

# Curriculum Vitae

## JONATHAN S. STAMLER

Jonathan S. Stamler, MD is an American physician-scientist known for the discovery of protein S-nitrosylation, a global post-translational modification of proteins that is widely involved in both physiology and disease. Stamler is also known for a track record of innovation and entrepreneurship as a founder of institutes, biotechnology companies, medical societies, innovation platforms and impact investment funds. He has co-authored close to 400 manuscripts, books and chapters, and 225 patents, and has been recognized with multiple awards. Companies he founded have advanced multiple drugs in clinical trials, including 2 FDA approved products. His work has been covered in numerous lay publications, including the front page and science sections of the New York Times, as well as Time Magazine and The Economist, in books on the history of science, and in works on outlier innovators.

### Current Address

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**Citizenship**      United States

### Education

1981	B.A.	Brandeis University, Boston, MA
1985	M.D.	Mount Sinai School of Medicine, New York, NY

### Postdoctoral Training

#### Internship and Residency

1985-1986	Internship, Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, MA
1986-1987	Resident, Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, MA
1987-1988	Resident, Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, MA

#### Fellowships

1985-1989	Clinical Fellow in Medicine, Harvard Medical School, Boston, MA
1988-1989	Clinical Fellow in Medicine (Pulmonary Medicine), Brigham and Women's Hospital
1989-1993	Research Fellow in Medicine, Harvard Medical School
1989-1993	Clinical/Research Fellow in Medicine (Cardiovascular Medicine), Brigham and Women's Hospital, Boston, MA and West Roxbury V.A. Medical Center, West Roxbury, MA

### Licensure and Certification

1985	Massachusetts Registration # 57936
1988	American Board of Internal Medicine

1991	American Board of Pulmonary Disease # 118996
1993	Cardiovascular Disease (board eligible)
1993	North Carolina Registration /License # 9400364
2010	Ohio License/Registration # 095246

**Current Medical Licensure:**

Licensed:	North Carolina
Licensed:	Ohio

**Academic Appointments:**

1993	Instructor in Medicine, Harvard Medical School, Boston, MA
1993	Assistant Professor in Medicine, Harvard Medical School
1993-1994	Associate Professor in Medicine and Assistant Professor of Cell Biology, Duke University
1995	Associate Professor in Medicine, Assistant Professor of Cell Biology and Adjunct Faculty Member of Toxicology, Duke University
1996-2009	Professor of Medicine, Duke University
1997-2005	Investigator, Howard Hughes Medical Institute
1999-2009	Professor of Biochemistry, Duke University
2004-2009	George Barth Geller Professor for Research in Cardiovascular Diseases, Duke University Medical Center
2009-present	Robert S. and Sylvia K. Reitman Family Foundation Distinguished Chair in Cardiovascular Innovation, Case Western Reserve University and University Hospitals
2009-present	Professor of Medicine, Case Western Reserve University
2009-present	Professor of Biochemistry, Case Western Reserve University
2009-present	Founding Director, Institute for Transformative Molecular Medicine, Case Western Reserve University and University Hospitals
2010-present	Adjunct Professor of Medicine and of Biochemistry, Duke University
2012-2016	Founding Director, Harrington Discovery Institute, University Hospitals, Cleveland
2016-present	President, Harrington Discovery Institute, University Hospitals Case Medical Center
2024-present	Distinguished University Professor, Case Western Reserve University

**Hospital Appointments:**

1991	Associate Physician, Brigham and Women's Hospital, Boston, MA
1993-2009	Associate Physician, Duke University Medical Center, Durham, NC
2010-present	Staff Physician, University Hospitals of Cleveland, Cleveland, OH
2015-2016	Vice President, University Hospitals of Cleveland, Cleveland, OH
2016-	President, University Hospitals of Cleveland, Cleveland, OH

**Other Professional Appointments**

1992	Visiting Scholar, Duke Marine Biomedical Center
2010-	Adjunct Professor, Duke University

**Major Research Interests**

Protein S-nitrosylation  
 Biology of nitric oxide in health and disease  
 Biochemistry and function of sulfhydryls

