Nomination Signature Page

2025 Virginia Outstanding Faculty Awards

Nominations <u>must</u> include this as the cover page of the nomination package PDF submission

Name of Applicant:	Fadi N. Salloum, PhD
Institution:	Virginia Commonwealth University
Category (choose only one): Baccalaureate Institution Masters/Comprehensive Institution Research/Doctoral Institution Two-Year Institution Rising Star	Research/Doctoral Institution
Signature of President or Chief Academic Officer:	7.
Printed Name of President or Chief Academic Officer:	Fotis Sotiropoulos, Provost and Chief Academic Officer Virginia Commonwealth University
E-mail address of President or Chief Academic Officer:	vpfacaffrs@vcu.edu
Telephone number of President or Chief Academic Officer:	(804) 827-3911

VCU Mission Statement

Virginia Commonwealth University and its academic health sciences center serve as one national urban public research institution dedicated to the success and well-being of our students, patients, faculty, staff and community through:

- Real-world learning that furthers civic engagement, inquiry, discovery and innovation
- Research that expands the boundaries of new knowledge and creative expression and promotes translational applications to improve the quality of human life
- Interdisciplinary collaborations and community partnerships that advance innovation, enhance cultural and economic vitality, and solve society's most complex challenges
- Health sciences that preserve and restore health for all people, seek the cause and cure
 of diseases through groundbreaking research and educate those who serve humanity
- Deeply ingrained core values of diversity, inclusion and equity that provide a safe, trusting and supportive environment to explore, create, learn and serve

Source: https://www.vcu.edu/about-vcu/mission-and-history/

SUMMARY OF ACCOMPLISHMENTS

Fadi N. Salloum, Ph.D., the Natalie N. and John R. Congdon Sr. Endowed Chair, Pauley Heart Center, joined the VCU faculty in Internal Medicine (Cardiology) in 2009 after completing both his PhD and postdoctoral training at VCU. His exceptional scholarly contributions in translational studies on protecting the heart from injury are recognized nationally and internationally. Dr. Salloum's impactful research is reflected in 124 peer-reviewed full-length publications and over 127 abstracts presented at scientific conferences that have been cited over 12,000 times. He has given invited presentations nationally and internationally and organized international conferences on mechanisms of heart failure and on cardiac injury due to cancer chemotherapy (cardio-oncology). Since 2010, Dr. Salloum has received ~ \$27M in funding from the National Institutes of Health (NIH), American Heart Association (AHA), and industry as Principal Investigator (PI) on individual or multi-PI grants or as a Collaborating Investigator. His translational research substantially enhanced VCU's ability to obtain major NIH center grants. In addition to outstanding scholarship, he is a superb classroom teacher and research mentor who is deeply committed to giving back to students and to developing the careers of his trainees. He integrates new knowledge across disciplines and in the training of undergraduate and graduate students, postdoctoral and clinical fellows, and practicing physicians. Dr. Salloum also provides exceptional service to VCU, the profession and the national/international scientific community. He is a remarkable individual who covers all the bases and richly merits recognition by SCHEV.

Teaching: PhD faculty in clinical departments leading highly productive and well-funded research programs might want to minimize teaching. To the contrary, Dr. Salloum is a talented and inspiring educator who actively sought to fully engage in all levels of teaching and mentoring – to give back to others. He is an exceptionally effective classroom teacher who is beloved by students and consistently receives superb student evaluations. He team-teaches to medical and dental students, in several graduate courses in physiology, and in interdisciplinary courses for PhD and MD-PhD students. Of note, Dr. Salloum developed and directs a unique and popular graduate course covering translational cardiovascular physiology, which draws in students interested in cardiac physiology and pharmacology as well as those who plan to attend medical school at VCU and other institutions. His teaching contributions were recognized with the Outstanding Teacher Award from the Dept. of Physiology and Biophysics. Dr. Salloum directs the Pauley Heart Research Conference Series attended by graduate and medical students, residents, fellows, faculty, and community physicians. These conferences represent a learning opportunity that crosses usual boundaries and offers Continuing Medical Education credit for university and community physicians.

Dr. Salloum's record as research mentor is superb. He has successfully trained 4 PhD, 3 MD-PhD, and 5 MS students as well as serving on multiple thesis committees. He also has mentored 11 postdoctoral research associates, 14 cardiology fellows in basic research, and 14 undergraduates. Efforts with undergraduates align with VCU's OneVCU vision, and Dr. Salloum is a co-investigator and key contributor to the Pauley Heart Center's undergraduate training program that is funded by the AHA and an NIH R25, a mechanism aimed to enhance diversity in health-related research. To help other faculty mentors, he co-established the Advanced Research Mentoring Program designed to enhance mentoring in the School of Medicine. As Assoc. Chair for Research for the Dept. of Internal Medicine, his substantial, dedicated effort in successfully mentoring junior faculty seeking to conduct funded basic, translational, or clinical research was recently recognized with the Thames-Kontos Award for Outstanding Mentorship.

