

CURRICULUM VITAE

MICHELLE S. PARVATIYAR, PH.D.

The Florida State University
Dept of Nutrition and Integrative Physiology
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EDUCATION

- 2009 Ph.D. Pharmacology, University of Miami, Miller School of Medicine, Miami, FL
Mentor: James D. Potter, Ph.D. Professor and Chair; Dept of Molecular and Cellular Pharmacology
Thesis: “Predicting cardiomyopathic phenotypes by altering the calcium affinity of troponin C”
- 2000 B.A. Biology, Thomas More College, Crestview Hills, KY
Undergraduate Research Mentor: Richard J. Paul, Ph.D. Professor; University of Cincinnati
Undergraduate Research: “Impact of phospholamban loss on cardiovascular function”

TRAINING & POSITIONS

- 2018 - Assistant Professor, Dept of Nutrition and Integrative Physiology, The Florida State University, Tallahassee, Florida
- 2013-2018 Postdoctoral Fellow, Assistant Project Scientist. Dept of Integrative Biology and Physiology, University of California, Los Angeles
Mentor: Rachelle H. Crosbie-Watson, Ph.D. Professor and Chair; Integrative Biology and Physiology; Neurology
- 2011-2013 Postdoctoral Fellow, Dept of Anesthesiology, David Geffen School of Medicine, University of California, Los Angeles
Mentor: Thomas M. Vondriska, Ph.D. Professor; Anesthesiology; Medicine; Physiology
- 2009-2011 Postdoctoral Fellow, Dept of Molecular and Cellular Pharmacology, Miller School of Medicine, University of Miami
Mentor: James D. Potter, Ph.D. Professor and Chair; Dept of Molecular and Cellular Pharmacology
- 2004-2009 Graduate Assistant, Dept of Molecular and Cellular Pharmacology, Miller School of Medicine, University of Miami
Mentor: James D. Potter, Ph.D. Professor and Chair; Dept of Molecular and Cellular
- 2002-2004 Graduate Assistant, Dept of Molecular Genetics, Biochemistry and Immunology, School of Medicine, University of Cincinnati
Mentor: Paul R. Rosevear, Ph.D. Associate Professor; Dept of Genetics, Biochemistry and Immunology
- 1999-2002 Research Assistant, Dept of Molecular and Cellular Physiology, University of Cincinnati, School of Medicine
Advisor: Richard J. Paul, Ph.D. Professor; University of Cincinnati

PROFESSIONAL DEVELOPMENT AND SERVICE

Grant and Manuscript Review

- 2023 *Grant Review* - AHA Study Section - Transformational Project Award – Cardiac Biology Basic Science Committee

- 2022 *Grant Review* - AHA Study Section – Predoctoral and Postdoctoral Fellowships – Cardiac Biology Basic Science Committee
- 2022 *Grant Review* - FSU Mock AHA Review Panel – AHA Career Development Award
- 2022 *Grant Review* - AHA Study Section - Transformational Project Award - Population Sciences Committee
- 2015- *Manuscript Review* – AJP-Heart and Circulatory Physiology, Biochemistry and Biophysics Reports, The Journal of Physical Chemistry, Frontiers in Physiology, PLoS ONE, Comprehensive Physiology, Journal of Applied Physiology, Journal of Molecular and Cellular Cardiology, The Journal of Physiology, MDPI Journals, Circulation: Heart Failure, Cancers, Biomolecules, Circulation Research, Molecular Metabolism
- 2008- *Ad hoc Manuscript Review* – The Journal of Biological Sciences

Editorial Contributions

- 2022 Parvatiyar MS and Qaisar R (2022) Editorial: Skeletal muscle in age-related diseases: From molecular pathogenesis to potential interventions. *Front. Physiol.* 17 Oct. 2022/ doi.org/10.3389/fphys.2022.1056479
- 2021 *Topic Editor (Guest)* with Rizwan Qaisar – Frontiers in Physiology, Section – Striated Muscle Physiology, Research Topic “Skeletal Muscle in Age-Related Diseases: From Molecular Pathogenesis to Potential Interventions”
- 2021- *Topic Editor* – Biomolecules, MDPI Publishing Group
- 2019- *Review Editor* – Frontiers in Physiology, Section - *Striated Muscle Physiology*

Roles in Scientific Sessions and Societies

- 2023 *Co-Chair* with Michael Toth, Ph.D. – Advances in Muscle Biology Conference – “Cytoskeleton, Sarcomere Structure-Function, and Calcium Handling” Advances in Muscle Biology Conference, University of Florida, Gainesville, FL
- 2023 *Chair* – Early Career Committee Event with Vice Chair Brett Colson (University of Arizona) – Cardiac Muscle Society Reception, San Diego, CA
- 2022 *Moderator* - Cardiac Muscle Society – Early Career Committee Virtual Seminar Series – July 1 - Dr. Christopher Toepfer (University of Oxford) “Trying to be Super Relaxed about HCM”
- 2022 *Judge* – Long Format Oral Presentations – Research Showcase - College of Health and Human Sciences, Florida State University, Tallahassee, FL
- 2022 *Contributing Member* - American Journal of Physiology AJP Antibody Guidelines Group, Guidelines Manuscript in AJP Renal Physiology (Aldrin Gomes, Heddwon Brooks)
- 2022 *Chair* – Early Career Committee Event with Vice Chair Brett Colson (University of Arizona) – Cardiac Muscle Society Reception (virtual)
- 2021 *Moderator* - Cardiac Muscle Society – Early Career Committee Virtual Seminar Series – July 2 - Dr. Luca Fusi (King’s College London) “Myosin filament-based regulation of heart contractility”
- 2021 *Co-Chair* with Sakthivel Sadayappan, Ph.D. Experimental Biology (virtual platform), Platform: The Heart in Miniature: Cell to Organoids in a Petri Dish
- 2021 *Chair* – Early Career Committee Event – Cardiac Muscle Society Reception (virtual)
- 2020 *Chair* – Early Career Committee Event with Vice Chair Johnathan Kirk (Loyola University) – Cardiac Muscle Society Reception, San Diego, CA
- 2019 *Co-Chair* with Xuejin Wang, American Heart Association Basic Cardiovascular Sciences – Scientific Sessions, Platform: Beyond Myocytes and Fibroblast: Forgotten Cells of the Heart, Boston, MA
- 2016 *Moderator/Host*, Muscle Cell Biology and Disease Annual Scientific Retreat, Center of Duchenne Muscular Dystrophy, University of California, Los Angeles, CA
- 2016 *Co-Chair* with Sakthivel Sadayappan, Ph.D. American Heart Association Scientific Sessions, Platform: Cellular and Molecular Aspects of Cardiac Hypertrophy, New Orleans, LA

