

I. Personal

- 1) **Date:** May 24, 2023
- 2) **Name:** Lina Shehadeh, Ph.D.
- 3) **Home Phone:**
- 4) **Office Phone:** 305-243-0867
- 5) **Home Address:**
- 6) **Current Academic Rank:** Professor
 - 6b) Research track
- 7) **Primary Department:** Medicine
- 8) **Secondary or Joint Appointment:** None
- 9) **Citizenship:** US
- 10) **Visa Type:** N/A

II. Higher Education:

11) Institutional:

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Florida Atlantic University, Boca Raton, Fl	B.S.	1995	Microbiology
Florida Atlantic University, Boca Raton, Fl	M.S.T.	1997	Teaching Sciences
Florida Atlantic University, Boca Raton, Fl	Ph.D.	2002	Complex Systems and Brain Sciences
Massachusetts Institute of Technology, Cambridge, MA	Certificate	2023	Data Science and Machine Learning

12) **Non-Institutional:** None

13) **Certification:** None

III. Experience:

14) Academic:

INSTITUTION AND LOCATION	Rank	YEAR(s)	Department
University of Miami Miller School of Medicine, Miami, Fl	Research Assistant Professor	2009-2010	Medicine
University of Miami Miller School of Medicine, Miami, Fl	Assistant Professor	2011-2016	Medicine
University of Miami Miller School of Medicine, Miami, Fl	Research Assistant Professor	2016-2018	Medicine
University of Miami Miller School of Medicine, Miami, Fl	Research Associate Professor	2018-2021	Medicine

University of Miami Miller School of Medicine,
Miami, FL

Research
Professor

2021-
present

Medicine

15) Hospital: None

16) Non-Academic:

- Teaching Assistant (Summer, 1997): Physics I Lab, Department of Physics, Florida Atlantic University.
- Teaching Assistant (Summer, 1997): Anatomy and Physiology Lab, Department of Biology, Palm Beach Community College.
- Teaching Assistant (Fall, 1999): The Mathematics and Science of Fractals and Chaos, Department of Mathematics, Florida Atlantic University.
- Research Assistant (Summer, 1999 – Summer 2002): Developing electronic material on teaching *Fractals and Chaos*, Center for Complex Systems and Brain Sciences, Florida Atlantic University.

This work was supported by NSF and aimed at developing curriculum material for an undergraduate mathematics course for students majoring in Education and Psychology. The overall product of this work is integrated on a CD-ROM. The title of the CD-ROM is The Mathematics and Sciences of Fractals and Chaos by Larry S. Liebovitch and Lina A. Shehadeh

- Postdoctoral Associate (2002-2005). Department of Complex Systems and Brain Sciences. Florida Atlantic University.

17) Military: None

Publications:

18) Book Chapters

1. L. S. Liebovitch, **L. A. Shehadeh**, and V. K. Jirsa 2005. Patterns of Genetic Interactions: Analysis of mRNA Levels From cDNA Microarrays. *Modeling in the Neurosciences: From Proteomics to Robotics*, 2nd edition. Taylor and Francis, London. Ch2: 9-24
2. L. S. Liebovitch, and **L.A. Shehadeh** 2005. Introduction to Fractals. In *Tutorials in Contemporary Nonlinear Methods for the Behavioral Sciences Web Book* Eds. M. A. Riley and G. V. Orden, National Science Foundation, Directorate for Social, Behavioral and Economic. Ch5.
3. L. S. Liebovitch, V. K. Jirsa, and **L. A. Shehadeh** 2006. Structure of Genetic Regulatory Networks: Evidence for Scale Free Networks. *Complexus Mundi: Emergent Patterns in Nature*. World Scientific Publishing, Singapore. Ch1: 1-8.
4. L. S. Liebovitch, **L. A. Shehadeh**, V.K. Jirsa, Marc Huett, and Carsten Marr 2010. Determining the Properties of Gene Regulatory Networks from Expression Data. *Computational Methodologies in Gene Regulatory Networks*. IGI Publishing. Ch17: 405-428.

19) Peer-Reviewed Articles

1. **Shehadeh L**, L. S. Liebovitch, and M. A. Wood (2002). Temporal Patterns of Atrial Arrhythmia Recurrences in Patients with Implantable Defibrillators: Implications for Assessing Antiarrhythmic Therapies. *Journal of Cardiovascular Electrophysiology* 13: 4: 303 - 309
2. **Shehadeh L**, L. S. Liebovitch, and V. K. Jirsa (2006). Relationships between the Global Structure of Genetic Networks and mRNA Levels Measured by cDNA Microarrays. *Physica A* 364:297-314

3. M. Pessanha, J.Q. Wei, **Shehadeh L**, J. Faysal, K.A. Webster, and N.H. Bishopric (2006). Cardiac myocyte p300 levels regulate myocardial angiogenesis. *Nature Biotechnology Short Reports*, 17:87.
4. **Shehadeh L**, N.H. Bishopric, A. Wilson, M. Gosink, N. Tsinoremas, and K.A. Webster (2007). Immune remodeling of mesenchymal stem cells during osteoblastic differentiation. *Nature Biotechnology Short Reports*, 18: 23.
5. S. Papapetropoulos, N. Adi, D. C. Mash, N. H. Bishopric, and **Shehadeh L** (2007). Expression of α -Synuclein mRNA in Parkinson's Disease. *Movement Disorders*.15;22(7):1057-9. Senior Author.
6. S. Papapetropoulos, **Shehadeh L**, and D. McCorquodale (2007). Optimizing human postmortem brain tissue gene expression profiling in Parkinson's disease and other neurodegenerative disorders: From target "fishing" to translational breakthroughs. *Neuroscience Research*.
7. C. O. Rodrigues, **Shehadeh L**, and N. H. Bishopric (2007). Myocyte Deficiency as a Target in the Treatment of Cardiomyopathy. *Progress in Pediatric Cardiology*. 23 (1-2).
8. S. Papapetropoulos, A. Nikhil, **Shehadeh L**, D. C. Mash, N. H. Bishopric, C. Singer, A. A. Argyriou, and E. Chroni (2007). Is the G2019S LRRK2 mutation common in all south European populations? *Journal of Clinical Neuroscience*.
9. T. G. Lesnick, S. Papapetropoulos, D. C. Mash, J. F. Mullen, **Shehadeh L**, M. de Andrade, J. R. Henley, W. A. Rocca, J. E. Ahlskog, and D. M. Maraganore (2007). A Genomic Pathway Approach to a Complex Disease: Axon Guidance and Parkinson's Disease. *PLoS Genetics*. 3(6):e98.
10. Lesnick TG, Sorenson EJ, Ahlskog JE, Henley JR, **Shehadeh L**, Papapetropoulos S, Maraganore DM (2008). Beyond Parkinson disease: amyotrophic lateral sclerosis and the axon guidance pathway. *PLoS ONE*. 16;3(1):e1449.
11. **Shehadeh L**, S. Sharma, J.Q. Wei, H. Yuan, S. Sitahal, K.A. Webster and N.H. Bishopric (2008). MiR-17~92 Cluster is Involved in the Angiogenic Switch in Cardiac Hypertrophy. *Nature Biotechnology Short Reports*, 19:99.
12. Wei JQ, **Shehadeh L**, Mitrani J, Pessanha M, Slepak TI, Webster KA and Bishopric NH (2008) Quantitative Control of Adaptive Cardiac Hypertrophy by Acetyltransferase p300. *Circulation*. 118; 934-946.
13. **Shehadeh L**, N.Adi, N. H. Bishopric, and S. Papapetropoulos (2008). Expression of Lewy body protein septin 4 in postmortem brain of Parkinson's disease and control subjects *Movement Disorders*.24(2): 204-10 .
14. Garamszegi N, Garamszegi S, **Shehadeh L**, and Scully S (2009) Extracellular Matrix Induced Gene Expression in Human Breast Cancer Cells. *Molecular Cancer Research*. 7(3): 319-29.
15. **Shehadeh L**, Martin E, Scott W, Yu K, Wang L, Burt A, Guevara A, Singer C, Vance J, and Papapetropoulos S (2009). Finding Blood Biomarkers in Parkinson's Disease using mRNA, miRNA, and SNP analysis. *Nature Biotechnology Short Reports*, v20, p57.
16. **Shehadeh L**, Yu K, Wang L, Burt A, Guevara A, Singer C, Vance J, and Papapetropoulos S. SRRM2, a Potential Blood Biomarker Revealing High Alternative Splicing in Parkinson's Disease (2010). *PloS One*. 5(2): e9104. doi:10.1371/journal.pone.0009104. Corresponding Author.
17. Adi N, Mash DC, Ali Y, Singer C, **Shehadeh L**, Papapetropoulos S. Melatonin MT1 and MT2 receptor expression in Parkinson's disease.. *Med Sci Monit*. 2010 Feb;16(2):BR61-7.
18. Wilson A, **Shehadeh L**, Hong Yu and Keith A Webster (2010). Age-Related Epigenetic Changes of Murine Bone Marrow Mesenchymal Stem Cells. *BMC Genomics*, 11(1):229.
19. Wu Q, Ma Q, **Shehadeh L**, Wilson A, and Webster K (2010). Age-dependent regulation of Cell Division by the Argonaute Protein PiwL2 in Mouse Mesenchymal Stem Cells. *BBRC*, doi: 10.1016/j.bbrc.2010.05.022.
20. Rodriguez C, **Shehadeh L**, Calero K, Chopra I, Tsinoremas N, and Bishopric NH. Heterogeneity in SDF-1 Expression Defines the Vasculogenic Potential of Adult Cardiac Progenitor Cells. *PLoS One*. 2011;6(8):e24013. Epub 2011 Aug 24.
21. **Shehadeh L**, Webster K, Hare J, and Vazquez-Padron R (2011). Dynamic Regulation of Vascular Myosin Light Chain (MYL9) with Injury and Aging. *PLoS ONE* 6(10): e25855.oi:10.1371/journal.pone.0025855. Corresponding Author.

