PRZEMYSŁAW RADWAŃSKI, PHARMD, PHD

ASSOCIATE PROFESSOR OF PHARMACEUTICS AND PHARMACOLOGY

THE OHIO STATE UNIVERSITY, COLLEGE OF PHARMACY

2255 KENNY RD, PRC 5187

COLUMBUS, OHIO 43210 USA

RESEARCH INTERESTS

■ Mechanism of arrhythmias & calcium signaling ■ Mechanism of SUDEP ■ Pharmacoepidemiology ■ Ion channel biophysics ■ Cardiac and neural pharmacology & electrophysiology ■ Scanning ion conductance microscopy

PROFESSIONAL EXPERIENCE

08/23 – Present	**Associate Professor with tenure**	
	Division of Pharmaceutics and Pharmacology, College of Pharmacy	
	The Ohio State University	Columbus, Ohio
08/14 – Present	**Principal Investigator**	
	Dorothy M. Davis Heart and Lung Research Institute	
	The Ohio State University Wexner Medical Center	Columbus, Ohio
08/18 – 7/24	**Clinical Pharmacist – Antiarrhythmia Medications Clinic**	
	The Ohio State University Wexner Medical Center	Columbus, Ohio
05/17 – 7/23	**Assistant Professor**	
	Division of Outcomes and Translational Sciences, College of Pharmacy	
	The Ohio State University	Columbus, Ohio
08/14 – 04/17	**Research Assistant Professor**	
	Division of Pharmacy Practice and Science, College of Pharmacy	
	The Ohio State University	Columbus, Ohio
10/11 – 05/14	**Guest Lecturer**	
	The University of Utah	Salt Lake City, Utah
	Department of Pharmaceutics and Pharmaceutical Chemistry	
06/05 – 10/14	**Clinical Pharmacist**	
	Intermountain Healthcare	Murray, Utah

EDUCATION

7/14	**Post-doctoral Research Fellowship**	
	The Ohio State University	Columbus, Ohio
	Department of Physiology and Cell Biology	
	Advisor: Sándor Györke, Ph.D.	
08/11	**Experimental Cardiovascular Pharmacotherapy Fellowship**	
	The University of Utah	Salt Lake City, Utah
	Department of Pharmacotherapy	
	Advisor: Mark A. Munger, Pharm.D., FCCP, FACC, FHFSA	
12/10	**Doctor of Philosophy**	
	The University of Utah	Salt Lake City, Utah
	Department of Pharmacology and Toxicology	
	Advisor: Steven Poelzing, Ph.D., FAHA, FHRS	

E-MAIL RADWANSKI.2@OSU.EDU

460 MEDICAL CENTER DR, IBMR 415C• COLUMBUS, OHIO 43210 • PHONE (614) 366-2696

06/06 **Pharmacy Practice Residency**
LDS Hospital/Intermountain Healthcare — Salt Lake City, Utah

05/05 **Doctor of Pharmacy**
Member of the Honors College
The University of Illinois at Chicago — Chicago, Illinois

PRESENT GRANT AWARDS

04/23 – 3/28 **R01HL165751** – NIH NHLBI — Veeraraghavan, R & Weinberg S (MPI)
Distinct ion channel pools and intercalated disk nanoscale structure regulate cardiac conduction. (role: CoI; 10% FTE)

4/22 – 3/27 **R01 HL138579** – NIH NHLBI — Davis, J & Gyorke, S (MPI)
Regulation of cardiac EC coupling by calmodulin (role: Co-I; 7% FTE)

12/21 – 11/26 **R01NS121234** – NIH NINDS — Radwanski, PB (PI; 25% FTE)
Defining novel mechanisms of sudden death in Dravet syndrome: Dysregulation of sodium channels in the heart.
Total award: $ 2,123,790

09/21 – 8/26 **R01HL155378** – NIH NHLBI — Radwanski, PB (PI; 30% FTE)
Regulation and dysregulation of sodium channels by calmodulin.
Total award: $ 2,464,655

PAST GRANT AWARDS

07/19 – 8/21 **AHA19TPA34910191** - Transformational Project — Radwanski, PB (PI; 10% FTE)
A novel therapeutic paradigm for arrhythmogenic calmodulinopathy.
Total award: $300,000

05/15 – 8/21 **R00HL127299** – NIH NHLBI Career Development — Radwanski, PB (PI; 15% FTE)
Microdomain regulation of Ca^{2+} release in cardiac physiology and disease.
Total award: $936,269

01/19 – 1/20 **Saving tiny Hearts Society Grant** — Radwanski, PB (PI; 10% FTE)
A novel therapeutic paradigm for congenital arrhythmias
Total award: $75,000

11/14 - 10/15 **Investigator Development Research Award** – ACCP Card PR — Radwanski, PB (PI)
Neuronal Sodium Channels as an Antiarrhythmic Target in CPVT.

06/13 **AHAPOST17220006** - Postdoctoral Fellowship — Radwanski, PB (PI)
The role of tetrodotoxin-sensitive Na^+ channels in catecholaminergic polymorphic ventricular tachycardia (CPVT) – This award was declined due to maximum post-doctoral grants funded in the sponsor's laboratory.

01/11 - 12/13 **T32HL098039** - Ruth L. Kirschstein Institutional NRSA — Radwanski, PB (PI)
Post-doctoral Training in Congenital and Acquired Heart Disease

PENDING GRANT AWARDS

04/26 – 3/31 **R01HL155378-6** – NIH NHLBI — Radwanski, PB (PI; 30% FTE)
Regulation of sodium channels by interacting proteins.

09/25 – 08/28 **AHA 25TPA1472051** - Transformational Project Radwanski, PB (PI; 10% FTE)
A novel therapeutic paradigm for arrhythmias associated with Nav1.5 functional deficiency. (Score: 20%)

PUBLICATIONS - ORIGINAL RESEARCH (H-INDEX: 23, 1612 CITATIONS, RCR 1.25)

https://www.ncbi.nlm.nih.gov/myncbi/przemyslaw.radwanski.1/bibliography/public/

1. Tarasov M, Ammon M, Wirth JO, Hampton C, Selimi Z, Veeraraghavan R, **Radwański PB.** Clustering Dynamically Modulate the Biophysics of Voltage-Gated Sodium Channels: How Nanoscale Phenomena Determine Health and Disease. bioRxiv [Preprint]. 2025 May 31: bioRxiv 2025.05.31.657169. doi.org/10.1101/2025.05.31.657169. Provisionally accepted by ***Nature Communications***.
2. Selimi Z, Tarasov M, Meng X, Dias P, Moise B, Veeraraghavan R, **Radwański PB.** Selectivity filter mutation in Nav1.5 promotes ventricular tachycardia. *JACC Clin Electrophysiol.* 2026 Feb 5:S2405-500X(25)01118-1.
3. Kim S, Welch L, Santos BL, **Radwański PB**, Munger MA, Kim K. Association of Ventricular Arrhythmias with Lamotrigine: An Observational Cohort Study. *Sci Rep.* 2025 Jun 4;15(1):19542.
4. Dias P, Meng X, Selimi Z, Struckman H, Veeraraghavan R, **Radwański PB**. Lamotrigine promotes reentrant ventricular tachycardia in murine hearts. *Epilepsia.* 2025 May;66(5):1691-1702.
5. Kim K, Kim S, Katana M, Terentyev D, **Radwański PB***, Munger MA*. Riluzole is associated with reduced risk of heart failure. *Eur J Neurol.* 2025 Jan;32(1):e70033. ***co-corresponding authors**
6. Kim K, Welch L, Keur J, Anderson H, **Radwański PB**, Munger MA. Ivabradine and Atrial Fibrillation Incidence: A Nested Matching Study. *JACC Adv.* 2025 Oct 28;4(12 Pt 2):102282..
7. Kim S, Welch L, Santos BL, **Radwański PB**, Munger MA, Kim K. Association of atrial fibrillation with lamotrigine: An observational cohort study. *Pharmacotherapy*. 2025 Jan;45(1):20-32.
8. Sarker J, Kim M, Patton S, **Radwański PB**, Munger MA, Kim K. Comparative Risk of the Onset of Atrial Fibrillation after Icosapent Ethyl versus Omega-3 –Acid-Ethyl-Esters Adjuvant to Statins. *J Am Heart Assoc.* 2025 Aug 5;14(15):e038846.
9. King DR, Demirtas M, Tarasov M, Struckman HL, Meng X, Nassal D, Moise N, Miller A, Min D, Soltisz A, Anne MN, Dias PA, Wagnon JL, Weinberg SH, Hund TJ, Veeraraghavan R, **Radwański PB.** Cardiac-Specific Deletion of Scn8a Mitigates Dravet Syndrome-Associated Sudden Death in Adults. *JACC Clin Electrophysiol.* 2024 May;10(5):829-842. doi: 10.1016/j.jacep.2024.01.003.
10. Struckman HL, Moise N, King DR, Soltisz A, Buxton A, Dunlap I, Chen Z, **Radwański PB**, Weinberg SH, Veeraraghavan R. Unraveling Chamber-specific Differences in Intercalated Disc Ultrastructure and Molecular Organization and Their Impact on Cardiac Conduction. *JACC Clin Electrophysiol.* 2023 Jul 12:S2405-500X(23)00387-0.
11. Tarasov M, Struckman HL, Olgar Y, Miller A, Demirtas M, Bogdanov V, Terentyeva R, Soltisz AM, Meng X, Min D, Sakuta G, Dunlap I, Duran AD, Foster MP, Davis JP, Terentyev D, Györke S, Veeraraghavan R, **Radwański PB**. Nav1.6 dysregulation within myocardial T-tubules by D96V calmodulin enhances proarrhythmic sodium/calcium mishandling. *J Clin Invest.* 2023 Apr 3;133(7):e152071.
12. Uddin ME, Eisenmann ED, Li Y, Huang KM, Garrison DA, Talebi Z, Gibson AA, Jin Y, Nepal M, Bonilla IM, Fu Q, Sun X, Millar A, Tarasov M, Jay CE, Cui X, Einolf HJ, Pelis RM, Smith SA, **Radwański PB**, Sweet DH, König J, Fromm MF, Carnes CA, Hu S, Sparreboom A. MATE1 Deficiency Exacerbates Dofetilide-Induced Proarrhythmia. *Int J Mol Sci.* 2022 Aug 3;23(15):8607.
13. Mezache L, Nuovo GJ, Suster D, Tili E, Awad H, **Radwański PB**, Veeraraghavan R. Histologic, viral, and molecular correlates of heart disease in fatal COVID-19. *Ann Diagn Pathol.* 2022 May 29;60:151983.