Discovery: Heart disease is the primary cause of death in men and women in the developed world. Dr. Salloum's research focuses on identifying the molecular and cellular mechanisms responsible for cardiac injury, inflammation, and heart failure due to myocardial infarction, type-2 diabetes and cancer chemotherapy. He developed novel strategies that prevent cardiac injury

and preserve cardiac function, and he is particularly interested in repurposing existing FDA-approved drugs and developing novel small molecules, including microRNA. The goal is to protect the heart by suppressing sterile inflammation (inflammasomes), reducing mitochondrial dysfunction, and preventing cell death and fibrosis, thereby improving cardiac function. Notably for a basic scientist, he focuses on sophisticated translational studies with clinically relevant endpoints while consistently applying rigorous and cutting-edge methods. In collaborative clinical studies, Dr. Salloum provides expertise that augments mechanistic findings.

Dr. Salloum's work on inflammation in heart disease started early in his career. He repurposed Anakinra, a recombinant IL-1Ra antagonist, and discovered it inhibited cardiac cell death after myocardial infarction by suppressing inflammation (Co-first author; *Circulation* 117:2670-83, 2008; cited 428 times). In a following co-first author paper, he showed Anakinra attenuated adverse cardiac remodeling, which leads to heart failure (*J Cardiovasc Pharmacol* 55:117-22, 2010; cited 96 times). These and his other studies set the stage for a clinical trial of Anakinra (VCU-ART), in which Dr. Salloum participated (*Am J Cardiol* 105:1371-1377, 2010; cited 435 times), and for additional collaborative mechanistic studies (*Proc Natl Acad Sci USA* 108:19725-30, 2011; cited 648 times). Citation counts for these studies document their impact.

A focus of Dr. Salloum's current effort is in the emerging field of cardio-oncology. Unfortunately, chemotherapy that successfully suppresses malignancies too often causes cardiac injury, inflammation, and subsequent development of heart failure, leading to death. A cogent example is his work on triple-negative breast cancer (TNBC), a very challenging diagnosis treated with anthracyclines such as doxorubicin with substantial dose-dependent cardiac toxicity. Dr. Salloum's studies showed activation of the NLRP3 inflammasome is key in doxorubicin-induced cardiac toxicity and that treatment with hydrogen sulfide (H₂S), a gaseous signaling molecule, attenuates inflammatory and ischemic injury. He now is studying an orally active H₂S donor that attenuates both cardiotoxicity and ventricular dysfunction in a TNBC mouse xenograft model. A phase I clinical trial showed the oral H₂S donor to be safe and tolerated in heart failure patients while reducing brain natriuretic peptide, a marker for the progression of heart failure. A foundational study by Dr. Salloum (*Circulation* 120:S31-6, 2009; cited 194 times) demonstrated that H₂S protected the heart against myocardial infarction. In a multi-Pl collaboration with a pharmaceutical partner (NIH R44 SBIR grant), a novel orally active small molecule is moving from the bench to the bedside in an active phase II pre-clinical trial co-led by Dr. Salloum.

Managing the cardiac toxicities of cancer therapy is a primary goal of Dr. Salloum's ongoing research supported by an extremely prestigious 7-year NHLBI R35 Award (\$5.433M). His is the <u>first</u> R35 awarded in the Commonwealth of Virginia from NHLBI and one of only two awarded to Virginia institutions to date. As described by NHLBI, the R35 is: "To provide long term support to an experienced investigator with an outstanding record of research productivity. This support is intended to encourage investigators to embark on long-term projects of unusual potential." — an apt description of Dr. Salloum's research contributions and innovative high-impact approaches. The R35 is unraveling how NLRP3 inflammasomes are activated by chemotoxicity or myocardial infarction, trigger adverse cardiac remodeling, fibrosis, heart failure, and its progression.

Dr. Salloum also played a central role in the development of an American Heart Association, Strategically Focused Research Network to study the effects of Chronic Psychosocial Stressors on CV Health that is led by VCU (center award: \$4.8M; 2023-2027). This multi-institution (VCU and Wake Forest) center includes basic and clinical investigators. In keeping with his central theme, Dr. Salloum, PI of Project 1, addresses the impact of chronic psychosocial stress, a population-specific variable, and inflammation on cardiac function following chemotherapy.