22. **Shehadeh L**, Sharma S, Wei JQ, Mitrani J, Pessanha M, Rodrigues R, Yuan HJ, Scherr M, Tsinoremas N, and Bishopric NH (2013). MicroRNA-20a constrains p300-driven myocardial angiogenic transcription by direct targeting of p300. *PLoS One* 8(11): e79133. doi:10.1371/journal.pone.0079133
23. **Shehadeh L** and Hare J (2013). RNA Biomarkers for Heart Failure: Is There a Correlation Between Heart and Blood Transcriptomics? *Journal of American Cardiac Cardiology (JACC) Heart Failure. JCHF.* 2013;1(6):477-479. doi:10.1016/j.jchf.2013.10.002
24. Rodriguez-Menocal L, Hafeez M, **Shehadeh L**, Duke J, Wei Y, Pena A, Martinez L, Gupta V, Pham S, and Vazquez-Padron R (2014). Macrophage-derived IL-18 induces a pro-inflammatory positive feedback loop during the remodeling of aged vasculature. *American Journal of Physiology - Heart and Circulatory Physiology.* Mar;306(5):H641-53. PMID: 24414074.
25. Hu X*, Wu R*, **Shehadeh L***, Zhou Q, Jiang C, Huang X, Zhang L, Gao F, Liu X, Yu H, Webster K, and Wang J (2014). Severe Hypoxia Exerts Parallel and Cell-type-specific Regulation of Gene Expression and Alternative Splicing in Human Mesenchymal Stem Cells. *BMC Genomics.* * Authors contributed equally. Apr 23;15(1):303.
26. Ding W, Li J, Singh J, Alif R, Vazquez-Padron RI, Gomes SA, Hare JM, **Shehadeh L** (2015). miR-30e targets IGF2-regulated osteogenesis in bone marrow-derived mesenchymal stem cells, aortic smooth muscle cells, and ApoE^{-/-} mice. *Cardiovasc Res.* 2015 Apr 1;106(1):131-42. doi: 10.1093/cvr/cvv030. Senior and Corresponding Author.
27. Alexander Grabner, Ansel P. Amaral, Karla Schramm, Saurav Singh, Alexis Sloan, Christopher Yanucil, Jihe Li, **Lina A. Shehadeh**, Joshua Hare, Valentin David, Aline Martin, Alessia Fornoni, Giovana Seno Di Marco, Dominik Kentrup, Stefan Reuter, Anna B. Mayer, Hermann Pavenstädt, Jörg Stypmann, Christian Kuhn, Susanne Hille, Norbert Frey, Maren Leifheit-Nestler, Beatrice Richter, Dieter Haffner, Reimar Abraham, Johannes Bange, Bianca Sperl, Axel Ullrich, Marcus Brand, Myles Wolf, and Christian Faul (2015). Activation of Cardiac Fibroblast Growth Factor Receptor 4 Causes Left Ventricular Hypertrophy. *Cell Metabolism.*
28. Li J*, Yousefi K*, Ding W, Singh J, **Shehadeh L** (2017). Osteopontin RNA aptamer prevents and treats pressure overload-induced heart failure. May 1;113(6):633-643. doi: 10.1093/cvr/cvx016. *Cardiovascular Research.* Senior and Corresponding Author.
29. Ding W, **Shehadeh L** (2017). New incriminating evidence against IGF2. *Transl Cancer Res* 2017;6(Suppl 6):S949-S952. doi: 10.21037/tcr.2017.06.07. Senior and Corresponding Author.
30. Kurtenbach S, Ding W, Goss GM, Hare JM, Goldstein BJ, and **Shehadeh L**. Differential Expression of MicroRNAs Among Cell Populations in the Regenerating Adult Mouse Olfactory Epithelium (2017). *PLoS One.* Nov 6;12(11). PMID: 29107942. Senior and Corresponding Author.
31. Ding W, Yousefi, K, Goncalves S, Goldstein B, Sabater A, Kloosterboer A, Ritter P, Lambert G, Mendez, A, and **Shehadeh L** (2018). Osteopontin Deficiency Ameliorates Alport Pathology by Preventing DNM3-mediated Cholesterol Influx and Mitochondrial Energetic Deficit in Renal Tubules. *JCI Insight.* 2018 Mar 22;3(6). Featured in *Nature Reviews Nephrology.* April 2018. Senior and Corresponding Author.
32. Ding W, Yousefi, K, and **Shehadeh L** (2018). Isolation, Characterization, and High Throughput Respiration Assay of Mouse Primary Renal Tubular Epithelial Cells. *JoVE.* Jun 20;(136). Senior and Corresponding Author.
33. Ritter P, Yousefi K, Ramirez J, Dykxhoorn D, Mendez A, and **Shehadeh L**. LDL Cholesterol Uptake Assay Using Live Cell Imaging Analysis with Cell Health Monitoring. *J. Vis. Exp.* (141), e58564, doi:10.3791/58564 (2018). Senior and Corresponding Author.
34. Irion CI, Parrish K, John-Williams K, Gultekin SH, and **Shehadeh L**. Osteopontin Expression in Cardiomyocytes is Increased in Pediatric Patients with Sepsis or Pneumonia. *Frontiers in Physiology.* December 2018 | Volume 9 | Article 1779. Senior and Corresponding Author.
35. Deletion of Osteopontin Enhances β_2 -Adrenergic Receptor-Dependent Anti-Fibrotic Signaling in Cardiomyocytes. Celina M. Pollard, Victoria L. Desimine, Shelby L. Wertz, Arianna Perez, Barbara M. Parker, Jennifer Maning, Katie A. McCrink, **Shehadeh L**, and Anastasios Lymperopoulos. *International Journal of Molecular Sciences.* 2019, 20, 1396.
36. Keyvan Yousefi PD*, Camila I. Irion*, Lauro M. Takeuchi, Guerline Lambert, Trevor Eisenberg, Sarah Sukkar, Wen Ding, Hendrikus L. Granzier, Methajit Methawasin, Dong I. Lee, Virginia Hahn, David