**Awards and Honors**

1981	Phi Beta Kappa, Magna Cum Laude
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- 1983 Parkinson's Disease Foundation Grant
- 1989 American Heart Association Fellowship Grant-in-Aid (declined)
- 1989 Individual NRSA (NIH)
- 1991 Clinical Investigator Award (NIH)
- 1992 Pew Scholar Nominee, Harvard Medical School
- 1993 Henry Christian Award for Excellence in Research
- 1993 Pew Scholar in the Biomedical Sciences
- 1995 Election to the American Society of Clinical Investigation
- 1996 Nominated for Giovanni Lorenzini Prize for Biomedical Research
- 1997 Howard Hughes Medical Institute Investigator
- 1997 Literature Award, Society of Cosmetic Chemistry
- 1998 Elected to the Association of American Physicians
- 1999 Eminent Scientist of the Year, International Research Promotion Council
- 2000 Stanley J Korsmeyer Award Finalist (ASCI Award Finalist)
- 2001 Outstanding Investigator Award in Basic Science, American Federation for Medical Research Foundation
- 2002 Saul Horowitz Memorial Award for outstanding scientific contribution, Mount Sinai School of Medicine
- 2002 Alpha Omega Alpha, Lambda Chapter, Mount Sinai School of Medicine
- 2003 Sandler Award (for asthma research)
- 2003 The Ruth and A. Morris Williams, Jr. Faculty Research Prize, Duke University
- 2004 Named the George Barth Geller Professor for Research in Cardiovascular Diseases, Duke University
- 2006 The Ewing Marion Kauffman Foundation, "Top Innovators in America"
- 2008 Robert J Lefkowitz Innovation Award
- 2009 Coulter Translational Partnership Research Award
- 2013 Honorary Fellow of the American Heart Association
- 2013 AHA Distinguished Scientist Award
- 2014 Crain's Power 150 (NE Ohio)
- 2014 Team NEO Award
- 2017 Jacobi Medallion for contributions to the field of medicine, Mt Sinai Medical Center, NY
- 2017 Crain's Who's Who in Northeast Ohio
- 2020 Outlier Innovator (<http://pubsonline.informs.org/journal/orisc> ISSN 1047-7039 (print), ISSN 1526-5455). Kneeland MK, Schilling MA, Aharonson BA. *Organization Science* 2020; 31, 535–557
- 2021 Innovation Model Award, Harrington Project (External Accelerator; J Commercial Biotech)
- 2022 Lifetime Achievement Award, International Society for Nitric Oxide and Cancer/Danish Cancer Society, Copenhagen
- 2023 Lahiri-Cherniak Award Lecture/ Experimental Biology (Am Physiol Society) for contributions to hypoxia research.
- 2023 Maurice Saltzman Award (for medical contribution), Cleveland
- 2023 National Academy Inventors
- 2024 Distinguished University Professor
- 2024 Research Day Mentor Award for exceptional faculty mentorship
- 2024 Innovation Inventor Award, CWRU

### Organizational Awards

- 2021 Innovation Model Award (External Accelerator; J Comm Biotech)

2024 Synergy for Change Award (Harrington Discovery Institute and Morgan Stanley)

### Professional Societies

1985 American Medical Association  
 1985 Massachusetts Medical Society  
 1989 American Heart Association  
 1990 American College of Cardiology  
 1990 American Federation for Medical Research  
 1992 American Association for the Advancement of Science  
 1993 North Carolina Medical Society  
 1995 American Society for Biochemistry and Molecular Biology  
 1995 American Society for Clinical Investigation  
 1996 American Thoracic Society  
 1996 Nitric Oxide Society (co-founder)  
 1998 Association of American Physicians  
 2006 The Robert F. Furchgott Society

