

General Information:

Name: Brian C. Ayers
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Education:

- 2020 **University of Rochester School of Medicine and Dentistry – Rochester, NY**
Doctor of Medicine, Candidate for M.D. (Expected May 2020)
- USMLE Step 1: 244, Step 2: 270
 - Medicine clerkship: Honors, Surgery clerkship: Honors
- 2016 **University of Rochester Simon Business School – Rochester, NY**
Masters of Business Administration (MBA)
- Phillip Myers Award for highest GPA in graduating class
- 2014 **Middlebury College – Middlebury, VT**
Bachelor of Science (BS)
Concentration: Biochemistry major, Computer Science minor
- Summa cum laude, GPA: 3.81

Honors and Awards:

- 2018
- Student Research Fellowship Grant, Office of Medical Education
- 2017
- Eastern Vascular Surgery Society Annual Meeting Travel Scholarship
 - Society for Vascular Surgery General Surgery Resident/Med Student Travel Scholarship
- 2016
- Phillip Myers Award, Simon Business School, highest GPA in graduating class
 - Beta Gamma Sigma, International Business Honor Society
 - Gary and Bill Sanders Poster Award, Computing in Cardiology, Vancouver, Canada
 - Summer Research Grant, URSMD Office of Medical Education
- 2015
- New York State Business Plan Competition 3rd Place, Social Entrepreneurship
 - McGary Merit Scholarship Recipient, Simon Business School
- 2014
- Baggataway Award (selected for leadership and sportsmanship) Middlebury Men's Lacrosse
 - NEILA Academic All-Region Selection (Lacrosse)
 - NESCAC All-Academic Selection (Lacrosse)
- 2010
- Charter Communications Scholar-Athlete of the Year for Central New England
 - Academic All-American (Lacrosse)

Research Experience:

- Aug 2018 –
June 2019 **Cardiothoracic Surgery Research Department – Rochester, NY**
Student Research Fellowship
- Clinical research – extracting big data from Epic for clinical research on ECMO and LVAD patients using machine learning and traditional statistical approaches
 - Educational research – working with an engineering team to develop a high-fidelity 3D printed hydrogel model of the thoracic cavity for surgical simulation

- Summer 2016 **Heart Research Follow-Up Program, URMIC – Rochester, NY**
Digital Signal Processing Software Engineer
- Wrote digital signal processing software to implement algorithmic detection of atrial fibrillation using a novel EKG monitoring device.
 - Obtained funding from the URSMD Office of Medical Education
- Summer 2014 **Middlebury College Biology Department – Middlebury, VT**
Bioinformatics Research Technician
- Performed analysis of next-gen sequencing datasets to identify specific gene differentiation, alternative splicing, and novel transcripts to study the genetics of various diseases.
- Summer 2013 **University of Massachusetts Medical School – Worcester, MA**
Researcher in Biochemistry and Molecular Pharmacology Department
- Conducted research on the cytotoxicity and functionalization of up-converting nanoparticles to be used for cancer imaging
 - Applied knowledge to senior thesis project “Conjugation of anti-CD47 antibody to gold nanoparticles via click chemistry for cancer therapy”
- Summer 2012 **University of Massachusetts Medical School – Worcester, MA**
Clinical Research Assistant in the Emergency Department
- Surveyed patients in the emergency room to gather data on tobacco use for clinical studies.
 - Provided resources and counseling on tobacco cessation programs.
- Summer 2011 **University of Massachusetts Medical School – Worcester, MA**
Cell Biology Summer Researcher
- Extracted and measured levels of various miRNA in arthritic hip and knee cartilage taken from total joint replacement patients to study osteoarthritis at the molecular level.

Research:

Publications:

