nieto, B., **Jhun, B. S.**, O-Uchi, J. SARS-CoV-2-ORF3a variant Q57H reduces its pro-apoptotic activity in host cells.  
(under Revision in *F1000Research*) Available from <https://doi.org/10.12688/f1000research.146123.1>
4. Adhikari\*, N., O-Uchi\*, J., Nieto, B., Zhou, X., Cypress, M. W., Polina, I., Landherr, M., Chaput, I., Suckow, M. A., Mende, U., Choudhary, G., **Jhun, B. S. (Corresponding Author)** Inhibition of mitochondrial protein kinase D protects right ventricles from cardiac fibrosis and dysfunction under pulmonary arterial hypertension. (Manuscript in Preparation)

## Presentations

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

1. **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).
2. **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. **Jhun, B. S.** "Inhibition of mitochondrial PKD attenuates right ventricular fibrosis and dysfunction in pulmonary arterial hypertension", 11<sup>th</sup> Annual Conference on Translational Research in Mitochondria, Aging & Disease, US Northeastern Mitochondrial Research and Innovation Group, Rochester, New York (October 7, 2024)
2. **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).
3. **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).
4. **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).
5. **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).
6. Kelly, M., (Author & Presenter), Jhun, B. S., (Advisor) "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).
7. **Jhun, B. S.** "c-Src facilitates ER-to-mitochondria Ca<sup>2+</sup> transport and activates cardiac fibroblasts under pulmonary arterial hypertension", American Physiology Summit, Featured Topics Symposium - Cellular Signaling: Proteins, Pathways and Mechanisms, American Physiological Society Cell and Molecular Physiology Section, Long Beach, California. (April 6, 2024).
8. Nieto, B., (Author & Presenter), Jhun, B. S., (Advisor) "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).

9. **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).
10. **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).
11. **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).
12. **Jhun, B. S.** "Targeting Mitochondrial Morphology: A New Therapeutic Direction for Heart Failure?", Special Lecture, Lillehei Heart Institute, University of Minnesota. (July 10, 2017).
13. **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).
14. **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.** "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).
2. **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).
3. **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).
4. **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).
5. **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).
6. **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).
7. **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).
8. **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).

9. **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).
10. **Jhun, B. S.** "Mitochondrial Dynamics and its Role in Insulin Secretion of Pancreatic  $\beta$ -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 presenter

1. **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).
2. Yang, B., (Author & Presenter), Cypress, M. W., Nieto, B., **Jhun, B. S., (Co-Advisor)**, O-Uchi, J., (Advisor) "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 APS Barbara A. Horwitz and John M. Horowitz Undergraduate Research Award.**
3. Nieto, B., (Author & Presenter), Cypress, M. W., Chandran, S., Dugan, M., O-Uchi, J., **Jhun, B. S., (Advisor)** "Genetic modification of cardiac fibroblasts in adult rats using adeno-associated virus serotype 9", American Physiology Summit, American Physiological Society, Long Beach, California. (2024).
4. 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., (Advisor)** "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 (MWAFFMR), Chicago, Illinois. (2024). **Selected for CSCTR Trainee Abstract Award.**
5. Nieto, B., (Author & Presenter), Cypress, M., O-Uchi, J., **Jhun, B. S., (Advisor)** "AAV-mediated gene expression and deletion in cardiac fibroblasts in vivo", American Physiology Summit, American Physiological Society, Long Beach, California, United States. (2023).
6. **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).
7. **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).
8. 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).