- A. Kass, Konstantinos Chatzistergos, Joshua M. Hare, and **Lina A Shehadeh**. Osteopontin Promotes Left Ventricular Diastolic Dysfunction through a Mitochondrial Pathway. *Journal of American College of Cardiology*. 2019;73:2705–18. [Senior and Corresponding Author](#).
37. Yousefi K, Dunkley JC, **Shehadeh LA**. A preclinical model for phenogroup 3 HFpEF. *Aging (Albany NY)*. 2019 Jul 15;11(13):4305-4307. doi: 10.18632/aging.102102. [Senior and Corresponding Author](#).
 38. Benny M, Hernandez DR, Sharma M, Yousefi K, Kulandavelu S, Batlahally S, Zambrano R, Chen P, Martinez EC, Schmidt AF, **Shehadeh LA**, Vasquez-Padron RI, Wu S, Velazquez OC, Young KC. Neonatal hyperoxia exposure induces aortic biomechanical alterations and cardiac dysfunction in juvenile rats. *Physiol Rep*. 2020 Jan;8(1):e14334. doi: 10.14814/phy2.14334.
 39. Ali MF, Venkatarayappa SKB, Benny M, Rojas C, Yousefi K, **Shehadeh LA**, Kulandavelu S, Sharma M, Da Silva N, Freundlich M, Abitbol CL, DeFreitas MJ, Young KC. Effects of Klotho supplementation on hyperoxia induced renal injury in a rodent model of postnatal nephrogenesis. *Pediatric Research* 2020. Feb 14. doi: 10.1038/s41390-020-0803-z.
 40. Batlahally S, Franklin A, Damianos A, Huang J, Chen P, Sharma M, Duara J, Keerthy D, Zambrano R, **Shehadeh LA**, Martinez E, deFreitas M, Kulandavelu S, Abitbol C, Freundlich M, Kanashiro-Takeuchi R, Schmidt A, Benny M, Wu S, Mestan K, Young K. Soluble Klotho, a Biomarker and Therapeutic Strategy to Reduce Bronchopulmonary Dysplasia and Pulmonary Hypertension in Preterm Infants. *Scientific Reports*. 2020. *Sci Rep*. 2020 Jul 23;10(1):12368. doi: 10.1038/s41598-020-69296-1. PMID: 32704023
 41. Irion C, Dunkley JC, John-Williams K, Jose Manuel Condor, Serene Shehadeh, Pinto A, Loebe M, Webster KA, Brozzi NA*, and **Shehadeh LA***. Nuclear Osteopontin is a marker of advanced heart failure and cardiac allograft vasculopathy: evidence from transplant and retransplant hearts. *Frontiers in Physiology*. 2020. 13 August; <https://doi.org/10.3389/fphys.2020.00928>. PMID: PMC7438570 [Senior and Corresponding Author](#).
 42. Patel M, Rodrigues D, Yousefi K, John-Williams K, Mendez AJ, Goldberg R, Lympelopoulos A, Tamariz LJ, Goldberger JJ, Myerburg RJ, Junttila J* and **Shehadeh LA***. Osteopontin and LDLR are Upregulated in Hearts of Sudden Cardiac Death Victims with Heart Failure with Preserved Ejection Fraction and Diabetes Mellitus. *Frontiers in Cardiovascular Medicine*. 2020. Nov 30;7:610282. doi: 10.3389/fcvm.2020.610282. *eCollection* 2020. PMID: 33330671. PMID: PMC7734052. [Senior and Corresponding Author](#).
 43. Hersh J, Broyles D, Capcha J, Lina A. **Shehadeh LA**, Daunert S, and Deo S*. Peptide-Modified Polymers: Overcoming Challenges to Therapeutic Applications. *Dec 24 2020*. <https://pubs.acs.org/doi/abs/10.1021/acscabm.0c01145>
 44. Capcha J, Lambert G, Dykxhoorn D, Gonzalez-Salerno A, Hare JM, Whitt MA, Pahwa S, Jayaweera DT, and **Shehadeh LA***. Generation of SARS-CoV-2 Spike pseudotyped virus for viral entry and neutralization assays: A 1-week protocol. *Front Cardiovasc Med* 2021 Jan 15;7:618651. doi: 10.3389/fcvm.2020.618651. *eCollection* 2020. 2020. PMID: 33521067. PMID: PMC7843445. [Senior and Corresponding Author](#).
 45. Kamiar A*, Yousefi K*, Dunkley JC*, Webster KA, and **Shehadeh LA***. β_2 -Adrenergic Receptors in the Kidney: a Review of the Literature. *Under second review*. *AJP - Regulatory, Integrative and Comparative Physiology*. Feb 2021. [PMID: 33565369](#). [Senior and Corresponding Author](#).
 46. Dunkley JC*, Irion CI*, Yousefi K, Shehadeh SA, Webster KA, Goldberger JJ, and **Shehadeh LA***. Carvedilol and Exercise Combination Therapy Improves Systolic but not Diastolic Function and Reduces Plasma Osteopontin in *Col4a3^{-/-}* Alport Mice. *AJP - Heart and Circulatory Physiology*. 2021. [PMID: 33769915](#). [Senior and Corresponding Author](#).
 47. Small-Molecule Inhibitors of the Coronavirus Spike – ACE2 Protein-Protein Interaction as Blockers of Viral Attachment and Entry for SARS-CoV-2. Damir Bojadzic, Oscar Alcazar, Jinshui Chen, Sung-Ting Chuang, Jose M. Condor Capcha, Shehadeh LA, and Peter Buchwald. *ACS Infect. Dis*. May 12 2021. [PMID: 33979123](#).
 48. Peptide-Functionalized Dendrimer Nanocarriers for Targeted Microdystrophin Gene Delivery. Jessica Hersh*, José Manuel Condor Capcha*, Camila Irion, Guerline Lambert, Mauricio Noguera, Mohit Singh, Avinash Kaur, Emre Dikici, Joaquín J. Jiménez, Shehadeh LA, Sylvia Daunert, and Sapna K. Deo. *Pharmaceutics*. Dec. 2021. [PMID: 34959441](#)

49. Development and piloting of an instructional video quality checklist (IVQC). Schooley SP, Tackett S, Peraza LR, and Shehadeh LA. *Medical Teacher*. Oct 19 2021. DOI: 10.1080/0142159X.2021.1985099. [PMID: 34666585](#). 2021. Senior and Corresponding Author.
50. Use of commercially-produced medical education videos in a cardiovascular curriculum: Multiple cohort study. Tackett S, Green D, Dyal M, O'Keefe E, Thomas T, Nguyen T, Vo D, Patel M, Murdock C, Wolfe E, and Shehadeh LA*. *JMIR Med Educ*. 2021 Oct 7;7(4):e27441. doi: 10.2196/27441. [PMID: 34617911](#) 2021. Senior and Corresponding Author.
51. S2 Heart Sound Identifies the Presence of Aortic Valve Calcification in a Mouse Model of Chronic Kidney Disease". Valentina Dargam, Hooi Hooi Ng, Sana Nasim, Daniel Chaparro, Camila Irion, Suhas Rathna Seshadri, Armando Barreto, Zachary Danziger, **Shehadeh LA**, and Joshua Hutcheson. *Frontiers in Cardiovascular Medicine*. [PMID: 35694672](#). May 25 2022.
52. *Col4a3^{-/-}* mice on Balb/C background have less severe cardiorespiratory phenotype and SGLT2 over-expression compared to 129x1/SvJ and C57Bl/6 background. Camila I Irion, Monique Williams, Jose Condor Capcha, Trevor Eisenberg, Guerline Lambert, Lauro M Takeuchi, Grace Seo, Keyvan Yousefi, Rosemeire Kanashiro-Takeuchi, Karen C Young, Joshua M Hare, **Shehadeh LA**. [PMID: 35743114](#). *International Journal of Molecular Sciences*. June 15 2022. Senior and Corresponding Author.
53. Methylene Blue Is a Nonspecific Protein-Protein Interaction Inhibitor with Potential for Repurposing as an Antiviral for COVID-19. Sung-Ting Chuang, Henrietta Papp, Anett Kuczog, Rebecca Eells, Jose Manuel Condor Capcha, **Shehadeh LA**, Ferenc Jakab, Peter Buchwald. *Pharmaceuticals*. May 2022. [PMID: 35631447](#)
54. A Mouse Model of Heart Failure with Preserved Ejection Fraction Driven by Hyperlipidemia and Enhanced Cardiac LDLR Expression. Monique Williams, Jose Manuel Condor Capcha, Camila Iansen Irion, Grace Seo, Guerline Lambert, Ali Kamiar, Rosemeire Kanashiro-Takeuchi, Lauro Takeuchi, Ali G Saad, Armando Mendez, Keith A Webster, Jeffrey J Goldberger, Joshua M Hare, **Shehadeh LA**. *JAHA*. Sept 3 2022. [PMID: 36056728](#) Senior and Corresponding Author.
55. Autoimmune reaction associated with long COVID syndrome and cardiovascular disease: a genetic case report. Anita Safronenka, Jose MC Capcha, Keith A Webster, Elena Buglo, Leonardo Tamariz, Jeffrey Goldberger, and **Shehadeh LA**. *JACC*. September. 2022. [PMCID: PMC9633038](#). Senior and Corresponding Author.
56. Echocardiography Protocol: A tool for Infrequently Used Parameters in Mice. *Frontiers in Medicine*. Emily Ann Todd*, Monique Williams*, Ali Kamiar, Monica Rasmussen, **Shehadeh LA**. *These two authors contributed equally. <https://doi.org/10.3389/fcvm.2022.1038385> *Frontiers in Cardiovascular Medicine: Cardiovascular Imaging*. Dec 2022. Senior and Corresponding Author.
57. Severe Respiratory Failure and Lung Hyperinflammation in a Preterm Newborn with Perinatal SARS-CoV-2 Infection. Daniela Aguilar-Caballero, Jose MC Capcha, Veronica Caballero, Karen C Young, Shahnaz Duara, Michael Borchetta, Ivan Gonzalez, Ali G Saad, Keith A Webster, **Shehadeh LA**, Emmalee S. Bandstra, and Augusto F Schmidt. *Frontiers in Pediatrics*. May. 2023. [Frontiers | Case report: Fatal lung hyperinflammation in a preterm newborn with SARS-CoV-2 infection \(frontiersin.org\)](#)

20) Other Works, Publications, and Abstracts

1. Wood MA, **Shehadeh L**, and Liebovitch LS (2002). Are Atrial Tachyarrhythmias Randomly Distributed Over Time: Implications for Assessing Therapies. *Pace* 24: 595.
2. Adi N, **Shehadeh L**, Mash D, Singer C, MD and Papapetropoulos S (2007). Expression of MT1 and MT2 receptors in human postmortem amygdala and substantia nigra of Parkinson's disease and controls subjects. The Movement Disorder Society's 11th International Congress of Parkinson's Disease and Movement Disorders.
3. Papapetropoulos S, Adi N, **Shehadeh L**, Mullen J, Bishopric NH and Mash D (2007). Decreased expression of alpha-synuclein in Parkinson's disease: Multiple-level evidence. The Movement Disorder Society's 11th International Congress of Parkinson's Disease and Movement Disorders.
4. Papapetropoulos S, Adi N, **Shehadeh L**, Bishopric NH, Singer C, Argyriou A, and Chroni E (2007). Is the G2019S LRRK2 mutation common in all southern European populations? The Movement Disorder Society's 11th International Congress of Parkinson's Disease and Movement Disorders.