14. Mezache L, Struckman HL, Greer-Short A, Baine S, Györke S, **Radwański PB**, Hund TJ, Veeraraghavan R. Vascular endothelial growth factor promotes atrial arrhythmias by inducing acute intercalated disk remodeling. *Sci Rep.* 2020 Nov 24;10(1):20463
15. Baine S, Thomas J, Bonilla IM, Ivanova M, Belevych A, Li J, Veeraraghavan R, **Radwański PB**, Carnes CA, Gyorke S.**.** Muscarinic-dependent phosphorylation of the cardiac ryanodine receptor by protein kinase G is mediated by PI3K-AKT-nNOS signaling. *J Biol Chem.* 2020 Aug 14;295(33):11720-11728.
16. Munger MA, Olğar Y, Koleske M, Struckman HL, Mandroli J, Lou Q, Bonilla I, Kim K, Mondragon RR, Priori SG, Volpe P, Valdivia HH, Biskupiak J, Carnes CA, Veeraraghavan R, Györke S, **Radwański PB.** Tetrodotoxin-sensitive neuronal-type Na^+ Channels: A Novel and Druggable Target for Prevention of Atrial Fibrillation. *J Am Heart Assoc.* 2020 Jun 2;9(11):e015119.
17. Hamilton S, Terentyeva R, Martin B, Perger F, Li J, Stepanov A, Bonilla IM, Knollmann BC, **Radwański PB**, Györke S, Belevych AE, Terentyev D. Increased RyR2 Activity Is Exacerbated by Calcium Leak-Induced Mitochondrial ROS. *Basic Res Cardiol.* 2020 May 22;115(4):38.
18. Struckman HL, Baine S, Thomas J, Mezache L, Mykytyn K, Györke S, **Radwański PB***, Veeraraghavan R*. Super-resolution Imaging Using Novel High Fidelity Antibody Reveals Close Association of Neuronal Sodium Channel $Na_V1.6$ with Ryanodine Receptors in Cardiac Muscle. *Microsc Microanal.* 2020 Feb;26(1):157-165. *Corresponding author
19. Bonilla IM, Belevych AE, Baine S, Stepanov A, Mezache L, Bodnar T, Liu B, Volpe P, Priori S, Weisleder N, Sakuta G, Carnes CA, **Radwański PB**, Veeraraghavan R, Gyorke S. Enhancement of Cardiac Store Operated Calcium Entry (SOCE) within Novel Intercalated Disk Microdomains in Arrhythmic Disease. *Sci Rep.* 2019 Jul 15;9(1):10179.
20. Johnson CN, Pattanayek R, Potet F, Rebbeck RT, Blackwell DJ, Nikolaienko R, Sequeira V, Le Meur R, **Radwański PB**, Davis JP, Zima AV, Cornea RL, Damo SM, Györke S, George AL Jr, Knollmann BC.. The CaMKII inhibitor KN93-calmodulin interaction and implications for calmodulin tuning of NaV1.5 and RyR2 function. *Cell Calcium.* 2019 Jul 30;82:102063.
21. Bress AP, Dodson JA, King JB, Sauer BC, Reese T, Crook J, **Radwanski PB**, Knippenberg K, Greene T, Nelson RE, Munger MA, Weintraub WS, Lafleur J. Clinical and economic outcomes of ranolazine versus conventional antianginals users among Veterans with chronic stable angina. *Am J Cardiol.* 2018 Dec 1;122(11):1809-1816.
22. Koleske M, Bonilla I, Thomas J, Zaman N, Baine S, Knollmann BC, Veeraraghavan R, Györke S, **Radwański PB**. TTX-sensitive Na_V Contribute to Early and Delayed Afterdepolarizations in Long QT Arrhythmia Models. *J Gen Physiol.* 2018 July 2; 150(7):991-1002.
23. Liu B, Walton SD, Ho HT, Belevych AE, Tikunova SB, Bonilla I, Shettigar V, Knollmann BC, Priori SG, Volpe P, **Radwański PB**, Davis JP, Györke S. Gene transfer of engineered calmodulin alleviates ventricular arrhythmias in a calsequestrin-associated mouse model of catecholaminergic polymorphic ventricular tachycardia. *J Am Heart Assoc.* 2018 May 2;7(10).
24. Kubasov IV, Stepanov A, Bobkov D, **Radwański PB**, Terpilowski MA, Dobretsov M, Györke S. Sub-cellular Electrical Heterogeneity Revealed by Loose Patch Recording Reflects Differential Localization of Sarcolemmal Ion Channels in Intact Rat Hearts. *Front. Physiol.* 2018;9:61.
25. Ho HT, Belevych AE, Liu Bonilla IM, **Radwański PB**, Valdivia HH, Schober K, Carnes CA, Györke S. Muscarinic Stimulation Facilitates SR Ca^{2+} Release by Modulating RyR2 Phosphorylation Through PKG and CaMKII. *Hypertension.* 2016 Nov;68(5):1171-1178.
26. **Radwański PB***, Ho HT, Veeraraghavan R, Brunello L, Liu B, Belevych AE, Unudurthi SD, Makara MA, Priori SG, Volpe P, Armoundas AA, Dillmann WH, Knollmann BC, Mohler PJ, Hund TJ, Györke S*. Neuronal Na^+ Channels Are Integral Components of Pro-arrhythmic Na^+/Ca^{2+} Signaling Nanodomain That Promotes Cardiac Arrhythmias During β-adrenergic Stimulation. *JACC:BTS.* 2016. 1(4):261–276. *Corresponding author