Another area of innovation is Dr. Salloum's work on relaxin (pregnancy hormone) and relaxin receptor agonists as novel therapeutic approaches for cardiac ischemia and heart failure. In an

impactful paper, Dr. Salloum found reperfusion with serelaxin, a recombinant human relaxin-2 peptide, reduced myocardial infarct size and subsequent NLRP3 inflammasome activation that otherwise causes further loss of functional myocardium (*Cardiovasc Res* 113, 609-19, 2017; cited 102 times; denoted "Editor's Choice" and highlighted by an invited editorial). He further found that a selective relaxin receptor-1 agonist reduced adverse cardiac remodeling that leads to heart failure. Working with an MD-PhD student, he demonstrated that overexpression of relaxin receptor-1 by a gene therapy approach reduced infarct size and preserved cardiac function in an ischemic injury model. These studies lay the groundwork for future clinical trials utilizing relaxin agonists as potential therapies for ischemic injury and heart failure. His work also has extended the utility of an FDA-approved drug, Entresto. Dr. Salloum showed the drug was effective in preventing ventricular remodeling after myocardial infarction, reducing myocyte loss and preserving ventricular function in a preclinical model (*J Am Coll Cardiol* 72: 2342-56, 2018; cited 97 times). This paper was accompanied by an invited editorial and covered in *MedPage Today* and *ACC News Digest*, medical media that provide important updates to practicing physicians.

The exceptional success and influence of Dr. Salloum's scholarly efforts can be objectively assessed. His CV lists **124 peer-reviewed original works** that are published in leading journals in his field and multidisciplinary journals including *Circulation*, *Circ Cardiovasc Genet*, *Circ Research*, *Hypertension*, *Proc Natl Acad Sci U S A*, *J Am Coll Cardiol*, *JACC CardioOncol*, *JACC Basic Transl Sci*, *Eur J Heart Fail*, *J Am Heart Assoc*, *Cardiovasc Res*, *Am J Physiol-Heart Circ Physiol*, *J Pharmacol Exp Ther*, *Br J Pharmacol*, and *J Cardiovas Pharmacol* as well as **127 abstracts presented at scientific meetings**, and a number of book chapters. His scholarship already has garnered over **12,000 citations** (H-index 61; i-10 108; *Google Schol*ar; accessed 9/18/24) with 42 papers cited more than 100 times and 16 more than 200 times. This represents a truly remarkable level of scientific productivity and impact for an individual who's **first faculty appointment** was in 2009, only 15 years ago.

Further evidence of exceptional research achievements, quality and innovation is Dr. Salloum's history of extramural funding from NIH and AHA. He has been funded continuously since 2010 as Principal Investigator (PI) and as PI on multi-PI (MPI) awards that bring together cross-disciplinary expertise. Dr. Salloum has been awarded \$18,836,182 as PI or MPI and an additional \$8,029,719 as Co-I (Co-Investigator; Key Personnel), a total of \$26,865,901 since 2010. These totals predominantly reflect NIH funding but include awards from the AHA and smaller amounts from pharmaceutical industry. Since joining the faculty, Dr. Salloum has been PI or MPI on 13 extramural grants, Co-I or Sponsor of 7, and another MPI grant is pending.

The high regard for Dr. Salloum's scholarly contributions by colleagues is documented by his election as a Fellow of the American Heart Association (FAHA) by the Council on Basic Cardiovascular Sciences (BCVS) in 2011 and election as a Fellow of Cardiovascular Section of the American Physiological Society (FAPS) in 2017. Early-stage recognition includes: American Heart Association Young Investigator Award; Elizabeth Fries Young Investigator Award, Clinical; (Honorable Mention); and the American Association for the Advancement of Science, Excellence in Science Award. In addition, he received Distinguished Research and Excellence in Scholarship & Research Awards from the VCU Department of Internal Medicine.

Knowledge Integration: Integration of knowledge gained from his discoveries is inherent in Dr. Salloum's extensive research mentorship efforts and in his team teaching in professional and graduate courses that are centered on the cutting-edge research he conducts. Another example of integration is his development of the translational cardiovascular research course that integrates for students his work with that of other VCU translational faculty. On a national and international level, he serves on the AHA BCVS Specialty Conference Program Committee that organizes scientific meetings and decides how best to present state-of the-art information,

including related to his own work, across the disciplines of attendees. Dr. Salloum was Co-Organizer and Co-Chair of the Basic/Translational Science Symposium, 2023 Global CardioOncology Summit in Madrid. This symposium integrated a range of basic perspectives across disciplines with clinical approaches and will be repeated at future meetings. His invited opening lecture entitled "Optimizing Bidirectional Collaboration between Basic/Translational Research and Clinical Medicine in CardioOncology" emphasizes integration of knowledge. He also was Co-Organizer and Co-Chair of the inaugural HFpEF (heart failure with preserved ejection fraction) Summit in 2019, which was held again in New Orleans in 2023. Again, this was an effort to integrate cross-disciplinary findings, including his own, and improve therapy for a poorly understood type of heart failure with very limited treatment options. Plans for the 2025 HFpEF Summit are currently underway.

