Approved, ABMF 12/16/15

CURRICULUM VITAE
The Johns Hopkins University School of Medicine

August 12th, 2025

Konstantinos N. Aronis, MD, PhD, FACC, FHRS

DEMOGRAPHIC AND PERSONAL INFORMATION

Current Appointments

University

2023-present Assistant Professor, Department of Medicine, Johns Hopkins University, Baltimore MD

Hospital

2023-present Attending Physician, Johns Hopkins Hospital, Baltimore, MD
2023-present Director, Adult Congenital Heart Disease Complex Ablation Program, Johns Hopkins Hospital, Baltimore MD
2023-present Associate Director, Ventricular Tachycardia Ablation Program, Johns Hopkins Hospital, Baltimore MD

Personal Data

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Education and Training

Undergraduate

NA

Doctoral/graduate

2008 M.D., University of Patras School of Medicine, Patras, Greece; Summa Cum Laude
2021 Ph.D., University of Patras School of Medicine, Patras, Greece; Summa Cum Laude

Postdoctoral

2010-2012 Clinical & Translational Research Fellowship, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA (Professor Christos Mantzoros, MD DSc)
2012-2013 Intern, Internal Medicine, Boston University Medical Center, Boston, MA
2013-2015 Resident, Internal Medicine, Boston University Medical Center, Boston, MA
2015-2019 Fellowship, Cardiovascular Disease, Johns Hopkins Hospital, Baltimore, MD
2017-2019 Research Fellowship in Computational Electrophysiology, Johns Hopkins University, Department of Biomedical Engineering, (Professor Natalia Trayanova PhD), sponsored by the NIH (T32 Grant), Baltimore MD
2019-2021 Fellowship, Clinical Cardiac Electrophysiology, Johns Hopkins Hospital, Baltimore, MD

Professional Experience

2021-2023 Assistant Professor, Department of Medicine, University of Pittsburgh, Pittsburgh, PA

2021-2023	Cardiac Electrophysiologist, Heart and Vascular Institute, University of Pittsburgh, Pittsburgh, PA
2023-present	Assistant Professor, Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, MD
2023-present	Cardiac Electrophysiologist, Heart and Vascular Institute, Johns Hopkins Hospital, Baltimore, MD
2023-present	Director, Complex Adult Congenital Heart Disease Ablation Program, Johns Hopkins Hospital, Baltimore MD
2023-present	Associate Director, Ventricular Tachycardia Ablation Program, Johns Hopkins Hospital, Baltimore MD

PUBLICATIONS

Currently 3,300 citations yielding an H-index of 31 and i10 index of 54 (Source: Google Scholar).

Original Research [OR]

1. Alexopoulos EC, Jelastopulu E, **Aronis K**, Dougenis D. Cigarette smoking among university students in Greece: a comparison between medical and other students. Environ Health Prev Med. 2010 Mar; 15 (2):115-20.2.
2. Moragianni VA, **Aronis KN**, Craparo FJ. Biweekly ultrasound assessment of cervical shortening in triplet pregnancies and the effect of cerclage placement. Ultrasound Obstet Gynecol. 2011 May; 37(5):617-8.
3. Petridou ET, Sergentanis TN, Antonopoulos CN, Dessypris N, Matsoukis IL, **Aronis K**, Efremidis A, Syrigos C, Mantzoros CS. Insulin resistance: an independent risk factor for lung cancer? Metabolism. 2011 Aug; 60(8):1100-6.
4. Moragianni VA, **Aronis KN**, Craparo FJ. Risk factors associated with retained placenta after cesarean delivery. J Perinat Med. 2011 Nov; 39(6):737-40.
5. **Aronis KN**, Diakopoulos KN, Fiorenza CG, Chamberland JP, Mantzoros CS. Leptin administered in physiological or pharmacological doses does not regulate circulating angiogenesis factors in humans. Diabetologia. 2011 Sep; 54(9):2358-67.
6. **Aronis KN**, Kilim H, Chamberland JP, Breggia A, Rosen C, Mantzoros CS. Preadipocyte factor-1 is associated with bone mineral content and bone mineral density in women with exercise induced hypothalamic amenorrhea independently of leptin levels. J Clin Endocrinol Metab. 2011 Oct; 96(10):E1634-9.
7. Sienkiewicz E, Magkos F, **Aronis KN**, Brinkoetter M, Chamberland JP, Chou SH, Arampatzi KM, Gao C, Koniaris A, Mantzoros CS. Long-term metreleptin treatment effectively increases bone mineral density and content at the lumbar spine in hypoleptinemic lean women. Metabolism. 2011 Sep; 60(9):1211-21.
8. Vamvini MT, **Aronis KN**, Chamberland JP, Mantzoros CS. Energy Deprivation Alters in a Leptin- and Cortisol-Independent Manner Circulating Levels of Activin A and Follistatin But Not Myostatin in Healthy Males. J Clin Endocrinol Metab. 2011 Nov; 96(11):3416-23.
9. Moragianni VA, **Aronis KN**, Chamberland JC, Mantzoros CS. Short-term energy deprivation alters activin-a and follistatin but not inhibin B levels of lean healthy women in a leptin-independent manner. J Clin Endocrinol Metab. 2011 Dec; 96(12):3750-8.
10. **Aronis KN**, Vamvini MT, Chamberland JP, Mantzoros CS. Circulating Clusterin/Apolipoprotein J does not have any day/night variability pattern and is positively associated with total and LDL-C cholesterol levels in young healthy individuals. J Clin Endocrinol Metab. 2011 Dec; 96(12):E2023-8.
11. Mitsiades N*, Pazaitou-Panayiotou K*, **Aronis KN*,** Moon HS*, Chamberland JP, Liu X, Diakopoulos KN, Kyttaris V, Panagiotou V, Mylvaganam G, Tseleni-Balafouta S, Mantzoros CS. Circulating adiponectin is inversely associated with risk of thyroid cancer: in vivo and in vitro studies. J Clin Endocrinol Metab. 2011 Dec; 96(12):E2023-8. *Equal first co-authors.
12. **Aronis KN,** Vamvini MT, Chamberland JP, Sweeney LL, Brennan AM, Magkos F, Mantzoros CS. Short-term walnut consumption increases circulating adiponectin and apolipoprotein-A concentrations, but does not affect markers of inflammation or vascular injury in obese humans with the metabolic syndrome: a double-blind, randomized, placebo-controlled study. Metabolism. 2012 Apr;61(4):577-82.
13. Moon HS, Nifli AP, Chamberland JP, **Aronis K**, Tseleni-Balafouta S, Mantzoros CS. Role of adiponectin and adiponectin receptors in endometrial cancer: in vitro and ex vivo studies in humans. Mol Cancer Ther. 2011 Dec; 10(12):2234-43.
14. Ahasic AM, Zhai R, Su L, **Aronis KN**, Mantzoros CS, Thompson BT, Christiani DC. Plasma Insulin-like Growth Factor-1 and Insulin-like Growth Factor Binding Protein-3 in the Acute Respiratory Distress Syndrome. Eur J Endocrinol. 2012 Jan;166(1):121-129.
15. **Aronis KN**, Foo JP, Chamberland JP, Mantzoros CS. Secretion Patterns of Circulating Osteoprotegerin and Response to Acute and Chronic Energy Deprivation in Young Healthy Adults. J Clin Endocrinol Metab. 2012 Aug;97(8):2765-72.