E-MAIL RADWANSKI.2@OSU.EDU
2255 KENNY RD, PRC 5187 • COLUMBUS, OHIO 43210 • PHONE 614-366-2696

27. Glynn P, Musa H, Wu X, Unudurthi SD, Little S, Qian L, Wright PJ, **Radwański PB**, Gyorke S, Mohler PJ, and Hund TJ. Voltage-gated sodium channel phosphorylation at Ser571 regulates late current, arrhythmia, and cardiac function in vivo. *Circulation.* 2015 Aug 18;132(7):567-77**.**
28. **Radwański PB***, Brunello L, Veeraraghavan R, Ho HT, Lou Q, Makara MA, Belevych AE, Anghelescu M, Priori SG, Volpe P, Hund TJ, Janssen PM, Mohler P, Bridge JH, Poelzing S, Györke S*. Neuronal Na^+ Channel Blockade Suppresses Arrhythmogenic Diastolic Ca^{2+} Release. *Cardiovasc Res.* 2015 Apr 1;106(1):143-52. *Corresponding author
29. Lou Q, Belevych AE, **Radwański PB**, Liu B, Kalyanasundaram A, Knollmann BC, Fedorov VV, Györke S. Alternating Vm/Ca interplay underlies repetitive focal activity in a genetic model of calcium-dependent atrial arrhythmias. *J Physiol.* 2015 Mar 15;593(6):1443-58.
30. Munger MA, **Radwański PB**, Hadlock GC, Stoddard G, Shaaban A, Falconer J, Grainger DW, Deering-Rice CE. *In Vivo* Human Time-Exposure Study of Orally Dosed Commercial Silver Nanoparticles. *Nanomedicine.* 2014 Jan;10(1):1-9.
31. Brunello L**,** Slabugh JL, **Radwański PB**, Ho HT, Belevych AE, et al. Decreased RyR2 refractoriness determines myocardial synchronization of aberrant Ca^{2+} release in a genetic model of arrhythmia.. *Proc Natl Acad Sci U S A.* 2013;110(25):10312-7.
32. **Radwański PB**, Greer-Short A, Poelzing S. Inhibition of Na^+ Channels Ameliorates Arrhythmias in a Drug Induced Model of Andersen-Tawil Syndrome. *Heart Rhythm.* 2013;10(2):255-63.
33. **Radwański PB**, Poelzing S. NCX is an Important Determinant for Premature Ventricular Activity in a Drug Induced Model of Andersen-Tawil Syndrome. *Cardiovasc Res.* 2011;92(1)57-66.
34. **Radwański PB**, Veeraraghavan R, Poelzing S. Cytosolic Calcium Accumulation Underlies Ventricular Arrhythmias in Guinea Pig Ventricular Model of Andersen-Tawil Syndrome. *Heart Rhythm.* 2010;7(10):1428-1435.
35. Metcalf CS, **Radwański PB**, Bealer SL. Status Epileptics Produces Chronic Alterations in Cardiac Symapthovagal Balance. *Epilepsia.* 2009;50(4):747-54.
36. Vandeput F, Wolda SL, Krall J, Hambleton R, Uher L, McCaw KN, **Radwański PB**, Florio V, Movsesian MA. Cyclic nucleotide phosphodiesterase PDE1C1 in human cardiac myocytes. *J Biol Chem.* 2007. 282:32749-57.

PUBLICATIONS – REVIEWS AND EDITORIALS

1. Marchianò S, Martín-Aragón Baudel M, Smith CER, Hernandez GH, Bers DM, Boyle PM, Dobrev D, Hamilton S, Harraz OF, Li N, Longden TA, Louch WE, Nieves-Cintron M, Nystoriak MA, Murfee WL, **Radwański PB**, Sonkusare SK, Navedo MF, Grandi E. Translating cardiovascular ion channel and Ca^{2+} signaling mechanisms into therapeutic insights. *J Physiol.* 2026 Jan 28. doi: 10.1113/JP290180.
2. Kim S, Welch L, Santos BL, **Radwański PB**, Munger MA, Kim K. Response to comment on "Association of atrial fibrillation with lamotrigine: An observational cohort study." *Pharmacotherapy.* 2025 May 8.
3. Selimi Z, Veeraraghavan R, **Radwański PB**. A Novel Computational Platform for Optimizing Synergistic Drug Combinations for Cardioversion of Atrial Fibrillation. *JACC Clin Electrophysiol.* 2024 Nov 4:S2405-500X(24)00859-4.
4. **Radwański PB**, Johnson CN, Györke S, Veeraraghavan R. Cardiac Arrhythmias as Manifestations of Nanopathies: An Emerging View. *Front. Physiol.* 2018 Sep 4;9:1228.
5. Veeraraghavan R, **Radwański PB**. Sodium channel clusters: harmonizing the cardiac conduction orchestra. *J Physiol.* 2018;596(4):549-550.

6. Györke S, Belevych AE, Liu B, Kubasov IV, Carnes CA, **Radwański PB**. The Role of Luminal Ca Regulation in Ca Signaling Refractoriness and Cardiac Arrhythmogenesis. *J Gen Physiol.* 2017;149(9):877-888.
7. Veeraraghavan R, Györke S, **Radwański PB**. Neuronal Sodium Channels: Emerging Components of the Nano-machinery of Cardiac Calcium Cycling. *J Physiol.* 2017;595(12):3823-3834.
8. Belevych AE, **Radwański PB**, Carnes CA, Györke S. 'Ryanopathy': Causes and Manifestations of RyR2 Dysfunction in Heart Failure *Cardiovasc Res*. 2013; 98(2):240-7.
9. **Radwański PB**, Brunello L, Belevych AE, Carnes CA, Györke S. Store-dependent Deactivation: Cooling the Chain-reaction of Myocardial Calcium Signaling. *J Mol Cell Cardiol*. 2013;58:77-83.
10. Van Tassell BW, **Radwański PB**, Movsesian M, Munger MA. Beta-adrenergic receptor antagonists and phosphodiesterase inhibitors (PDEs) in chronic heart failure: Potential for combination therapy. *Pharmacotherapy* 2008;28(12):1523–1530.

PATENTS

1. Demirtas M, **Radwański PB**. Systems and methods for identification of ion channels. Patent number: US- 20240296910-A1, Publication number: 20240296910, Status: Pending.
2. Tarasov M, **Radwański PB**. Systems and methods for ion channel kinetics analysis in clusters of ion channels. Patent number: US-20240280563-A1, Publication number: 20240280563, Status: Pending.

ABSTRACTS AND SCIENTIFIC PRESENTATIONS

1. Perez B, Kim K, Munger M, **Radwański PB**. Does Spironolactone Reduce Atrial Fibrillation from Cardiac Surgery? An Observational Cohort Study. Journal of the American Pharmacists Association 65 (5). [Poster].
2. Ammon M, Wirth JO, Tarasov M, Hampton CN, **Radwański PB**, Veeraraghavan R. Correlating MINFLUX nanoscopy with single channel and nanoscale patch clamp reveals unanticipated cooperative gating of cardiac sodium channels. Focus on Microscopy 2025 [Oral Presentation]
3. Selimi Z, Tarasov M, Meng X, Dias P, Moise BI, Veeraraghavan R, **Radwański PB**. Unraveling the electrophysiological consequences of $Na_V1.5$ selectivity filter mutation in arrhythmia pathogenesis. *Heart Rhythm* 22 (4), S612-S613. Heart Rhythm 2025. [Poster].
4. Selimi Z, Tarasov M, Meng X, Dias P, Moise BI, Veeraraghavan R, **Radwański PB**. From mutation to dysfunction: Exploring the effect of Nav1. 5 selectivity filter in arrhythmia pathogenesis. *Biophysical Journal* 124 (3), 121a. Biophysical Society 69th Annual Meeting 2025. [Oral Presentation].
5. Selimi Z, Veeraraghavan R, **Radwański PB**. Unexpected Ca2+-dependent Nav1. 5 dysregulation by arrhythmogenic CaM mutations. *Biophysical Journal* 124 (3), 120a. Biophysical Society 69th Annual Meeting 2025. [Poster].
6. Moise BI, Selimi Z, Tarasov M, **Radwański PB**, Veeraraghavan R. From mutation to dysfunction: Exploring the effect of Nav1. 5 selectivity filter in arrhythmia pathogenesis. *Biophysical Journal* 124 (3), 599a-600a. Biophysical Society 69th Annual Meeting 2025. [Poster].
7. Tarasov M, Wison B, **Radwański PB**. A Novel Missense Mutation in the DI-DII Linker of the Nav1.6 Channel Causes Neurodevelopment Disorder and Profound Dysregulation of Na+ Currents. American Epilepsy Society Annual Meeting, Los Angeles, CA. December 2024. [Poster]
8. **Radwański PB**, Kim S, Welch L, Santos BL, Kim K, Munger MA. Lamotrigine Use Is Associated with Ventricular Tachycardia: An Observational Cohort Study. American Epilepsy Society Annual Meeting, Los Angeles, CA. December 2024. [Poster]
9. Anderson H, Keur J, Kim K, **Radwański, PB**, Munger, MA Ivabradine and Atrial Fibrillation Incidence. American College of Clinical Pharmacy, Annual Meeting, Phoenix, AZ, October 2024. J Am Coll Clin Pharm 2024; 7:1281.