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5. Rodrigues C, **Shehadeh L**, Calero K, and Bishopric NH (2007). Transcriptional Variability is Stem Cell Populations Isolated from Adult Mouse Myocardium. 4th Annual Symposium of the American Heart Association Council on Basic Cardiovascular Sciences.
6. Rodrigues C, **Shehadeh L**, Calero K, Webster K and Bishopric NH (2007). Transcriptional Variability is Stem Cell Populations Isolated from Adult Mouse Myocardium. American Heart Association Scientific Sessions.
7. Wei JQ, Llanos A, Thompson J, Steen S, **Shehadeh L**, Webster K, and Bishopric NH (2007). Ischemic Induction of Total and p300 HAT Activity is Associated with Cardioprotection in a Mouse MI Model. American Heart Association Scientific Sessions.
8. Wilson A, Gosink M, Tsinoremas N, **Shehadeh L**, Bishopric NH, and Webster K (2007). Angiogenesis and Survival Potential of Mesenchymal Stem Cells Declines with Age due to Decreased Expression of Pro-Angiogenic Genes. American Heart Association Scientific Sessions.
9. Rodrigues C, **Shehadeh L**, Calero K, Chopra I, Webster K and Bishopric NH (2008). Functional and Genetic Differences Among Cardiac Stem Cell Clones Isolated From Adult Mouse Myocardium. Proceedings from Control and Regulation of Stem Cells. LXXIII Cold Spring Harbor Symposium on Quantitative Biology. p177
10. **Shehadeh L**, Sharma S, Wei JQ, Neagu D, Jain S, Webster K, Tsinoremas N, and Bishopric NH (2008). miR-17~92 Cluster Regulates the Angiogenic Switch in the Progression to Heart Failure. *Oral presentation (moderated e-poster) at the Scientific Sessions, American Heart Association Scientific Circulation* 118: 18.
11. **Shehadeh L**, Sharma S, Rodrigues C, and Bishopric NH (2009). Loss of miR-20a increases vasculogenesis in cardiac stem cells. *Oral presentation at the American College of Cardiology 58th Annual Scientific Sessions. Journal of American College of Cardiology*.
12. **Shehadeh L**, Sharma S, Wei JQ, Mitrani J, Pessanha M, Rodrigues R, Yuan HJ, Scherr M, Webster K, Tsinoremas N, and Bishopric NH (2009). Regulation of Compensatory Angiogenesis During Cardiac Hypertrophy by a p300-miR-17~92 Feedback Loop. *Proceedings of Arteriosclerosis, Thrombosis, and Vascular Biology Annual Conference. P103*.
13. **Shehadeh L**, Sharma S, Wei JQ, Mitrani J, Pessanha M, Rodrigues R, Yuan HJ, Scherr M, Webster K, Tsinoremas N, and Bishopric NH (2009). Regulation of Compensatory Angiogenesis During Cardiac Hypertrophy by a p300-miR-20a Feedback Loop. *Oral presentation at the 2009 American Heart Association Scientific Sessions. Circulation* 120:S583.
14. **Shehadeh L**, Sharma S, Wei JQ, Mitrani J, Pessanha M, Rodrigues R, Yuan HJ, Scherr M, Webster K, Tsinoremas N, and Bishopric NH (2010). A MicroRNA-20a – p300 Circuit in Cardiac Myocytes and Cardiac Stem Cells Regulates Compensatory Angiogenesis during Cardiac Hypertrophy. *American Heart Association Scientific Sessions. Circulation. 13758*.
15. Reldy Riveron, Michael Raheer, Alex Schosheim, and **Shehadeh L**. Role of miR-30e in the collagen-osteogenic transition in senescent vascular smooth muscle cells. American Federation of Aging Research. Santa Barbara, California. June 2011.
16. Reldy Riveron, Razan Alif, Michael Raheer, Paul Kurlansky and **Shehadeh L**. MiR-30e Reduces Plaque Burden in Atherogenic APOE^{-/-} by Regulating VSMC Plasticity. *Oral presentation at the AHA Scientific Sessions. Circulation*, 2012.
17. Jihe Li, Paul Kurlansky and **Lina A Shehadeh**. Osteopontin RNA Aptamer Protects against Pressure Overload-Induced Cardiac Dysfunction. *Oral presentation at AHA Scientific Sessions. Circulation*, 2013. 128:A13586.
18. Wen Ding, Jihe Li and **Lina A Shehadeh**. MiR-30e Reduces Osteogenic Differentiation of Bone Marrow Derived Mesenchymal Stem Cells by Repressing IGF2 Expression. Poster at *AHA Scientific Sessions. Circulation*, 2014. 128:A15230.
19. Wen Ding, Jihe Li, Samirah Gomes, Joshua Hare, **Lina Shehadeh**. MiR-30e reduces osteogenic differentiation of bone marrow derived mesenchymal stem cells by directly targeting IGF2. Presented at the *International Society for Heart Research (ISHR)* May 2014. Published in *JMCC*, 2014. P. S24.
20. MiR-30e Targets IGF2-Regulated Osteogenesis in Bone Marrow Derived Mesenchymal Stem Cells, Aortic Smooth Muscle Cells, and APOE^{-/-} Mice. Ding W, Li J, Singh J, Alif R, Vazquez-Padron R, Gomes S, Hare J, **Shehadeh L**. Poster at *AHA Scientific Sessions. Circulation*, 2014. 130: A18084.
21. Jihe Li, Jayanti Singh, Paul Kurlansky and Lina A Shehadeh. Osteopontin RNA Aptamer Reverses Heart