Michelle Parvatiyar: Curriculum Vitae

- 2015 *Co-Chair* with Dr. Noah Wiesleder, Ph.D. Experimental Biology, Platform:
Cellular Membrane Repair in Cardiovascular Physiology and Pathophysiology, Boston, MA

HONORS AND AWARDS

- 2022 McKnight Junior Faculty Development Fellowship – Florida Education Fund
2019 FSU Provost’s Faculty Travel Grant, Spring 2019 (Florida State University)
2019 Circulation Research, Trainee in the Spotlight, “Michelle Parvatiyar, Mentor in the Making.”
Circulation Research. 2019; 124:475-476
2017-2016 AHA-FIT Fellows in Training Program (Western States Affiliate LA County Division)
CDMD Muscle Cell Biology and Disease Annual Scientific Retreat Session –Postdoctoral
Poster Competition (University of California, Los Angeles) (1st Place)
2014 CureDuchenne Fellowship Award
2009 UM Predoctoral Travel Award (University of Miami)
2000 Magna Cum Laude (Thomas More College)
1998-1999 Cincinnati Children’s Hospital Undergraduate Research Fellowship
1995-2000 Dean’s List (Thomas More College)

TEACHING

- 2018 Anatomy and Physiology II, Fall - Sections 011 and 012 (4 credits each), The Florida State
University
2019 Human Physiology, Fall – Cardiovascular Physiology, The Florida State University (graduate)
(6 credits)
2019 Anatomy and Physiology II, Fall - Sections 011 and 012 (4 credits each), The Florida State
University
2020 Anatomy and Physiology II, Fall - Sections 009 and 010 (4 credits), The Florida State
University
2021 Anatomy and Physiology II, Spring & Fall - Sections [Spring (0001, 0011, 0012) (4 credits
each)] and [Fall 0001, 0012] (4 credits each)], The Florida State University
2021 Human Physiology, Fall – Cardiovascular Physiology, The Florida State University (graduate)
(6 credits)
2022 Anatomy and Physiology II, Spring - Sections [Spring (0001, 0012) (4 credits each)], The
Florida State University

RESEARCH SUPPORT

CURRENT

- 2022 McKnight Foundation – Florida Education Fund
Role: Parvatiyar (PI)
Start Date: 8/15/2022 End Date: 8/14/2023
2021 James and Esther King Biomedical Research Program, Florida Department of Health, Title:
“Determining how tobacco use and obesity exacerbates a novel cardiovascular risk factor.”
Role: Parvatiyar (PI)
Start Date: 6/1/2021 End Date 12/1/2024

COMPLETED

- 2021 FSU CRC Planning Grant, Title: “Reduction of Cardiac Injury after Myocardial Infarction.”
Role: Parvatiyar (PI)
Start Date: 5/1/2021 End Date: 12/30/2022

Michelle Parvatiyar: Curriculum Vitae

- 2020 FSU Collaborative Collision Covid 19 Rapid Response Seed Funding, Title: “Understanding genetic, pharmaceutical and environmental factors increasing risk of SARS-CoV-2 infection.” Role: Parvatiyar (PI)
Start Date: 5/11/2020
- 2018 FSU CRC First Year Assistant Professor Grant, Title: “Exploring sex-dependent factors governing a novel driver of obesity” Role: Parvatiyar (PI)
Start Date: 5/1/2019 – 8/1/2019
- 2016 16SDG29120002 American Heart Association Scientist Development Grant, “Exploring muscle cell adhesion as a therapeutic strategy in the heart.”
Role: Parvatiyar (PI)
Start Date: 7/1/2016, End Date: 6/30/2019 (+ no cost extension)
- 2014 CureDuchenne Postdoctoral Fellowship, “Exploring the therapeutic potential of sarcospan in dystrophic cardiomyopathies.”
Role: Parvatiyar (PI)
Start Date: 6/1/2014, End Date: 12/1/2014
- 2011-13 1F32HL110632-01 NIH Ruth L. Kirschstein National Service Award Postdoctoral Fellowship, Title: “Role of linker histone variants in cardiac phenotype in health and disease.” Role: Parvatiyar (PI)
Start Date: 8/1/2011, End Date: 7/30/2013
- 2009-11 09POST2300030 American Heart Association Postdoctoral Fellowship, Title: “Characterization of cTnC mutations related to HCM, RCM and DCM in knock-in mice.”
Role: Parvatiyar (PI)
Start Date: 7/1/09, End Date: 10/15/2010
- 2007-09 2 T32 HL007 188 31A1 NIH Training Program in Cardiovascular Signaling, University of Miami
Role: Parvatiyar (Trainee)
Start Date: 7/1/07, End Date: 6/30/09
- 2005-07 0515211B American Heart Association Predoctoral Fellowship, Title: “Assessment of calcium sensitivity of force of development of cardiac troponin C mutants with altered calcium affinities.” Role: Parvatiyar (PI)
Start Date: 7/1/05, End Date: 6/30/07