### Major Academic Assignments

1992 Board of Directors, Nitromed, Inc.  
 1993 NHLBI Workshop - Inhaled NO as a Therapeutic Modality (Maryland)  
 1993 Scientific Advisory Board - Third International Meeting. Biology of Nitric Oxide (Koln, Germany)  
 1994 FASEB/ASPET Chair, Symposium: Novel Aspects of NO Biology (Anaheim, California)  
 1994 Scientific Chairman, Fourth International Meeting, Biology Nitric Oxide (Amelia Island, USA, 1995)  
 1995 NIH Consultant: Hemoglobin Based Blood Substitutes (RFA)  
 1995 Basic Science Task Force, Duke University Medical Center  
 1996 NIH Subcommittee: Review of Cellular and Molecular Mechanisms of Asthma (RFA)  
 1996 Co-founder: Society of NO Biology  
 1996 NIH Consultant: Current Approaches to the Treatment of Sickle Cell Disease  
 1996 Division of Pulmonary and Critical Care Medicine at Duke University, Chief Search Committee  
 1997 Scientific Committee: 2nd International meeting on O<sub>2</sub>/N radicals and cellular injury  
 1997 AHA subcommittee for scientific sessions  
 1997 NIEHS Search Committee, Chief of the Laboratory of Pulmonary Pathobiology  
 1997 Internship Applicant Selection (Interviews)  
 1997 Executive Committee, Toxicology Program, Duke University  
 1998 ASPET Chair, Symposium: Apoptosis and redox systems  
 1998 Advisory Committee, 3rd International Conference, Biochemistry and Molecular Biology of Nitric Oxide  
 1998 Division of Endocrinology at Duke University, Chief Search Committee  
 1998 NIEHS Search Committee, Director of Lung Research  
 1998 NIH Adhoc Committee: Bacteriology and Microbiology  
 1998-1999 American Cancer Society Institute Review Grant Committee  
 1999 NIH Consultant, Cellular Biology and Physiology (Ad hoc)  
 1999 Division of Pulmonary and Critical Care Medicine at Duke University, Chief Search Committee  
 1999 NHLBI Consultant, Cardiovascular Ad Hoc  
 1999-2009 Steering Committee-Academic Initiatives, Duke University Medical Center

- 1999 Committee for Translational Medicine, Duke University Medical Center
- 1999 Co-Chair, Task Force for Basic Research, Duke University Medical Center
- 1999 Planning Group on Science and Engineering, Office of the Provost, Duke University
- 1999 Awards Committee, Office of the Dean, School of Medicine, Duke University
- 2000 Burroughs-Wellcome Awards Nominations Committee, Duke University Medical Center
- 2000 Search Committee for the Vice Chancellor for Academic Affairs and Dean of the School of Medicine, Duke University Medical Center
- 2000 Ad Hoc Reviewer, National Science Foundation/organic chemistry
- 2000 Scientific Advisory Board, Arginox
- 2001 Organizer, Juan March Workshop on Regulation of Protein Function by Nitric Oxide, Madrid 2001
- 2001 HHMI Candidate Nomination and Selection Committee
- 2001 Scientific Review Committee, "Oxygen 2002"
- 2001 Ad Hoc Reviewer, National Science Foundation
- 2002 Deputy Director for Translational Sciences, Center for Chemical Biology, Duke University Medical Center
- 2002 Scientific Advisory Board, International Meeting on NO Biology, Prague
- 2002 Translational Medicine Institute, Duke University
- 2002 Ad Hoc, Cardiovascular Study Section, NIH
- 2002 Committee to establish an Endowed Chair at SUNY Downstate Medical Center
- 2003 Center of Excellence, Kumamoto University, Japan
- 2003 Steering Committee, Duke Translational Medicine Institute
- 2003 Department of Medicine Advisory Board, Duke University Medical Center
- 2004 Scientific Advisory Board, 4<sup>th</sup> International Conference on Peroxynitrite and Reactive Nitrogen Species in Biology and Medicine
- 2004-2009 Judge, Annual NIEHS Science Awards
- 2004 Ad Hoc Reviewer, National Science Foundation
- 2004 Search Committee for Chief of Pulmonary, Allergy and Critical Care Medicine, Duke University Medical Center
- 2005 Committee, Translational Medicine Journal
- 2006 Environmental Airway Disease Project Team, NIEHS
- 2006 NHLBI Strategic Plan meeting on Integrative Approaches to Pathogenetic Research
- 2006 Director, Duke Interdisciplinary Training Program in Lung Disease
- 2006 Roadmap Initiative, NIH
- 2006-2007 Scientific Director Search Committee, NIEHS
- 2007-2009 Lung Injury Repair Work Group, Duke University Medical Center
- 2007-2009 Advisory Committee for the Mouse Behavioral Neuroendocrine Analysis Core Facility, Duke University
- 2008 Reviewer, American Heart Association Innovative Research Grants
- 2008 Review Committee, Pew Scholars Program in Biomedical Sciences
- 2008 Ad Hoc Reviewer, National Science Foundation
- 2009 Co-Chair, Cross Sectional Symposium on "Novel Insights into Nitric Oxide Signaling", Experimental Biology meeting, New Orleans
- 2010 Reviewer, AHA IRG Program Study Group
- 2010 Reviewer, United States - Israel Binational Science Foundation Proposals
- 2010 Reviewer, Investigator Award of Academia Sinica, Taiwan
- 2010 DARPA programmatic initiative