- K Wood, B Ayers, F Sagebin, H Vidula, S Thomas, B Barrus, P Knight, S Prasad, I Gosev. Complete sternal-sparing HeartMate 3 implantation: a case series of ten consecutive patients. *Accepted for publication.*
- M Balceniuk, M Stoner, **B Ayers**, A Kokkosis, A Tassoipoulos. Post-Approval Safety and Efficacy of Transcarotid Arterial Revascularization. *J Vasc Surg.* 2018; 67(6): e187.
- M Balceniuk, F Cardelli, **B Ayers**, I Chu, A Doyle, M Stoner. Left Subclavian Artery Coverage Association with Neurologic Events in Trauma Patients Undergoing Thoracic Endovascular Repair. *J Vasc Surg.* 2018; 68(2): e17-18.
- G Fernandez, C Narins, J Bruckel, **B Ayers**, F Ling. Patient and Physician Perspectives on Public Reporting of Mortality Ratings for Percutaneous Coronary Intervention in New York State. *Circ Cardiovasc Qual Outcomes.* 2017 Sep; 10(9).
- **B Ayers**, C Beshaw, E Serrano-Finetti, O Casas, R Pallas-Areny, JP Couderc. Enabling Atrial Fibrillation Detection Using a Weight Scale. *Computing in Cardiology.* Sep 2016; 43:11-5.

Abstracts and Presentations:

- **B Ayers**, K Wood, A Melvin, S Prasad, I Gosev. MELD-XI is Predictive of Mortality in Extracorporeal Membrane Oxygenation (ECMO). *Accepted for poster presentation, The Society of Thoracic Surgery Annual Conference, January 2019.*

- K Wood, **B Ayers**, A Melvin, S Prasad, I Gosev. Not Anticoagulating Patients Supported with Venoarterial Extracorporeal Membrane Oxygenation Decreases Complications, Blood Transfusions and Heparin Induced Thrombocytopenia. *Accepted for oral presentation, The Society of Thoracic Surgery Annual Conference, January 2019.*
- **B Ayers**, K Wood, A Melvin, I Gosev. Higher ACT Predictive of Mortality for Patients on Extracorporeal Membrane Oxygenation (ECMO). *Poster, American College of Surgeons Clinical Conference, Boston, MA, Oct 2018.*
- M Balceniuk, I Chu, **B Ayers**, M Stoner. The Association of Aortic Injury Grade and Overall Injury Severity with Resource Utilization in Patients Undergoing Endovascular Aortic Injury Repair. *Oral Presentation, American College of Surgeons Clinical Conference, Boston, MA, Oct 2018.*
- **B Ayers**, K Wood, F Sagebin, N Kumar, P Knight, B Barrus, S Prasad, I Gosev. The Use of Hydroxycobalamin for Vasoplegic Syndrome in Left Ventricular Assist Device (LVAD) Patient. *Oral Presentation, The Society of Thoracic Surgeons Critical Care Conference, Washington, DC, Oct 2018.*
- F Sagebin, **B Ayers**, B Barrus, S Prasad, H Vidula, E Storozynsky, S Thomas, L Chen, J Alexis, I Gosev. Predictors of Respiratory Failure in Patients Supported with Continuous Flow Ventricular Assist Devices And The Effect on Survival. *Poster, International Society for Heart and Lung Transplantation, Nice, France, Apr 2018.*
- F Sagebin, **B Ayers**, B Barrus, S Prasad, H Vidula, E Storozynsky, S Thomas, L Chen, J Alexis, I Gosev. Effects of Right Ventricle Optimization on Post-Operative Outcomes: a Retrospective Comparison. *Poster, International Society for Heart and Lung Transplantation, Nice, France, Apr 2018.*
- **B Ayers**, S Cameron, S Toth, A Doyle, X Caliste, M Stoner. Innominate Artery Stenting with Flow-Reversal Neuroprotection: Case Report of Two Surgical Procedures. *Poster, Eastern Vascular Society, Savannah, GA, Oct 2017.*
- S Toth, D Mix, S Cameron, **B Ayers**, R Glocker, J Ellis, A Doyle, K Raman, M Stoner. Embolization of Retrievable Inferior Vena Cava Filter Fragment to the Right Ventricle: A Case Report. *Poster, Eastern Vascular, Savannah, GA, Oct 2017.*
- **B Ayers**, S Toth, D Mix, N Kumar, K Rasheed, X Caliste, M Stoner. Clinical Management of Recurrent Leiomyosarcoma of the Inferior Vena Cava Requiring Aortobifemoral Bypass. *Poster, Society for Vascular Surgery, San Diego, CA, June 2017.*
- **B Ayers**, C Beshaw, E Serrano-Finetti, O Casas, R Pallas-Areny, JP Couderc. Enabling Atrial Fibrillation Detection Using a Weight Scale. *Poster, Computing in Cardiology, Vancouver, Canada, September 2016.*
- P Fanning, **B Ayers**, M Walcott, G Stein, D Ayers, J Lian. The Varus Knee Reveals Differential Expression Patterns of miRNAs in Spared vs. Non-spared Compartments. *Poster, Orthopedic Research Society Annual Meeting, San Francisco, CA, February 2012*