Published in FASEB J. 36(S1), Abstract ID: R6274, 2022

9. **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
10. **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
11. **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 62th Annual Meeting, San Francisco, California. (2018).
12. **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
13. **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).
14. **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
15. **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).
16. **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
17. **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
18. **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).
19. **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

20. **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
21. **Jhun, B. S., (Author & Presenter)**, Lee, H., Yoon, Y. "Mitochondrial fission is an essential process for glucose-stimulated insulin secretion in pancreatic  $\beta$  cells", 65th Annual Meeting and Symposium of the Society of General Physiologists, Woods Hole, Massachusetts. (2011).
22. **Jhun, B. S., (Author & Presenter)**, Yoon, K. S., (Author), Baik, H. H., (Author), Kang, I., (Advisor) "AICAR suppresses IL-2 expression through inhibition of NF-AT and AP-1 activations in Jurkat T cells. nhibition 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, Korea, Republic of. (2005).
23. **Jhun, B. S., (Author & Presenter)**, Baik, H. H., (Author), Yoon, K. S., (Author), Kang, I., (Advisor) "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, Seoul, Korea, Republic of. (2005).
24. **Jhun, B. S., (Author & Presenter)**, Yoon, K. S., (Author), Baik, H. H., (Author), Kang, I., (Advisor) "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, Korea, Republic of. (2005).
25. **Jhun, B. S., (Author & Presenter)**, Baik, H. H., (Author), Yoon, K. S., (Author), Kang, I., (Advisor) "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, Korea, Republic of. (2005).
26. **Jhun, B. S., (Author & Presenter)**, Yoon, K. S., (Author), Cho, Y. H., (Author), Baik, H. H., (Author), Lee, J. H., (Author), Kang, I., (Advisor) "AICA riboside suppresses lipopolysaccharide-induced TNF- $\alpha$  productions through inhibition of phosphatidylinositol 3-kinase/Akt activation in murine macrohages.", The 12th Federation Meeting of Korean Basic Medical Scientists, Seoul, Korea, Republic of. (2004).
27. **Jhun, B. S., (Author & Presenter)**, Lee, J. Y., (Author), Cho, Y. H., (Author), Yoon, K. S., (Author), Baik, H. H., (Author), Kang, I., (Advisor) "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, Korea, Republic of. (2004).
28. **Jhun, B. S., (Author & Presenter)**, Yoon, K. S., (Author), Cho, Y. H., (Author), Baik, H. H., (Author), Kang, I., (Advisor) "AICAR suppresses LPS-induced TNF- $\alpha$  productions through inhibition of phosphatidylinositol 3-kinase/Akt activation in Raw 264.7 murine macrohages.", The 61st Annual Meeting of Korean Society for Biochemistry and Molecular Biology, Seoul, Korea, Republic of. (2004).

29. **Jhun, B. S., (Author & Presenter)**, Lee, J. H., (Author), Cho, Y. H., (Author), Baik, H. H., (Author), Kang, I., (Advisor) "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, Korea, Republic of. (2002).
30. **Jhun, B. S., (Author & Presenter)**, Kim, M. S., (Author), Kim, S. J., (Advisor) "Isolation and characterization of a proteinase inhibitor from Ganoderma Lucidum.", 2000 Fall Scientific Meeting and General Assembly of The Biochemical Society of The Republic of Korea, Taejon, Korea, Republic of. (2000).

## ADVISING AND MENTORING

### Undergraduate Students Activities

#### University of Minnesota

##### Supervised Research and Training:

Brian Rhee	September 2023 - Present
Amelia Carrizales	June 2024 - October 2024
Sanjana Chandran	September 2023 - October 2024
Isabel Chaput	October 2020 - May 2023
Current position: N/A	
Hannah Thompson	January 2020 - June 2020
Current position: Administrator	
University of Minnesota, Minneapolis, MN	
Gayathri Dileepan	July 2019 - November 2020
Current position: Medical Scientist Training Program	
The Ohio State University, Columbus, OH	

##### Visiting Scholar:

Nathan DeMichaelis	June 2024 - October 2024
Dartmouth College, Hanover, NH	
Jacob Welch	June 2024 - July 2024
Vanderbilt University, Nashville, TN	
Maria Landherr	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	June 2018 - August 2018
Brown University, Providence, RI	
Current position: Medical School Student	
University of Washington, Seattle, WA	