Service: Given Dr. Salloum's extensive efforts in other domains, his exceptional service is remarkable and reflects a career-long commitment to contribute and a recognition by colleagues of his astute thinking and his ability to clearly articulate goals and effectively manage complex and sensitive issues. His input is constantly sought at VCU and by the scientific community.

Dr. Salloum has taken on major administrative roles at VCU. He is Interim Chair, Physiology & Biophysics; Assoc. Chair for Research, Internal Medicine; Assoc. Dir. for Research Mentoring & Preclinical Science, Pauley Heart Center; and completed 5 years on the MD-PhD Program Steering Committee. His service typically centers around his research, teaching and training expertise, such as on the Research Advisory Committee for VCU Center of Clinical & Translational Research; VCU Wright Scholar MD-PhD Student Research Committee (Chair); and the VCU Animal Care and Use Program Advisory Committee. The SOM leadership selected Dr. Salloum to play a critical and delicate role in SOM strategic planning for research as Co-Chair of the Basic Health Sciences Reimagining Committee and as a member of both the Strategic Research Priorities Plan Implementation Committee and Research Space Review Task Force. Furthermore, he was appointed to the Search Committee for the SOM Deanship.

Consistent with international recognition for scholarship, Dr. Salloum has been invited to take on roles on editorial boards. He serves as: Assoc Editor, *Frontiers in Cardiovascular Medicine*; Assoc. Editor, *CardioOncology*; as an editorial board member of 4 other journals; and as a manuscript reviewer for more than 45 international cardiovascular and cross-disciplinary journals. Professional service and recognition of scientific expertise also is reflected in his repeated recruitment as a grant reviewer for NIH, AHA, NSF, several foreign grant agencies and for VCU. Highlights include extended service on NIH study sections, the Vascular & Hematology Special Emphasis Panel, Collaborative Projects to Accelerate Research in Organ Fibrosis Panel, the Academic Research Enhancement Award Program, and the NIH Director's New Innovator Award Program. For AHA, Dr. Salloum co-Chaired Cardiac Biology Regulation peer review for many years and served on the AHA Innovative Research and the Heart Failure Strategically Focused Research Network review panels. For VCU, he manages the Pauley Heart Center's Pilot Grant program and serves on the VCU Center of Clinical & Translational Research Advisory Committee.

In the lay community, Dr. Salloum shares with local AHA supporters and volunteers the impact of their efforts on cardiovascular research and education in Virginia. He provides connectivity that is invaluable in communicating with AHA donors about the needs and opportunities that will lead to the next treatment breakthroughs. Dr. Salloum also enjoys serving the local community by assisting in fundraising and other activities organized by Saint Anthony Maronite Catholic Church as well as churches and charitable organizations in Lebanon. He and his family also volunteer at the annual Lebanese Food Festival hosted by the church every May.

PERSONAL STATEMENT

I was born and raised in Beirut, Lebanon, during the brutal civil war. I learned very early in life how vulnerable we are as human beings. I also truly learned to appreciate the value of good health, safety, and stability in life. I was fortunate to attend an exceptional American school from kindergarten through high school, despite constant interruptions due to the war. Experiencing such instability while growing up and trying to dream and determine future aspirations had mixed effects on me. The environment was distracting and disruptive by negatively impacting learning during critical phases of development, but, on the other hand, with the help and support of very loving parents, family and friends, it fostered heightened resilience and a more focused approach regarding the next steps in life. Such adversities ignited a greater determination to keep searching for ways to make dreams happen -- my dreams and dreams of others.

Since childhood, I was fascinated by the heart, even when I still did not understand or appreciate its complexities. That sense of curiosity grew further in middle school and high school. I was truly blessed with amazing teachers who were committed and cared about their students. One common approach among my teachers was to ensure understanding rather than solely preparing students for exams. In particular, one 10th grade math teacher stood out by teaching students how to "visualize" math in order to master it. I was very inspired by his approach and excelled in his class. He encouraged me to help other students for two reasons: 1) to be a good citizen who offers support to peers; and 2) teaching will only further my understanding. The importance of helping others and the recognition that clarifying a complex topic for students can elucidate my own thinking are lessons learned that I still apply every day.

By the time I enrolled at the American University of Beirut (AUB), I felt compelled to help my broader community. I joined the Lebanese Red Cross and served as a volunteer at the AUB Medical Center's Emergency Department. These two experiential opportunities were immensely eye-opening. I was able to see first-hand and better appreciate how difficult daily life was for many in Beirut. I continued these commitments throughout my university education and added a few more activities, including reading to visually impaired students at AUB (support for individuals with disabilities was nowhere near what it is in the USA, especially back in the 1990s). With more education and service, my passion and love for healthcare and interest in the heart and heart disease continued to grow. It became clear, to reach my potential and achieve my dreams, I would need to attend graduate or professional school in the USA.