16. **Aronis KN**, Khan SM, Mantzoros CS. The effects of trans-fatty acids on glucose homeostasis: a meta-analysis of randomized, placebo-controlled clinical trials. Am J Clin Nutr. 2012 Nov;96(5):1093-9.
17. Foo JP, **Aronis KN**, Chamberland JP, Paruthi J, Moon HS, Mantzoros CS. Fibroblast Growth Factor 21 Levels in Young Healthy Females Display Day and Night Variations and Are Increased in Response to Short-Term Energy Deprivation Through a Leptin-Independent Pathway. Diabetes Care. 2013 Apr;36(4):935-42.
18. Thakkar B, **Aronis KN**, Vamvini MT, Shields K, Mantzoros CS. Metformin and Sulfonylureas in relation to Cancer Risk in Type II Diabetes Patients: A Meta-analysis using primary data of published studies. Metabolism. 2013 Jul;62(7):922-34.
19. Foo JP, **Aronis KN**, Chamberland JP, Thakkar B, Hamnvik OP, Brinkoetter MT, Zaichenko L, Mantzoros CS. Gender Dimorphism and Lack of Day/Night Variation or Effects of Energy Deprivation on Circulating Undercarboxylated Osteocalcin Levels in Humans. Obesity (Silver Spring). 2013 Dec;21(12):E527-32.
20. **Aronis KN**, Chamberland JP, Mantzoros CS. GLP-1 Promotes Angiogenesis in a Dose-Dependent Manner, Through the Akt, Src and PKC Pathways. Metabolism. 2013 Sep;62(9):1279-86.
21. Chamberland JP, Berman RL, **Aronis KN**, Mantzoros CS. Chemerin is expressed mainly in liver and adrenals, lacks day/night variation and is regulated by energy deprivation in humans. Eur J Endocrinol. 2013 Sep 13;169(4):453-62.
22. Vamvini MT, **Aronis KN**, Panagiotou G, Huh JY, Chamberland JP, Brinkoetter MT, Petrou M, Christophi CA, Kales SN, Christiani DC, Mantzoros CS. Irisin mRNA and circulating levels in relation to other myokines in healthy and morbidly obese humans. Eur J Endocrinol. 2013 Oct 21;169(6):829-34.
23. **Aronis KN**, Sahin-Efe A, Chamberland JP, Spiro A 3rd, Vokonas P, Mantzoros CS. Chemerin levels as predictor of acute coronary events: a case-control study nested within the veterans affairs normative aging study. Metabolism 2014 Jun;63(6)760-6.
24. **Aronis KN**, Moreno M, Polyzos SA, Moreno-Navarrete JM, Ricart W, Delgado E, de la Hera J, Sahin-Efe A, Chamberland JP, Berman R, Spiro III A, Vokonas P, Fernandez-Real JM, Mantzoros CS. Circulating irisin levels and coronary heart disease: association with future acute coronary syndrome and major adverse cardiovascular events. Int J Obes. 2015 Jan;39(1):156-61.
25. Hamnvik OPR, Thakkar B, Chamberland JP, **Aronis KN**, Schneider B, Mantzoros CS. Omentin-1 levels are reduced by pharmacologic doses of leptin, but remain unaffected by energy deprivation and display no day-night variability. Int J Obes. 2015 Feb;39(2):260-4.
26. Foo JP, **Aronis KN**, Chamberland JP, Mantzoros CS. Lack of Day/Night Variation in Fibroblast Growth Factor 21 Levels in Young Healthy Men. Int J Obes. 2015 Jun;39(6):945-8.
27. **Aronis KN**, Wang N, Phillips CL, Benjamin EJ, Marcus GM, Newman AB, Rodondi N, Satterfield S, Harris TB, Magnani JW, for the Health ABC study. Associations of obesity and body fat distribution with incident atrial fibrillation in the biracial health aging and body composition cohort of older adults. Am Heart J. 2015 Sep;170(3):498-505.
28. **Aronis KN**, Thigpen JL, Tripodis Y, Dillon C, Forster K, Henault L, Quinn EK, Berger PB, Limdi NA, Hylek EM. Paroxysmal atrial fibrillation and the hazards of under-treatment. Int J Cardiol. 2016 Jan 1;202:214-20.
29. Polyzos SA, **Aronis KN**, Kountouras J, Raptis DD, Vasiloglou MF, Mantzoros CS. Circulating leptin in non-alcoholic fatty liver disease: a systematic review and meta-analysis. Diabetologia. 2016 Jan;59(1):30-43.
30. Andreadis EA, Papademetriou V, Geladari CV, Kolyvas GN, Angelopoulos ET, **Aronis KN**. Home, automated office, and conventional office blood pressure as predictors of cardiovascular risk. J Am Soc Hypertens. 2017 Mar;11(3):165-170.e2
31. Ogunmoroti O, Oni E, Michos ED, Spatz ES, Allen NB, Rana JS, Virani SS, Blankstein R, **Aronis KN**, Blumenthal RS, Veledar E, Szklo M, Blaha MJ, Nasir K. Life's Simple 7 and Incident Heart Failure: The Multi-Ethnic Study of Atherosclerosis. J Am Heart Assoc. 2017 Jun 27;6(6).
32. **Aronis KN**, Ashikaga H. Impact of number of co-existing rotors and inter-electrode distance on accuracy of rotor localization. J Electrocardiol. 2018 Jan - Feb;51(1):82-91.
33. **Aronis KN**, Zhao D, Hoogeveen RC, Alonso A, Ballantyne CM, Guallar E, Jones SR, Martin SS, Nazarian S, Steffen BT, Virani SS, Michos ED. Associations of Lipoprotein(a) Levels With Incident Atrial Fibrillation and Ischemic Stroke: The ARIC (Atherosclerosis Risk in Communities) Study. J Am Heart Assoc. 2017 Dec 15;6(12)
34. Ogunmoroti O, Michos ED, **Aronis KN**, Salami JA, Blankstein R, Virani SS, Spatz ES, Allen NB, Rana JS, Blumenthal RS, Veledar E, Szklo M, Blaha MJ, Nasir K. Life's Simple 7 and the risk of atrial fibrillation: The Multi-Ethnic Study of Atherosclerosis. Atherosclerosis. 2018 Jun 2;275:174-181
35. **Aronis KN**, Berger RD, Calkins H, Chrispin J, Marine JE, Spragg DD, Tao S, Tandri H, Ashikaga H. Is human atrial fibrillation stochastic or deterministic? -Insights from missing ordinal patterns and causal entropy-complexity plane analysis. Chaos. 2018 Jun;28(6):063130.
36. Boyle PM, Hakim JB, Zahid S, Franceschi WH, Murphy MJ, Prakosa A, **Aronis KN**, Zghaib T, Balouch M, Ipek EG, Chrispin J, Berger RD, Ashikaga H, Marine JE, Calkins H, Nazarian S, Spragg DD, Trayanova NA. The

Fibrotic Substrate in Persistent Atrial Fibrillation Patients: Comparison Between Predictions From Computational Modeling and Measurements From Focal Impulse and Rotor Mapping. Front Physiol. 2018 Aug 29;9:1151.
37. Sohn D, **Aronis K**, Ashikaga H. Scale-invariant structures of spiral waves. Comput Biol Med. 2019 Jan;104:291-298.
38. Ciuffo L, Nguyen H, Marques MD, **Aronis KN**, Sivasambu B, de Vasconcelos HD, Tao S, Spragg DD, Marine JE, Berger RD, Lima JAC, Calkins H, Ashikaga H. Periatrial Fat Quality Predicts Atrial Fibrillation Ablation Outcome. Circ Cardiovasc Imaging. 2019 Jun;12(6):e008764.
39. **Aronis KN**, Ali RL, Prakosa A, Ashikaga H, Berger RD, Hakim JB, Liang J, Tandri H, Teng F, Chrispin J, Trayanova NA. Accurate Conduction Velocity Maps and Their Association With Scar Distribution on Magnetic Resonance Imaging in Patients With Postinfarction Ventricular Tachycardias. Circ Arrhythm Electrophysiol. 2020 Apr;13(4):e007792.
40. Sung E, Prakosa A, **Aronis KN**, Zhou S, Zimmerman SL, Tandri H, Nazarian S, Berger RD, Chrispin J, Trayanova NA. Personalized Digital-heart Technology for Ventricular Tachycardia Ablation Targeting in Hearts with Infiltrating Adiposity. Circ Arrhythm Electrophysiol. 2020 Dec;13(12):e008912.
41. Zhou S, Sung E, Prakosa A, **Aronis KN**, Chrispin J, Tandri H, AbdelWahab A, Horáček BM, Sapp JL, Trayanova NA. Feasibility study shows concordance between image-based virtual-heart ablation targets and predicted ECG-based arrhythmia exit-sites. Pacing Clin Electrophysiol. 2021 Mar;44(3):432-441.
42. Zhou S, AbdelWahab A, Sapp KL, Sung E, **Aronis KN**, Warren JW, MacInnis PJ, Shah R, Horáček M, Berger R, Tandri H, Trayanova NA, Chrispin J. Prospective Multicenter Assessment of a New Intraprocedural Automated System for Localizing Idiopathic Ventricular Arrhythmia Origins. JACC Clin Electrophysiol. 2021 Mar;7(3):395-407.
43. **Aronis KN***, Prakosa A, Bergamaschi T, Berger RD, Boyle PM, Chrispin J, Ju S, Marine JE, Sinha S, Tandri H, Ashikaga H, Trayanova NA. Characterization of the Electrophysiologic Remodeling of Patients With Ischemic Cardiomyopathy by Clinical Measurements and Computer Simulations Coupled With Machine Learning. Front Physiol. 2021 Jul 14;12:684149. *Corresponding author.
44. Zhou S, AbdelWahab A, Sapp JL, Sung E, **Aronis KN**, Warren JW, MacInnis PJ, Shah R, Horáček BM, Berger R, Tandri H, Trayanova NA, Chrispin J. Assessment of an ECG-Based System for Localizing Ventricular Arrhythmias in Patients With Structural Heart Disease. J Am Heart Assoc. 2021 Oct 19;10(20):e022217.
45. **Aronis KN**, Okada DR, Xie E, Daimee UA, Prakosa A, Gilotra NA, Wu KC, Trayanova N, Chrispin J. Spatial Dispersion Analysis of LGE-CMR for Prediction of Ventricular Arrhythmias in Patients with Cardiac Sarcoidosis. Pacing Clin Electrophysiol. 2021 Dec;44(12):2067-2074.
46. Zacharia EM, Istvanic F, Mulukutla S, Thoma F, **Aronis KN**, Bhonsale A, Kancharla K, Voigt A, Shalaby A, Estes NAM 3rd, Jain SK, Saba S. Predictors of Hospital Admissions for Ventricular Arrhythmia or Cardiac Arrest in Patients With Cardiomyopathy. Am J Cardiol. 2022 May 15;171:127-131.
47. Popescu DM, Shade JK, Lai C, **Aronis KN**, Ouyang D, Moorthy MV, Cook NR, Lee DC, Kadish A, Albert CM, Wu KC, Maggioni M, Trayanova NA. Arrhythmic sudden death survival prediction using deep learning analysis of scarring in the heart. Nat Cardiovasc Res 2022 Apr;1(4):334-343.
48. Shade JK, Doshi AN, Sung E, Popescu DM, Minhas AS, Gilotra NA, **Aronis KN**, Hays AG, Trayanova NA. Real-Time Prediction of Mortality, Cardiac Arrest, and Thromboembolic Complications in Hospitalized Patients With COVID-19. JACC Adv. 2022 Jun;1(2):100043.
49. Dhande M, Rangavajla G, Canterbury A, Hamandi M, Boricha H, Newhouse D, Osterhaus EC, Thoma F, Mulukutla S, **Aronis KN**, Bhonsale A, Kancharla K, Shalaby A, Estes NAM 3rd, Jain SK, Saba S. Guideline-Directed Medical Therapy and the Risk of Death in Primary Prevention Defibrillator Recipients. ACC Clin Electrophysiol 2022 Aug;8(8):1024-1030.
50. Medhekar A, Mulukutla S, Adams W, Kristofik A, Byers E, Thoma F, **Aronis K**, Barrington W, Bazaz R, Bhonsale A, Estes NAM 3rd, Kancharla K, Voigt A, Wang NC, Saba S, Jain SK. Impact of a dedicated center for atrial fibrillation on resource utilization and costs. Clin Cardiol. 2023 Mar;46(3):304-309
51. Dhande M, **Aronis KN**, Thoma F, Mulukutla S, Bhonsale A, Kancharla K, Shalaby A, Voigt A, Mark Estes NA, Jain SK, Saba S. Ventricular conduction abnormality in patients with mild to moderate cardiomyopathy. Clin Cardiol. 2023 Mar 7. doi: 10.1002/clc.24001. Online ahead of print.
52. Ayub MT, Rangavajla G, Thoma F, Mulukutla S, **Aronis K**, Bhonsale A, Kancharla K, Voigt A, Shalaby A, Estes NAM 3rd, Jain S, Saba S. Relative Contribution of Atrial Fibrillation to Outcomes of Patients With Cardiomyopathy Based on Severity of Left Ventricular Dysfunction. Am J Cardiol. 2023 May 12;198:9-13. doi: 10.1016/j.amjcard.2023.04.033. Online ahead of print.
53. Saba S, Mulukutla S, Thoma F, **Aronis KN**, Bhonsale A, Kancharla K, Voigt A, Shalaby AA, Mark Estes NA 3rd, Jain S. Impact of Diastolic Dysfunction on the Risk of Sudden Cardiac Arrest. Circ Arrhythm Electrophysiol. 2023 Aug;16(8):475-477.