Submitted for review:

- A Melvin, **B Ayers**, K Wood, I Gosev. Lactate is an Early Predictor of Mortality in Patients on Venoarterial Extracorporeal Membrane Oxygenation.
- K Wood, **B Ayers**, F Sagebin, H Vidula, P Knight, B Barrus, J Alexis, S Prasad, I Gosev. Complete Sternal-sparing HeartMate 3 Implantation Improves Early Postoperative Outcomes Compared to Full

Sternotomy.

- M Balceniuk, **B Ayers**, M Stoner. The Effect of Anticoagulation Therapy on the Incidence and Outcomes of Endoleaks in EVAR Patients.
- M Balceniuk, P Zhao, **B Ayers**, M Stoner. Outcomes of Distal Lower Extremity Bypass Based on Dialysis Status.
- M Balceniuk, P Zhao, I Chu, **B Ayers**, T Negron, M Stoner. Opioid Consumption Following Carotid Vascular Surgery.

Teaching Experience:

- 10/2017 – 9/2019 **Course Coordinator and Teaching Assistant**, University of Rochester Medical School
- Student leader for the course “Effective Communication in the Clerkship”
 - Elective for 2nd year medical students to practice having difficult conversations with standardized patients on diverse topics such as end of life decision making and delivering cancer diagnosis

Professional and University Leadership Positions:

- 08/2018 – Present **National Representative**, Committee on Health Information Technology, American Medical Association
- Elected member of the AMA committee on healthcare information technology
 - Provide research and recommendations for technology related healthcare policy for the AMA
- 08/2016 – Present **Technology Coordinator**, URWell Free Health Clinic, University of Rochester Medical School
- In charge of all technology related to the student run free healthcare clinic, including managing the website to relay information to our patient population.
 - Built a private Wikipedia-style website to allow for the central storage of clinic related information
- 10/2016 – 05/2017 **Technology Representative**, Student Senate, University of Rochester Medical School
- Elected representative on behalf of the medical students to represent their interests to the school administration in regards to the use of technology in the medical school curriculum.
- 10/2016 – 05/2017 **Student Leader**, Interventional Radiology, University of Rochester Medical School
- Helped run the interventional radiology student interest group, including hands-on practical sessions demonstrating technique for various IR procedures.
- 08/2016 – 05/2017 **Student Liaison**, Surgery Interest Group, University of Rochester Medical School
- Helped coordinate events for the medical school surgery interest group throughout the year, specifically acting as the liaison to the vascular surgery department.

Work Experience:

- 01/2014 – Present **Freelance Web Developer – Rochester, NY**
Self-employed
- Build websites as freelance web developer. Clients include startup healthcare companies spun-out of the University of Rochester Technology transfer office.
- 10/2014 – 06/2016 **Simon Venture Capital Fund – Rochester, NY**
Due Diligence Analyst
- Performed due diligence analysis on healthcare companies seeking investment from the Simon School Venture Capital Fund.
 - Presented analysis and investment recommendation directly to the Board of Directors of the fund, including current board members of the university.

01/2011 – 10/2015 **Goodees Clothing – Southborough, MA**

Founder, acquired 2015

- Founded a custom clothing and lifestyle brand during college that is positioned as a socially conscious, USA-made clothing company.
- Expanded to over 10 schools across the country. Acquired in 2015 before starting medical school.

Volunteer and Community Service:

2014 – Present	Patrick Wiese Foundation, Syracuse, NY, Board Member
2014	Lacrosse the Nations, Managua, Nicaragua, Volunteer
2013	Common Hope, Antigua, Guatemala, Volunteer
2012	Open Door Clinic, Middlebury, VT, Volunteer
2010	Orphanage Outreach Teach Corps, Dominican Republic, Volunteer

Memberships:

2018 – Present	American College of Surgeons
2018 – Present	Society of Thoracic Surgery
2016 – Present	Beta Gamma Sigma, International Business Honor Society
2015 – Present	Surgery Interest Group
2015 – Present	American Medical Association
2015 – Present	Medical Society of the State of New York