- Failure and Increases Plasma HDL Levels. Poster at *AHA Scientific Sessions. Circulation*, 2014. 130: A18651.
22. Keyvan Yousefi, Wen Ding, Jayanti Singh, and **Lina Shehadeh**. The Aging *Col4a3^{-/-}* Alport mouse develops heart failure with preserved ejection fraction? *UM Center on Aging Scientific Poster Session*, April 2016, Miami, Florida, USA.
 23. Keyvan Yousefi, Wen Ding, Jayanti Singh, and **Lina Shehadeh**. Is the *Col4a3^{-/-}* Alport mouse a novel model for heart failure with preserved ejection fraction? *Basic Cardiovascular Sciences (BCVS) 2016 Scientific Sessions*, 18-21 July, Phoenix, Arizona, USA.
 24. Wen Ding, Keyvan Yousefi, Jayanti Singh, Stefania Goncalves, Bradley Goldstein, and **Lina Shehadeh**. Osteopontin Deficiency Reduces Alport Pathology. *Oral presentation at the American Society of Nephrology: Kidney Week 2016*, 15-20 November, Chicago, Illinois, USA.
 25. Li J, Yousefi K, Ding W, Singh J, **Shehadeh L** (2017). Osteopontin RNA aptamer prevents and treats pressure overload-induced heart failure. *Oral presentation at the Keystone Symposium on RNA Approaches in Cardiovascular Disease 2017*, 25-30 March, Keystone, Colorado, USA.
 26. Keyvan Yousefi, Wen Ding, Guerline Lambert, and **Lina Shehadeh**. Osteopontin Deficiency Ameliorates Heart Failure with Preserved Ejection Fraction (HFpEF) Pathology by Upregulating Mitochondrial 2-Oxoglutarate Dehydrogenase Like (OGDHL) Enzyme. *Basic Cardiovascular Sciences (BCVS) 2017 Scientific Sessions*, 10-14 July, Portland, Oregon, USA.
 27. Wen Ding, Keyvan Yousefi, Stefania Goncalves, Bradley Goldstein, Armando Mendez, Alfonso Sabater, and **Lina Shehadeh**. Osteopontin Deficiency Ameliorates Alport Pathology by Preventing DNMT3-mediated Cholesterol Influx and Mitochondrial Energetic Deficit in Renal Tubules. *American Society of Nephrology. 2017*, 3-5 November, New Orleans, Louisiana, USA.
 28. Keyvan Yousefi, Wen Ding, Dong I. Lee, Virginia Hahn, David A. Kass, and **Lina A. Shehadeh**. Osteopontin Deficiency Ameliorates Heart Failure with Preserved Ejection Fraction (HFpEF) by Upregulating Mitochondrial 2-Oxoglutarate Dehydrogenase Like (OGDHL) in a Renal Disease Mouse Model. 2018, January 15-19. Keystone, Colorado, USA.
 29. Sunil kumar, Benny, Merline, Eliana Martinez, Keyvan Yousefi, Wen Ding, **Lina A. Shehadeh**, and Karen Young. Klotho Prevents Long-term Cardiopulmonary Dysfunction in Rats with Experimental Bronchopulmonary Dysplasia. Pediatric Academic Societies (PAS) 2018 Meeting, May 5 - 8, Toronto, Canada.
 30. Benny, Merline, Eliana Martinez, Keyvan Yousefi, Wen Ding, **Lina A. Shehadeh**, and Karen Young. Neonatal oxygen exposure induces persistent mitochondrial dysfunction in adult rodent renal tubular epithelial cells. Pediatric Academic Societies (PAS) 2019 Meeting, April 27 - 30. Baltimore, Maryland.
 31. Benny, Merline, Eliana Martinez, Keyvan Yousefi, **Lina A. Shehadeh**, and Karen Young. Neonatal oxygen exposure induces systemic vascular remodeling and alters aortic SDF-1/CXCR7 expression in adult rodents. Pediatric Academic Societies (PAS) 2019 Meeting, April 27 - 30. Baltimore, Maryland.
 32. Camila Irion, Krista John-Williams, Ahmed Chahdi, Keyvan Yousefi, Yanelys R. Fernandez, Konstantinos E. Hatzistergos, Joshua M. Hare, Keith Webster, and **Lina A. Shehadeh**. Osteopontin Regulates Adult Cardiomyocyte Division in a Mouse Model of Pressure Overload Induced Heart Failure. American Heart Association BCVS Conference. Boston, Ma. July 2019. Oral Presentation and selected for poster presentation at AHA Scientific Sessions, Philadelphia, November 2019.
 33. Keyvan Yousefi, Ahmed Chahdi, Krista John-Williams, Guerline Lambert, Camila Irion, Melina Ramic, Nadja De Andrade, Zane Zeier, Michael Freundlich, and **Lina A Shehadeh**. β 2 Adrenergic Signaling Regulates a New OPN-LDLR- β Pix-Rac1 Multimolecular Complex in Alport Syndrome. Poster Presentation at American Society for Nephrology (ASN) for November 2019 annual conference.
 34. Sean Schooley, Sean Tackett, and **Lina A. Shehadeh**. Development of an Educational Video Assessment Scale. AMEE Annual Meeting. Vienna, Austria. August. 2019. Poster/Oral Presentation.
 35. Sean Schooley, Sean Tackett, and **Lina A. Shehadeh**. Development of a Quality Assessment Scale for Educational Videos for Use in Undergraduate Medical Education. AAMC Annual Meeting. Phoenix, Arizona. Nov. 2019. Oral Presentation.
 36. Celina M Pollard, Victoria L Desimine, Shelby L Wertz, Arianna Perez, Barbara M Parker, Jennifer Maning, Katie A McCrink, **Lina A Shehadeh**, Anastasios Lymperopoulos. Regulation of Cardiomyocyte Fibrosis by a Negative Feedback Loop between Aldosterone- Induced Osteopontin Up-Regulation and beta-Adrenergic Receptor Signaling. AHA Hypertension. 2019. Oral Presentation.

37. Julian C. Dunkley, Camila I. Irion, Keyvan Yousefi, Serene A. Shehadeh, Jeffrey J. Goldberger, and **Lina A. Shehadeh**. Treatment of a HFpEF mouse model with carvedilol, salbutamol, or exercise. ACC Works Congress of Cardiology. Chicago, Illinois. March 2020. [ePoster Presentation](#).
38. **Lina A Shehadeh**, Sean Tackett, Michael Dyal, David Green, Erin O'Keefe, Tanya Thomas, Tiffany Nguyen, Duyen Vo, Mausam Patel, Christopher Murdock, and Erin Wolfe. Evaluation of commercially-produced medical education videos in a cardiovascular course. AMEE. September 2020. Glasgow, [ePoster Presentation](#).
39. Valentina Dargam, Hooi Hooi Ng, Anet Sanchez, Sana Nasim, Camila Iansen Irion, Suhas Rathna, **Lina A Shehadeh**, Joshua D. Hutcheson. Tracking Acoustic and Electrophysiological Changes Associated With CKD-induced Cardiac and Valvular Remodeling In a mouse model. The International Society for Applied Cardiovascular Biology (ISACB) - Japan. Held virtually in March, 2021.
40. Capcha JMC, CI, Lambert G, Dykxhoorn D, Buchwald P, Farzaneh H, Young K, Deo S, Daunert S, **Shehadeh LA**. Nano-Triciribine Reduces SARS-CoV-2 Infection By Sequestering ACE2 And The Novel Host Factor LDLR. *AHA BCVS abstract - ePoster Presentation; 2021*
41. Condor Capcha JM, Iansen Irion C, Lambert G, Chahdi A, Buchwald P, Dykxhoorn DM, Farzaneh H, Deo S, Daunert S, Young K, **Shehadeh LA**. Nano-Triciribine Reduces SARS-CoV-2 Infection by Sequestering ACE2 and the Novel Host Factor LDLR. *AHA Scientific Sessions 2021. Moderated Digital Poster*.
42. Chahdi A, Yousefi K, Capcha J, Irion C, Lambert G, Shehadeh S, Dunkley J, Lee Y, Khan A, Ramic M, Andrade N, Zeier Z, Dykxhoorn D, Katsoufis C, Freundlich M, Hare JM, Nabity M, Rivera C, Lymperopoulos A, Keith A Webster, and **Shehadeh LA***, Dual Actions of β_2 AR-Agonism Confer Protection Against Heart Failure and Renal Dysfunction via Inotropic and Lusitropic Effects and Normalized Cholesterol Homeostasis in a Mouse Model of Alport Syndrome. *AHA Scientific Sessions 2021. ePoster*.
43. Chahdi A, Yousefi K, Capcha J, Irion C, Lambert G, Shehadeh S, Dunkley J, Lee Y, Khan A, Ramic M, Andrade N, Zeier Z, Dykxhoorn D, Katsoufis C, Freundlich M, Hare JM, Nabity M, Rivera C, Lymperopoulos A, Keith A Webster, and **Shehadeh LA***, Dual Actions of β_2 AR-Agonism Confer Protection Against Heart Failure and Renal Dysfunction via Inotropic and Lusitropic Effects and Normalized Cholesterol Homeostasis in a Mouse Model of Alport Syndrome. *ASN Scientific Sessions 2021. ePoster*.
44. Camila I Irion, Monique Williams, Jose Condor Capcha, Trevor Eisenberg, Guerline Lambert, Lauro M Takeuchi, Grace Seo, Keyvan Yousefi, Rosemeire Kanashiro-Takeuchi, Karen C Young, Joshua M Hare, **Shehadeh LA**. Gender and Strain Background Affect Cardiopulmonary Function in *Col4a3^{-/-}* Alport Mice. *AHA Scientific Sessions 2021. ePoster*.
45. Monique Williams, Camila I Irion, Jose Condor Capcha, Guerline Lamberg, Jeffrey Goldberger, and **Shehadeh LA**. A New Mouse Model of Myocardial Lipids, Fibrosis, Arrhythmia and Diastolic
46. Condor Capcha JM, Iansen Irion C, Lambert G, Chahdi A, Buchwald P, Dykxhoorn DM, Farzaneh H, Deo S, Daunert S, Young K, **Shehadeh LA**. Nano-Triciribine Reduces SARS-CoV-2 Infection by Sequestering ACE2 and the Novel Host Factor LDLR. *AHA Scientific Sessions 2021. Moderated Digital Poster*
47. Dysfunction Induced by Hyperlipidemia and Cardiac LDLR. *AHA Scientific Sessions 2021. ePoster*.
48. Monique Williams, Jose Manuel Condor Capcha, Camila Iansen Irion, Grace Seo, Guerline Lambert, Ali Kamiar, Keyvan Yousefi, Rosemeire Kanashiro-Takeuchi, Lauro Takeuchi, Ali G Saad, Armando Mendez, Keith A Webster, Jeffrey J Goldberger, Joshua M Hare, Lina A **Shehadeh LA**. A Mouse Model of Heart Failure with Preserved Ejection Fraction Driven by Hyperlipidemia and Enhanced Cardiac LDLR Expression. *AHA Scientific sessions in November 2022. ePoster*
49. Jose Manuel Condor Capcha, Camila Irion, Ali G Saad, Guerline Lambert, Amanda Wong, Jason Villano, Andrew Pekosz, Mark Ranek, and **Shehadeh LA**. Cardiac LDLR drives chimeric SARS-CoV-2-induced myocarditis in K18 hACE2tg mice. *AHA Scientific Sessions November 2022. Poster*
50. Jose Manuel Condor Capcha, Ali Saad, Tengjiao Cui, Andrew Schally, Robert Jackson, and **Shehadeh LA**. Growth Hormone-releasing Hormone Receptor Antagonist MIA-602 Reduces Chimeric SARS-CoV-2-induced Cardiopulmonary Inflammation in K18-hACE2tg Mice. *American Thoracic Society. May 2023. Poster*.