54. Leventopoulos G, Travlos CK, **Aronis KN**, Anagnostopoulou V, Patrinos P, Papageorgiou A, Perperis A, Gale CP, Davlouros P. Safety and efficacy of left bundle branch area pacing compared with right ventricular pacing in patients with bradyarrhythmia and conduction system disorders: Systematic review and meta-analysis. Int J Cardiol. 2023 Nov 1;390:131230.
55. Dhande M, Barakat A, Canterbury A, Thoma F, Mulukutla S, Sezer A, **Aronis KN**, Bhonsale A, Kancharla K, Voigt AH, Wang NC, Shalaby A, Mark Estes NA 3rd, Saba S, Jain SK. Cardiovascular Hospitalizations and Resource Use Following Atrial Fibrillation Ablation. J Am Heart Assoc. 2023 Sep 19;12(18):e028609.
56. Wann DG, Baird AS, Wang NC, Mulukutla SR, Thoma FW, Sezer A, Canterbury AM, Barakat AF, Gardner MW, Skowronski JN, **Aronis KN**, Voigt AH, Jain SK, Saba SF, Bhonsale A, Estes NAM, Keebler ME, Hickey GW, Bazaz RR, Kancharla K. Association of pre-left ventricular assist device defibrillator shocks for ventricular arrhythmia with clinical outcomes after left ventricular assist device implantation. Heart Rhythm O2. 2023 Oct 14;4(11):708-714.
57. Satti DI, Karius A, Chan JSK, Isakadze N, Yadav R, Garg K, **Aronis KN**, Marine JE, Berger R, Calkins H, Spragg D. Effects of Glucagon-Like Peptide-1 Receptor Agonists on Atrial Fibrillation Recurrence After Catheter Ablation. JACC Clin Electrophysiol. 2024 Aug;10(8):1848-1855.

Review Articles [RA]

1. Miller JD, **Aronis KN**, Crispin J, Patil KD, Marine JE, Martin SS, Blaha MJ, Blumenhal RS, Calkins H. Obesity, Exercise, Obstructive Sleep Apnea, and Modifiable Atherosclerotic Cardiovascular Disease Risk Factors in Atrial Fibrillation. J Am Coll Cardiol. 2015 Dec 29;66(25):2899-906.
2. **Aronis KN**, Hylek EM. Who, When and How to Reverse Non-Vitamin K Oral Anticoagulants. J Thromb Thrombolysis. 2016 Feb;41(2):253-72.
3. Raimondi P, Hylek EM, **Aronis KN**, Reversal agents for antiplatelet and anticoagulant treatment during bleeding events: current strategies. Curr Pharm Des. 2016 Dec 5Curr Pharm Des. 2017;23(9):1406-1423.
4. Kwan AC, **Aronis KN**, Sandfort V, Blumenthal RS, Bluemke DA. Bridging the gap for lipid lowering therapy: plaque regression, coronary computed tomographic angiography, and imaging-guided personalized medicine. Expert Rev Cardiovasc Ther. 2017 Jul;15(7):547-558.
5. **Aronis KN**, Edgar B, Lin W; Parreiras-Martins MA, Paasche-Orlow MK, Magnani JW, Health literacy and atrial fibrillation – relevance and future directions for patient-centered care. Eur Cardiol. 2017 Summer;12(1):52-7.
6. **Aronis KN**, Hylek EM. Evidence Gaps in the Era of Non-Vitamin K Oral Anticoagulants. J Am Heart Assoc. 2018 Jan 26;7(3).
7. **Aronis KN**, Ali R, Trayanova NA. The role of personalized atrial modeling in understanding atrial fibrillation mechanisms and improving treatment. Int J Cardiol. 2019 Jul 15;287:139-147.
8. **Aronis KN**, Ali RL, Liang JA, Zhou S, Trayanova NA. Understanding AF Mechanisms Through Computational Modelling and Simulations. Arrhythm Electrophysiol Rev. 2019 Jul;8(3):210-219.
9. Geladari E, Vallianou N, Geladari C, **Aronis K**, Vlachos K, Andreadis E, Theocharopoulos I, Dourakis S. "Failing kidneys in a failing planet; CKD of unknown origin".Rev Environ Health. 2021 Dec 6. doi: 10.1515

Case Reports [CR]

1. Griffith D, **Aronis KN**, Orozco A, Traill T, Agwu AL. Premature Coronary Artery Disease and ST-Elevation Myocardial Infarction in a 24-year old Man with Perinatally-Acquired HIV: A Case Report. Open Forum Infect Dis. 2017 Feb 10;4(1).
2. **Aronis KN***, Mettler BA, Love CJ, de la Uz CM. Salvage of an epicardial lead in a pacemaker-dependent patient with Fontan palliation using an IS-1 extender. J Cardiovasc Electrophysiol. 2020 Jul 27. *Corresponding author.
3. **Aronis KN**, Yang E, Barnes BT, Cedars A, De La Uz CM, Barth AS. Left bundle pacing in a patient with atrioventricular canal defect presenting with atrial standstill and junctional bradycardia. Heart Rhythm Case Reports. Volume 9, Issue, P314-318, May 2023.
4. Liskov S, Milstein JA, Barth AS, Cedars A, Mettler BA, Gottlieb-Sen D, **Aronis KN**. Epicardial mapping and ablation of focal atrial tachycardia from the crista terminalis during cardiac surgery. JACC Clin Electrophysiol. 2025 Jan 16:S2405-500X(24)01090-9.
5. Shalaby AS, Hendawy BS, Wann DG, Bhonsale A, Kancharla K, Voigt A, Jain A, Estes M, Saba S, **Aronis KN**. Evidence of Late Septal Coronary Involvement After Bipolar Radiofrequency Ablation in a Patient With Lamin A/C Cardiomyopathy. J Cardiovasc Electrophysiol. 2025 Aug;36(8):2068-2072.