- 2011 Co-Chair, Search Committee for Director, Respiratory Health Institute and Chief, Division of Pulmonary, Critical Care and Sleep Medicine, Case Western Reserve University
- 2012 School of Medicine Research Committee, Case Western Reserve University
- 2012 DARPA programmatic initiative
- 2013 Advisory Committee, Institute for Therapeutic Design
- 2013 Chair, Innovations Committee, University Hospitals
- 2013 DARPA-Celegene programmatic initiative
- 2013 Member, Case Research Institute (CRI) Oversight Committee, University Hospitals and Case Western Reserve University
- 2014 Mentor, Heart, Lung, and Blood Summer Research Program
- 2015 Member, Innovation Leadership Council, University Hospitals
- 2015 Member, Institutional Advisory Board, Case Comprehensive Cancer Center
- 2016 Member, Transfusion HRM Committee, University Hospitals
- 2018 FASEB Chair, Functional disulfides
- 2018 Innovation Council, Brandeis University, Waltham Mass
- 2024 Steering Committee, Center for Mitochondrial Research and Therapeutics (CWRU)

### Exemplary Notable/Honorary Lectures

- 1993 In Honor of Hilary Koprowski
- 1996 In Honor of Robert Furchgott
- 1997 Charles Fumito Taketa Memorial Lecture, Department of Biochemistry, University of Wisconsin at Milwaukee
- 1998 Märta Philipson Inaugural (special) Lecture, Karolinska Institute, Stockholm, Sweden
- 1999 Keynote Speaker, Gordon Conference on Nitric Oxide in Biochemistry and Biology, Ventura, CA
- 1999 Featured Speaker, Association of American Physicians, Chicago
- 1999 German-American Frontiers in Science, Pottsdam
- 1999 Distinguished Lecture, University of Virginia Health Sciences Center, Charlottesville
- 1999 Dean's Lecture, Mount Sinai School of Medicine
- 1999 Johns Hopkins Scholar in Lung Biology
- 2000 Physiology Course Lecture, Woods Hole, MA
- 2000 The Konrad Witzig Lecture, Cardiovascular System Dynamics Society
- 2000 Memorial Lecture in honor of Drs. Reinhold and Ruth Benesch, Rockefeller University
- 2001 Introduction of Nobel Laureates, "A Century of Nobel Achievements," American Heart Association meeting, Anaheim, CA
- 2002 Distinguished Lecturer, Cellular Homeostasis Research Lecture Series, University of Southern California
- 2002 Lubomir S. Hnilica Memorial Lecture, Vanderbilt University
- 2002 Evans Family Lecture in Vascular Biology, Stanford University
- 2003 David Cugell Honorary Lectureship, Department of Medicine, Northwestern
- 2003 Berne Lecture, Department of Physiology, University of Virginia, Charlottesville
- 2005 Keynote Address, Internal Medicine Research Symposium, University of Michigan,
- 2005 Redox Signaling Symposium, Karolinska Institute (Nobel Forum)
- 2006 J. Gerald Reves Heart Center Lecture, Duke University Medical Center
- 2006 The National Academies Institute of Medicine "Roundtable on Environmental Health Sciences, Research, and Medicine"
- 2006 Karolinska Research Lecture at the Nobel Forum, Karolinska Institute, Stockholm
- 2007 Keynote Lecturer, Israel Chemical Society