While completing a mandatory year of military service in the Lebanese army, I applied to several US universities, including VCU's School of Medicine. I already knew about VCU and had read about Dr. Lower, after whom the surgical technique for heart transplantation was named. After joining VCU's graduate Certificate Program, I discovered the tremendous opportunities and resources that are available. Quickly, I fell in love with research and was excited by what I learned about the heart and heart disease in physiology courses, seminars, independent reading and in the laboratory. My journey took off quickly with my first publication within a year, my first national oral presentation at the American Heart Association within 3 years, and continued growth and recognition in the field of ischemic heart disease (heart attack). I completed my PhD in Physiology at VCU in 2005 and decided to stay to pursue postdoctoral training in the Division of Cardiology. As a postdoctoral fellow, I elected to attend all clinical cardiology conferences alongside clinical fellows, which provided me with an excellent understanding of critical questions and challenges faced in clinical cardiology. It greatly strengthened my ability to design and execute translational studies that met the expectations of the basic and clinical sides to effectively integrate knowledge.

Experiences in these early years provided examples that greatly influenced my development as a researcher and as a teacher and mentor, if you will, my philosophy. It became clear that

teaching (and mentoring) must aim to achieve understanding with a thoughtful but rigorous coverage of material appropriate for the level of the course. The goal must be to inspire the stronger as well as the weaker student, while not watering down content. I have found one-on-one discussions are effective to achieve student understanding and provide insight into what was inadequately presented in class. To encourage these interactions and because a key objective is to serve our students, I have always maintained an open-door policy rather than restricting my availability to limited office hours. In the classroom and in the laboratory, students and trainees need to learn by doing and must be given room to develop their own ideas and understanding. Of course, this requires support and encouragement. When approached by students searching for potential research mentors, my initial meeting tends to be lengthy to allow effective bidirectional communication and aligning expectations. I consider mentorship a lifelong relationship and therefore appropriate mentor-mentee pairing should be conducted carefully. Since mentoring skills require constant sharpening, I completed the Entering Mentoring Facilitator Training and Culturally Aware Mentoring workshop aiming to diversify the biomedical workforce hosted by the Center for Improvement of Mentored Experiences in Research and continue to promote mentor training at VCU through our Advancing Research Mentoring (ARM) Program that I co-established with colleagues in the School of Medicine.

Given my strong collaboration with members of the Division of Cardiology and the Dept. of Physiology, I was invited to participate in teaching in a cardiovascular course under the supervision of the course director. I was the only postdoctoral fellow to be given such an amazing opportunity. My lectures were very translational and strongly communicated the clinical relevance of basic cardiac signaling in health and disease. After joining the cardiology faculty, I had excellent teaching opportunities based on performance and student feedback while a postdoctoral fellow. This was very exciting to me as I love teaching students at different levels, spanning from undergraduate (including medical) to graduate and postdoctoral trainees. My involvement in key School of Medicine courses reinforced the importance of teaching by research content experts who maintain up-to-date information regarding their subject matter.

Since starting my independent research program in 2009, I have focused on cardioprotective approaches that suppress inflammation and mitochondrial dysfunction that lead to heart failure. My interest in broadening my research scope grew further following success in garnering extramural funding and gaining international recognition from experts in the field. Heart disease continues to hold its place as the No. 1 killer of both men and women worldwide with new forms of heart disease continuously evolving. Although cardiotoxicity caused by certain FDA-approved chemotherapies was described 5 decades ago, cardio-oncology as a field was formally recognized in 2009 when the International CardioOncology Society (ICOS) was formed. The society hosts a global summit annually to bring international experts in cardiology and oncology together. At the 2023 Summit in Madrid, I co-organized the inaugural Research Symposium, in which I was honored by presenting the opening talk and leading a simultaneous publication on the proceedings of the symposium in the premier cardio-oncology journal; *JACC CardioOncology* (Impact factor: 12). Serving this field in such an impactful capacity to foster more partnerships and collaborations represents a dream come true.

I have been fortunate to learn, collaborate, lead, teach, and mentor. My perspective on each of these tasks has evolved immensely over the years. Learning requires humility and can be reinforced with teaching. Collaborating is key to success in research. Mentorship is bidirectional and there is much to be learned from mentees. Mentors should also consider learning 'what not to do' based on experiences that they found unpleasant as mentees. When it comes to teaching, mentoring, serving, or conducting research to improve healthcare, it is imperative to be kind, generous, honest and selfless and to perform these tasks for the right reasons. "It is amazing what you can accomplish if you do not care who gets the credit" – Harry S. Truman.