PROFESSIONAL MEMBERSHIPS

2008-present The American Heart Association
2012-present The American Physiological Society
2019-present International Society of Heart Research
2005-present The Cardiac Muscle Society
2004-present The Biophysical Society

PUBLICATIONS

PEER REVIEW JOURNALS

1. Kwiat VR, Reis G, Valera IC, Parvatiyar K and **Parvatiyar MS** (2022) Autoimmunity as a sequela to obesity and systemic inflammation. *Front. Physiol.* 2022 Nov 21:13:88702. doi: 10.3389/fphys.2022.887702 (**IF: 4.56**)

2. **Parvatiyar** MS and Qaisar R (2022) Editorial: Skeletal muscle in age-related diseases: From molecular pathogenesis to potential interventions. *Front. Physiol.* 17 Oct. 2022/ doi.org/10.3389/fphys.2022.1056479 (**IF: 4.56**)
3. **Parvatiyar** MS and Pinto JR (2022) On ‘The content of troponin, tropomyosin, actin, and myosin in rabbit skeletal muscle myofibrils’ by James D. Potter. *Archives of Biochemistry and Biophysics* 2022 June 2:109301/doi: 10.1016/j.abb.2022.109301. PMID: 35661778 (**IF: 4.01**)
4. Landim-Vieira M*, Childers M*, Wacker AL, Rodriguez Garcia M, He, H, Singh RK, Brundage EA, Brundage EA, Johnston JR, Whitson BA, Chase PB, Janssen PML, Regnier M, Besiadecki BJ, Pinto JR and **Parvatiyar** MS (2022) (*co-first author). Post-translational modification patterns on β -myosin heavy chain are altered in ischemic and non-ischemic human hearts. *Elife* 2022 May 3;11:e74919/doi: 10.7554/eLife.74919. PMID: 25502901 (**IF: 8.71**)
5. Reinoso TR, Landim-Vieira M, Shi Y, Johnston JR, Chase PB, **Parvatiyar** MS, Landstrom AP, Pinto JR and Tadros HJ (2021) A Comprehensive Guide to Genetic Variants and Post-Translational Modifications of Cardiac Troponin C. *J Muscle Res and Cell Mot.* 2021 Jun;42(2):323-342/ doi: 10.1007/s10974-020-09592-5 (**IF: 3.17**)
6. Marques MA, Landim-Vieira M, Morales AH, Johnston JR, Dieseldorff Jones KM, Cino EA, **Parvatiyar** MS, Valera IC, Kekenes-Huskey, P, Silva JL, Galkin V, Chase PB, Guilherme AP and Pinto JR (2021) Anomalous structural dynamics of minimally frustrated residues in cardiac troponin C triggers hypertrophic cardiomyopathy. *Chemical Sciences.* 2021 Apr 29;12(21),7308-7323/ doi: 10.1039/d1sc01886h (**IF: 9.97**)
7. Bugert CL, Kwiat V, Valera IC, Bugert JJ, **Parvatiyar** MS (2021) Cardiovascular Injury Due to SARS CoV-2. (*Invited Review*) *Curr. Clin. Micro Rep.* 2021 Mar 5:1-11/doi: 10.1007/s40588-021-00160-0 (**IF: 2.93**)
8. Valera IC, Wacker AL, Hwang HS, Holmes C, Laitano O, Landstrom AP and **Parvatiyar** MS (2020) Essential roles of the dystrophin-glycoprotein complex in cardiac disease. *Review. Advances in Med. Sciences.* 2020 Dec 30;66(1):52-71/doi: 10. 1016/j.advms.2020.12.004 (**IF: 3.29**)
9. Tadros JH, Life CS, Garcia G, Pirozzi E, Jones EG, Datta S, **Parvatiyar** MS, Chase PB, Allen HD, Kim JJ, Pinto JR and Landstrom AP (2020) Meta-analysis of cardiomyopathy-associated variants in troponin genes identifies loci and intragenic hot spots that are associated with worse clinical outcomes. *J. Mol. Cell. Cardiol.* Apr 9; 142:118-125/doi: 10.1016/j.yjmcc.2020.04.005 (**IF: 6.23**)
10. Dieseldorff Jones KM, Vied C, Valera IC, Chase PB, **Parvatiyar** MS and Pinto JR (2020) Sexual dimorphism in cardiac transcriptome associated with a troponin C murine model of hypertrophic cardiomyopathy. *Physiological Rep.* 2020 Mar; 8(6): e14396/doi: 10.14814/phy2.14396 (**IF: 2.26**)
11. **Parvatiyar** MS, Kanashiro Takeuchi R, Dieseldorff Jones K, Brownstein AJ, Collado JR, Gopal J, Ferrel A, Beedle A, Pinto JR and Crosbie RH (2019) Recruitment of sarcolemma proteins by sarcospan rescues DMD-cardiomyopathy. *JCI Insight.* 2019;4(11):e123855/ doi.org/10.1172/jci.insight.123855 (**IF: 9.48**)
12. Marques MA*, **Parvatiyar** MS*, Yang W, de Oliveira GP and Pinto JR (2019) (*co-first author) The missing links within troponin. *Invited Review. Archives of Biochemistry and Biophysics.* Mar 15;663-95-100 (**IF: 4.01**)
13. Veltri T, Landim-Vieira M, **Parvatiyar** MS, Gonzalez-Martinez D, Jones DK, Michell CA, Dweck D, Landstrom AP, Bryant PB and Pinto JR (2017) Hypertrophic cardiomyopathy cardiac troponin C mutations differentially affect slow skeletal and cardiac muscle regulation. *Front. Physiol./* doi:10.3389/fphys.2017.00221(**IF: 4.56**)
14. **Parvatiyar** MS, Marshall JL, Nguyen RN, Jordan MC, Richardson VA, Roos KP and Crosbie-Watson RH (2015) Sarcospan regulates cardiac isoproterenol response and prevents Duchenne muscular dystrophy associated cardiomyopathy. *JAHA.* Dec 23;4(12). pii: e002481 (**IF: 5.50**)
- *Featured Article.* Vander Heide RS (2015) Mending a broken heart: the role of sarcospan in Duchenne muscular dystrophy-associated cardiomyopathy. *JAHA.* Dec 23;4(12). pii: e002928
15. Martins AS*, **Parvatiyar** MS*, Feng H-Z, Bos JM, Martinez DG, Vukmirovic M, Turna R, Sanchez-Gonzales MA, Badger C-D, Zorio D, Wang Y, Jin J-P, Ackerman MJ and Pinto JR (2015) (*co-first