10. Welch, L, Munger MA, Kim S, De Los Santos B, **Radwański, PB**, Kim K. Association of Atrial Fibrillation with Lamotragine in Bipolar 1 Disorder: An Observational Cohort Study. American College of Clinical Pharmacy Annual Meeting, Phoenix, AZ, October 2024. J Am Coll Clin Pharm 2024;7:1285.
11. Patton S, Sarker J, Kim M, **Radwański, PB**, Munger MA, Kim, K. Icopasant Ethyl and Atrial Fibrillation Incidence and Outcomes: An Observational Cohort Study. American College of Clinical Pharmacy, Annual Meeting, Phoenix, AZ, October 2024. J Am Coll Clin Pharm 2024;7:1284.
12. Sarker J, Kim M, Patton S, **Radwański PB**, Munger MA, Kim, K. Icosapent Ethyl-Associated New Atrial Fibrillation Incidence compared to Omega-3 Fatty Acids: An Observational Cohort Study. Presented at the American Heart Association 2024 Scientific Sessions [Poster]. Chicago, Ill. Circulation 2024;150:Suppl1:A4140072
13. Kim S, Welch L, De Los Santos, B, **Radwański PB**, Kim, K, Munger, M. Association of Ventricular Arrhythmias with Lamotrigine: An Observational Cohort Study. Presented at the American Heart Association 2024 Scientific Sessions [Oral Presentation]. Chicago, Ill. Circulation 2024;150:Suppl1: A4140528
14. Keur J, Anderson H, Kim K, **Radwański PB**, Munger, M. Ivabradine and Atrial Fibrillation Incidence. American Heart Association 2024 Scientific Sessions, Chicago, IL Presented at the 2024 American Heart Association Scientific Sessions [Poster]. Chicago, Ill. Circulation 2024;150:Suppl1:A4146187
15. Kim S, Welch L, De Los Santos, B, **Radwański PB**, Kim, K, Munger, M. Association of Atrial Fibrillation with Lamotrigine in Bipolar I Disorder: An Observational Cohort Study. Presented at the American Heart Association 2024 Scientific Sessions [Poster]. Chicago, Ill. Circulation 2024;150:Suppl1:A4146481
16. Tarasov M, **Radwański PB**. Evidence of cooperative gating in multichannel Na_V1. 5 recordings. Biophysical Society 68th Annual Meeting 2024. [Poster].
17. Meng X, King DR, **Radwański PB**. Lamotrigine Promotes Heterogenous Cardiac Conduction Slowing and Reentrant Ventricular Tachycardia. American Epilepsy Society Annual Meeting, Orlando, FL. December 2023. [Poster]
18. **Radwański PB**, Kim K, Kim S, Katana M, Munger MA. Riluzole Significantly Lowers Heart Failure Incidence. American Heart Association Annual Scientific Sessions 2023 [Oral Presentation]. Circulation. 2023;148:A12880
19. Kim K, Katana M, **Radwański PB**, Munger MA. Riluzole Mitigates The Risk Of Heart Failure Admissions. Heart Failure Society of America Annual Scientific Meeting 2023 [Poster]. J Card Fail. 2024;30(1):164
20. Mezache L, Soltisz A, **Radwański PB**, Nuovo GJ, Veeraraghavan R. Indirect CLEM Identifies Nanoscale Remodeling Associated with Atrial Fibrillation in Diverse Etiologies, Enabling a Unified Therapeutic Approach. Microsc Microanal. 2023 Jul 22;29(29 Suppl 1):1081-1082. [Poster]
21. King DR, Demirtas M, Meng X, Tarasov M, Struckman HL, Min D, Miller A, Nassal D, Hund TJ, Veeraraghavan R, **Radwański PB**. Nanoscale remodeling of sodium channels in the cardiac transverse tubules contributes to aberrant calcium release in a Scn1a haploinsufficient mouse, Biophysical Society 67th Annual Meeting 2023. [Oral Presentation]. *BPS Travel Award Winner.
22. Mezache L, Nuovo G, Suster D, Tili E, Awad H, **Radwański PB**, Veeraraghavan R. SARS-CoV-2 spike protein-induced inflammation underlies proarrhythmia in COVID-19, Biophysical Society 67th Annual Meeting 2023. [Poster]
23. Struckman H, Moise N, King DR, Soltisz AM, Buxton A, Dunlap I, Chen Z, **Radwański PB**, Weinberg SH, Veeraraghavan R. A systematic investigation of the cardiac intercalated disk in health and disease, Biophysical Society 67th Annual Meeting 2023. [Oral Presentation]

24. King DR, Demirtas M, Meng X, Tarasov M, Struckman HL, Min D, Miller A, Nassal D, Hund TJ, Veeraraghavan R, **Radwański PB**. Cardiac-Specific Ablation of the Neuronal Sodium Channel, Nav1.6, Ameliorates Cardiac Arrhythmias and Improves Survival in a Murine Model of Sudden Death in Epilepsy (SUDEP). American Epilepsy Society Annual Meeting, Nashville, TN. December 2022. [Poster]
25. Struckman HL, Tarasov M, Olgar Y, Miller A, Davis JP, Györke S, Veeraraghavan R, **Radwański PB**. Unexpected Remodeling of Cardiac Nanostructure Exacerbates Proarrhythmic Late INa and Na+/Ca2+ Mishandling in Mice Expressing the Arrhythmogenic Calmodulin Mutant D96V. International Society for Heart Research XXIV World Congress, June 12-15, 2022, Berlin, Germany. [Oral Presentation]
26. Struckman HL, Moise N, Tarasov M, Soltisz AM, Buxton A, Dunlap I, Chen Z, **Radwański PB**, Weinberg S, Veeraraghavan R. Reconstructing intercalated disk nanostructure and molecular organization to unravel conduction differences between atria and ventricles – A combined microscopy and modeling study. International Society for Heart Research XXIV World Congress, June 12-15, 2022, Berlin, Germany. [Poster]
27. Tarasov M, Struckman HL, Min D, Miller A, Veeraraghavan R, P **Radwański PB.** Sodium channel remodeling underlies cardiac arrhythmias in a murine model of Sudden Death in Epilepsy, Heart Rhythm Society Annual Meeting April 29 – May 1st 2022, San Franciso CA. [Poster]
28. Struckman H, Tarasov M, Gyorke S, Veeraraghavan R, P **Radwański PB.** Sodium channel $Na_V1.6$ and Na-Ca Exchanger remodeling contributes to arrhythmogenic late sodium current and Ca^{2+} sparks in the presence of D96V mutant calmodulin, Heart Rhythm Society Annual Meeting April 29 – May 1st 2022, San Franciso CA. [Poster]
29. Struckman HL, Tarasov M, Olgar Y, Miller A, Davis JP, Györke S, Veeraraghavan R, **Radwański PB**. Unexpected remodeling of cardiac nanostructure exacerbates proarrhythmic late INa and Na+/Ca2+ mishandling in mice expressing the arrhythmogenic calmodulin mutant D96V, Heart Rhythm Society Annual Meeting April 29 – May 1st 2022, San Franciso CA. [Poster]
30. Soltisz A, Struckman HL, **Radwański PB**, Veeraraghavan R. Pathologically increased RyR2-Nav1.6 colocalization in db/db mouse model of diabetic cardiomyopathy, Heart Rhythm Society Annual Meeting April 29 – May 1st 2022, San Franciso CA. [Poster]
31. Struckman HL, Tarasov M, Olgar Y, Miller A, Davis JP, Györke S, Veeraraghavan R, **Radwański PB**. Mutant D96V calmodulin induces unexpected remodeling of cardiac nanostructure and physiology. Journal of General Physiology Calcium Signaling and Excitation–Contraction in Cardiac, Skeletal and Smooth Muscle Symposium. November 18–19, 2021. *J Gen Physiol.* 2022 Sep 5;154(9):e2021ecc30. doi: 10.1085/jgp.2021ecc30. PMID: 34767002
32. Struckman HL, Tarasov M, Olgar Y, Miller A, Davis JP, Györke S, Veeraraghavan R, **Radwański PB**. Arrhythmogenic Calmodulin Mutant D96V Induces Unexpected Remodeling of Cardiac Nanostructure, Biophysical Society 66th Annual Meeting 2022. [Poster]
33. Soltisz AM, Struckman HL, **Radwański PB**, Veeraraghavan R. Pathologically Increased RyR2-$Na_V1.6$ Colocalization In The db/db Mouse Model Of Diabetic Cardiomyopathy, Biophysical Society 66th Annual Meeting 2022. [Poster]
34. Struckman HL, Tarasov M, Olgar Y, Miller A, Davis JP, Györke S, Veeraraghavan R, **Radwański PB**. Structural Remodeling of $Na_V1.6$ Channel Clusters Contributes to Arrhythmogenic Late Sodium Current in the Presence of D96V Mutant Calmodulin, American Heart Association Annual Scientific Sessions 2021 [Oral Presentation]. Circulation. 2021;144:A10687
35. Tarasov M, Olgar Y, Struckman HL, Miller A, Davis JP, **Györke S**, **Veeraraghavan R**, **Radwański PB**. $Na_V1.6$ Dysregulation by Mutant Calmodulin Enhances Late Sodium Current in human iPSC