- 2007 Distinguished lectureship, Case Cardiovascular Research Institute
- 2008 Plenary Lecturer, Japanese Pharmacological Society
- 2008 Grand Rounds, Internal Medicine Research Symposium, University of Iowa
- 2009 Keynote address, Mexican National Academy of Sciences (declined, personal reasons)
- 2009 Nitric oxide symposium, Karolinska Institute (Nobel Forum)
- 2010 Inaugural Keynote address: Molecular Medicine PhD Program, Cleveland Clinic.
- 2011 Plenary Lecturer, Gordon Conference, Molecular Pharmacology of GPCRs, Ventura, CA
- 2011 Plenary Lecturer, Gordon Conference, Nitric Oxide Biology, Ventura, CA
- 2011 Plenary Lecturer, ESF-EMBO, Glutathione and Related Thiols, Barcelona, Spain
- 2012 Bio-X Seminar “Frontiers in Interdisciplinary Biosciences”, Stanford University
- 2013 Science and Medicine: Key Biomed Discoveries of the 20<sup>th</sup> Century, Series: GW Univ.
- 2014 Borun Visiting Professor lecture, University of California, Los Angeles
- 2014 Plenary Lecturer, GPCR meeting, Cleveland
- 2014 Cardiovascular Grand Rounds speaker, University of Pennsylvania
- 2015 Plenary Lecturer, BCVS, American Heart Association, New Orleans
- 2016 Keynote Lecture, Cancer Rx, MIT, Boston
- 2017 Dean’s Lecture, Research Day, Mount Sinai, New York
- 2017 Inaugural Ziegler Innovation Lecture, Blood Research Institute, Wisconsin
- 2018 Plenary Lecture, FASEB Functional Disulfides
- 2019 The Morton Arnsdorf Lecture, University Chicago
- 2019 Plenary Lecture, American Society of Nephrology
- 2019 Microbiology seminar, University of Pennsylvania (UPenn).
- 2019 Keynote Address, Rare Disease Symposium, University of Oxford
- 2020 Plenary Lecture, Thiol-based redox regulation and signaling, Barcelona (postponed)
- 2020 Keynote, International Symposium on Redox Biology, Frankfurt (postponed)
- 2021 Keynote, Plant NO8 Conference, Szegred, Hungary
- 2021 NSF-sponsored workshop “Cross disciplinary study of PTMs and PRMs”
- 2022 AHA/Allen Foundation lecture
- 2022 International symposium Cancer/NO, Danish Cancer Society, Copenhagen
- 2023 Plenary Lecture, American Physiological Society, Summit, Long Beach, CA
- 2024 Keynote Lecture, International Symposium on Cancer and Inflammation, Valdivia, Chile
- 2024 Nobel Forum, Karolinska Institute (Enzymatic Protein S-nitrosylation)
- 2025 Indiana University (S-nitrosylation in Asthma)
- 2026 Gross Memorial Lecture, Weill Cornell, Dept Pharmacology NYC.
- 2026 Plenary Lecture, American Assoc Physicians, Chicago (Accelerating Discovery)
- 2026 Keynote Lecture, International NO Society Meetings, Austin Texas.
- 2026 Keynote Lecture, Fribourg Switzerland (International H<sub>2</sub>S meeting/June)

### Editorial Boards

- 1996-2001 Free Radicals in Medicine and Biology
- 1996- Nitric Oxide: Biology and Chemistry
- 1996-1998 Neurobiological Technologies, Inc.
- 1997-2002 Cell Death and Differentiation
- 1997-2001 American Journal of Medicine
- 1997- Trends in Cardiovascular Medicine
- 1998- American Journal of Respiratory Cell and Molecular Biology
- 1998-2002 Journal of Clinical Investigation
- 2000-2005 Circulation Research
- 2007- Clinical and Translational Science

2008-2019 Trends in Molecular Medicine  
2008-2012 Free Radical Biology and Medicine  
2009-2019 Circulation Research  
2012-2019 Journal of Clinical Investigation  
2022-2026 eLife  
2022- Antioxidants

### Scientific Boards and Board of Directors

1992-1995 Nitromed, Inc. (Co-founder)  
1996-2001 Apex Bioscience  
1996- Nitric Oxide (Co-founder)  
1996-1998 Neurobiological Technologies, Inc.  
2000-2007 Arginox  
2002-2007 Neuromolecular Pharmaceuticals, Inc (Co-founder)  
2003-2007 Nitrox (Co-founder)  
2007-2007 N30 Pharmaceuticals (formerly Nitrox) (Co-founder)  
2007-2009 Aegerion Pharmaceuticals  
2007- Adamas Pharmaceuticals (Co-founder, formerly NPI)  
2008-2010 Duska Pharmaceuticals  
2008-2012 Vindica Therapeutics (Co-founder)  
2009-2015 SabrePharm Limited (Co-founder)  
2010-2018 LifeHealth (Co-founder)  
2012- BioMotiv (Co-founder, Board of Managers)  
2012- Harrington Project (Co-founder)  
2012- Harrington Discovery Institute (Co-founder)  
2015-2018 Nivalis Therapeutics, Inc (Co-founder, formerly N30)  
2015-2018 Anteros Pharmaceuticals, LLC (Co-founder)  
2019- Morgan Stanley GIFT Cures (Board of Managers)  
2020- Advent-Harrington Impact Fund, Morgan Stanley platform (Co-founder)  
2020- SNO bio (Co-Founder)  
2021-2022 EFC (Co-inventor)  
2022- NNOXX (Co-founder)  
2023- Oxford-Harrington Rare Disease Centre