- author**) *In vivo* analysis of troponin C knock-in (A8V) mice: Evidence that *TNNC1* is a hypertrophic cardiomyopathy susceptibility gene *Circ. Cardiovasc. Genet.* Oct; **8**(5):653-64 (IF: 4.53)
16. Parvatiyar MS and Pinto JR (2015) Pathogenesis associated with a restrictive cardiomyopathy mutant in cardiac troponin T is due to reduced protein stability and greatly increased myofilament Ca^{2+} sensitivity. *BBA General Subjects* **1850**(2):365-72 (IF: 4.12)
 17. Chen H, Monte E, Parvatiyar MS, Garrido MR, Franklin S and Vondriska TM (2012) Structural considerations for chromatin state models with transcription as a functional readout. *FEBS Letters*. **586**(20):3548-54 (invited review) (IF: 4.12)
 18. Pinto JR, Gomes AV, Jones MA, Liang JS, Nguyen, S, Miller, T, Parvatiyar MS and Potter JD (2012) The functional properties of human slow skeletal troponin T isoforms in cardiac muscle regulation. *J. Biol. Chem.* **287**(44):37362-70 (IF: 5.49)
 19. Monte E, Chen H, Kolmakova M, Parvatiyar MS, Vondriska TM and Franklin S (2012) Quantitative analysis of chromatin proteome in disease. *J. Vis. Exper.* Dec 28 (70) (IF: 1.42)
 20. Parvatiyar MS, Landstrom AP, Pinto, JR, Figueiredo-Freitas, C, Ackerman, MJ and Potter JD (2012) A mutation in *TNNC1*-encoded cardiac troponin C, A31S, predisposes to hypertrophic cardiomyopathy and ventricular fibrillation. *J. Biol. Chem.* **287**(38):31845-55 (IF: 5.49)
 21. Pinto JR, Siegfried JD, Parvatiyar MS, Li D, Norton N, Jones MA, Liang J, Potter JD and Hershberger RE (2011) Functional characteristics of *TNNC1* rare variants identified in dilated cardiomyopathy. *J. Biol. Chem.* **286**: 34404-34412 (IF: 5.49)
 22. Pinto JR, Yang SW, Hitz MP, Parvatiyar MS, Jones MA, Liang J, Victor K, Jaeggi G, Andelfinger G and Potter JD (2011) Fetal cardiac troponin isoforms rescue the increased Ca^{2+} sensitivity produced by a novel double deletion in cardiac troponin T linked to infantile restrictive cardiomyopathy: a clinical, genetic, and functional approach. *J. Biol. Chem.* **286**(23):20901-12 (IF: 5.49)
 23. Pinto JR, Reynaldo JD, Parvatiyar MS, Dweck D, Jones MA, Liang J, Sorenson MM and Potter JD (2011) Strong crossbridges potentiate the Ca^{2+} affinity changes produced by hypertrophic cardiomyopathy cardiac troponin C mutants in myofilaments: a fast kinetic approach. *J. Biol. Chem.* **286**(2):1005-13 (IF: 5.49)
 24. Parvatiyar MS, Pinto JR, Dweck D and Potter JD (2010) Cardiac troponin mutations and restrictive cardiomyopathy. *J. Biomed. Biotech.* **2010**:350706 (invited review) (IF: 4.53)
 25. Parvatiyar MS, Pinto JR, Liang JS, Potter JD (2010) Predicting cardiomyopathic phenotypes by altering Ca^{2+} affinity of cardiac troponin C. *J. Biol. Chem.* **285**(36):27785-97 (IF: 5.49)
 26. Hershberger RE, Pinto JR, Parks SB, Kushner JD, Li D, Ludwigsen S, Cowan J, Morales A, Parvatiyar MS and Potter JD (2009) TNNT2 coding sequence mutations identified in 313 patients with familial or idiopathic cardiomyopathy. *Circ. Cardiovasc. Genet.* **2**(4):306-13 (IF: 4.53)
 27. Pinto JR*, Parvatiyar MS*, Jones MA, Liang J, Ackerman MJ and Potter JD (2009) (*co-first author). A functional and structural study of troponin C mutations related to hypertrophic cardiomyopathy. *J. Biol. Chem.* **284**(28):19090-100 (IF: 5.49)
 28. Willott RH, Gomes AV, Chang AN, Parvatiyar MS, Pinto JR and Potter JD (2009) Mutations in troponin that cause HCM, DCM and RCM: what can we learn about thin filament function? *J. Mol. Cell. Cardiol.* **48**(5):882-92 (invited review) (IF: 6.23)
 29. Chang AN, Parvatiyar MS, Potter JD (2008) Troponin and cardiomyopathy. *Biochem. Biophys. Res. Commun.* **369**(1):74-81 (invited review). (IF: 3.56)
 30. Landstrom AP*, Parvatiyar MS*, Pinto JR*, Marquardt ML, Bos JM, Tester DT, Ommen SR, Potter JD and Ackerman MJ (2008) (*co-first author). Molecular and functional characterization of novel hypertrophic cardiomyopathy susceptibility mutations in *TNNC1*-encoded troponin C. *J. Mol. Cell. Cardiol.* **45**(2):281-8 (IF: 6.23)
 31. Pinto JR, Parvatiyar MS, Jones MA, Liang J and Potter JD (2008) A troponin T mutation that causes infantile restrictive cardiomyopathy increases the Ca^{2+} sensitivity of force development and impairs the inhibitory properties of troponin. *J. Biol. Chem.* **283**(4):2156-66 (IF: 5.49)