Cardiomyocytes and Promotes Arrhythmias in D96V transgenic mice, American Heart Association Annual Scientific Sessions 2021 [Poster]. Circulation. 2021;144:A1230

36. Tarasov M, Olgar Y, Miller A, Struckman H, Davis J, Györke S, Veeraraghavan R, **Radwański PB**. Arrhythmogenic calmodulin mutant D96V dysregulates Na+-Ca2+ nanodomains in cardiomyocyte transverse tubules. 65th Biophysical Society Annual Meeting (Poster). Virtual Meeting.
37. Mezache L, Greer-Short A, **Radwański PB**, Hund TJ, Veeraraghavan R. Targeting the Vascular Endothelial Barrier to Prevent Nanoscale Cardiac Remodeling: A Novel Strategy to Prevent Atrial Fibrillation *Biophys J*. 2021;120: p154a.(Poster), Virtual Meeting.
38. Mezache L, Struckman H, Phillips A, Baine S, Greer-Short A, Gyork S, **Radwański PB**, Hund TJ, Veeraraghavan R. The Vascular Endothelial Barrier: A Novel Therapeutic Target for Preventing Atrial Fibrillation. *Circulation*. 2020:142 (Suppl_3), A13383-A13383.(Poster).
39. Struckman H, Mezache L, Phillips A, Dagher C, Greer-Short A, **Radwański PB**, Hund TJ, Veeraraghavan R. Differential Impact of Selective De-adhesion within NaV1.5-rich Intercalated Disk Nanodomains on Atrial Arrhythmia Risk. *Biophys J*. 2020;118: p100a.(Poster).
40. Hamilton S, Terentyeva R, Li J, Stepanov A, Bonilla IM, Knollmann BC, **Radwański PB**, Gyorke S, Belevych AE, Terentyev D. Hyperactivity of RyR2 in Cardiac Disease is Exacerbated by Calcium Leak-Induced Mitochondrial ROS. *Biophys J*. 2020;118: p255a.(Poster).
41. Bonilla IM, Baine S, Stepanov A, Li J, Belevych AE, **Radwański PB**, Volpe P, Priori S, Terentyev DA, Gyorke S. SOCE Contributes to Normal Calcium Homeostasis and Rythmic Activity of Atrial Myocardium. *Biophys J*. 2020;118: p406a.(Poster).
42. Mezache L, Struckman H, Phillips A, Baine S, Greer-Short A, Gyorke S, **Radwański PB**, Hund TJ, Veeraraghavan R. The Vascular Barrier Regulates Cardiac Nanodomains: Implications for the Genesis of Atrial Fibrillation. *Biophys J*. 2020;118: p463a. (Poster).
43. Olgar Y, Gyorke S, Veeraraghavan R, Davis JP, **Radwański PB**. A Calmodulin Mutation that Dysregulates $Na_V1.6$ But Not $Na_V1.5$. *Biophys J*. 2020;118: p576a. (Poster).
44. Munger MA, Mandroli J, Kim K, Biskupiak J, Veeraraghavan R, Györke S, **Radwański PB.** Neuronal Na^+ Channel Inhibitor Riluzole Prevents Atrial Fibrillation in Humans. *Circulation.* 2019;140:A13855. (Poster).
45. Mezache L, Struckman H, Greer-Short A, Phillips A, Martinson A, Thomas J, **Radwański PB**, Hund TJ, Veeraraghavan R. Vegf-Induced Vascular Leak Promotes Atrial Fibrillation by Disrupting Intercalated Disc Nanodomains. *Biophys J*. 2019;116: p32a. (Poster).
46. Bonilla IM, Belevych A, Baine S, Bodnar T, Liu B, **Radwański PB**, Veerarghavan R, Volpe P, Priori S, Weisleder N, Györke S. Cardiac Store Operated Calcium Entry (SOCE) is Compartmentalized at Intercalated Disks and Linked to Catecholaminergic Polymorphic Ventricular Tachycardia (CPVT). *Biophys J*. 2019;116: p234a. (Poster).
47. **Radwański PB**, Koleske M, Veeraraghavan R, Bonilla I, Carnes CA, Györke S. Effective prevention of atrial fibrillation in failing hearts by neuronal Na^+ channel inhibition. *Heart Rhythm*. 2018;15 Supp:S285. (Poster).
48. **Radwański PB**, Davis J, Györke S. Enhanced Tetrodotoxin-Sensitive Neuronal Na^+ Channel Activity Associated with Arrhythmogenic Calmodulin Mutation N98S. *Biophys J*. 2018;114: p631a. (Poster).
49. **Radwański PB**, Koleske M, Knollmann B, Györke S. Involvement of neuronal Na^+ channels in Ca^{2+} induced long QT-associated ventricular arrhythmias. *Circulation.* 2017;136: A20326. (Poster).
50. **Radwański PB**, Lou Q, Koleske M, Ramos-Mondragon R, Priori S, Volpe P, Valdivia HH, Györke S. Neuronal Na^+ Channels Serve as a Trigger for Atrial Arrhythmias. *Circulation.* 2016;134: A17350. (Poster).

51. Ho HT, Belevych A, Liu B, Bonilla IM, **Radwański PB**, Valdivia HH, Schrober K, Carnes CA, Györke S. *Muscarinic* Stimulation Facilitates SR Ca^{2+} Release by Increasing PKG Phosphorylation of RyR2 at Ser-2808 and Decreasing CaMKII Phosphorylation at Ser-2814. *Circulation.* 2016;134:A11917. (Poster).
52. **Radwański PB**, Belevych A,, Knollmann B, Davis J, Györke S. Neuronal sodium channels are necessary for ATX-II promoted ventricular arrhythmias. *Heart Rhythm.* 2016;13 Supp:S193. (Poster).
53. Liu B, Walton S, Ho HT, Belevych A, **Radwański PB,** Shettigar V, Zhang J, Priori SG, Volpe P, Davis J, Györke S. Gene transfer of calmodulin alleviates ventricular arrhythmias in a calsequestrin-associted mouse model of catecholaminergic polymorphic ventricular tachycardia. *Heart Rhythm.* 2016;13 Supp:S5. (Oral Presentation).
54. **Radwański PB,** Ho HT, Knollmann B, Belevych A, Györke S. Late Na^+ Current Contributes to Arrhythmogenic Diastolic Ca^{2+} release in catecholaminergic polymorphic ventricular tachycardia (CPVT). *FASEB J.* 2016;30:1274.3. (Poster).
55. **Radwański PB**, Ho HT, Liu B, Belevych A, Armoundas A, Knollmann B, Mohler P, Hund T, Györke S. Catecholaminergic Stimulation of Neuronal Na^+ Channels Accounts for Triggered Arrhythmia Mechanism in CPVT. *Biophys J.* 2016;110:435a. (Poster).
56. Walton SD, Ho HT, Elizaga NM, Siddiqui JL, O'Neil AJ, Neilson NA, Belevych A, Liu B, **Radwański PB**, Györke S, Davis JP. Engineering an Anti-Arrhythmic Calmodulin. *Biophys J.* 2016;110:217a. (Poster).
57. **Radwański PB,** Ho HT, Knollmann B, Belevych A, Györke S. Flecainide Exerts its Antiarrhythmic Action in CPVT Through Blockade of Neuronal Na^+ channel-mediated Arrhythmogenic Diastolic Ca^{2+} Release. *Circulation.* 2015;132:A18111. (Poster).
58. **Radwański PB,** Brunello L, Knollmann B, Györke S. Neuronal Na^+ Channels as a Novel Cardiac Antiarrhythmic Target. *FASEB Journal.* 2015;29 1 Supplment:1025.13. (Poster).
59. **Radwański PB,** Veeraraghaven R, Knollmann B, Györke S. Two Distinct Mechanisms by Which Na^+/Ca^{2+} Dysregulation Contributes to Arrhythmogenic Diastolic Ca^{2+} Release. *Circulation.* 2014. (Poster).
60. **Radwański PB**, Brunello L, Veeraraghaven R, Ho HT, Belevych AE, Priori SG, Volpe P, Janssen PM, Mohler PJ, Bridge JH, Poelzing S, Györke S. Neuronal Na^+ Channels Contribute to Arrhythmogenic Diastolic Ca^{2+} Release Through the Microdomain Na^+/Ca^{2+} Signaling. OSU Department of Physiology and Cell Biology Research Day. (Oral Presentation).
61. **Radwański PB**, Brunello L, Veeraraghaven R, Ho HT, Belevych AE, Priori SG, Volpe P, Janssen PM, Bridge JH, Poelzing S, Györke S. Neuronal Na^+ Channels Contribute to Arrhythmogenic Diastolic Ca^{2+} Release Through the Microdomain Na^+/Ca^{2+} Signaling. *Heart Rhythm.* 2014;12: A8430. (Oral Presentation - Young Investigators Award Competition).
62. Lou Q, Liu B, Belevych AE, **Radwański PB**, Kalyanasundaram A, Dilmann WH, Armoundas AA, Knollmann BC, Fedorov VV, Györke S. Subcellular origin and tissue-wide synchronization of abnormal Ca release in the genesis of Ca-dependent atrial arrhythmia. *Biophys J.* 2014. (Oral Presentation).
63. **Radwański PB**, Brunello L, Priori SG, Volpe P, Poelzing S, Janssen PM, Györke S. Local Na^+/Ca^{2+} Signaling Contributes to the Propensity for Arrhythmogenic Spontaneous Ca^{2+} Waves During Catecholaminergic Polymorphic Ventricular Tachycardia (CPVT). *Circulation.* 2012;126: A17691. (Poster).
64. Munger MA, **Radwański PB**, Stoddard GJ, Shaaban A, Grainger D, Yost G. An *In Vivo* Human Time-Exposure Investigation of a Commercial Silver Nano-particle Solution. *Clin Pharmacol Ther.* 2011;91(Supplement 1): S15. (Poster).