ABBREVIATED CURRICULUM VITAE

EDUCATION:

1996 Bachelor of Science in Biology, American University of Beirut 2005 Doctor of Philosophy in Cardiovascular Physiology, VCU

PROFESSIONAL APPOINTMENTS:

2024 – Present	Interim Chair, Department of Physiology & Biophysics (as of April 1st)
2022 - Present	Associate Director of Research & Mentoring, Pauley Heart Center
2020 - Present	Associate Chair for Research, Department of Internal Medicine – VCU
2020 - Present	Professor of Medicine (with Tenure) and Physiology & Biophysics, VCU
2018 - Present	Natalie N. & John R. Congdon Sr. Endowed Chair, Pauley Heart Center
2015 – 2020	Associate Professor of Medicine/Cardiology (with Tenure) and
	Physiology & Biophysics, VCU. Tenure conferred in 2018
2009 – 2015	Assistant Professor of Medicine and Physiology & Biophysics, VCU
2005 – 2008	Postdoctoral Fellow, Division of Cardiology, VCU

SELECTED HONORS AND AWARDS:

2024	Top Scholar designation by ScholarGPS – Top 0.5% of all scholars worldwide
2023	Co-Organizer and Co-Chair – Inaugural Basic/Translational Science
	Symposium; 2023 Global CardioOncology Summit (GCOS) – Madrid, Spain
2021	Thames-Kontos Mentoring Award for Outstanding Mentorship – VCU
2021	Awarded NHLBI R35 Grant – 1 st of its kind in the Commonwealth of Virginia
2020	Excellence in Scholarship Award; Dept. of Internal Medicine, VCU
2019 – Present	Co-Organizer and Co-Chair – Inaugural HFpEF Summit – New Orleans, LA
2018	Excellence in Professional Service Award; Dept. of Internal Medicine; VCU
2017	Elected Fellow of Cardiovascular Section of American Physiological Society
2016	Distinguished Research Award – Department of Internal Medicine – VCU
2016	Outstanding Teacher Award – Department of Physiology & Biophysics – VCU
2014	Awarded Grant-in-Aid – AHA (14GRNT20010003) at the 1st percentile
2013	Eric Olson Orations in Cardiovascular Sciences; Finalist. International
	Academy of Cardiovascular Sciences
2011	Elected Fellow of the American Heart Association
2008	Elizabeth Fries Young Investigator Award – Clinical Honorable Mention
2008	American Association for the Advancement of Science; Excellence in Science
2005	American Heart Association Young Investigator Award

SELECTED PUBLICATIONS (124 TOTAL, H-INDEX: 61, TOTAL CITATIONS: 12,075):

- Torrado J, Cain C, Mauro AG, Romeo F, Ockaili R, Chau VQ, Nestler JA, Devarakonda T, Ghosh S, Das A, Salloum FN. Sacubitril/Valsartan Averts Adverse Post-Infarction Ventricular Remodeling and Preserves Systolic Function in Rabbits. *J Am Coll Cardiol*. 2018;72:2342-56. PMID: 30384891. Note: featured in MedPage Today and ACC News Digest. (97 citations; journal impact factor: 21.7)
- 2. Valle Raleigh J, Mauro AG, Devarakonda T, Marchetti C, He J, Kim E, Filippone S, Das A, Toldo S, Abbate A, Salloum FN. Reperfusion therapy with recombinant human relaxin-2 (Serelaxin) attenuates myocardial infarct size and NLRP3 inflammasome following ischemia/reperfusion injury via eNOS-dependent mechanism. Cardiovasc Res. 2017;113:609-19. PMID: 28073832. Note: Marked as the Journal's Editors' Choice and highlighted in an invited editorial. (102 citations; impact factor: 10.2)

- 3. Toldo S, Das A, Mezzaroma E, Chau VQ, Marchetti C, Durrant D, Samidurai A, Van Tassell BW, Yin C, Ockaili RA, Vigneshwar N, Mukhopadhyay ND, Kukreja RC, Abbate A, **Salloum FN**. Induction of MicroRNA-21 with Exogenous Hydrogen Sulfide Attenuates Myocardial Ischemic and Inflammatory Injury in Mice. *Circ Cardiovasc Genet*. 2014;7:311-20. PMCID: PMC4090021. (131 citations; impact factor: 4.5)
- 4. Mezzaroma E, Toldo S, Farkas D, Seropian IM, Van Tassell BW, **Salloum FN**, Kannan HR, Menna AC, Voelkel NF, Abbate A. The inflammasome promotes adverse cardiac remodeling following acute myocardial infarction in the mouse. *Proc Natl Acad Sci U.S.A.* 2011;108:19725-30. PMCID: PMC3241791. **(648 citations; impact factor: 11.1)**
- 5. Abbate A*, **Salloum FN***, Vecile E*, Das A, Hoke NN, Straino S, Qureshi IZ, Ownby ED, Gustini E, Biondi-Zoccai GL, Biasucci LM, Severino A, Capogrossi MC, Vetrovec GW, Crea F, Baldi A, Kukreja RC, Dobrina A. Anakinra, Recombinant Human IL-1 Receptor Antagonist, Inhibits Apoptosis in Experimental Acute Myocardial Infarction. *Circulation* 2008;117:2670-83. * Equal Contribution. **(428 citations; impact factor: 35.5)**