32. Pritchard TJ, **Parvatiyar** MS, Bullard DP, Lynch RM, Lorenz JN and Paul RJ (2007) Transgenic mice expressing Na⁺-K⁺-ATPase in smooth muscle decreases blood pressure *Am. J. Physiol. Heart. Circ. Physiol.* **293**: H1172-H1182 (**IF: 5.13**)
33. Parvatiyar K, Alsabbagh EM, Ochsner UA, **Stegemeyer** MA, Smulian AG, Hwang SH, Jackson CR, McDermott TR, and Hassett DJ (2005) Global analysis of cellular factors and responses involved in *Pseudomonas aeruginosa* resistance to arsenite. *J. Bacteriology* **187**(14): 4853-4864 (**IF: 3.48**)
34. Shelly DA, He S, Moseley A, Weber C, **Stegemeyer** M, Lynch RM, Lingrel J and Paul RJ (2004) Na⁺ pump α_2 -isoform specifically couples to contractility in vascular smooth muscle: evidence from gene-targeted neonatal mice. *Am J Physiol. Cell Physiol.* **286**:C813-C820 (**IF: 4.23**)

MANUSCRIPTS SUBMITTED/IN PREPARATION

1. Kahmini AR, Valera IC, Carbonell AC, Prascak J, Mumbi F, Hwang H-S* and **Parvatiyar** MS* (2023) (***co-corresponding author**). Sarcospan deficiency alters the acute cardiac response to ischemia-reperfusion injury. *Inter. J. Mol. Sciences (submit 2/28/23)* (**IF: 6.21**)
2. Valera IC*, Kahmini AR*, Crawford RQ, Elsheikh S, Samarah L, Reis G, Matthews AR, Takeuchi-Kanashiro R and Parvatiyar MS (2023) (***co-first author**). Evaluating the Sex Dependent Influence of Sarcospan on Cardiometabolic Disease Traits in Mice. *Am. J. Physiol. Heart. Circ. Physiol. (submitted)* (**IF: 5.13**)
3. McCourt J*, **Parvatiyar** MS*, Jordan MC, Mamsa H, Brownstein AJ, Collado JR, Rafael-Fortney JA, Janssen PML, Roos KP and Crosbie RH (2023) (***co-first author**). Cardiac Phenotypes Support Sarcospan as a Risk Variant in Human Heart Failure. *Frontiers in Cardiovascular Medicine (submitted)* (**IF: 6.05**)
4. **Parvatiyar** MS, Neito Morales P, Kahmini AR and Pinto JR (2023) Progress in the Troponin Field: A Historical Perspective from the 70's Onward. *Review. Archives of Biochemistry and Biophysics (in revision)* (**IF: 4.1**)
5. Valera IC, Olateju B, Mohammadipour N, Samarah L, Kahmini AR, Dieseldorff Jones K, Mumbi F, Crawford R, and **Parvatiyar** MS (2023) Sarcospan Influences Inflammatory Signaling in Diet-Induced Obesity Mouse Models (*in preparation*).
6. Reichardt A, Ma F, Crum TF, Aliyari SR, **Parvatiyar** MS and Parvatiyar K (2023) LATS1 Regulates the Type I Interferon Response Through Alterations in Hippo Signaling (*in preparation*).

ABSTRACTS AND PRESENTATIONS

INVITED TALKS

1. **Parvatiyar** MS (2022) Obesity Susceptibility and Sarcospan. The Diabetes Institute at the Heritage College of Osteopathic Medicine. Ohio University, Athens, OH. October 26, 2022
2. **Parvatiyar** MS (2022) Alterations in Post-translational modification patterns on β -myosin heavy chain in ischemic and non-ischemic human hearts. Department of Physiology and Cell Biology, College of Medicine, The Ohio State University, Columbus, OH. November 10, 2022
3. **Parvatiyar** MS (2022) Post-translational modification patterns on β -myosin heavy chain are altered in ischemic and non-ischemic human hearts. International Sarcomere Society Meeting (virtual). Center for Translational Muscle Research. University of Washington, Seattle, WA. June 30, 2022
4. **Parvatiyar** MS (2019) Remodeling the Cardiac Sarcolemma to Improve Disease Outcomes. Department of Chemical and Biomedical Engineering, The Florida State University, Tallahassee, FL
5. **Parvatiyar** MS (2019) Understanding how sarcolemmal remodeling influences disease. Department of Nutrition, Food and Exercise Sciences Seminar Series, The Florida State University, Tallahassee, FL
6. **Parvatiyar** MS, et al. (2019) Beta-myosin heavy chain post-translational modifications in failing and non-failing human hearts. Invited Oral Presentation. Biophysical Society Meeting, Baltimore, MD