Book Chapters, Monographs [BC]

1. **Aronis KN**, Magnani JW. "P-wave indices and the PR interval – relation to atrial fibrillation and mortality". ECG Handbook of Contemporary Challenges. Eds. Shenasa M, Josephson ME, Estes M 3rd. Minneapolis: Cardiotext Publishing, 2015. 27-47.
2. Marine JE, **Aronis KN**, Love CJ. "Techniques of pacemaker and ICD implantation and removal". Clinical Cardiac Pacing, Defibrillation, and Resynchronization Therapy, 6th Edition. Eds Ellenbogen K. (in press)

Editorials [ED]

1. **Aronis KN**, Kim YB, Mantzoros CS. Clusterin (apolipoprotein J): wither link with diabetes and cardiometabolic risk? Metabolism. 2011 Jun; 60(6):747-8.
2. **Aronis KN**, Joseph RJ, Blackburn GL, Mantzoros CS. Trans-Fatty acids, insulin resistance/diabetes, and cardiovascular disease risk: should policy decisions be based on observational cohort studies, or should we be waiting for results from randomized placebo-controlled trials? Metabolism. 2011 Jul; 60(7):901-5.
3. **Aronis KN**, Mantzoros CS. A brief history of insulin resistance: from the first insulin radioimmunoassay to selectively targeting protein kinase C pathways. Metabolism. 2012 Apr;61(4):445-9.
4. **Aronis KN**, Mantzoros CS. Novel concepts in lipoprotein particle metabolism and regulation. Metabolism. 2014 Jan;63(1):1-4.
5. **Aronis KN**, Berger RD, Ashikaga H. Rotors: How Do We Know When They Are Real? Circ Arrhythm Electrophysiol. 2017 Sep;10(9).
6. **Aronis KN**, Trayanova NA. Endocardial-Epicardial Dissociation in Persistent Atrial Fibrillation: Driver or Bystander Activation Pattern? Circ Arrhythm Electrophysiol. 2020 Aug;13(8):e009110.

Letters, Correspondence [LT]

1. **Aronis KN**. Taking a step back: understanding the underlying mechanisms before moving forward with large-scale epidemiologic studies. J Appl Physiol. 2011 Aug; 111(2):610; discussion 614.
2. **Aronis KN**, Tsoukas MA, Mantzoros CS. Potential Cardioprotective Action of GLP-1: From Bench to Bedside. Metabolism. 2014 August;63(8)979-88.

Other Media [OM] (Videos, Websites, Blogs, Social Media, etc.)

2014. Hylek EM, **Aronis KN**. Edoxaban vs. Warfarin in patients with AFib. American College of Cardiology, ACC News Story. February 26, 2014. URL: http://www.acc.org/latest-in-cardiology/articles/2014/07/18/17/30/edoxaban-vs-warfarin-in-patients-with-afib

2016. Dahagam C, **Aronis K**. Coronary Artery Calcium Scans Help Refine Treatment Decisions. American College of Cardiology, Cardiosmart. May 03, 2016. URL: https://www.cardiosmart.org/News-and-Events/2016/04/Coronary-Artery-Calcium-Scans-Help-Refine-Treatment-Decisions

2016. **Aronis KN**, Blumenthal RS, Martin SS. Summarizing the Current State and Evidence on Efficacy and Safety of Statin Therapy. American College of Cardiology, Expert Analysis. Americal College of Cardiology, Expert Analysis, November 17, 2016. URL: http://www.acc.org/latest-in-cardiology/articles/2016/11/17/09/03/summarizing-the-current-state-and-evidence-on-efficacy-and-safety-of-statin-therapy

2016. **Aronis KN**, Michos ED. Part II: Atrial Fibrillation: What Puts you at Risk and How to Avoid It. US News and World Report. November 30, 2016. URL: http://health.usnews.com/health-care/for-better/articles/2016-11-30/atrial-fibrillation-what-puts-you-at-risk-and-how-to-avoid-it

2016. **Aronis KN**, Michos ED. Part I: Atrial Fibrillation: Why Should You Worry and How to Treat It. US News and World Report. November 30, 2016. URL: http://health.usnews.com/health-care/for-better/articles/2016-11-30/atrial-fibrillation-why-you-should-worry-and-how-to-avoid-it

FUNDING

EXTRAMURAL Funding

Research Extramural Funding – Current

7/2024 – 7/2026
The role of extra-cellular volume imaging in AF ablation outcomes
Cannon
$50,000
PI: Konstantinos N. Aronis MD PhD
Role: PI

11/2024-11/2026
FULCRUM-VT Cryoablation for Monomorphic Ventricular Tachycardia IDE Study: Pivotal Study

Adagio Medical
Site PI: Konstantinos N. Aronis MD PhD
Role: Site PI

9/2024-9/2026 BACKBEAT Pivotal Study of AVIM Therapy in Hypertensive Pacemaker Patients
Orchestra BioMed
Site PI: Konstantinos N. Aronis MD PhD
Role: Site PI

12/2024-12/2026 Prophylactic Intra-Operative Ventricular Arrhythmia Ablation in High-Risk LVAD Candidates (PIVATAL)
NIH Grant awarded at University of Rochester Medical Center
PI: David T. Huang, MD, University of Rochester Medical Center
Site PI: Chetan Pasrija MD
Role: Co-I (Electrophysiology Lead)

12/2025-12/2028 Comparative Clinical Effectiveness of Implantable Cardioverter Defibrillator Versus Non-Implantable Cardioverter Defibrillator Therapy in Contemporary Heart Failure Patients With Low Predicted Arrhythmic Risk (CONTEMPT-ICD)
NIH Grant awarded at University of Rochester Medical Center
PI: Ilan Goldenberg, M.D., University of Rochester Medical Center
Site PI: Nisha Gilotra MD
Role: Electrophysiology Lead

Research Extramural Funding – Previous

6/2010 – 6/2011 Effect of short-term walnut consumption on biomarkers of vascular health in humans
California Walnut Commission
$41,679
PI: Christos Mantzoros, MD
Role: Co-PI

6/2017 – 06/2019 Training Grant in Cardiovascular Medicine
T32/T32HL007227-42
NIH
PI: Wendy Post, MD
Role: Trainee

CLINICAL ACTIVITIES

Clinical Focus

My clinical focus is on (1) ablation of complex ventricular tachycardias and ventricular fibrillation, (2) management and ablation of arrhythmias in patients with adult congenital heart disease, (3) catheter ablation of complex arrhythmias, (4) integration of advanced cardiac imaging in electrophysiology procedures, (5) hybrid surgical ablation for complex arrhythmias.

Accomplishments:

- At UPMC (2021-2023): (A) Contributed significantly to the expansion of the VT ablation program, restarting the epicardial ablation program; (B) Performed the first open chest, on pump epicardial VT ablation at the time of LVAD implantation. Performed first bipolar ablation for VT originating intramurally at the interventricular septum.
- At JHH (2023-present):
- I run the adult congenital ablation program. I am the sole EP provider with this expertise. We perform on average > 20 complex ACHD EP procedures per year.
    - I Performed first open chest atrial tachycardia mapping and ablation in a patient with complex adult congenital heart disease undergoing cardiac surgery. This is a first case internationally.
    - I perform implantation of conduction system pacemaker in patients with complex adult congenital heart disease and have used 3D printing of patient's heart to hand-pre-shape delivery systems that result in a successful implant. The latter is a novel approach with no other reports of it in the literature at the time I performed it.
- I co-direct the ventricular tachycardia ablation program. With my contributions, we have markedly increased the volume and complexity of VT ablations, started the VF ablation program and the surgical hybrid complex VT ablation program.

- I performed the first open chest on pump epicardial VT ablation at the time of LVAD implantation, starting a new era for our LVAD program, that now considers patients with advanced heart failure and VT for LVAD implantation, a population that was in the past excluded from LVAD implantation. This initiated a strong collaboration with our transplant surgeons. So far, we have performed of a total of 5 totally open chest VT ablation procedures.
- I performed the first ventricular fibrillation ablation at JHH. This has sparked multiple referrals for this novel and niche procedure.
- I am amongst the highest volume user in the country of minimally invasive thoracoscopic techniques for safe pericardial access in complex patients.
- I have started the hybrid surgical ablation complex VT ablation at Hopkins that in close collaboration with our cardiac surgeons we are performing minimally invasive VATS or with full surgical exposure mapping and ablation in patients with otherwise inaccessible epicardial targerts.

Certification

Medical, other state/government licensure

2012-2015 Limited Medical License, MA (#252155)
2015-2017 Training Medical License, MD
2017-2022,2023-present Full Medical License, MD (#D0083699)
2021-present Full Medical License, PA (#MD474804)

Boards, other specialty certification

2015-Present Board Certified, American Board of Internal Medicine: Internal Medicine #358128
2017-Present Board Certified, National Board of Echocardiography: Comprehensive Adult Echocardiography #32839
2018-Present Board Certified, American Board of Internal Medicine: Cardiovascular Disease #358128
2021-Present Present Subspecialty, Board Certified, American Board of Internal Medicine: Clinical Cardiac Electrophysiology #358128

Clinical (Service) Responsibilities

2021-2023 Assistant Professor / 0.65 FTE clinical & 0.35 FTE research, education and administration, clinical cardiac electrophysiology, University of Pittsburgh Medical Center, Pittsburgh, PA
2023-Present Assistant Professor / 0.65 FTE clinical & 0.35 FTE research, education and administration, clinical cardiac electrophysiology, Johns Hopkins Hospital, Baltimore, MD
2023-Present Director of Adult Congenital Heart Disease Complex Ablation Program, Johns Hopkins Hospital, Baltimore, MD
2023-Present Associate Director of Ventricular Tachycardia Ablation Program, Johns Hopkins Hospital, Baltimore, MD

Clinical Productivity

2021-present I receive referrals for evaluation of complex cardiac arrhythmias management, complex ablation of patients with adult congenital heart disease and complex device management. Procedures that I perform include ablation of supraventricular and ventricular tachycardias (including in patient with severe structural heart disease), ventricular fibrillation ablation, epicardial electrophysiology procedures, cardiac device implantation (including physiologic pacing) and extractions.