### Principal Clinical and Hospital Service Responsibilities

1992-1993 Pulmonary consultant/intensivist, Brigham and Women's Hospital  
1992-1993 Staff cardiologist, West Roxbury VA Medical Center  
1994-2009 Staff physician, Pulmonary Medicine, Duke University Medical Center  
1994-2009 Staff physician, Cardiology, Duke University Medical Center  
2010-present Staff physician, Cardiology, University Hospitals Case Medical Center  
2012-2015 Director, Harrington Discovery Institute, University Hospitals Case Medical Center  
2015-2016 Vice President, University Hospitals Case Medical Center  
2016-present President, University Hospitals Cleveland Medical Center  
2016-present President, Harrington Discovery Institute, University Hospitals

### Teaching

1982-1983 Tutorials in Organic Chemistry  
1988-1989 Preceptor, Longitudinal Clinical Medicine Tutorial for M.D./Ph.D. Students, Harvard Medical School, Boston, MA

- 1991 Supervised post-graduate research of an HST/MD-PhD student and 3 fellows in training
- 1992-1993 Preceptor HST/MD-PhD Students, Harvard Medical School, Boston, MA
- 1993 Supervisor to high school and (Duke) college students and medical fellows in basic training
- 1997 Supervisor of undergraduate research work of a student in the Undergraduate Research Support Program at Duke
- 1999 Physician Scientist Panel, University of Miami
- 1999 Ph.D. Thesis Committee, UNC
- 2001 Cardiology Training Grant, Duke University Medical Center
- 2001 Co-mentor, Sickle Cell Scholar of the Duke-UNC Comprehensive Sickle Cell Center
- 2002 Pulmonary Training Grant: Section of Molecular Biology and Signal Transduction Components
- 2002 T32 Clinical Research Training Grant, Duke University Medical Center
- 2002 Graduate student training in Cell Biology, Duke University Medical Center
- 2002 Molecular Cancer Biology Graduate Lecture Program, Duke University
- 2002 Mentored Sickle Cell Scholar Award (faculty development position), Duke University Medical Center
- 2006 Director, Duke Interdisciplinary Training Program in Lung Disease
- 2007 Translational Research Panel for 4<sup>th</sup> year Capstone students, Duke University
- 2011 Scientific Enrichment and Opportunity Program (SEO)
- 2012 School of Medicine, Research Committee
- 2010-2013 PhD Thesis Committee for Chao Fang, Case Western Reserve University
- 2010-2013 PhD Thesis Committee for Bradley Plummer, Case Western Reserve University
- 2013-2018 PhD Thesis Committee for Colin Stomberski, Case Western Reserve University
- 2015-2021 PhD Thesis Committee for Bea Tan, Case Western Reserve University
- 2018-2024 PhD Thesis Committee for Nicholas Venetos, Case Western Reserve University
- 2019- PhD Thesis Committee for Zachary Grimmett, Case Western Reserve University
- 2020- PhD Thesis Committee for Kenny Golovan, Case Western Reserve University
- 2021- PhD Thesis Committee for Joseph Schindler, Case Western Reserve University
- 2023- PhD Thesis Committee for Jeehyun Karen You, Case Western Reserve University

### **Institutes and Innovation Platforms**

- Duke Translational Medicine Institute (Naming Advisor)
- Institute Transformative Molecular Medicine, Case Western (Founding Director)
- Harrington Discovery Institute, University Hospitals (Founding Director)
- Harrington Project (Founder and Head)
- Morgan Stanley GIFT CURES (Co-founder)