FUNDING RECORD:

- 13 extramural awards (10 as PI and 3 as MPI) totaling \$18.8M
- 7 extramural awards as Co-Investigator (Key Personnel) totaling \$8.0M
- Awarded the 1st highly prestigious R35 grant from NHLBI in the Commonwealth of Va
- Research program continuously funded since 2010
- Major sources of funding include the NIH and the American Heart Association

TEACHING:

- Mentored 4 PhD students (1 current), 3 MD-PhD students (2 current), 5 Masters students, 11 postdoctoral fellows (2 current), 14 cardiology fellows in research, and 14 undergraduate students (2 current)
- Lecture in 6 graduate, 1 medical, 1 dental course including 2 for MD-PhD students
- Highly rated professor based on teaching in graduate courses and medical school
- Restructured a graduate course by adding relevant clinical applications to help students understand the 'big picture' of the material covered. This team-taught course is very appealing to premedical students and those interested in cardiovascular medicine
- Received the Outstanding Teacher Award from the Dept. of Physiology & Biophysics

SELECTED PROFESSIONAL SERVICE:

Associate Editor; CardioOncology (official ICOS society journal)
Co-Chair: Basic Health Sciences Reimagining Committee for the SOM
Elected to the Faculty Senate; Virginia Commonwealth University
Grant Reviewer – American Heart Association Innovative Project Award
AHA's BCVS Specialty Conference Program Committee Member
Associate Director of Research & Mentoring, Pauley Heart Center
Co-organized Advanced Research Mentoring to "train the trainers" for
research mentors in the School of Medicine – serve as facilitator
Co-organizer of the premier Heart Failure with preserved Ejection
Fraction (HFpEF) Summit, bringing together a faculty of internationally
leading clinicians and scientists to investigate a complex disease that has
emerged as a major unmet need with very limited treatment options
Reviewer or co-chair for numerous national and international funding
organizations, including NIH, NSF, AHA, Swiss National Foundation,
ZonMw's TOP Programme (Netherlands), etc.

EXCERPTS FROM LETTERS OF SUPPORT

Fotis Sotiropoulos, Provost and Senior Vice President for Academic Affairs, VCU: The Natalie N. and John R. Congdon Sr. Endowed Chair, Pauley Heart Center, Dr. Fadi Salloum is a stellar scholar in translational research on protecting the heart from injury. Since 2010, he has been awarded over \$25M in funding from the National Institutes of Health, the American Heart Association and industry. Research in Dr. Salloum's laboratory and collaborative efforts are focused on identifying the molecular and cellular mechanisms responsible for cardiac injury, inflammation, and heart failure due to myocardial infarction, type-2 diabetes and cancer chemotherapy. He developed novel cardioprotection strategies that prevent cardiac injury and maintain or restore cardiac function, and he is particularly interested in repurposing existing FDA-approved drugs, novel small molecules, and microRNA. In addition to this innovative research, Dr. Salloum is an exceptionally effective classroom teacher who is beloved by students and consistently receives superb evaluations. He teaches medical and dental students, in several graduate courses, and in interdisciplinary courses for PhD and MD-PhD students. Of note, Dr. Salloum has developed and now directs a unique and popular graduate course covering translational cardiovascular research. This course draws in students interested in cardiovascular physiology and pharmacology and those planning to attend medical school at VCU and elsewhere. We are truly proud of Dr. Salloum's dedication and accomplishments.

Art Saavedra, MD, PhD, MBA, Dean, VCU School of Medicine: I enthusiastically support the nomination of Dr. Fadi Salloum for the State Council of Higher Education for Virginia (SCHEV) Outstanding Faculty Award ... he has been deeply involved in the education and development of students at all levels ... He is actively promoting mentorship training at VCU through the Advancing Research Mentoring (ARM) Program, which he helped co-establish ... Dr. Salloum's research contributions are both extensive and impactful ... He leads a multidisciplinary research program ... [that] profoundly impacted the field.... Dr. Salloum excels in integrating knowledge across disciplines. His translational approach to teaching and research bridges the gap between basic science and clinical practice.... His work on the Reimagining Basic Health Science Committee further illustrates his commitment to fostering collaboration and integration across the basic science programs, as well as the clinical departments and service lines. Dr. Salloum's service to VCU and the broader scientific community is exemplary.

Jerome F. Strauss III, MD,PhD, Former Dean, VCU School of Medicine, Member National Academy of Medicine: Dr. Salloum played a major role in the development of translational research on cardiovascular disease, which helped VCU win the first Clinical and Translational Science Award (CTSA) from the NIH to a medical school in Virginia. This was the largest grant ever awarded to VCU, and it was secured in large part because of collaboration between two major endowed programs at VCU, the Pauley Heart Center and the Massey Cancer Center.... Cross-disciplinary research in cardiac toxicity of commonly used chemotherapy was also a major factor in Massey gaining Comprehensive status as a NCI-funded Cancer Center. These two Centers of Excellence are important points of pride for VCU.