7. **Parvatiyar** MS (2018) Recruitment of sarcolemma proteins by sarcospan rescues Duchenne muscular dystrophy associated cardiomyopathy. Invited Speaker, Institute Molecular Biology, Structural Biology/Biochemistry Seminar Series, The Florida State University, Tallahassee, FL
8. **Parvatiyar** MS (2017) Exploring membrane stabilization and cellular adhesion as a strategy to ameliorate cardiac disease. Invited Speaker, Department of Internal Medicine, Cardiology Grand Rounds, University of Cincinnati, Cincinnati, OH
9. **Parvatiyar** MS (2017) Enhancing cell membrane stability and cell adhesion as a strategy to ameliorate cardiac disease. Speaker: Center for Duchenne Muscular Dystrophy at UCLA, Los Angeles, CA
10. **Parvatiyar** MS (2016) Targeting membrane stabilization and cell adhesion in cardiac disease. Invited Speaker, Ask an Expert Seminar Series, Department of Cardiology, University of Heidelberg, Heidelberg, Germany
11. **Parvatiyar** MS (2016) Exploring membrane stabilization and cell adhesion as a strategy to ameliorate cardiac disease. Invited Speaker, Departmental Seminar Series, Department of Biomedical Sciences, The Florida State University, College of Medicine, Tallahassee, FL
12. **Parvatiyar** MS, Richardson VA, Marshall JL, Nguyen RT, Jordan MC, Roos KP and Crosbie-Watson RH (2015) The role of sarcospan in cardiac sarcolemma organization and function. *FASEB J* 29:1 Suppl 801.3 (Invited Oral Presentation); Experimental Biology, Boston, MA
13. **Parvatiyar** MS (2014) The role of sarcospan in the cardiac hypertrophic response (Invited Oral Presentation); UCLA Center for Duchenne Muscular Dystrophy Retreat, Los Angeles, CA

INVITED LECTURES

1. Panel Discussion HOE – Women – Careers in Science (Oct. 29, 2019) Invited by: Dr. Michael Delp
2. Responsible Conduct in Research, “Underrepresentation of Women in the Sciences (Oct. 23, 2020) Invited by Dr. Bryant Chase
3. Research Design & Methods- Research Presentation (Oct. 28, 2020) Invited by Dr. Bahram Arjmandi
4. Research Design & Methods- Research Presentation (Oct. 27, 2021) Invited by Dr. Bahram Arjmandi
5. Research Design & Methods- Research Presentation (Oct. 19, 2022) Invited by Dr. Bahram Arjmandi

POSTER PRESENTATIONS (LAST FIVE YEARS)

1. Olateju BS, Kahmini AR, Valera IC, Reis G, Samarah L, Mumbi F, Mohammadipour N and **Parvatiyar** MS (2023) Assessment of the Response of Young and Aged Sarcospan-Deficient Mice to Nutrient Excess. American Physiological Society Summit – Long Beach, CA (upcoming)
2. Patel S, Florence J, da Santos, GL, Coscarella IL, Garcia MR, Chase PB, Laitano O, Pinto JR and **Parvatiyar** MS (2023) Understanding the Impact of Cardiomyopathy Variants in the *TNNC1* Gene on Skeletal Muscle Function. Advances in Muscle Biology Conference, University of Florida, Gainesville, FL (upcoming)
3. Kahmini AR, Valera IC, Carbonell AC, Prascak J, Mumbi F, **Parvatiyar** MS and Hwang HS (2023) Compensatory calcium handling may underlie increased arrhythmia susceptibility of sarcospan-deficient mice after ischemia-reperfusion injury, Biophysical Society Meeting, San Diego, CA
4. Mumbi F, Vieira ML, Olateju BS, Coscarella IL, Chase PB, Pinto JR and **Parvatiyar** MS (2023) Investigating the Sarcolemma-Sarcomere Connection in Dictating Force Transmission in the Heart, Biophysical Society Meeting, San Diego, CA
5. Crawford RQ, Valera IC, Pindado J, Reis G, Rahimi Kahmini A, Mumbi F, Parvatiyar K and **Parvatiyar** MS (2022) Sarcospan-deficient mice exhibit a heightened inflammatory phenotype under obesiogenic conditions. Experimental Biology Meeting, Apr 2-5, *FASEB J*
6. Matthews A, Valera I, Crawford R, Elsheikh S, Hwang HS and **Parvatiyar** MS (2021) Establishing a Role for Sarcospan as an Obesity-Susceptibility Gene in Mice. Experimental Biology Meeting (virtual). *FASEB J* 35:S1
7. Salazar G, **Parvatiyar** MS, Valera I, Cullen A and Hwang H. (2021) Reduction of P62/SQSTM1 on Calcium Handling in Stressed Myocytes. Experimental Biology Meeting (virtual) *FASEB J* 35:S1