### **Biotechnology Companies/Venture Funds Founded or Co-founded**

- Nitromed, Inc.
- Adamas Pharmaceuticals (formerly Neuromolecular Pharmaceuticals)
- Vindica Therapeutics
- SabrePharm Limited
- LifeHealth
- BioMotiv
- Nivalis Pharmaceuticals (formerly N30, Nitrox)
- Anteros Pharmaceuticals
- Elura Bio (formerly SNO bio)

Advent-Harrington Impact Fund (Morgan Stanley)  
NNOXX

### Patents and Innovation

225 issued patents  
‘Top Patent Applicants in America’ Ewing Marion Kauffman Foundation  
Outlier Innovator (Organization Science; <https://doi.org/10.1287/orsc.2019.1328>)  
National Academy of Inventors

### Licenses and FDA Clearances

Licenses: Coated stent technology - Boston Scientific 1996  
Cardiovascular agents - Aegerion 2008  
Nitrosylating agents - Novartis 2012  
FDA Clearances: BiDil (Nitromed)  
GOCOVRI (Adamas/Supernus)

### Bibliography

#### Original Reports

1. Stamler JS, Bauer JJ, Janowitz HD. Rectourethroperineal fistula in Crohn's disease. Am J Gastroenterology 1985; 80: 111-112.
2. Stamler JS, Creager MA, Loscalzo J, Cooke JP. Vascular response in diabetes with neuropathic foot lesions. N Engl J Med 1988; (let) 319: 1155.
3. Stamler JS, Cunningham M, Loscalzo J. Reduced thiols and the effect of intravenous nitroglycerin on platelet aggregation. Am J Cardiol 1988; 62: 377-380.
4. Stamler JS, Vaughan DE, Rudd MA, Mudge GH, Young P, Kirshenbaum J, Young P, Alexander RW, Loscalzo J. Frequency of hypercholesterolemia after cardiac transplantation. Am J Cardiol 1988; 62: 1268-1272.
5. Stamler JS, Horowitz SF, Goldman ME, Matza D, Mahac J. Peripartum cardiomyopathy: a role for cardiac stress determinants other than pregnancy. Mount Sinai J Med 1989; 56: 285-289.
6. Stamler JS, Mendelsohn ME, Amarante P, Smick D, Andon N, Davies PF, Cooke JP, Loscalzo J. N-acetylcysteine potentiates platelet inhibition by endothelium-derived relaxing factor. Circ Res 1989; 65: 789-795.
7. Stamler JS, Vaughan DE, Loscalzo J. Synergistic disaggregation of platelets by tissue-type plasminogen activator, prostaglandin E<sub>1</sub> and nitroglycerin. Circ Res 1989; 65: 796-804.
8. Stamler JS, Whittmore A, Loscalzo J. Celiac axis compression syndrome caused by sarcoidosis. An acquired form of the syndrome. Am J Med 1989; 86: 225-227.
9. Cooke JP, Stamler J, Andon N, Davies PF, McKinley G, Loscalzo J. Flow stimulates endothelial cells to release a nitrovasodilator that is potentiated by reduced thiol. Am J Physiol 1990; 28: H804-H812.
10. Cooke JP, Stamler JS, Andon NA, Davies PF, Mendelsohn ME, Loscalzo J. Flow-mediated endothelium-dependent effects on platelet and vascular reactivity. In: Rubanyi GM, Vanhoutte PM, eds. Endothelium-derived Vasoactive Factors. Karger Press, 1990, pp 244-253.
11. Folts JD, Stamler JS, Loscalzo J. Intravenous nitroglycerin infusion inhibits cyclic blood flow responses caused by periodic platelet thrombus formation in stenosed dog coronary arteries. Circulation 1991; 83: 2122-2127.