Patricia Sime, MD, Chair, Department of Internal Medicine, VCU: Dr. Salloum's research expertise and accomplishments are matched by his dedication and success as a mentor and leader of mentorship programs. He is a passionate believer in giving back and training the next generation ... played prominent roles in organized mentorship in the DOIM as Associate Chair for Research and the Pauley Heart Center as Associate Director of Research Mentoring.

Joseph C Wu, MD,PhD, Dir., Stanford Cardiovascular Institute, Stanford University; Member National Academy of Medicine; Past President, American Heart Association; colleague: [When] I met Dr. Salloum ... I was mostly captivated by his inclination toward clinical and translational research and his knowledge of clinical cardiology as a PhD faculty member.... He has performed seminal work ... Dr. Salloum's talents in integrating scientific knowledge and developing fruitful partnerships with pharmaceutical companies to enhance drug

discovery/development is impressive.... [He] partnered with Novartis Pharmaceuticals to work on their now FDA-approved heart failure drug (Entresto).... [His] research has been noticed nationally and internationally.... [He] co-organized the inaugural Basic and Translational Science Symposium at the International CardioOncology Society's Global Summit in 2023 ... was able to introduce a much-needed aspect of research with mechanistic viewpoints to this summit.

Clive Baumgarten, PhD, VCU Professor Emeritus and former Chair, Physiology & Biophysics: Dr. Salloum always sought out teaching opportunities. An exceptionally engaging, enthusiastic and effective classroom teacher in preclinical medical and dental courses and in multiple graduate physiology, interdisciplinary, and MD-PhD courses, he is beloved and consistently given top ratings by students. He is an extraordinarily effective and sought-after research mentor for MD-PhD, PhD, MS students and clinical fellows and has successfully mentored several of our undergraduates, "Making it Real" in research. In 2014 Fadi developed and has since directed a unique and popular graduate course on translational approaches in cardiovascular research, an appealing focus for those interested in cardiovascular research.

L. Ashley Cowart, PhD, VCU Professor of Biochemistry & Molecular Biology; collaborator and colleague: In each of the award areas, mentoring, research, and service, Fadi has gone above and beyond in a way that has not only accelerated his successful career, but has lifted up his trainees through outstanding mentorship, and benefitted his colleagues, Pauley Heart Center, and the institution as a whole through [h]is devoted service.

Teja Devarakonda, MD,PhD, Resident, Northwestern Feinberg School of Medicine; former trainee: Since day one, Dr. Salloum had an open-door policy, and was always available to guide me as I was beginning to set out on my own scientific journey. He championed independent thought and creativity and encouraged his trainees to develop their own scientific acumen. He always prioritized the interests and well-being of his trainees and found the right balance between instituting scientific rigor and granting the freedom for trainees to pursue research in a self-directed manner.... he is always invested in pursuing projects and ideas that have a true translational impact and can directly affect clinical care.... One of his most exemplary traits [is] his ability to collaborate with experts across multiple disciplines and lead complex projects.

Vinh Q. Chau, MD, Advocate Heart Institute, Oak Lawn, IL; former trainee: He meticulously taught me the research process from lab procedures to study design, from data analysis to writing a manuscript. His passion encouraged me to develop an original project, which became my [VCU undergrad] Biology Honors thesis.... mentorship continued when I return[ed] to VCU for Cardiology fellowship ... Heart failure (from the physiology to clinical care) made sense to me.... A distinctive characteristic is [his] willingness to go out of his ways to help trainees.

Nigeste Carter, 4th year PhD Candidate, VCU; current trainee: Dr. Salloum maintains an atmosphere that fosters learning, collaboration, and a high level of productivity conducive to the development of his trainees.... [He] makes mentoring trainees a high priority. He has an open-door policy, allowing me to drop in for quick, informal meetings to discuss results, ask questions, and seek guidance for research and professional development. He regularly encourages his trainees to further their careers by applying for grants, submitting abstracts to present at national and international conferences, and publishing.

Michelle Nostheide, Executive Director, American Heart Association of Central Virginia; community leader: We love when Dr. Salloum shares with our local supporters ... the impact of his work on the field and in supporting his research teams is immeasurable ... He has participated as an AHA grant reviewer and study section member for years.... [and] engaged with our team on the local level, attending Heart Walks and Heart Balls and helping us tell the story of important research happening right in our back yard. He has provided a connectivity to the academic and research side of our work that has proven invaluable in communicating to our donors both the need, and the opportunity, for the next breakthrough that will prevent and treat heart disease.... We are very proud to have such an esteemed and accomplished educator, researcher and volunteer.