8. Landim-Vieira M, Childers MC, Wacker AL, Rodriguez Garcia M, Singh RK, Brundage EA, Whitson BA, Janssen PM, Chase PB, Besiadecki BJ, Regnier M, Pinto JR and **Parvatiyar** MS (2021) Post-Translational Modifications in Human Beta-Myosin Heavy Chain. Biophysical Society Meeting (virtual). *Biophysical Journal* 120:3, p332a-333a
9. Coscarella IL, Vieira ML, Valera IC, Wacker AL, Chase PB and **Parvatiyar** MS. (2020) Connecting cardiac sarcolemma protein content with sarcomeric function. Biophysical Society Meeting (San Diego, CA). *Biophysical Journal* 118:3, Suppl 1,595A, Feb 07, 2020
10. Wacker AL, Rodriguez Garcia MC, Vieira ML, Singh RK, Brundage EA, Whitson BA, Janssen PM, Chase PB, Biesiadecki BJ, **Parvatiyar** MS and Pinto JR. (2020) Reduced beta myosin heavy chain K213 Acetylation and T215 phosphorylation in human heart failure. Biophysical Society Meeting (San Diego, CA). *Biophysical Journal* 118:3. Suppl 1, 436A, Feb 07,2020
11. Dieseldorff Jones KM, Vied C, Valera IC, Chase PB, **Parvatiyar** MS and Pinto JR. (2020) Sex differences in regulating the cardiac transcriptome within a murine model for hypertrophic cardiomyopathy. Biophysical Society Meeting (San Diego, CA). *Biophysical Journal* 118:3 Suppl 1, 594A-595A, Feb 07, 2020
12. Wacker AL, Elsheikh S, Valera IC, Hwang HS and **Parvatiyar** MS. (2020) Understanding Sarcospan Protein Function by Exposure of Mice to Beta-Adrenergic Stress Conditions. *FASEB J* 34:S1 Apr 19, 2020
13. Hwang HS, Pindado J, Koh Y, **Parvatiyar** MS and Salazar G. (2020) Protective Role of P62 Protein on Acute Ischemia-Induced Arrhythmia Susceptibility. *FASEB J* 34:S1 Apr 16, 2020
14. Tardos HJ, Life CS, Garcia G, Jones EG Gong D, **Parvatiyar** MS, Allen HD, Kim JJ, Yan N, Pinto JR and Landstrom AP (2018) Amino acid-level signal-to-noise analysis of rare variants in the troponin complex identifies “hot spots” associated with early heart failure, increased mortality, and sudden death. American Heart Association Meeting – General Sessions (Chicago, IL).
15. **Parvatiyar** MS, Kanashiro Takeuchi R, Dieseldorff Jones K, Brownstein AJ, Collado JR, Gopal J, Hammond KG, Pinto JR and Crosbie-Watson RH (2018) Sarcospan rescues cardiac function in Duchenne muscular dystrophy mouse models in the absence of abundant utrophin upregulation. New Directions in Biology and Disease of Skeletal Muscle Conference, New Orleans, LA

TRAINEES (THESIS ADVISING & ACADEMIC RESEARCH)

- 2023- **Nazanin Mohammadipour**, Ph.D. candidate - Exercise Physiology, Florida State University
- 2022- **Luaye Samarah**, B.S., Masters student (Thesis Track) – Exercise Physiology, Florida State University
- 2022- **Valerie Olmo-Rodriguez** – undergraduate - Public Health, Florida State University
- 2022- **Rebecca Uh**, - undergraduate – Exercise Physiology, Florida State University
- 2022 **John Suarez**, B.S. – undergraduate - Athletic Training, Florida State University
- 2022- **Bolade Olateju**, B.S., M.S. - Ph.D. candidate - Exercise Physiology, Florida State University
Endowment for Excellence Scholarship
- 2021- **Sonu Patel** - undergraduate – Exercise Physiology, Florida State University
- 2021- **Jaelynn Florence** - undergraduate – Exercise Physiology, Florida State University
2022 Recipient - Elizabeth and Frank Ralston Endowment for College of Human Sciences –
2022 Recipient - Wilson Sitton Endowed Scholarship
Dental Student – Midwestern University, Phoenix, AZ
- 2021- **Florence Mumbi** - undergraduate – Biochemistry, Florida State University
FSU IDEA Grant – Center for Undergraduate Research and Academic Engagement
AHA SURF University of Cincinnati – Summer Research Fellowship (lab – Dr. Chen Gao)
- 2021 - **Aida Rahimi Kahmini**, B.S. – Ph.D. candidate – Thesis track, Exercise Physiology, Florida State University