12. Stamler JS, Loscalzo J. The antiplatelet effects of organic nitrates and related nitroso-compounds in vitro and in vivo and their relevance to cardiovascular disorders. J Am Coll Cardiol 1991; 18(6): 1529-1536.
13. Stamler JS, Loscalzo J. The antithrombotic effects of organic nitrates. Trends Cardiovasc Med 1991; 1(8): 346-353.
14. Stamler JS, Vaughan DE, Loscalzo J. Immunosuppressive therapy and lipoprotein abnormalities after cardiac transplantation. Am J Cardiol 1991; 68: 389-391.
15. Jansen A, Drazen JM, Osborne JA, Brown R, Loscalzo J, Stamler JS. The relaxant properties in guinea pig airways of S-nitrosothiols. J Pharmacol Exp Ther 1992; 261: 154-160.
16. Mullins ME, Stamler JS, Osborne JA, Loscalzo J, Singel D. EPR spectroscopic characterization of biological thiyl radicals as PBN spin-trap adducts. Appl Mag Res 1992; 3: 1021-1032.
17. Stamler JS, Goldman ME, Gomes J, Matza D, Horowitz SF. The effect of stress and fatigue on cardiac rhythm in medical interns. J Electrocardiol 1992; 25:3 33-338.
18. Stamler JS, Loscalzo J. Endothelium-derived relaxing factor modulates the atherothrombogenic effects of homocysteine. J Cardiovasc Pharmacol 1992; 20(suppl 12): S202-S204.
19. Stamler JS, Rogers C, Hirano I, Brezinski D, Sharma GVRK. Treatment of complete heart block with inhaled  $\beta$  agonists. Am Heart J 1992; 124: 1093-1095.
20. Stamler JS, Simon DI, Osborne JA, Mullins ME, Jaraki O, Michel T, Singel DJ, Loscalzo J. S-nitrosylation of proteins with nitric oxide: Synthesis and characterization of biologically active compounds. Proc Natl Acad Sci USA 1992 (Jan); 89: 444-448.
21. Stamler JS, Jaraki O, Osborne J, Simon DI, Keaney J, Vita J, Singel D, Valeri CR, Loscalzo J. Nitric oxide circulates in mammalian plasma primarily as an S-nitroso adduct of serum albumin. Proc Natl Acad Sci USA 1992; 89: 7674-7677.
22. Stamler JS, Simon DI, Jaraki O, Osborne JA, Francis S, Mullins M, Singel D, Loscalzo J. S-nitrosylation of tissue-type plasminogen activator confers vasodilatory and antiplatelet properties on the enzyme. Proc Natl Acad Sci USA 1992; 89: 8087-8091.
23. Stamler JS, Simon DI, Osborne JA, Mullins M, Jaraki O, Michel T, Singel D, Loscalzo J. Exposure of sulfhydryl containing proteins to nitric oxide and endothelium-derived relaxing factor confers novel bioactivity and modulates their intrinsic functional properties. In: Moncada S, Marletta MA, Hibbs JB Jr, Higgs EA, eds. *The Biology of Nitric Oxide, Part 1 Physiological and Clinical Aspects*. Portland Press (London) 1992, pp 20-23. (Presentation at the 2nd International Meeting on the Biology of Nitric Oxide, London 1991)
24. Stamler JS, Singel DJ, Loscalzo J. Biochemistry of nitric oxide and its redox-activated forms. Science 1992; 258: 1898-1902.
25. Stamler JS, Loscalzo J. Capillary zone electrophoretic detection of biological thiols and their S-nitrosated derivatives. Anal Chem 1992; 64: 779-785.
26. Gaston B, Reilly J, Drazen JM, Fackler J, Ramdev P, Arnette D, Mullins ME, Sugarbaker DJ, Chee C, Singel DJ, Loscalzo J, Stamler JS. Endogenous nitrogen oxides and bronchodilator S-nitrosothiols in human airways. Proc Natl Acad Sci USA 1993; 90: 10957-10961.
27. Keaney JF Jr, Simon DI, Stamler JS, Jaraki O, Scharfstein J, Vita JA, Loscalzo J. NO forms an adduct with serum albumin that has endothelium-derived relaxing factor-like properties. J Clin Invest 1993; 91: 1582-1589.

28. Kobzik L, Brecht DS, Lowenstein CJ, Drazen J, Gaston B, Sugarbaker D, Stamler JS. Nitric oxide synthase in human and rat lung: Immunocytochemical and histochemical localization. Am J Respir Cell Mol Biol 1993; 9: 371-377.
29. Lilly CM, Stamler JS, Gaston B, Meckel C, Loscalzo J, Drazen JM. Modulation of vasoactive intestinal peptide pulmonary relaxation by NO in tracheally superfused guinea pig lungs. Am J Physiol: Lung, Cell Mol Physiol 1993; 265: L410-415.
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