65. Poelzing S, **Radwański PB**. Na^+ Channel Blockade Determines Propensity for Arrhythmias During Calcium Overload. *Circulation*. 2011;124: A13905. (Poster).
66. **Radwański PB**, Poelzing S. Blockade of Sodium Entry Ameliorates Arrhythmias During Calcium Overload. *Pharmacotherapy* 2011;10:1044. (Poster).
67. **Radwański PB**, Poelzing S. SERCA2a Inhibition Paradoxically Increases Triggered Activity During Calcium Overload. Gordon Conference, 2010: Cardiac Regulatory Mechanisms. (Poster).
68. **Radwański PB**, Veeraraghavan R, Poelzing S. SERCA2a/NCX Ratio Determines Regional Propensity for Triggered Activity During Calcium Overload. *Circulation*. 2009;120:S688. (Oral Presentation).
69. **Radwański PB**, Veeraraghavan R, Poelzing S. Heterogeneous Calcium Cycling Underlies Bidirectional Ventricular Arrhythmias During Conditions of Calcium Overload. *Heart Rhythm*. 2009;6(5):S359. (Poster).
70. **Radwański PB**, Veeraraghavan R, Poelzing S. Heterogeneous Calcium Handling Modulates Spatio-Temporal Initiation of Premature Beats During Conditions of Calcium Overload. *Circulation*. 2008;118:S438.(Abstract).
71. **Radwański PB**, Veeraraghavan R, Poelzing S. Opening I_{KATP} Mitigates Interventricular Heterogeneities and Arrhythmia Inducibility During Loss of Inward Rectifier Potassium Channel Function. Annual Mountain West Biomedical Engineering Conference, 2008. (Poster).
72. **Radwański PB**, Veeraraghavan R, Munger M, Poelzing S. Pinacidil Reduces Interventricular Heterogeneities and Arrhythmia Inducibility During Loss of Inward Rectifier Potassium Channel Function. *Pharmacotherapy* 2008;28:65e. (Poster).
73. **Radwański PB**, Benson J. Do Serum LDL-C or HDL-C Following Acute Myocardial Infarction (MI), or INR in Patients with Atrial Fibrillation (AF), Correlate with Mortality Rates?. Platform presentation at the 25th Western States Conference. Pacific Grove, CA. May 2005.
74. **Radwański PB**, Leavitt B. Safety and efficacy of angiotensin II type 1 receptor antagonist and dihydropyridine calcium channel blocker combination in hypertensive renal transplant recipients. Am J Health Syst Pharm. 2005; 64(16):e77-e91. (Poster).

EXTRAMURAL PRESENTATIONS & CHARING SCIENTIFIC SESSION

- *Dynamic Regulation of Voltage-Gated Sodium Channel Biophysics by Channel Clustering: Implications of Nanoscale Phenomena in Health and Disease*. **FASEB Science Research Conference on Ion Channel Regulation**. August 3-7, 2025, Southbridge, Massachusetts
- Session Chair - Recent Insights Into the Structure and Function of Cardiac Ion Channels. **Heart Rhythm 2025**, April 24 – 27th 2025, San Diego CA
- *Lessons from the Epileptic Heart in how to target sodium channels, safely.* **Channelopathy and Epilepsy Conference**. December 6th 2024, Los Angeles CA
- *Inflammation, electrical propagation, and conduction defects in Arrhythmia: The Burning Questions*. **NHLBI Workshop on Prioritizing Discovery and Advancements in Arrhythmia Therapies**. June 11 – 13, 2024, virtual meeting.
- *Ion Channel Clusters: Emerging Functional Units of Electrophysiology?* Invited speaker: **Heart Rhythm Society** Annual Meeting May 16 – 19th 2024, Boston MA.
- *Lessons from the Epileptic Heart in how to target Na_Vs, safely: Nanoscale remodeling of sodium channels in the cardiac transverse tubules contributes to Scn1a haploinsufficiency-associated sudden death in epilepsy*. **Worldwide Sodium Channel Conference** 2024. January 31st – February 2nd 2024, Grindelwald, Switzerland.
- *Na_V1.6 and its privileged role in the heart: A lesson from the epileptic heart.* Seminar at The **University of Colorado,** Skaggs School of Pharmacy & Pharmaceutical Sciences. Aurora, Co. Feb. 2024.

- *Optical & Electrical Interrogation of Ion Channel Biophysics.* Invited speaker: **Heart Rhythm Society** Annual Meeting May 19 - 21st 2023, New Orleans LA.
- *Calmodulinopathy: A Case of the Sodium Tail Wagging the Calcium Dog.* Invited speaker: **Gordon Research Conference** on Cardiac Arrhythmia Mechanisms. Galveston, TX. February 2023.
- *The brains behind cardiac arrhythmias: Nanodomain sodium-calcium cross-talk.* 2021 **National Taiwan University** School of Pharmacy Research Day and International Conference. Taipei, Taiwan. May 2021. Due to COVID-19, the session was held virtually.
- *Multiscale, multimodal imaging of structure and function reveals mechanisms of normal and abnormal cardiac physiology.* Invited speaker: Illuminating Health and Disease at New Frontiers of Spatiotemporal Resolution and Adaptive Microscopy Session, **Microscopy and Microanalysis** 2020 Virtual Meeting. August 2020. Due to COVID-19, the session was held virtually.
- *Nanodomain sodium-calcium cross-talk: roles in cardiac disease and arrhythmias*. Seminar at the Institut für Physiologie, **Universität Bern**. Bern, Switzerland. July 2019.
- *The brains behind cardiac arrhythmias: Nanodomain sodium-calcium cross-talk.* **The Ephaptic Coupling Conference**. Roanoke, Virginia. May 2019.
- *Enhanced Neuronal Na^+ Channel Activity Associated with Arrhythmogenic Calmodulin Mutations.* **Gordon Research Conference** Muscle: Excitation-Contraction Coupling. Les Diablerets, Switzerland. June 2017
- *From the bottom of the 'brainy' heart: A novel and druggable nanodomain with neuronal Na^+ channels responsible for cardiac arrhythmias.* The **University of Wisconsin**-Madison School of Pharmacy. Madison, WI. Feb. 2017.
- *Neuronal Na^+ channels in Conjunction with Na^+/Ca^{2+} Exchange Act as an Arrhythmogenic Trigger in Two Genetic Models of Calcium-Dependent Atrial Arrhythmias.* **Gordon Research Conference** on Cardiac Regulatory Mechanisms. New London, NH. June 2016.
- *Neuronal Na^+ channels are integral components of pro-arrhythmic Na^+/Ca^{2+} signaling microdomain that promotes cardiac arrhythmias during β-adrenergic stimulation.* 7th **International Conference on Sodium Calcium Exchange**. Jerusalem, Israel. Nov. 2015.
- *Neuronal Na^+ channels and the microdomain Na^+/Ca^{2+} signaling in cardiac myocytes: A novel role for $Na_v1.6$ in Arrhythmogenic Diastolic Ca^{2+} Release.* **FASEB Science Research Conference** on Ion Channel Regulation. Big Sky, MT. June 2015.
- *Some 'brain' in the heart: A novel role for neuronal Na^+ channels in cardiac arrhythmias.* Virginia Tech Carilion Research Institute, Roanoke, VA. April 2015.
- *A Novel Role for $Na_v1.6$ in Arrhythmogenic Diastolic Ca^{2+} Release: Neuronal Na^+ Channels and the Microdomain Na^+/Ca^{2+} signaling.* **Gordon Research Conference** on Cardiac Arrhythmia Mechanisms. Barga, Italy. March 2015.
- *Neuronal Na^+ channels and the microdomain Na^+/Ca^{2+} signaling: A novel modulator of arrhythmogenic diastolic Ca^{2+} release.* The **University of Manchester**. Manchester, UK. March 2015.
- *What's sodium got to do with calcium-dependent cardiac arrhythmias*? The **University of Utah** College of Pharmacy. Salt Lake City, UT. April 2014.