Michelle Parvatiyar: Curriculum Vitae

- 2021- **Gisienne Reis**, B.S. - Masters student (Thesis track), Exercise Physiology, Florida State University
- 2020- **Victoria Kwiat**, B.S. – Interdisciplinary Medical Sciences, Florida State University
Intern – Florida Department of Health – Surgeon General Office
- 2019-2022 **Aaron Matthews**, B.S., M.S. – Ph.D. candidate – Exercise Physiology, Florida State University
- 2018- 2022 **Rhiannon Crawford**, B.S. undergraduate – Interdisciplinary Medical Sciences, Florida State University
Honor’s Thesis in the Major (Spring 2022)
MS Program Family and Child Sciences
- 2018-2020 **Khari King**, B.S. - Exercise Physiology, Florida State University
FSU Honors Medical Scholars Program (2016)
Medical Student - Florida State University – Class of 2024
FSU Exercise Science Physicians’ College of Medicine Scholarship
- 2018-2020 **Salma El-Sheikh**, B.S. - Interdisciplinary Medical Sciences, Concentration: Clinical Professions, Florida State University
Chemistry P.A.S.S. Leader (Aug. 2017 – present)
Honor’s Thesis in the Major (Spring 2020)
Medical Student - Florida State University – Class of 2024
- 2018-2020 **Amanda L. Wacker**, B.S. - Molecular, Cellular and Developmental Biology, Florida State University
Honor’s Thesis in the Major (Spring 2020)
SMART 2019 Intern
Honor’s Thesis (Spring 2019 – Spring 2020)
NASA Summer Research Program (Summer 2020)
Ph.D. Candidate – University of California, San Diego, Molecular and Cellular Biology
- 2018-2019 **Alexander Craddock**, B.S., M.S. – Exercise Physiology, Florida State University
Associate degree, Nutrition Sciences
M.S. Biomedical Sciences, University of South Florida
- 2016-2018 **Alexandra J. Brownstein**, B.S., M.S. (post-graduate advisor, UCLA in Dr. R. H. Crosbie-Watson’s lab)
Ph.D. Candidate – Molecular, Cellular and Integrative Physiology Program, UCLA
- 2015-2018 **Judd Collado**, B.S. (undergraduate, UCLA in Dr. Crosbie-Watson’s lab)
CARE Scholars Program
CARE Summer Research Fellowship Recipient – Summer, 2017
ABRCMS 2017 Annual Biomedical Research Conference for Minority Students –Poster Presentation Award, Phoenix, AZ
- 2014-2017 **Jay Gopal**, B.S. (undergraduate, UCLA in Dr. Crosbie-Watson’s lab)
President and Founding Member, UCLA Youth Movement Against Alzheimer’s Non-Profit
UCLA Dean’s Prize for Excellence at Research Poster Day – 2017
UCLA Physiological Sciences Poster Day 2017 – 1st Place
Medical Student – University of South Florida, Tampa, FL – Class of 2022
- 2014-2016 **Abel Ferrel**, B.S., Ph.D. (undergraduate, UCLA in Dr. R. H. Crosbie-Watson’s lab)
UCLA Bridges Summer Undergraduate Research Program (NIH funded)
MARC Scholar
Howard Hughes Medical Institute (HHMI) Exceptional Research Opportunities Program (EXROP) – Summer 2015
Ph.D - Department of Microbiology and Immunology, Stanford University, CA
- 2013-2016 **Tanya Sowmendran**, B.S., M.S.N. (graduate student, UCLA in Dr. R. H. Crosbie-Watson’s lab)
M.S. in Nursing, UCLA (2016)

- 2013-2015 **Vanitra A. Richardson**, B.S., M.S. (graduate student, UCLA of Dr. R. H. Crosbie-Watson)
Eugene V. Cota-Robles Fellowship UCLA
William Townsend Porter Predoctoral Fellowship-American Physiological Society
American Physiological Society Minority Travel Fellowship Award 2015
- 2013-2015 **Reginald T. Nguyen**, B.S. (undergraduate, UCLA in Dr. R. H. Crosbie-Watson's lab)
Biomedical Research Minor Award
Whitcome Summer Undergraduate Research Fellowship – Summer, 2014
Medical Student, Oakland University, MI – Class of 2020
Medical Resident – Emergency Medicine – University of California, San Francisco
- 2012-2013 **Timothy D. Lopez**, B.S. (undergraduate, UCLA in Dr. T. M. Vondriska's lab)
- 2012-2013 **Shanxi Jiang** (undergraduate, Fudan University, China) in Dr. Thomas Vondriska's lab
Cross-Disciplinary Scholars in Science & Technology, UCLA
Ph.D. Molecular and Cellular Integrative Physiology Program, UCLA
- 2011-2012 **Soobin Lim**, B.S. (undergraduate, UCLA in Dr. T. M. Vondriska's lab)
M.D. Tulane University, Medical Resident Plastic Surgery
- 2011-2012 **Maria Kolmakova**, B.S., D.O. (undergraduate, UCLA in Dr. T. M. Vondriska's lab)
D.O. West Virginia School of Osteopathic Medicine
- 2010-2011 **Sherlley Sanon**, B.S., M.S. (undergraduate, University of Miami in Dr. J. D. Potter's lab)
MS, Biomedical Science, Barry University, Florida
- 2010-2011 **Olivia Ortiz**, B.S. (undergraduate, University of Miami in Dr. J. D. Potter's lab)
- 2009-2011 **Danay Delgado**, B.S. (undergraduate, University of Miami in Dr. J. D. Potter's lab)

THESIS ADVISING (EXTERNAL COMMITTEE MEMBER MS AND PHD)

1. **Tooyib Azeez** – Ph.D. Student – Exercise Physiology – Florida State University, thesis advisor Dr. Justin LaFavor (2019 – present)
2. **Ann Centner** – Ph.D. Student – Exercise Physiology – Florida State University, thesis advisor Dr. Gloria Salazar (2020 – 2022)
3. **Liang Chen** – Ph.D. Student – Structural Biology and Molecular Biophysics - Institute of Molecular Biophysics – Florida State University, thesis advisor Dr. Ken Taylor (2021 – present)
4. **Jacob Zheng** – Ph.D. Student – Exercise Physiology – Florida State University, thesis advisor Dr. Dan Machin (2022 – present)
5. **Christina Deacon** – MS Student – Exercise Physiology - Thesis Track – Florida State University, thesis advisor Dr. Dan Machin (2022 – present)

THESIS ADVISING (EXTERNAL COMMITTEE MEMBER UNDERGRADUATE)

1. **Elizabeth Meinert-Spyker** – Honor's in the Major Thesis – Biomedical Engineering (Spring 2021), FAMU-FSU, thesis advisor Dr. Christina Holmes
2. **Sydney Elyse Hall** – Honor's in the Major Thesis – Biomedical Engineering (Spring 2022), FAMU-FSU, thesis advisor Dr. Christina Holmes
3. **Dhenu Patel** – Honor's in the Major Thesis – Exercise Physiology (Spring 2022), Florida State University College of Medicine, thesis advisor Dr. Jerome Irianto
4. **Zachary Loah** – Honor's in the Major Thesis – Biomedical Sciences (Spring 2023), thesis advisor Dr. J. Renato Pinto
5. **Savanah Buro** – Honor's in the Major Thesis – Biomedical Engineering (Spring 2023), FAMU-FSU, thesis advisor Dr. Christina Holmes

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