#### Rhode Island Hospital and Brown University

##### Supervised Research and Training:

Henley Ma	September 2017 - April 2018
Current position: Medical School Student	

Warren Alpert Medical School of Brown University Providence, RI	
Milla Shin Current position: Software Engineer Amazon Web Services	September 2017 - April 2018
Jessica Cao Current position: Residency Department of Surgery, University of Chicago Chicago, IL	June 2017 - April 2018
Stephanie M. Adaniya Current position: Medical School Student University of Washington Seattle, WA	June 2017 - April 2018
Visiting Scholar: Amy K. Landi Quinnipiac University, Hamden, CT Current Position: Principal Specialist External QA Operations	June 2017 - August 2017

**Post Doc, Resident, and Trainee Supervision/Mentorship**

***Junior Faculty***

Xiaoxu Zhou, M.D., Ph.D., University of Minnesota Current Position: Research Assistant Professor Rhode Island Hospital and Brown University, Providence, RI	October 2021 - May 2022
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***Post Doc***

Michael W. Cypress, Ph.D., University of Minnesota	November 2018 - October 2024
Iullia Polina, Ph.D., University of Minnesota Current position: N/A	July 2019 - July 2023
Neeta Adhikari, Ph.D., University of Minnesota Current Position: Senior Research Specialist Histology Core, University of North Dakota Grand Forks, ND	August 2019 - April 2021
Yuta Suzuki, M.D., Ph.D., University of Minnesota Current Position: Post-doctoral fellow The Hormel Institute, University of Minnesota, Austin, MN	October 2018 - January 2020

***Research Assistant***

Bridget Nieto, B.S., University of Minnesota	April 2022- October 2024
Maria Landherr, B.A., University of Minnesota Current position: Medical School Student University of Minnesota, Minneapolis, MN	July 2022 - June 2023
Hannah Thompson, B.A., University of Minnesota Current position: Administrator University of Minnesota, Minneapolis, MN	July 2020 - April 2021
Jordan Schlichting, B.A., University of Minnesota Current position: N/A	May 2019 - August 2019
Dongqin Yang, B.S., Rhode Island Hospital Current Position: Research Assistant Brown University, Providence, RI	June 2017 - April 2018



Michelle King, B.S., Rhode Island Hospital  
 Current Position: Research Assistant  
 Providence VA Medical Center, Providence, RI  
 January 2016 - April 2018

**Medical School Student**  
 Matthew Dugan, B.A., University of Minnesota  
 November 2023 - Present

**SERVICE AND PUBLIC ENGAGEMENT**

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

**Ad Hoc Reviewer**

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**

American Heart Association, Dallas, Texas	August 2024 - Present
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**Committee Member**

American Physiological Society (APS) Cell & Molecular Physiology Section (CaMPS) Programming Subcommittee, Rockville, Maryland	July 2024 - Present
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**Service to the University/College/Department**

**Campus**

**University of Minnesota**

Member, Poster Award Committee, 15th Annual Cardiovascular Retreat (Cardio Palooza 15), Department of Integrative Biology & Physiology	July 2024
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Interviewer, Faculty Candidate Evaluation, Department of Genetics, Cell Biology and Development	February 2024
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Member, Poster Award Committee, 13th Annual Cardiovascular Retreat (Cardio Palooza 13), Department of Integrative Biology & Physiology August 2022

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

***Department***

***University of Minnesota***

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

Reviewer, LHI Collaborative Pilot Grant Applications, Lillehei Heart Institute, Department of Medicine April 2023

Reviewer, LHI Summer Scholars Program Applications, Lillehei Heart Institute, Department of Medicine February 2023

Member, Search Committee for Investigator at the Rank of Associate/Full Professor, Lillehei Heart Institute, Cardiovascular Division, Department of Medicine 2018 - 2019