

Curriculum Vitae (Shortened)

Steven S. Saliterman

EDUCATION

BA, Summa cum Laude, Phi Beta Kappa, Physiology, University of Minnesota, 1973
Biochemistry, University of Minnesota, 1972-1973
NASA Johnson Space Center, Bioscience Payloads Office, 1973, 1974
Fellowship, Cardiovascular Lab, NASA Ames Research Center, 1976
MD, Mayo Medical School, 1977
Internal Medicine Residency, Mayo Graduate School, 1980
CITI Good Clinical Practice & Human Research Protection, 2020
HIPPA Training, 2020

ACADEMIC & PROFESSIONAL

University of Minnesota, Professor, 2012-present, adjunct
University of Minnesota, Associate Professor, 2008-2012
University of Minnesota, Assistant Professor, 2005-2008
University of Minnesota, Lecturer, Biomedical Engineering, 2002-2005
University of Minnesota, Clinical Assistant Professor, 1997-2002
Mayo Clinic, Instructor in Medicine, 1977-1980

PROFESSIONAL CREDENTIALS, CERTIFICATIONS & LICENSING

Medical License, Minnesota, 1977-present
CLIA, Laboratory Director, Technical Consultant, and Clinical Consultant, 1988-2014
Senior Aviation Medical Examiner, FAA, 1981-2014
American Board of Internal Medicine, 1983
Pilot, 1978
Instructor, Advanced Cardiac Life Support, 1977
National Board of Medical Examiners, 1977

PROFESSIONAL AFFILIATIONS

Artemis Program Lunar Surface Science Workshops, Lunar & Planetary Institute, 2017-present
Institute for Engineering in Medicine, 2020-present
Mayo Plummer Society, 2003-present
Medical Staff, Fairview Hospital, 1992-2014
Chief & Vice Chief of Medicine, Methodist Hospital 2002-2005
Medical Staff, Methodist Hospital, 1981-2014
International Society for Optical Engineering (SPIE), 2003-present
Fellow, American College of Physicians (ACP), 1985-present
Mayo Medical School Alumni Society, *Co-Founder* 1978, *President* 1984-1987
Mayo Alumni Association, 1977-present

SELECT PUBLICATIONS

1. B. Levac, J. Kerber, E. Wagner, J. A. Molitor and S. S. Saliterman, *An Experimental Phototherapy Device for Studying the Effects of Blue Light on Patients with Raynaud's Phenomenon*, Annals of biomedical engineering 2024 Vol. 52 Issue 6 Pages 1732-1743 DOI: 10.1007/s10439-024-03487-z

2. Liu, J, J. Kerber & S. Saliterman, *Emergency design and production of level 1 hospital gowns during the COVID-19 pandemic*, proceedings of the 2021 Design of Medical Devices Conference, ASME, 2021. ISBN: 978-0-7918-8481-2.
3. Saliterman S. *Book Review: Biological Reaction Engineering*. Annals of Biomedical Engineering, 34(9):1501-1502. September 2006.
4. Saliterman S. *Fundamentals of BioMEMS and Medical Microdevices* SPIE Press, Bellingham, WA (2006). (First textbook in the field.)
5. Saliterman S. *Education, bioMEMS and the medical microdevice revolution*. Expert Review of Medical Devices 2(5):515-519. September 2005.
6. Saliterman S. *Managed Medical Research: Focused Objectives and Cost Justification*, Mayo Alumni Association 59th International Meeting. September 1997.
7. Saliterman S., *Evaluation of the Dyspneic Patient*, Methodist Hospital Grand Rounds. January 1995.
8. Saliterman S., *The hemodynamics of pulmonary and medical intensive care*, Johns Hopkins Hospital Hemodynamic Monitoring Symposia. October 1994.
9. Saliterman S., *A computerized simulator for critical care training: new technology for medical education*. Mayo Clinic Proceedings. 65:968-978. July 1990.
10. Saliterman S, Carlson E, McCutcheon E, and Billingham M., *Electrically induced arterial thrombosis in acutely and chronically instrumented dogs*. NASA Ames Research Center and Stanford University Medical Center, 1976. (Andreas Gruentzig, a German physician working at the University Hospital in Zurich, Switzerland, performed the first balloon angioplasty on humans in 1977. He came to present his work shortly after at the Mayo Clinic, and acknowledged this internal NASA methodology as one of his models for atherosclerosis and catheter testing.)
11. Saliterman, S. *Dual Channel Blood Vessel Stimulator*, NASA, San Francisco, CA (1976).
12. Goldberg D, Saliterman S, Wetlaufer D, Rose G, Hopkins T. *Minimization of construction errors in bent-wire protein models*. Biopolymers. 14:633-640. March 1975.

PATENTS

1. Steven S. Saliterman, Jennifer Chmura, Brett Levac, Jerry Molitor, James Kerber, Kushal Sehgal, *Light-based treatment devices and methods*. Patent number: 11,865,357, Date: January 9, 2024.
2. Steven S. Saliterman, Jennifer Chmura, Brett Levac, Jerry Molitor, James Kerber, Kushal Sehgal, *Light-based treatment devices and methods*. Publication: 20210128940, Date: May 6, 2021.
3. Saliterman, S. & BME students – *Level 1 Isolation Gown* (UMN OTC - Open Access), 2021.
4. Saliterman S., *Hemodynamic monitoring trainer*. Patent: 4,642,055, Date: February 10, 1987.