1. Soluble guanylate cyclase stimulation mitigates skeletal and cardiac muscle dysfunction in a mdx model of Duchenne muscular dystrophy. Zhang L, Balke JE, Xu Y, Yousefi K, Irion CI, Alvarez RA, Krishnan SM, Stasch JP, Martinez EC, Buys ES, Sandner P, Shehadeh LA, Percival JM. *Submitted to BioRxiv. 2021.* <https://www.biorxiv.org/content/10.1101/2021.02.14.431156v1>
2. Dual actions of β 2AR-agonism confer protection against heart failure and renal dysfunction via inotropic and lusitropic effects and normalized cholesterol homeostasis in a mouse model of Alport Syndrome. Chahdi A*, Yousefi K*, Capcha J, Irion C, Lambert G, Shehadeh S, Dunkley J, Lee Y, Khan A, Ramic M, Andrade N, Zeier Z, Dykxhoorn D, Katsoufis C, Freundlich M, Hare JM, Nabity M, Rivera C, Lymperopoulos A, Keith A Webster, and **Shehadeh LA***. 2021. Senior and Corresponding Author. <https://www.biorxiv.org/content/10.1101/2020.11.06.372292v1>
3. Ascending Aortic Aneurysm in Alport Syndrome: A Case Report. Ali Kamiar, Qusai Alitter, Jose M.C. Capcha, Ali Saad, Keith A Webster, **Shehadeh LA.** *Submitted. 2023*
4. Growth Hormone-Releasing Hormone Receptor antagonist attenuates cardiopulmonary injury induced by a BSL2 rVSV-SARS-CoV-2-S virus in human-ACE2 mice. Jose M. Condor Capcha, Ali Kamiar, Emely Robleto, Ali Saad, Tengjiao Cui, Amanda Wong, Jason Villano, William Zhong, Andrew Pekosz, Edgar Medina, Mark Ranek, Keith A Webster, Andrew Schally, Robert M Jackson, **Shehadeh LA.** *PNAS. Submitted. 2023*
5. Qusai Alitter, B. André Weinstock, Chryso P Katsoufis, Keith A Webster, **Shehadeh LA.** Alport Syndrome. *Nephrocardiology. Book Chapter. In Press. 2023.*

IV. Professional

22) Funded Research Performed

Pending Research Support

- 2023-2027: Veterans Affairs (VA) Merit Award: Role of LDLR in COVID-Induced Myocarditis. \$1,500,000. **PI: Shehadeh L (40%). Percentile: 23.2**

Ongoing Research Support

- 2022-2025: American Heart Association: Defective Cholesterol Homeostasis Causes Systemic Endothelial Dysfunction in Long Covid. \$999,999. **PI: Shehadeh L (30%).**
- 2020-2025: Miami Heart Research Institute: Anti-OPN Monoclonal Antibody Therapy in Pig Model of Atherosclerosis. \$875,000. **PI: Shehadeh L (20%).**
- 2020-2022: Mitchell Wolfson Sr. Foundation: Producing the Media Building-Blocks of Knowledge for An Innovative Patient-Centric, Case-Based and Hemispheric Medical Education Platform. \$100,000. **PIs: Shehadeh L (15%), Habashi A, & Dyal M.**

Completed

- 2007 SAC Award: Peripheral blood gene expression profiling: discovery of valid biomarkers. Amount: \$20,000. PI: Papapetropoulos S; **Co-PI: Shehadeh L.**
- 2010-2011: Florida Heart Research Institute. Can the Anti-Adhesion MicroRNA, MiR-30e, Reduce Atherogenicity? Amount: \$30,000. **PI: Shehadeh L.**
- 2010-2012: American Federation for Aging Research (AFAR). The Role of MiR-30e in Regulating the Collagen to Bone Switch in Aging Vascular Smooth Muscle Cells. Amount: \$75,000. **PI: Shehadeh L.**
- 2009-2012: American Heart Association Scientist Development Grant: Regulatory Role of miR-17~92 Cluster in the Angiogenic Switch during Heart Failure. Amount: \$308,000. **PI: Shehadeh L.**
- 2011-2013: Florida Heart Research Institute. Can Osteopontin Aptamers Reduce Calcification in Atherogenic Mice? Amount: \$25,000. **PI: Shehadeh L.**
- 2011-2013: Donation Amount: \$25,000. **PI: Shehadeh L.**
- 2011-2012: Glazer Award. Mechanisms for miR-30e-Regulated Atherogenic Pathways with Age. Amount: \$40,000. **PI: Shehadeh L.**
- 2011-2014: NIH. Micro-RNA reprogrammed human CD34 stem cells for cardiovascular disease therapy. Amount: \$1,000,000. PI: Webster, K.A. **Co-PI: Shehadeh L.**

L. Shehadeh, PhD

- 2012-2014: Florida Heart Research Institute. Smooth Muscle Cells Transdifferentiation: A New Paradigm for Cardiac Regeneration. \$100,000. **PI: Shehadeh L.**
- 2012-2015: Florida Biomedical Research Program. Modulation of miR-30e in Nicotine-Enhanced Atherogenic and Osteogenic Pathways. Amount: \$400,000. **PI: Shehadeh L.**
- 2012-2015: NIH/ NIA K01 Career Mentored Award. Mechanisms for miR-30e-Regulated Atherogenic Pathways with Age. Amount: \$350,000. **PI: Shehadeh L.**
- 2014-2016: AHA Grant-in-Aid: OPN RNA Aptamer Treatment for Heart Failure. \$165,000. **PI: Shehadeh L.**
- 2015-2017: AHA Predoctoral Fellowship: Role of miR-30e in Cholesterol Synthesis. PI: Wen Ding. **Mentor: Shehadeh L.** Amount: \$52,000 for student salary.
- 2015: Donation Amount: \$5,000. **PI: Shehadeh L.**
- 2016: Dean's Bridge Award: Osteopontin Signals between Cardiac Myocytes and Fibroblasts in Heart Remodeling. \$70,000. **PI: Shehadeh L.**
- 2017-2018: Dean's Bridge Award: Role of OPN-OGDHL axis in Heart Failure with preserved Ejection Fraction. Amount: \$65,000. **PI: Shehadeh L.**
- 2017-2019: NIH/NHLBI R56: Osteopontin Signals between Cardiac Myocytes and Fibroblasts in Heart Remodeling. \$383,750. **PI: Shehadeh L.**
- 2018: Miami Florida Heart Research Institute: A new model of HFpEF. \$100,000. **PI: Shehadeh L (15%).**
- 2018 SAC Award: Rodent Whole Body Plethysmography Machine. Amount: \$10,000. **PI: Shehadeh L.**
- 2019 SAC Award: Rodent Telemetry Machine. Amount: \$15,500. **PI: Shehadeh L.**
- 2018-2019: Personalized genetic and genomic profile for Stem Cell Therapy. Model. \$100,000. **Co-I: Shehadeh L (10%). PI: Hare J.**
- 2018-2020: AHA Predoctoral Fellowship: Role of Osteopontin in Heart Failure with preserved Ejection. PI: Keyvan Yousefi. **Mentor: Shehadeh L.** Amount: \$53,688 for student salary.
- 2019-2020: NIH/NHLBI Diversity Supplement#1: Role of OPN-OGDHL axis in Heart Failure with preserved Ejection Fraction. PI: Julian Dunkley. **Mentor: Shehadeh L.** Amount: \$200,000 for postdoc salary.
- 2020 SAC Award: Rodent Blood Pressure & ECG Telemetry Machine Software (Data Insight). Amount: \$7,000. **PI: Shehadeh L.**
- 2015-2020: Miami Heart Research Institute: Role of Osteopontin in Cardiac in an Aging Mouse Model. \$625,000. **PI: Shehadeh L (20%).**
- 2022 SAC Award: Rodent Whole Body Plethysmography Software (FinePointe 2.9) and Laptop upgrade. Amount: \$8,000. **PI: Shehadeh L.**
- 2022: American Heart Association (AHA) 2021 Student Scholarship in Cardiovascular Disease: Induction of dyslipidemia using poloxamer in an experimental mouse model for HFpEF. PI: Grace Seo. **Mentor: Shehadeh L.** Amount: \$2,000 for medical student stipend.
- 2018-2022: NIH/NHLBI R01: Role of OPN-OGDHL axis in Heart Failure with preserved Ejection Fraction. Amount: \$1,500,000. **PI: Shehadeh L (40%).**
- 2020-2022: NIH/NHLBI Diversity Supplement#2: Role of OPN-OGDHL axis in Heart Failure with preserved Ejection Fraction. PI: Monique Williams. **Mentor: Shehadeh L.** Amount: \$170,000 for postdoc salary.
- 2022: American Heart Association (AHA) 2022 Student Scholarship in Cardiovascular Disease: Alpha Ketoglutarate for Cardiac Regeneration. PI: Emily Todd. **Mentor: Shehadeh L.** Amount: \$2,000 for medical student stipend.