BOOK CHAPTERS

1. King DR, Mezache L, Sedovy M, **Radwański PB**, Johnstone SR, Veeraraghavan R. Cell-Cell Communication in the Vascular Endothelium. In: Hund TJ and Parinandi NL, eds. *Cardiovascular Signaling in Health and Disease.* Springer Nature. 2022: 411-428.

2. Liu B, **Radwański PB**, Györke S. Structural and Molecular Bases of Sarcoplasmic Reticulum Ion Channel Function. In: Zipes DP, Jalife J, eds. *Cardiac Electrophysiology: From Cell to Bedside*. 8th ed. Philadelphia: Elsevier, 2021: 63.-69.
3. Liu B, Györke S, **Radwański PB**. Structural and Molecular Bases of Sarcoplasmic Reticulum Ion Channel Function. In: Zipes DP, Jalife J, eds. *Cardiac Electrophysiology: From Cell to Bedside*. 7th ed. Philadelphia: Elsevier, 2017: 60-65.
4. Munger MA, **Radwański PB**, Van Tassell BW. Digitalis. In: Fink MP, Abraham E, Vincent JL, Kochanek P, eds. *Textbook of Critical Care*. 6th ed. Philadelphia: Elsevier, 2011: 1317-1321.

CLINICAL RESEARCH

SOLUTION TRIAL - Assessment of RiLuzole To Reduce Paroxysmal Episodes of Atrial FibrillatiON (Co-Investigator. Principal Investigator: Mark A. Munger, Pharm.D.; NCT05292209) University of Utah (2022-2024).

In-Vivo Assessment of Silver Biomaterial Nano-Toxicity. (Co-Investigator. Principal Investigator: Mark A. Munger, Pharm.D.) American Biotech Labs (2010-2011).

A 12-week multicenter, randomized, double-blind, parallel-group, active-control-placebo study to evaluate the antihypertensive efficacy and safety of an aggressive Exforge (valsartan/amlodipine)-based treatment versus a conventional losartan-based therapy in patients with Stage 2 systolic hypertension (EXALT Study). (Co-Investigator. Principal Investigator: Mark A. Munger, Pharm.D.) Novartis Pharmaceutical Co. (2009-2010).

TEACHING EXPERIENCE

	Lectureships – The Ohio State University
01-22 – Present	**MedCoM3712 – Pharmacology of antiarrhythmics** – 100-130 students Pharmacology of Antiarrhythmics – 1.25 hours: College of Medicine
10-18 – Present	**PHR 7601: Integrated Pharmacotherapy I** – 97-150 students Cardia Arrhythmias – 4 hours: College of Pharmacy
05-20 – Present	**PHR 7104: Transitions 4** – 150 students Cardiac arrhythmias – 1 hours: College of Pharmacy
09-19 – Present	**BME 5001: Cardiovascular Engineering** – 40 students Excitation-contraction coupling & introduction to arrhythmias and positive inotropes – 4 hours: College of Engineering
01-19 – Present	**PHYSIO 8101 Advanced Cardiac Physiology** – 15 - 23 students Cardiac Ion Channels – 3 hours: College of Medicine
10-11 – 12/15	**PHR 6080 Physiological Basis of Disease and Drug Action I** – 120 students Excitation/Contraction Coupling – 4 hours: College of Pharmacy
	Lectureships – The University of Utah, College of Pharmacy
08/10 – 12/10	**PHCEU 7975 Antimicrobial Pharmacokinetics & Pharmacodynamics** – 16 students/15hrs: Coordinator: **Przemysław Radwański, Pharm.D.**
08/09 – 12/10	**PCTH 5113 Introduction to Profession Experience Program** – 60 students Blood Pressure Assessment – 2 hours

08/09 – 12/10 **PHARM 5113 Basics in Pharmaceutical Sciences** – 60 students
Qualitative Pharmacokinetics – 6 hours

03/10 – 04/10 **ACCP Heart Failure Training Program** – 2 clinical research fellows
Pathophysiology of Heart Failure – 8 hours

01/09 – 05/11 **PHTX 5221 Pharmacology II** – 60 students
Positive Inotropes in Acute Decompensated Heart Failure – 1 hour

01/06 – 05/14 **PHCEU 7325 Applied Clinical Pharmacokinetics** – 60 students
Antimicrobial & Phenytoin PK/PD – 8 hours

03/14 – 05/14 **PHTX 5121 Biomedical Basis of Disease (Pathophysiology)** – 60 students
Electrophysiology and Excitation/Contraction Coupling – 4 hours

Students, post-docs and research associates trained or in training

Research Associates:

2024 – Present **Mikhail Tarasov**, **PhD** (Mentor)

2023 – Present **Joseph Waterman**, **BS** (Supervisor)

Post-doctoral fellows:

2025 – Present **Louisa Mezache, PhD** (Mentor)
NIH T32 Post-doctoral Fellowship: 2025-Present

2023 – 2025 **Zoja Selimi**, **MD, PhD** (Mentor)
Biophysical Society 69th Annual Meeting Chair – Platform: Voltage-Gated Channels.
current position: Postdoctoral Fellow – Linköping University

2024 – 2025 **Patricia Dias**, **PharmD, PhD** (Mentor)
current position: Postdoctoral Fellow – University of Porto

2021 – 2023 **D. Ryan King**, **PhD** (Mentor)
NIH T32 Post-doctoral Fellowship: 2022-2024
Biophysical Society 67th Annual Meeting 2023 Travel Award Winner.
current position: Executive Director of Administration - Roanoke College

2021 – 2023 **Mustafa Demirtas**, **PhD** (Mentor)
current position: Associate Professor of Electrical Engineering – Bursa Uludağ Univ

2020 – 2024 **Mikhail Tarasov**, **PhD** (Mentor)
AHA Post-doctoral Fellowship: 2022-2024

2019 – 2020 **Yusuf Olgar**, **PhD** (Mentor)
current position: Associate Professor of Biophysics – Ankara University

2018 – 2019 **Christopher Johnson**, **PhD** (Co-mentored with Dr. Györke)
current position: Assistant Professor of Chemistry – Mississippi State University

Graduate student:

2021 – 2025 **Xiaolei (Alyson) Meng,** (Mentor, PharmD/MS Pharmaceutical Sciences)
current position: Post-doctoral fellow – AstraZeneca

2021 – 2024 **Sara Atyia**, PharmD (Mentor, MS Health-System Pharmacy Administration)

current position: Critical Care Pharmacist – The MetroHealth System

2020 – 2021 **Julian Endres** (Co-mentor with Dr. Veeraraghavan, MS Biomedical Engineering)

2017 – 2018 **Naveed Zaman** (Mentor, MS Pharmaceutical Sciences)

Graduate rotation students:

1-4/2025 Richard Sui - Biophysics Graduate Program

1-4/2025 Kumudha Narayana Musini - Biophysics Graduate Program

Post-baccalaureate:

2021 – 2022 Dennison Min

2020 – 2021 Alec Miller

Undergraduate student:

2018-2020 Alec Miller – Undergraduate Thesis

2017-2018 Matthew Satariano

2015-2017 Megan Koleske

PhD Dissertation Committees

2025 – present Tuhin Roy, Biophysics, OSU *(C. Gu, chair)*

2024 – present Madison Ammon, Biophysics, OSU *(R. Veeraraghavan, chair)*

2023 – present Helena Zanella, Biomedical Sciences Graduate Program (*B. Biesiadecki, chair*)

2023 – 2025 Midhun NK Anne, Molecular, Cellular & Developmental Biology Program (*J. Wagnon*)

2019 - 2023 Louisa Mezache, Biomedical Engineering, OSU *(R. Veeraraghavan, chair)*

2019 - 2023 Andrew Soltisz, Biomedical Engineering, OSU *(R. Veeraraghavan, chair)*

2018 - 2023 Heather Struckman, Biomedical Engineering, OSU *(R. Veeraraghavan, chair)*

2017 – 2021 Yang Yu, Pharmacology, OSU *(K. Hu, chair)*

2017 – 2023 Cemantha Lane, Biomedical Engineering, OSU *(T. Hund, chair)*

2014 - 2019 Stephen Baine, Pharmacology, OSU *(C.A. Carnes, chair)*

MS Examination Committees

2022 Jordan Hughes, PharmD, MS Health-System Pharmacy Administration, OSU *(M. Pruchnicki, chair)*

Honors received by mentees while in training

2023 Xiaolei (Alyson) Meng. 2nd place for Best Poster – Graduate Student, OSU COP Research Day

2023 D. Ryan King, PhD, 2nd place for Best Poster – Post-doc, OSU COP Research Day

2023 D. Ryan King, PhD, Biophysical Society 67th Annual Meeting 2023 Travel Award

2019 Xiaolei (Alyson) Meng, ASPET Summer Undergraduate Research Fellowship

2018 Alec Miller. Summer Undergraduate Research Fellowship OSU COP

2017 Matthew Satariano. Best Poster –Undergraduate & PharmD, OSU COP Research Day

2016 Megan Koleske. Honorable Mention.The Denman Undergrad. Research Forum, OSU

2016 Megan Koleske. Summer Undergraduate Research Fellowship OSU COP

2016 Megan Koleske. Best Poster – Undergraduate & PharmD, OSU COP Research Day

HONORS AND AWARDS

2/26 – Present	SUDEP Clinical Biomarker Team Science Initiative Advisory Panel - CURE Epilepsy
3/26	Ad-hoc NIH Grant Reviewer for Small Grant Program for NHLBI K Award Recipients (R03) ZRG1 IVBH-V (55) Study Section
5/25	Co-chair, American Heart Association (AHA) Transformational Project Award (TPA) Vascular 1 review committee
10/24	Ad-hoc Grant Reviewer for UK Research and Innovation
6/24	Ad-hoc NHLBI Grant Reviewer for Mentored Transition to Independence (MTI) Study Section
5/24	Ad-hoc Grant Reviewer for French National Research Agency
4/24	Elected Fellow of the Heart Rhythm Society (FHRS)
8/23	Ad-hoc NIH Grant Reviewer for the R35 Emerging Investigator Award (EIA) ZHL1 CSR-L(O2)1 Study Section
5/23	Ad-hoc Grant Reviewer in the Lighthouse Project for Bern Precision Medicine Center (BCPM), Switzerland
3/23	Elected Fellow of the American Heart Association (FAHA)
11/22 – 6/25	Ad-hoc NIH Grant Reviewer for the Integrative Myocardial Physiology/Pathophysiology A (*MPPA*) Study Section (11/22, 02/23, 02/24, 07/24, 10/24, 4/25, 6/25)
02/23 – Present	Ad-hoc Grant Reviewer, Citizens United for Research in Epilepsy (CURE) Epilepsy Taking a Flight Award. (02/23, 02/24, 2/25, 5/25 & 11/25)
07/21	Lumley Interdisciplinary Research Award, College of Engineering, the Ohio State University
07/21	Best Paper in *Microscopy and Microanalysis* for 2020: Super-resolution Imaging Using Novel High Fidelity Antibody Reveals Close Association of Neuronal Sodium Channel $Na_V1.6$ with Ryanodine Receptors in Cardiac Muscle. *Microsc Microanal.* 2020 Feb;26(1):157-165.
02/21 – Present	Ad-hoc Grant Reviewer, American Heart Association (AHA) Peer Review Committee: Transformational Project Award (TPA); Career Development Award (CDA); Post-doc fellowship Cardiac Biology Basic Science,
06/20	Ad-hoc NIH Grant Reviewer for the Cardiac Contractility, Hypertrophy, and Failure (*CCHF*) Study Section
6/20 – Present	Review Editor: *Frontiers in Cardiovascular Medicine*
06/20	"5 most important"articles–BCVS Scientific Sessions 2020: Munger et al., *JAHA*. 2020.
03/17	2016 JACC: Basic to Translational Science Young Author Achievement Award, 2017 American College of Cardiology Scientific Sessions in Washington, DC
05/15	NIH Pathway to Independence Award (K99/R00), NIH NHLBI
03/15	Best Presentation Prize, Gordon Research Seminar on Cardiac Arrhythmia Mechanisms, Barga, Italy
05/14	Finalist of the Young Investigators Award Competition, Hear Rhythm 2014 Scientific Session, San Francisco, CA, USA

02/13	Merit Award in the poster competition at the 10th Gordon Research Conference on Cardiac Arrhythmia Mechanisms, Ventura, CA, USA
10/11	2011 ACCP Annual Meeting Cardiology PRN Travel Award, Pittsburgh, PA
05/11	Wolf Prize for Excellence in Teaching, University of Utah, College of Pharmacy, UT
08/03 – 05/05	Dean's List, University of Illinois at Chicago, College of Pharmacy, Illinois
05/04	Samuel Shkolnik Pharmaceutical Jurisprudence Award, University of Illinois at Chicago, College of Pharmacy, Illinois
01/00 – 05/05	Member of the Honors College, University of Illinois at Chicago, Illinois
05/04	PHI ETA SIGMA National Honors Society, University of Illinois at Chicago, Illinois
08/00	Sarah Madonna Kabbes Scholarship for Undergraduate Research, University of Illinois at Chicago, Illinois

CERTIFICATION & LICENSURE

04/13 – Present	**Pharmacist** (03132611) State of Ohio, Ohio Board of Pharmacy
12/08 – 01/23	**Board Certification Pharmacotherapy Specialist** (308009990)
07/05 – Present	**Pharmacist** (5932264-1701) State of Utah, Division of Occupational and Professional Licensing
08/05 – 03/10	**Pharmacist** (051-290733) - Inactive State of Illinois, Division of Professional Regulation
05/04 – Present	**Basic Life Support Provider** American Heart Association
05/04	**Pharmacy-Based Immunization Delivery**

PROFESSIONAL MEMBERSHIPS & SERVICE

- 10/22 - Present: American Epilepsy Society
  - 2024 – Present: Scientific Program Committee - Member
- 08/18 - Present: Heart Rhythm Society
  - 2024 – Elected Fellow of American Heart Association
  - 2023 – Present: Research Fellowship Awards Committee – Member
  - 2021 – Present: Abstract reviewer
- 08/14 - Present: American Society for Pharmacology and Experimental Therapeutics
  - Division of Drug Discovery and Development
    – 2015-2018: Communications Officer
    – 2014-2019: Executive Committee - Member
- 01/10 - Present: Biophysical Society
- 08/08 - Present: American Heart Association
  - 2023 – Elected Fellow of American Heart Association
- 09/03 – 9/24: American College of Clinical Pharmacy
  - Cardiology PRN Research/Scholarship Committee – 2015 – 2017

UNIVERSITY SERVICE

01/25 – Present **PRC Space Governance Committee**. Pelotonia Research Center, OSU.
08/22 – 5/24 **Graduate Studies Committee**. College of Pharmacy, OSU.
08/19 – 5/22 **Research Program Committee**. College of Pharmacy, OSU.
08/18 – 5/20 **Technology and Education Committee**. College of Pharmacy, OSU.
12/14 – 01/19 **Education Committee.** Davis Heart and Lung Research Institute, OSU.

EDITORIAL BOARED MEMBER

2020 – Present **Frontiers in Cardiovascular Medicine – Review Editor**.

AD-HOC JOURNAL REVIEWER

Circulation Research
Journal of Molecular and Cellular Cardiology
Journal of American College of Cardiology: Clinical Electrophysiology
Microscopy and Microanalysis
Frontiers in Cardiovascular Medicine
Journal of Cellular Physiology
Cardiovascular Research
Epilepsia
Europace
eLife