SELECT TEACHING

University of Minnesota, BME 5151 (5910), BioMEMS and Medical Microdevices, 2004-present

University of Minnesota, PHSL 3701, Cardiopulmonary Exercise Physiology, 2002-present

University of Minnesota, BMEN 3151, Medical Device Practicum, 2018-2022

University of Minnesota, BMEN 2151, Introductory Medical Device Prototyping, 2017-2022

University of Minnesota, BMEN 5361, Bioprinting, *Anatomical Segmentation* and *Bioethics* 2017-2022

University of Minnesota, Innovation Fellows Program, “FabLab”, Summers, 2017-2019

University of Minnesota, MDC Interns, *Treatment of jaundice in newborns in Nigeria.*, 2017

University of Minnesota, Curriculum Development for Prototyping Course, 2016

University of Minnesota, Curriculum Development, BioMEMS and Medical Microdevices, 2003

University of Minnesota, BME Freshman Seminar, Spring Semester Lecture, 2011-2015

University of Minnesota, EE BioMEMS Short Course, Summer, 2007-2010, 2012

University of Minnesota, BME Senior Design Team Advisor, 2007-2010, 2013-2022

Johns Hopkins Hospital, Conference Faculty, Pulmonary and Medical Intensive Care, 1991-1994

SIGGRAPH '84, Chairman, Biomedical Applications of Computer Graphics and Imaging, 1984

Mayo Clinic, Rochester, MN, Instructor, Advanced Cardiac Life Support, 1977-1980

SELECT RECOGNITIONS

StarTribune Feature Story: *No funding, no lab, no problem for dogged University of Minnesota student inventors* by Jennifer Brooks, The Minneapolis Star Tribune, 5/9/2024

BME, IME & CSE Feature Stories: *Light-based therapy for Raynaud's Phenomenon*, 2024

BME & IME Feature Story: *BME prof, develops innovative way to teach students about circuits*, 2021

CBS WCCO TV *Minnovators – A Gown for U*, May 14, 2020

StarTribune Feature Story: *A Gown for U: University of Minnesota students saved local hospitals from running out of PPE*, May 10, 2020

VentureWell Faculty Grant Recipient, 2018

SPIE Professional, Feature story, 2006

NBC News, *Interview on Healthcare*, 1993

NASA Spinoff, Feature Story: *Critical Care Patient Simulator*, 1992

CBS WCCO TV Nightly News, *Critical Care Simulator*, 1992

Minnesota Professional Engineers Society Achievement Award, *Computer*, 1969

United States Army Achievement Award, *Computer*, 1969

ABC KSTP TV, *Computer*, 1969

Minneapolis Tribune Feature Story: *Student 17, Builds Computer* (first personal computer), 1969

National Youth Science Camp Attendee, *Awarded by the Minneapolis-St. Paul Science Fair*, 1969

INVITED PRESENTATIONS AT NATIONAL CONFERENCES

DMD, Co-Chair, Moderator (2025), *Medical Education Training Contributing Papers*, 2023-2025

DMD, Co-Chair, Moderator, *COVID-19 Response Session*; Presenter: *Gown for U*, 2020

BioFAB USA Pathways Summit, Panel Presenter, Tampa, Florida, 2018

DARPA/MTO, *Analytical MEMS - A Physicians Perspective*, 2008

Design of Medical Devices Conference, *Biocompatibility*, 2008

Mayo Alumni Association 59th Meeting, *Managed Medical Research*, 1997

Society of CV Anesthesiologists, Orlando, FL, *Anesthesia Simulators and Training Devices* 1990

Mayo Medical School Alumni Society, *Computerized Critical Care Simulation*, 1989

SIGGRAPH '84, Chair: *Role of Computer Graphics and Imaging in Biomedicine*, 1984

COMMITTEES

Biomedical Engineering Industry Advisory Board, 2020-2023

BME Undergraduate Education Working Group, 2019-2023

University of Minnesota BME Strategic Planning Undergraduate Education, 2019

University of Minnesota Anderson Student Innovation Labs Executive Committee, 2017-2019

Methodist Hospital Executive Committee, 2004-2005

Fairview Hospital Internal Medicine Committee, 1994-2000

Methodist Hospital Research & Development Committee, 1992-1995

Board of Directors, Medical Services Corp., Minnesota State Medical Society, 1990-1991

Socio-Economic Committee, Hennepin County Medical Society, 1987-1991

Board of Directors, Medical Bureau Inc., Hennepin County Medical Society, 1987-1992

Strategic Planning Committee, Hennepin County Medical Society, 1985

Board of Directors, Mayo Medical School Alumni Society, 1978-1989

Twin City Regional Science Fair Committee, 1970-1972

Minnesota State Board of Education Advisory Committee: "Computers in the Classroom", 1970-1972
(*Youngest person ever appointed to a MN State Board of Education committee at the time – age 18*)