23) Editorial Responsibilities

- Served as a manuscript reviewer for the following journals: JACC, PLoS One, Nitric Oxide, Stem Cell Translational Medicine, Molecular Medicine Reports, Molecular Histology, Cells, Biochemistry and Biophysics Report, IUBMB Life, Trends in Endocrinology and Metabolism, JoVE, Archivum Immunologiae et Therapiae Experimentalis, Biomarkers in Medicine, Annals of Translational Medicine
L. Shehadeh, PhD

(ATM), Scientific Reports, Frontiers in Neurology, Frontiers in Pharmacology, Frontiers in Physiology, Life Sciences, Clinical and Translational Medicine, Journal of Cellular and Molecular Medicine, Neural Regeneration Research, American Journal of Physiology (AJP) Heart and Circulatory Physiology, Cardiovascular Drugs and Therapy, JASN, JAHA, Circulation Heart Failure, and Circulation Research.

- Served as editor for Frontiers in Cardiovascular Medicine. Research Topic: Cell-specific pathophysiology in cardiovascular and metabolic diseases. 2021-2022.

24) Professional and Honorary Organizations

- Member of the American Heart Association (AHA): 2004-present.
- Fellow of the American Heart Association (FAHA): 2005-present.
- Member of the American Society for Nephrology (ASN): 2016-present.
- Member of American Association of Medical Colleges (AAMC): 2018-present.
- Member of Association of Medical Education in Europe (AMEE): 2018-present.

25) Honors and Awards

- 2008: First Place Oral Presentation Award. miR-17~92 Cluster is Involved in the Angiogenic Switch in Cardiac Hypertrophy. Cardiovascular Research Day at the University of Miami Miller School of Medicine. \$1,500.
- 2009: First Place at the International Society for Heart Research Young Investigator Award. \$1,500.
- 2009: American Heart Association Scientific Sessions Travel Award. \$600.
- 2011: Finalist for the American College of Cardiology Young Investigator Award. \$1,500.
- 2012-2014: Florida Heart Research Institute. Stop Heart Disease Researcher of the Year Award. Amount: \$25,000. **PI: Shehadeh L.**
- 2014: Florida Heart Research Institute. Researcher of the Year Award.

26) Postdoctoral Fellowships

- Postdoctoral Grant: Transcription Factor Networks in Cardiac Hypertrophy. Amount: \$156,468. **PI: Shehadeh L.** Department of Molecular and Cellular Pharmacology. University of Miami Miller School of Medicine. 2005-2008.

27) Other Professional Activities

- Served as an ad-hoc reviewer for NIH NHLBI SBIR study section (2009).
- Served as an ad-hoc reviewer for NIH NHLBI F32 study section (2010).
- Served as an ad-hoc reviewer for NIH NHLBI K22/K99 study section (2015).
- Served as an ad-hoc reviewer for NIH/NHLBI R01 study section (April 2015).
- Served as an ad-hoc reviewer for NIH/NHLBI R01 study section (October 2015).
- Served as an ad-hoc reviewer for NIH/NHLBI CCHF study section (February 2016).
- Served as an ad-hoc reviewer for NIH/NHLBI MIM study section (February 2016).
- Served as an ad-hoc reviewer for NIH/NHLBI MIM study section (October 2016).
- Served as an ad-hoc reviewer for NIH/NHLBI R21 study section (March, July, October 2017).
- Served as an ad-hoc reviewer for NIH/NHLBI MIM study section (June 2017).
- Served as grant reviewer for Wellcome Trust/DBT India Alliance (March 2017).
- Served as grant reviewer for Swiss Cancer League (March 2017).
- Served as an ad-hoc reviewer for SBIR/STTR CVRS study section (October 2017).
- Served as an ad-hoc reviewer for NIH/NHLBI MIM study section (February 2018).
- Served as an ad-hoc reviewer for NIH/SBIR/STTR CVRS study section (June 2018).
- Served as **member** for NIH/NHLBI MIM study section (**July 2018 – June 2020**).
- Served as an ad-hoc reviewer for NIH/SBIR/STTR SBIB study section (March 2021).
- Served as reviewer for NIH/NHLBI (U54 applications for establishing a Data Translation Center for the Clinical Centers for NHLBI's HeartShare program) study section (April 2021).
- Served as an ad-hoc reviewer for NIH Special Emphasis Panel on "Exploration of Antimicrobial Therapeutics and Resistance" mostly COVID-related study section (July 2021).
- Served as an ad-hoc reviewer for NHLBI (U54 applications for establishing a Data Translation Center for the Clinical Centers for NHLBI's HeartShare program) study section (2021)
- Served as an ad-hoc reviewer for NIH/NHLBI TDPS study section (March 2022)
- Served as American Heart Association Reviewer for Long COVID RFA (March 2022)
- Served as an ad-hoc reviewer for NIH/SBIR/STTR SBIB study section (June 2022).
- Served as an ad-hoc reviewer for NIH/NHLBI R35 study section (August 2022).
- Will serve as an ad-hoc reviewer for NIH/SBIR/STTR study section (July 2023).
- Served as an external reviewer for research grant at University of Sharjah, United Arab Emirates (October 2019).
- Regular/bi-annual grant reviewer for the American Heart Association (2012-2016).
- Served as Judge for posters presented by graduate students, medical students, and postdoctoral fellows at the Cardiovascular Research Day at University of Miami Miller School of Medicine (2009 and 2010).
- Served as judge for posters presented by research fellows at UM's Research Day. September 18th 2012
- Served as Judge for ESRF oral presentations at University of Miami Miller School of Medicine (Feb 2014 and Feb 2018).
- Served as Judge for posters presented by postdoctoral fellows at University of Miami Miller School of Medicine (Sept 2014).
- Served as Judge for posters presented by the Department of Surgery at the University of Miami Miller School of Medicine (May 10th 2018, May 16th 2019, May 7th 2020).
- Served as a panel member to discuss with students and junior faculty a broadcasted originally presented at UMMSOM by Atul Butte, MD, Ph.D. on "*Transforming 300 Billion Points of Big Data into Diagnostics, Therapeutics, and New Insights into Disease.*" (Sept 2013)

- Participated in reviewer panel for Dr. Mary Lou’s grant writing workshop for students and postdocs. (April 25th 2014).
- Interviewed (9) PIBS applicants (2013-2022).
- Interviewed (2) faculty candidate for Coral Gables campus (2014, 2017).
- Interviewed (3) MD/PhD applicant (2014, 2020 2x).
- Interviewed (3) faculty candidates for the Division of Cardiology (2016-2017).
- Interviewed (4) faculty candidates for the Stem Cell Institute (2017).
- Interviewed (1) faculty candidates for the Division of Nephrology (2018).
- Trained (6) PIBS rotation students (2012-2021).
- Invited lecture on Cardiovascular Research to graduate students at Florida Atlantic University. Nov 2012, Nov 2016, Nov 2018, and Nov 2020.
- Invited presentation at Florida Atlantic University January 2015.
- Invited presentation at the International Society for Heart Research (ISHR). May 2014.
- Invited presentation at Icahn School of Medicine at Mount Sinai August 2016 and August 2018.
- Invited presentation at the Keystone Symposium on RNA Therapeutics for Cardiovascular Disease March 2017.
- Moderator of an Oral Presentation Session on “Advances in Experimental Cell Therapy” at the American Heart Association Scientific Sessions. Anaheim, California. November 2017.
- Moderator of Session on “HF_rEF: Cellular and Molecular Therapies” at the Keystone Symposium on Heart Failure: Crossing the Translational Divide. Keystone, Colorado. January 2018.
- Invited presentation at VCU Pauley Heart Center, Virginia Commonwealth University (VCU), Virginia. August 2018.
- Chair of Session at the Interdisciplinary Stem Cell Symposium, University of Miami Miller School of Medicine. April 2019.
- Co-Chair of C-Change Committee for Gender Equity (2019), and member of both Faculty Affairs and Steering Committees for C-Change (2019-present) at UMMSOM. **As part of C-Change initiative, I took on a leading role assisting UMSOM R01-funded faculty to apply for NIH Diversity Supplement Awards. Specifically, I advertised the award (Osmosis website, FIU, medical school booths at AAMC, medical student blogs), helped faculty identify eligible candidates, and assisted in the submission of 5 new applications to date. Currently working with Dean of UNIBE medical school in Santo Domingo to recruit competitive candidates.** *Budget for each application can vary from \$100-200K which includes indirect costs to our school.*
- Invited presentation at the American Heart Association Basic Cardiovascular Council (BCVS). Boston, Massachusetts. July 2019.
- Moderator of an educational Session on “Mitochondria as Mediators and Therapeutic Targets in Heart Failure” at the American Heart Association Scientific Sessions. Philadelphia, November 2019.
- Invited presentation at the Vascular Biology Center. Augusta University. Augusta, Georgia. December 2019.
- Invited presentation at the Miami Heart Day at Florida International University (FIU). February 21 2020.
- Invited presentation at an educational Session on “The Elusive Role of Cardiac Fibroblasts in Fibrosis- Friends or Foes?” at the American Heart Association Scientific Sessions. Virtual conference, November 2020.
- Invited presentation at the Florida Chapter of American College of Cardiology. “New Translational Models of HFpEF”. Orlando, August 2022.
- Chaired a Session in HFpEF Summit. New Orleans, Louisiana. February 13, 2023.
- Moderator of Session on “Lipid Mediators and Cardiovascular Disease” at the American Heart Association BCVS Sessions. Boston, Ma, July 2023.