Clinical Draw

2024-Present Local and regional referrals from our advanced heart failure and cardiothoracic surgery colleagues of patients with advanced heart failure to evaluate for and perform for high-risk VT ablation, including ablation at the time of LVAD implantation and/or on patients with mechanical circulatory support.
2023-Present International referrals from cardiologists or electrophysiologists (to perform ventricular tachycardia ablation procedures and ablation or device procedures in patients with adult congenital heart disease).
2023-Present Referrals from local cardiologists and electrophysiologists across the US, including out of state (to perform ventricular tachycardia ablation procedures and ablation or device procedures in patients with complex adult congenital heart disease).
2021-2023 Referrals from local cardiologists as well as local electrophysiologists (to perform ventricular tachycardia ablation procedures and lead extraction procedures). Referrals from cardiologists and electrophysiologists from different cities within PA and adjacent states (OH, WV, NY) for ventricular tachycardia ablation procedures and lead extractions.

2021-Present Referrals from local cardiologists as well as local electrophysiologists (to perform ventricular tachycardia ablation procedures and ablations in patients with complex congenital heart disease). Referrals from cardiologists and electrophysiologists from different cities within MD and adjacent states (PA, NY, DE) for ventricular tachycardia ablation procedures and alations in patients with complex .

Clinical Program Building / Leadership

2023-present Director, Complex Adult Congenital Heart Disease Complex Ablation Program, Johns Hopkins Hospital, Baltimore, MD. Developed the complex ablation program for patients with ACHD heart disease. We are performing on average 20 complex ablation procedures in patients with complex ACHD per year. I have established standard referral basis from the local and regional ACHD providers.

2023-present Associated Director, Ventricular Tachycardia Ablation Program, Johns Hopkins Hospital, Baltimore, MD. With my contributions, we have markedly increased the volume and complexity of VT ablations, started the VF ablation program and the surgical hybrid complex VT ablation program.

Clinical Demonstration Activities

3/12/2023 Proctored one of the first cryo PVIs at the Division of Electrophysiology of "Sotiria" Hospital, which is the 3rd cardiology clinic of the medical school of university of Athens, Athens Greece.

7/30/2022 Proctored a high-risk lead extraction procedure at the Division of Electrophysiology of Hygeia Hospital in Athens Greece. Hygeia Hospital Athens, Greece.

Development of nationally/internationally recognized clinical standard of care

2025 I am on the writing committee of the HRS Statement on Provider and Institutional Best Practices for Comprehensive Adult Congenital Heart Disease Electrophysiology Programs.

EDUCATIONAL ACTIVITIES

Educational Focus

My educational focus is in (1) cardiac electrophysiology, (2) invasive management of complex cardiac arrhythmias, (3) cardiac implanted device management, (4) biophysics as related to cardiac electrophysiology and computational electrophysiology, and (5) applications of advanced cardiac imaging in cardiac electrophysiology. I participate in educational activities geared towards (1) general cardiology fellows, (2) cardiac electrophysiology fellows (3) other cardiac electrophysiologist that want to learn more advanced aspects of EP such as complex VT ablation and ablation in ACHD. I provide medical education via (1) formal fellowship curriculum, (2) participation in industry-sponsored symposia, (3) proctorship, (4) hands-on-clinical instruction.

Specifically at Johns Hopkins:

- I am the sole faculty who provides training to EP fellows on consultative and invasive management of arrhythmias and devices in patients with complex adult congenital heart disease
- I am the sole faculty who provides training to EP fellows on "interventional CRT implantation techniques" which is a method of CRT implantation that uses interventional cardiology tools rather than the standard CRT implantation tools and is a skillset that can be particularly useful for challenging CRT implantation procedures.
- I am one of the two providers who provide training to EP fellows in invasive approach of ventricular tachycardias.

Teaching

Classroom instruction

JHMI/Regional

2009-2010 Medical Content Specialist, "USMLE Step 1 Preparation". I instructed students of Kaplan Medical Institute via a bi-weekly course over 3 months preparing them for USMLE Exams. Kaplan Medical Institute, Newark, NJ.

2010-2012 Lecturer, Mantzoros lab members. I instructed lab members of the Mantzoros lab via a 3 month-long series of weekly lectures on theoretical and applied biostatistics. Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA.

2015-2019 Fellow presenter. Presented educational content on various general cardiology topics to general cardiology fellows. This corresponded to approximately 5 lectures per year. Johns Hopkins Hospital, Baltimore, MD

2019-2021 Fellow presenter. Presented educational content on various general cardiology topics to cardiac electrophysiology and general cardiology fellows. This corresponded to approximately 10 lectures per year. Topics included 'Unknown tracings", "Interesting case presentation", "Parahisian pacing maneuvers", "Dielectric imaging in cardiac electrophysiology". Johns Hopkins Hospital, Baltimore, MD

2021-2023 Faculty presenter, General Cardiology fellows lecture series. I presented "Unknown ECGs". These correspond to 6 lectures per year. University of Pittsburgh Medical Center, Pittsburgh, PA

2021-2023 Faculty presenter, Cardiac Electrophysiology fellows lecture series. I presented "Unknown Tracings", "SVT Maneuvers Part I-III", "System-Wide EP Case Presentation". These correspond to 6 lectures per year. University of Pittsburgh Medical Center, Pittsburgh, PA

2023-present Faculty presenter, General cardiology fellows lecture series (4 lectures/year). I presented "Introduction to Cardiac Implantable Device Interrogation", "Introduction to Invasive Electrophysiological Assessment", "Introduction to VT Ablation", "Introduction to Conduction system pacing" annual lectures. Each lecture is 1 hour long. Johns Hopkins University, Baltimore, MD.

2023-present Faculty presenter, Cardiac Electrophysiology core curriculum series (4 lectures/year). I presented the annual lectures on "Ablation of Ventricular Tachycardias in Patients with Structural Heart Disease – Part 1: Patient Assessment", "Ablation of Ventricular Tachycardias in Patients with Structural Heart Disease – Part 2: Mapping and Ablation Techniques", "Arrhythmias in Patients with Adult Congenital Heart Disease", "Diagnosis and Ablation of Ventricular Arrhythmias Involving the Conduction System". Each lecture is 1 hour long. Johns Hopkins University, Baltimore, MD. **(CME)**

2023-present Faculty presenter, Cardiac Electrophysiology fellows unknown case series (5 lectures/year). I present on average 5 times per year "Unknown Tracings" series. These presentations use a complex intracardiac tracing as an opportunity to discuss EP phenomena, maneuvers and findings, and are highly rated amongst EP fellows. Johns Hopkins University, Baltimore, MD.

2025-present Faculty presenter, Cardiac Electrophysiology fellows conference Tuesday series (1 lecture per year) with the title "Anesthesiology Considerations in EP Procedures". Lecture is 1 hour long. Johns Hopkins University, Baltimore, MD.

International

2021-2023 Faculty presenter, "Simulation of Non-linear biological Systems" which is part of the post-graduate program in medical informatics in University of Thessaloniki. I present a lecture as part of the medical informatics program annual curriculum. Audience is medical and engineering post-graduate students. "In Silico Modeling of Cardiac Electrophysiology: From the Computational Lab to The Bedside". Aristotle University of Thessaloniki, Thessaloniki, Greece.

2022-present Faculty presenter, General Cardiology fellowship series at University of Athens. Presenting annually. I present a lecture as part of the general cardiology fellows annual curriculum a yearly lecture on the topics "Management of Refractory Atrial Fibrillation in Patients with Heart Failure" and "Management of Ventricular Tachycardias in Patients with Structural Heart Disease" and "Conduction system pacing". Each presentation is1 hour long. National and Kapodistrian University of Athens, Athens, Greece.

Clinical instruction

JHMI/Regional

2015-2017 Cardiology Fellow; supervised and instructed 4rd year med students and internal medicine residents; Inpatient cardiology service (~8 wks/yr), inpatient heart failure service (~8 wks/yr), cardiology consults service (~6wks/yr), cardiac intensive care unit (~6wks/yr). Johns Hopkins SOM, Johns Hopkins Hospital, Baltimore, MD

2019-2021 Cardiac Electrophysiology Fellow; supervised and instructed general cardiology fellows on performing cardiac electrophysiology consults and device interrogations (total of 18 weeks over 2 years. Johns Hopkins Hospital, Baltimore, MD

2021-2023 Attending, Cardiac Electrophysiology Fellows. Provide training in invasive cardiac electrophysiology. On average 2 days per week. University of Pittsburgh Medical Center, Pittsburgh, PA.

2021-2023 Attending, General Cardiology Fellows, and Cardiac Electrophysiology Fellows. Provide training in inpatient clinical cardiac electrophysiology, consultative cardiac electrophysiology, and device interrogation/troubleshooting. On average 6 weeks per year. University of Pittsburgh Medical Center, Pittsburgh, PA.

2021-2023 Attending, Electrophysiology Lab Staff and Technicians. Provide hour long curricular training lab-based aspects of cardiac electrophysiology. Topics: "Epicardial Access", "Recording electrophysiological signals", "Snaring techniques for lead extractions" On average 3 sessions per. University of Pittsburgh Medical Center, Pittsburgh, PA.

2023-present Attending, Cardiac Electrophysiology Fellows. Provide training in invasive cardiac electrophysiology. On average 2 days per week. I am the solve faculty providing training in invasive management of arrhythmias in patients with ACHD, interventional CRT implantation techniques, and one of the two faculty members providing training in complex VT ablation. Johns Hopkins Hospital, Baltimore, MD.

2023-present Attending, Cardiac Electrophysiology Fellows. Provide training in outpatient management of patients with cardiac arrhythmias. I am the sole faculty providing training on outpatient management of patients with ACHD and arrhythmias. On average 1 day per week. Johns Hopkins Hospital, Baltimore, MD.

2023-present Attending, General Cardiology Fellows, and Cardiac Electrophysiology Fellows. Provide training in inpatient clinical cardiac electrophysiology, consultative cardiac electrophysiology, and device interrogation/troubleshooting. On average 6 weeks per year. Johns Hopkins Hospital, Baltimore, MD.

CME instruction

Please also see invited talks section below as well as classroom instruction above (denoted with CME my activities that offered CME)

JHMI/Regional

2021-2023 Faculty presenter, Infectious endocarditis multi-disciplinary rounds. This is a weekly multidisciplinary meeting where complex cases of endovascular infections are discussed and clinical decisions are taken. Participants are faculty and trainees from infectious disease, cardiac electrophysiology, general cardiology, cardiac surgery, cardiac anesthesia, addiction medicine. My role is to contribute and provide mult-disciplinary guidance on implantable cardiac device management. University of Pittsburgh Medical Center, Pittsburgh, PA.

Workshops /seminars

JHMI/Regional

10/23/2019 Invited Fellow Presenter. Herlong Rounds. I presented clinical case studies to students of the Medical Scientist Training Program (MSTP). Johns Hopkins University, Baltimore, MD.

3/5/2022 Course faculty and presenter. UPMC Heart and Vascular Institute Atrial Fibrillation Symposium: A Multidisciplinary Approach. Endorsed by the Heart Rhythm Society. "Refractory AF with Tachycardia Mediated HF". University of Pittsburgh Medical Center, Pittsburhg, PA.

11/12/2022 Course co-director and faculty presenter. Midwest EP Fellows Education Consortium "Diagnosis and Management of VT". Full-day seminar on VT ablation. Sponsored by Abbott Education Network. University of Pittsburgh Medical Center, Pittsburgh, PA.

05/04/2023 Course director and faculty presenter: "Vascular Access and Closure Training Program". 3 hour long seminar on vascular access and closure presented to graduating cardiology fellows going into invasive subs-specialties. Regional participation of fellows from MD, PA, DC . Sponsored by Haemonetics.

03/20/2024 Course director and faculty presenter: "How to Plan and Perform VT Ablation". 3 hour long seminar on on VT ablation for advanced EP fellows. Regional participation of fellows from MD, PA, DC. Sponsored by Haemonetics.

6/19/2024 Course director and faculty presenter: "Vascular Access and Closure Training Program". 3 hour long seminar on vascular access and closure presented to graduating cardiology fellows going into invasive subs-specialties. Regional participation of fellows from MD, PA, DC. Sponsored by Haemonetics.

12/19/2024 Course director and faculty presenter: "Epicardial VT Ablation". 2 hour long seminar on epicardial access and VT ablation for advanced EP fellows. Regional participation of fellows from MD, PA, DC. Sponsored by Johnson and Johnson.

4/5/2025 Faculty presenter: "The Role of VT Ablation in Patients with ARVC". 26th Annual ARVC/ACM Patient and Family Seminar. Johns Hopkins Hospital, Baltimore, MD.

6/18/2025 Course director and faculty presenter: "Welcome to EP: a Hands On Multi-Disciplinary Workship". 6 hour long seminar the basics of EP study and suturing techniques for incoming EP fellowsRegional participation of fellows from MD, PA, DC, VA, WV. Sponsored by Johnson and Johnson.

International

11/18/2022 Faculty presenter. 5th National Conference of Structural Heart and Valve Disease. "Contemporary Management of Ventricular Tachycardia". Lecture to attending cardiologist, cardiac surgeons, and trainees. National and Kapodistrian University of Athens, Greece.

11/18/2023 Faculty presenter. 6th National Conference of Structural Heart and Valve Disease. "Ablation of Ventricular Tachycardias: Indications, Techniques, and Results". Lecture to attending cardiologist, cardiac surgeons, and trainees. National and Kapodistrian University of Athens, Greece.

11/16/2024 Faculty presenter. 7th National Conference of Structural Heart and Valve Disease. "Ablation of Ventricular Tachycardias: Indications, Techniques, and Results". Lecture to attending cardiologist, cardiac surgeons, and trainees. National and Kapodistrian University of Athens, Greece.

Mentoring

Pre-doctoral Advisees /Mentees

2018-2019 Teya Bergamaschi
Johns Hopkins University, Whiting School of Engineering undergraduate student
Co-mentor for her undergrad research time at the Johns Hopkins Computational Electrophysiology Lab (Professor Natalia Trayanova).
Original research publication OR#42 on this CV
Present position: PhD Student at Electrical Engineering and Computer Science at MIT, Boston MA.

2018-2019 Phillip Teng
Johns Hopkins University, Whiting School of Engineering undergraduate student
Primary mentor for her undergrad research time at the Johns Hopkins Computational Electrophysiology Lab (Professor Natalia Trayanova).
Original research publication OR#39 on this CV
Present position: Software Engineer at TikTok

2018-2019 Jialiu (Annie) Liang
Johns Hopkins University, Whiting School of Engineering undergraduate student
Co-mentor for her undergrad research time at the Johns Hopkins Computational Electrophysiology Lab (Professor Natalia Trayanova).
Original research publication OR#39 and review publication RE#8 on this CV
Present position: Goldwater Scholar, Undergraduate Research Assistant at Johns Hopkins University

2022-Present Emma Osterhaus
University of Pittsburgh, School of Medicine
I am one of her research mentors and work on a project assessing the location of pacemaker lead locations with clinical outcomes
Manuscript in preparation
Present position: Medical student, University of Pittsburgh School of Medicine, Pittsburgh, PA.

2023-Present Marianna DeFonesca
Johns Hopkins University, School of Medicine
She performed under my supervision a summer schooled elective in the division of EP at JHH. Since then, I have been a key mentor for her career and research.
Currently: manuscript in preparation
Present position: Medical student, University of Edinburg School of Medicine, Edinburg, UK.

2024-Present Anh Truong
Johns Hopkins University, Whiting School of Engineering, PhD Student in Biomedical Engineering
I mentor her on developing skills on signal processing of ECG and development of non-invasive indices of activation and repolarization dispersion. I served on her Doctoral Board Oral (DBO) exam.
Currently: abstract in preparation
Present position: PhD Student, Biomedical Engineering, Johns Hopkins University, Whiting School of Engineering.

2025-Present Kelly Zhang
Johns Hopkins University, Whiting School of Engineering, PhD Student in Biomedical Engineering
I mentor her on developing skills developing lattice-boltzman models of ventricular tachycardia I served on her PhD thesis committee.
Present position: PhD Student, Biomedical Engineering, Johns Hopkins University, Whiting School of Engineering.

Post-doctoral Advisees /Mentees

2014-2016 Peter Raimondi, MD
Boston University School of Medicine, Internal Medicine Resident
Primary mentor during his research interest in oral anticoagulation during his internal medicine residency.
Review publication RE#3 on this CV
Present position: Cardiologist, Assistant Professor of Medicine, Mount Sinai Hospital, New York, NY.

2021-2023 Daniel Wann, MD
University of Pittsburgh Medical Center, Cardiac Electrophysiology Fellow
Primary mentor in his clinical interest in VT ablation and research interest complex VT ablation.
Poster presented in international meeting
Published manuscript: CR#5 on this CV
Present position: Cardiac Electrophysiologist at Banner Health, Fort Collins CO.

2021-2023 Mehak Dhande, MD
University of Pittsburgh Medical Center, Cardiac Electrophysiology Fellow
Co-mentor in her clinical and research interest in catheter ablation.
Currently has submitted case reports. Co-authored several papers.
Present position: Cardiac Electrophysiologist, additional research training, University of Pittsburgh Medical Center, Pittsburgh, PA.

2022-Present Deepak Kumar, MD
University of Pittsburgh Medical Center, Internal Medicine Resident
One of his research mentors in outcomes-based research.
Manuscript in preparation
Present position: Internal Medicine Resident, University of Pittsburgh Medical Center, Pittsburgh, PA.