Issued Patents:

1. The Use of miR-30e to Treat Vascular Lesions. **Inventor: Shehadeh L.**
2. Compositions, kits and methods for treatment of cardiovascular, immunological and inflammatory diseases. **Co-Inventor: Shehadeh L.**
3. Methods and compositions employing an osteopontin aptamer to deliver nucleic acids into smooth muscle, endothelial, cardiac and progenitor/stem cells. **Inventor: Shehadeh L.**

Teaching

28) Teaching Awards Received

- Osmosis Raise the Line Faculty 2020 Award. This award recognizes the incredible work of health educators around the world.
- Excellence in Curriculum Award. University of Miami Miller School of Medicine. April 28 2023.

29) Teaching Specialization

- Developed curriculum material for a mathematics class (1999 - 2002): Developed electronic material on teaching *Fractals and Chaos*, Center for Complex Systems and Brain Sciences, Florida Atlantic University.
This work was supported by NSF and aimed at developing curriculum material for an undergraduate mathematics course for students majoring in Education and Psychology. The overall product of this work is integrated on a CD-ROM. The title of the CD-ROM is The Mathematics and Sciences of Fractals and Chaos by Larry S. Liebovitch and Lina A. Shehadeh.
- Gave 3 workshops on using bioinformatics tools to University of Miami faculty and students.
- Gave a class/lecture to first year UM medical students on “MicroRNAs in Cardiovascular Disease”. 2012.
- Participated in teaching an annual course on Scientific Reasoning to PIBS UM students in October 2015- 2022.
- Participated in teaching a graduate biannual class on Cardiovascular Pharmacology to second year PhD/Pharmacology UM students in November 2016-2022.
- Taught a lecture to UM medical students on Regeneration in the Kidney for KIMERA program in July 2021 and July 2022.
- Taught a lecture in Regenerative Medicine Course at UM Coral Gables. November 2022.

30) Thesis and Dissertation Advising/Post-doctoral Student Supervision

1. Trained two undergraduate students (Razan Alif and Sasha Sitahal) and a medical student (Mike Raheer) (each for one year). 2010-2012
2. Primary mentor for Pharmacology PhD students: Wen Ding, (2012-2017), Keyvan Yousefi, (2016-2020), Ali Kamiar (2021-present). On April 30th 2020, Keyvan won first place the **University of Miami 2020 Best Student Researcher Award**.
3. Primary mentor of postdoctoral associates, Drs. Jihe Li, (2012-2015), Camila Irion (2018-202), Jose Condor (2019-present), Julian Dunkley (2019-2020), and Monique Williams (2020-present).
4. Primary mentor of pulmonology fellow, Dr. Qusai Taher, (2022-present).
5. Served as committee member for Qualification Exam of a Pharmacology Ph.D. student (Mr. Christopher Pedigo). 2013.
6. Served as committee member for Qualification Exam of a Pharmacology Ph.D. student (Ms. Anne Green). 2013.
7. Served as thesis committee member for Cancer Biology Ph.D. student (Anugraha R Rajagopalan). 2013-2016.
8. Served as a committee chair for Qualification Exam of a Pharmacology Ph.D. student (Mr. Rustam Esanov). 2014.

9. Served as an external committee member for PhD Defense of a Biochemistry Ph.D. student (Ms. Laurin Pacheco). 2015.
10. Served as a committee chair for Qualification Exam of a Pharmacology Ph.D. student (Mr. Damir Bojatzic). 2015/2016.
11. Research mentor for (2) MD (Sarah Sukkar, Trevor Eisenberg) and (1) MD/MS (Amy Kloosterboer) students (2017-2018).
12. Served as committee chair for both Qualification Exam and Thesis of a Pharmacology Ph.D. student (Mr. Yoel Sitbon). 2018-2020.
13. Served as committee member for Qualification Exam of a Pharmacology Ph.D. student (Mr. Miguel Rojas) (2020) and serving as Chair of Thesis Committee (2023-present).
14. Served as committee member for Qualification Exam of a Pharmacology Ph.D. student (Ms. Jennifer Acruri) (2021).
15. Served as committee chair for Qualification Exam of a Pharmacology Ph.D. student (Mr. Clarence Locklear) (2022).
16. Research mentor for (2) MD (Kiera Parrish, Yanelys Fernandez) students (2018-2019).
17. Research mentor for (1) MD (Mausam Patel) and (1) undergraduate (Daniela Rodrigues) students (2019-2020).
18. Research mentor for (1) MD (Suhas Seshadri) student (2020-2021).
19. Research mentor for (1) UM BS graduate (Serene Shehadeh) (2019-2020).
20. Served as an external committee member for PhD Defense of a Biochemistry Ph.D. student (Ms. Ramya Ayyalasomayajula) at Florida Atlantic University (2019-2020).
21. Research mentor for (1) medical resident (Trevor Eisenberg) (2020-present).
22. Research mentor for (1) MD/PhD student (Jovanka Ravix) (2021).
23. Research mentor for (2) medical student (Grace Seo, Roshni Lalwani) (2021-present).
24. Research mentor for (1) medical student (Emily Todd) (2022-present).
25. Serving as external research committee member for Pediatrics medical fellow (Dr. Kevin Williams) (2021-present).
26. Serving as thesis committee member for Molecular and Cellular Pharmacology Ph.D. student (Corey Fehlbert). 2022- present.
27. Serving as external research committee member for Bioengineering PhD candidate at FIU (Ana Valentin) (2022-present).
28. Research mentor for (1) MD/PhD student (Monica Rasmussen) (2022).
29. Research mentor for (1) high school student (David Diaz) (2022).
30. Serving as Chair of Thesis Committee for Biochemistry PhD student (Jesse Hersh) (2023-present).

V. Service:

31) University Committee and Administrative Responsibilities

- Serving as a full member of the Pharmacology Graduate Program at the University of Miami Miller School of Medicine (2012-present).
- Serving as a member of Interdisciplinary Stem Cell Institute (ISCI) Director's Advisory Board committee (2016-present).
- Served as reviewer for Glaser grant applications (2016 and 2017).
- Served as reviewer for Eureka Certificate applications (2018).
- Served as reviewer for CTSI KL2 applications (2020).
- Serving as member of Basic Science Curriculum Advisory Committee (BSCAC) for medical program at the University of Miami (2016-present).
- Serving as member of Academy of Medical Educators at the University of Miami (2019-present).
- Served as member of Next Gen Curriculum Committee at UMSOM (2019-2020).
- Served as **Director** of Cardiovascular Module for MD and MD/MPH programs. Dec 2016-2020.
- Serving as Regenerative Medicine Scholarly Pathway **Director** for NextGen medical students at

- UMSOM (2020-present). <https://www.shehadehlab.com/scholarly-research-md-students>
- Serving as program mentor for incoming PIBS graduate students. Aug 2020-present.
 - Serving as member of Admissions Committee for UMSOM (2020-present).
 - Serving as member of Steering Committee for Graduate Student Career and Professional Development at UMSOM (2021-2022).
 - Serving as **Co-Director** for Physiology Discipline for NextGen medical students at UMSOM (2022-present).
 - Nominated to be a member of UMMSOM Executive Curriculum Committee (ECC) (2023).

32) Community Activities

- Served as a panelist on a webinar on “Videos in Health Professions Education”. Feb 14, 2023.