2023-Present Jenna Milstein, MD
Johns Hopkins Hospital, Internal Medicine resident; General cardiology fellow
Primary mentor in her clinical and research interest in EP in patients with ACHD. I was her mentor during her internal medicine residency and subsequently during her early general cardiology fellowship.
Currently has submitted abstracts to international and local meetings
Published manuscript: CR#4
Present position: Cardiology Fellow at JHH.

2023-2025 Steven Liskov, MD
Johns Hopkins Hospital, Cardiac Electrophysiology Fellow
Primary mentor for his research interest in image integration in invasive arrhythmia management. We maintain mentorship relationship during his junior attending years at Lankenau
Currently has submitted several abstracts to international meetings and has 3 manuscripts in preparation.
Published manuscript: CR#4
Present position: Cardiac Electrophysiologist Lankenau Medical Center

2023-2025 Mark Engels, MD PhD
Johns Hopkins Hospital, Cardiac Electrophysiology Fellow
During his cardiac electrophysiology fellowship I was his primary mentor for career development advice, developing expertise in VT ablation. Primary research mentor on his interest in EP in ACHD and image integration in EP. We maintain mentorship relationship during his junior faculty position at University of Utah.
Poster poster accepted at international conference and 2 manuscripts in preparation.
Present position: Assistant Professor of Medicine, University of Utah Medical center.

2024-2025 Rawan Amir, MD
Johns Hopkins Hospital, General Cardiology Fellow
I mentored her during his general cardiology fellowship. I was his primary mentor to develop research skills in the area ACHD.
One abstract accepted at AHA, manuscripts in preparation.

Present position: ACHD Fellow at Mayo Clinic at Rochester MN

2024-Present Hassan Mirbolouk, MD
Johns Hopkins Hospital, General Cardiology Fellow
I mentored him during his general cardiology fellowship. I was his primary mentor to develop research skills in the area of image integration in VT ablation.
Present position: General cardiology fellow at JHH

2024-Present Marinos Kosmopoulos, MD
Johns Hopkins Hospital, General Cardiology Fellow
I mentored him during his general cardiology fellowship. I was his primary mentor to develop research skills in the area of image integration in VT ablation.
We have submitted one abstract at HRS and working on manuscripts.
Present position: General cardiology fellow at JHH

2024-Present Sean P Gain, MD
Johns Hopkins Hospital, General Cardiology Fellow
I mentored him during his general cardiology fellowship on projects related to electrocardiographic indices or repolarization dispersion. I am his primary mentor to develop research skills in.
Abstract in preparation.
Present position: General cardiology fellow at JHH – accepted in the T32 research program

2025-Present Shannon Anderson, MD
Johns Hopkins Hospital, General Cardiology Fellow
I mentored him during his general cardiology fellowship on projects related to health literacy in EP education material.
Manuscript in preparation.
Present position: General cardiology fellow at JHH

2021-present In the clinical setting I have trained a total of 14 Clinical Cardiac Electrophysiology Fellows. Specifically: at the University of Pittsburgh Medical Center (Ann Canterburry, Talha Ayub, Daniel Wann, Mehak Dhande, Amr Barakat) and at the Johns Hopkins Hospital (Rick Vakil, Mark Engels, Nino Isakadze, Keva Garg, Renato Quispe, Steven Liskov, Chang Kim, Babken Asatryan, Nestor Vasquez).

Thesis Committees

2025 Kelly Zhang, cPhD, Biomedical Engineering, thesis member

Educational Program Building / Leadership

2018-2021 Core member of the Johns Hopkins Fellow's Research Committee: I mentored junior fellows in selecting research directions/projects and navigate the challenges of combining clinical and research training.

2023-Present Director of cardiology fellows' rotation in Cardiac Electrophysiology: I meet weekly with the general cardiology fellows on the EP rotation, to ensure smooth acquisition of required knowledge and skills as well as that induvial needs are met. Since I took over this position, the fellows satisfaction and education experience from the EP elective has raised markedly.

2024-Present Representative of section of EP on the general cardiology fellowship core competency committee. I meet bi-annually with the general cardiology program leadership do discuss fellows progress on core competencies and programmatic strategy.

2025 "Teacher of the year award" Johns Hopkins Cardiovascular Disease Fellowship program.

RESEARCH ACTIVITIES

Research Focus

My research focus is on: (1) VT mapping and ablation technologies and strategies, (2) Arrhythmias in patients with ACHD: mechanisms, risk stratification and improvement of procedural techniques, (3) Advanced cardiac imaging integration in complex catheter ablation procedures, (4) Electrocardiographic imaging, and (5) Computational electrophysiology, (5) biological pacemakers.

- Citations: 3,330, h-index: 31, i10-index 54

Achievements at JHH (2023-presnet)

- Leading the adult congenital heart disease EP registry that can provide basis of research projects in this challenging patient population.
- Participating in several multi-centric studies
    - BACKBEAT, Site PI
    - FULCRUM VT, Site PI
    - CATAPULT TOF, Site PI
    - PIVATAL, Site Co-PI (EP Lead)
    - CONTEMPT ICD, Site Co-PI (EP Lead)
    - FACILE VT, Site Co-I

Inventions, Patents, Copyrights

01/12/2023 Lead inventor [**Aronis KN**, Berger RD, Trayanova NA, Zhou S, Tandri H]. System and method for real-time guidance of an electrophysiology catheter for targeting a location of origin of an arrhythmia. # USPTO 20230011001 (Submitted 12/02/2020)

SYSTEM INNOVATION AND QUALITY IMPROVEMENT ACTIVITIES

System Innovation Focus

My focus is on (1) standardization and development of workflows for effective integration of advanced cardiac imaging in complex ablation procedures, (2) develop and organize multi-disciplinary approaches for patients with cardiac arrhythmias requiring complex ablation procedures, (asthma3) multi-disciplinary approaches for patients with arrhythmias and complex adult congenital heart disease. (4) multi-disciplinary approaches for patients with advanced heart failure with ventricular arrhythmias

Achievements:

- At UPMC (2021-2023): (A) Incorporated satellite hospitals to the weekly infectious endocarditis rounds at the UPMC system; (B) Standardized protocols for pre-procedural imaging prior to VT ablations at UPMC.
- At JHH (2023-present):
- Core member of the adult congenital disease multi-disciplinary rounds occurring once per month, discussing and making decisions on complex cases.
- Ongoing quality improvement project to minimize recovery time in PACU and re-bleeding at sites of vascular access in patients who have undergone cardiac EP procedures.

System Innovation and Quality Improvement efforts within JHMI:

2023-Present Ongoing quality improvement project to minimize recovery time in PACU and re-bleeding at sites of vascular access in patients who have undergone cardiac EP procedures.

ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments

2021-2023 Member, Search Committee for Magnetic Resonance Imaging Physicist, Department of Radiology, University of Pittsburgh Medical Center.

2021-2023 Clinical Cardiac Electrophysiology Fellowship Selection Committee, Division of Cardiology, University of Pittsburgh Medical Center.

2023-present General Cardiology Fellowship Selection Committee, Division of Cardiology, Johns Hopkins University.

2023-present Clinical Cardiac Electrophysiology Fellowship Selection Committee, Division of Cardiology, Johns Hopkins University.

2024-present Adult Congenital Heart Disease Fellowship Selection Committee, Division of Cardiology, Johns Hopkins University.

2024-present Represent division of EP on the cardiology fellowship Clinical Competence Committee, Division of Cardiology, Johns Hopkins University.

Editorial Activities

Editorial Board appointments

2020-present Associate Editor for Cardiovascular Electrophysiology, *Frontiers in Physiology*

2021-presnet Review Editor for Cardiovascular MedTech, *Frontiers in Medical Technology*

2023-present Section Board Member, Section of Electrophysiology, *Journal of Cardiovascular Development and Disease*

2024-present Associate Editor for the, *Journal of American College of Cardiology Case Reports*. I am handling submissions and special focus issues in the area of cardiac electrophysiology.

Journal peer review activities

2010-present *Metabolism*
2010-present *American Journal of Physiology*
2010-present *European Heart Journal*
2015-present *Journal of American College of Cardiology – JACC*
2017-present *Journal of American College of Cardiology – JACC – Electrophysiology*
2017-present *Journal of American College of Cardiology – JACC – Imaging*
2017-present *Europace*
2017-present *Circulation – Arrhythmia and Electrophysiology*
2017-present *Circulation – Imaging*
2017-present *Heart Rhythm*
2018-present *Chaos*
2018-present *Entropy*
2018-present *Frontiers in Physiology*
2018-present *Computers in Biology and Medicine*

Other peer review activities [*non medico-legal*]

2022-Present Heart Rhythm Society Annual Conference Abstract Reviewer

Advisory Committees, Review Groups/Study Sections

2023-present American College of Cardiology: Cardiac Electrophysiology "Collaborative Maintenance Pathway" standard setting committee.
2024-2026 American Board of Internal Medicine, Section of Cardiac Electrophysiology: Board Item Writing Committee member.
2025 Heart Rhythm Society, Program Committee at the Heart Rhythm Society 2026 Annual Meeting, Section of Pediatric and Adult Congenital Electrophysiology.
2025 Invited Peer Reviewer for the: Peer Reviewed Medical Research Program (PRMRP) for the Department of Defense (DOD) Congressionally Directed Medical Research Programs (CDMRP). Sections of cardiovascular disease (CV-5) and congenital heart disease.

Professional Societies

2010-present Member, American Medical Association (AMA)
2010-present Member, European Society of Cardiology (ESC)
2010-present Member, European Heart Rhythm Association (EHRA)
2011-2012 Member, The Endocrine Society (ES)
2011-2014 Member, American Association for the Advancement of Science (AAAS)
2012-2015 Member, American College of Physicians (ACP)
2014-present Member, American Heart Association (AHA)
2015-present Member, American College of Cardiology (ACC)
2017-2019 Member, American Institute of Physics (AIP)
2017-present Member, Heart Rhythm Society (HRS)
2023-present *Fellow of the American College of Cardiology (FACC)*
2023-present *Fellow of the Heart Rhythm Society (FHRS)*
2024-present Member, Pediatric and Congenital Electrophysiology Society (PACES)
2024-present Member, International Society of Adult Congenital Heart Disease (ISACHD)
2024-present Member, Alliance for Adult Research in Congenital Cardiology (AARCC)

Conference Organizer

International

2025 2026 Heart Rhythm Society, Annual Meeting, Chicago, IL

Consultantships

2020-2022 Catheter precision, I reviewed, tested, and provided feedback regarding a platform named "VIVO" which is a pre-procedure arrhythmia localization platform.

2022-present Haemonetics, I review and provide feedback for devices relevant to invasive electrophysiology procedures that are under development.
2022-2024 MediView, I provide feedback for a technology using holographic lenses and augmented reality as this can have applications in vascular access
2025 CorNav+, I provide feedback and serve as key opinion leader (KOL) on the development of a thoracoscopic instrument for minimally invasive epicardial VT ablation and mapping.

RECOGNITION

Awards, Honors

2002 3rd Prize; Mathematical Olympics "Archimedes 2001 – 2002", Athens, Greece
2007 2nd Prize; 11th Olympics of Medical Knowledge, Athens, Greece
2011 Presidential Poster First Award; Endocrine Society 93rd Annual Meeting
2011 1st Prize; BIDMC - Harvard Medical School Residents/Fellows Clinical Research Day
2012 Top Journal Reviewer; Metabolism Clinical and Experimental
2012 Top Journal Reviewer; European Heart Journal
2018 Travel Award; Dynamic Days 2018 Meeting
2019 Travel Award; Dynamic Days 2019 Meeting
2019 Travel Scholarship; Heart Rhythm Society 40th Annual Meeting
2019 The W. Leigh Thompson Excellence in Research: Clinical Research Fellow Award Finalist; The Johns Hopkins Department of Medicine/ Whiting School of Engineering
2025 Teacher of the year award, Johns Hopkins Cardiovascular Disease Fellowship Program

Invited Talks

JHMI/Regional

11/29/2022 Invited to present Grand Rounds at the Department of Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA. Title: "Cardiology Year in Review".
2/19/2025 Invited to present Grand Rounds at the Department of Cardiology, Johns Hopkins Hospital, Baltimore, MD. Title: Advances in VT Ablation. (CME)

National

10/14/2023 Keynote Speaker. 44th Panhellenic Congress of Cardiology. "How to manage ventricular tachycardias in patients with structural heart disease in 2023". Keynote speaker to the largest annual cardiology conference in Greece, Thessaloniki Greece.

OTHER PROFESSIONAL ACCOMPLISHMENTS

Posters (Selected)

3/17-19/2017 **Aronis KN**, Zhao D, Hoogeveen RC, Alonso A, Ballantyne CM, Guallar E, Jones SR, Martin SS, Nazarian S, Virani SS, Michos ED, Associations of Lipoprotein(a) Levels with Incident Atrial Fibrillation and Stroke Among Whites and Blacks: the Atherosclerosis Risk in Communities (ARIC) Study. American College of Cardiology Annual Meeting, Washington DC.
3/5-9/2018 **Aronis KN**, Tao S, Ashikaga H. Is Human Atrial Fibrillation Stochastic or Deterministic? American Physical Society Annual Meeting, Los Angeles CA.
5/9-12/2018 **Aronis KN**, Tao S, Ashikaga H. Localizing Rotors in Human Atrial Fibrillation Using Differential Heart Rhythm Society Meeting, Boston, MA.
7/22-27/2018 Ashikaga H, **Aronis KN**, Tao S, James R. Phase Transition, Renormalization Group and Human Fibrillation. International Conference on Complex Systems, Boston, MA.
1/4-6/2019 **Aronis KN**, Salova A, Venegas-Li A, Santoro A. Characterizing Atrial Fibrillation Dynamics using Multiplex Visibility Graphs. Dynamic Days, Evanston IL.
5/8-11/2019 Tao S, **Aronis KN**, Sivasambu B, Chrispin J, Spragg DD, Marine JE, Berger RD, Calkins RD, Ashikaga, H. Functional Networks Created by Nonsimultaneously Recorded Electrograms Predict Ablation Outcomes of Persistent Atrial Fibrillation, Heart Rhythm Society Annual Meeting, San Francisco, CA.
5/8-11/2019 **Aronis KN**, Prakosa A, Berger RD, Boyle PM, Chrispin J, Ju S, Marine JE, Sinha S, Tandri H, Ashikaga H, Trayanova NA. Clinical and in silico assessment of pro-arrhythmic potential of the Noninfarcted left ventricular myocardium in patients with ischemic cardiomyopathy. Heart Rhythm Society Annual Meeting, San Francisco, CA, 2019.

5/19-21/2023 Wann DG, Shalaby AA, Bhonsale A, Kancharla K, Voigt AH, Estes MIII, Saba S, Jain SK, **Aronis KN**. Bipolar Septal Ablation in a Patient with Lamin A/C Cardiomyopathy for Refractory Ventricular Tachycardia. Heart Rhythm Society Annual Meeting, New Orleans, LA, 2023.

5/16-19/2024 Engels M, Cedars A, Fisher S, de la Uz C, Wetzel GT, Hirsh J, **Aronis KN**. Left Bundle Branch Pacing in A Patient With Isolated Ventricular Inversion and Mustard Palliation: A Case Report. Heart Rhythm Society Annual Meeting, Boston, MA, 2024.

3/12-13/2025 Da Fonseca M, Liskov S, Milstein JA, **Aronis KN**. Atrial Flutter in Patents with Congenitally Corrected Transposition of the Great Arteries: A Case Report and Literature Review. World Heart Congress 2025, London UK.

3/29-31/2025 Amir R, Liskov S, Cedars A, **Aronis KN**. Resynchronizing the Beat: How 40 milliseconds revolutionized systemic right ventricular function in congenitally corrected transposition of the great arteries. American Colleege of Cardiology Annual Meeting. Chicago IL.

3/24-27/2025 Liskov S, Milstein JA, Cedars A, Doshi ANm Chrispin J, Fisher S, Konstantinidis K, **Aronis KN**. Resynchronizing the Beat: Anatomic isthmus dimension correlates with abnormal conduction velocity and inducibility of ventricular tachycardia among patients with repaired tetralogy of Fallot. Heart Rhythm Society Annual Meeting. San Diego, CA.

3/24-27/2025 Liskov S, Garg K, Chrispin J, Mesubu OO, **Aronis KN**. Lost in translation: optimizing readability of ventricular tachycardia patient information towards meaningful shared decision making. Heart Rhythm Society Annual Meeting. San Diego, CA.

3/24-27/2025 Yingnan Zhang, Prakosa A, Zhang K, Carrick RT, Chrispin J, Zimmerman S, **Aronis KN,** Kholmovski EG, Tichnell C, Murray BA, James CA, Calkins H, Trayanova NA. Genotype-Specific Digital Twins (DT) for Accurate Ventricular Tachycardia (VT) Ablation Targeting in Arrhythmogenic Right Vetricular Cardiomyopathy. Heart Rhythm Society Annual Meeting. San Diego, CA. **YIA Finalist.**

3/24-27/2025 Liskov S, Rawan A, Cedars A, Mathews L, **Aronis KN**. Conduction System Pacing to Resynchronize and Improve the Systolic Performance of the Systemic Right Ventricle in a Patient with Congenitally Corrected Transposition of the Great Arteries. Heart Rhythm Society Annual Meeting. San Diego, CA.

3/24-27/2025 Satti DI, Tran L, Weinstein R, Cronin C, Karius A, Yadav R, Isakadze N, Marine JE, Berger RD, Calkins H, Spragg DD, Pu J, **Aronis KN**. Associations between Sarcopenia and Atrial Fibrillation Recurrence after Catheter Ablation. Heart Rhythm Society Annual Meeting. San Diego, CA.

Oral/Podium Presentations (Selected)

6/2011 **Aronis KN**, Sienkiewicz E, Chou SH, Brinkoetter M, Chamberland JP, Arampatzi KM, Gao C, Mantzoros CS. Leptin for 2 years is an effective treatment for hypothalamic amenorrhea: metreleptin administration increases bone mineral density at the lumbar spine: a pilot study. Late-Breaking Oral Presentation; The Endocrine Society 93rd Annual Meeting, Boston, MA.