

Patrick Journey, Ph.D., FAHA

Contact

Biomedical Engineering Department
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Education/Training

| <i>Years</i> | <i>Degree / Certificate</i> | <i>Institution</i> |
|------------------------------|--|---------------------------------------|
| August 2016- August 2019 | Postdoctoral Fellow | Oregon Health & Science University |
| August 2011- August 2015 | PhD. Mechanical Engineering | The University of Texas at Austin |
| August 2009 - August 2011 | Master of Science in Engineering | The University of Texas at Austin |
| August 2005- May 2009 | Bachelor of Science in Mechanical Engineering | The University of Portland |

Position Title

| <i>Years</i> | <i>Position</i> | <i>Institution</i> |
|-----------------------------|---|---------------------------|
| May 2025- Present | Visiting Scholar in Chemical and Systems Biology | Stanford University |
| January 2025- Present | Kordestani Endowed Chair | San José State University |
| August 2025- Present | Associate Professor of Biomedical Engineering | San José State University |
| August 2019- August 2025 | Assistant Professor of Biomedical Engineering | San José State University |

Professional Summary

Dr. Patrick Journey is a biomedical engineer with expertise in biomechanics, mechanotransduction, microfluidics, and cardiovascular devices, with a research program focused on the mechanistic links between fluid shear stress,

endothelial cell function, mitochondrial dynamics, and cardiovascular pathology. He currently serves as the Kordestani Endowed Chair and Associate Professor of Biomedical Engineering at San José State University and as a Visiting Scholar in the Department of Chemical and Systems Biology at Stanford University. His research is supported by the National Institutes of Health, the American Heart Association, and CSUBIOTECH, and spans fundamental mechanobiology as well as translational cardiovascular biomaterials and device-relevant systems.

Dr. Journey's work integrates experimental biomechanics, microscale flow systems, and quantitative imaging to investigate how mechanical forces and material properties influence cellular behavior, tissue response, and device-tissue interactions. He has contributed to the characterization and development of cardiovascular devices, including pulsatile rotary total artificial hearts, and has published extensively on endothelialization, thrombogenicity, shear-dependent transport phenomena, and microfluidic models of vascular biology. His scholarship is informed by rigorous engineering principles and is designed to withstand high levels of technical and methodological scrutiny.

In addition to his research contributions, Dr. Journey is an experienced educator and mentor, having supervised more than 70 undergraduate and graduate researchers, many of whom have earned competitive national fellowships and awards and progressed to leading graduate programs or biotechnology careers. He has developed advanced laboratory and project-based curricula in microfluidics, biotransport, and biomedical device engineering, and directs the SJSU-UCSF Clinical Immersion Program, which provides students with direct exposure to clinical and translational research environments.

Dr. Journey is a Fellow of the American Heart Association and has received multiple honors for excellence in scholarship and teaching. His professional service includes appointments as a reviewer for the NIH, NSF, AHA, and CSUBIOTECH, as well as editorial and peer-review roles for leading journals in biomedical engineering and cardiovascular science. Through his research, teaching, and service, he brings a rigorous, independent, and mechanistically grounded approach to complex biomedical engineering problems.

Research Experience

The Role of Mechanotransduction of Fluid Shear Stress in Mitochondrial Function and Architecture

Chemical And Systems Biology, Stanford University.

Role: **Principal Investigator - Visiting Scholar**

May 2025 – Present

Biological Transport Phenomena, Mechanotransduction, Biomicrofluidics, Endothelialization, Cardiovascular Biomaterials, and Mitochondria

Biomedical Engineering Department, Charles W. Davidson College of Engineering, San José State University.

Role: **Principal Investigator**

August 2019 – Present

Cardiovascular Devices and Endothelial Cell Regulation for Treatment of Cardiovascular Disease

Department of Biomedical Engineering, Oregon Health & Science University.

Supervisor: **Dr. Monica Hinds**

August 2016 – July 2019

Novel Nanoparticles and Bio-Microfluidic Assays for Improved Drug Delivery Efficacy

Department of Mechanical Engineering, University of Texas at Austin.

Supervisor: **Dr. Li Shi**

August 2009 – August 2015

Total Artificial Heart Characterization and Development

Knight Cardiovascular Institute, Oregon Health & Science University.

Collaborator: **Dr. George Giraud**

November 2017 – June 2020

Vascularization of 3D Tissue Constructs

Department of Biomedical Engineering, Oregon Health & Science University.

Collaborator: **Dr. Luiz Bertassoni**

September 2018 – January 2020

Microfluidics applications for single-molecule DNA tethering and unzipping using optical tweezers

Department of Physics, The University of New Mexico.

Supervisor: **Dr. Steven Koch**

June 2008 – August 2008

Teaching Experience

San José State University – Department of Biomedical Engineering

1. BME 297 – Vascular Mechanotransduction – Spring 2026

Graduate elective

- Introduced cardiovascular transport phenomena
- Taught the molecular fundamentals of apical and basal mechanotransduction by the endothelium
- Used COMSOL-based CFD modeling and Navier-Stokes to understand vascular biology

2. BME 254 - Microscale Biomedical Systems: Physics and Applications – Spring 2025

Graduate elective

- Introduced microscale fluid, electrical, and particle/molecule/device interactions for biomedical systems
- Taught COMSOL-based CFD modeling; applied Navier-Stokes and Maxwell's equations
- Used case studies to explore real-world diagnostic and analytical microsystems

3. BME 188 - Biomedical Device Manufacturing – Fall 2024

Senior/graduate elective

- Covered design and manufacturing processes for biomedical devices, implants, and capital equipment
- Emphasized design for manufacturability and scalability in regulated industries emphasizing the FDA Waterfall design process

4. BME 196R – Biological Microfluidics – Spring 2024

Upper-division elective (developed course)

- Taught Navier–Stokes modeling, soft lithography, and mammalian cell culture integration
- Guided student-led simulation+experiment projects using COMSOL Multiphysics

5. BME 207 – Experimental Methods in Biomedical Engineering – Fall 2022

Graduate core

- Covered experimental design, advanced statistics, and data analysis techniques
- Emphasized reproducibility and quantitative rigor in biomedical research

6. BME 115 – Foundations of Biomedical Engineering – Fall 2019, Spring 2020, Fall 2020, Spring 2021, Spring 2022, Spring 2025, Spring 2026

Upper-division/graduate core

- Applied conservation laws (mass, energy, charge, momentum) to biomedical systems
- Introduced students to molecular biology, diagnostics, FDA regulation, and bioethics

7. BME 117 – Biotransport Phenomena – Fall 2020, Fall 2022

Upper-division/graduate core

- Taught molecular-to-organ-scale mass and momentum transport in physiological systems

8. BME 115L – Foundations of Biomedical Engineering Laboratory – Fall 2019, Spring 2020, Fall 2020, Spring 2021, Spring 2022, Spring 2025

Laboratory component

- Designed and led lab curriculum; supervised adjunct instructors
- Developed in-person lab modules (Fall 2019), transitioned labs to online platforms during COVID-19 (Summer 2020), then Hybrid labs (Spring 2021), and new in-person labs (Spring 2022)

Oregon Health & Science University / University of Portland

9. EGR 491/591-Biomicofluidics – Spring 2018

Senior/graduate elective (developed course)

- Combined microscale transport principles with current bioengineering research
- 10. EGR 110-Introduction to Engineering – Fall 2017**

First-year core, University of Portland

- Led interdisciplinary design challenge focused on circuits, structures, and software
- Instructed and mentored 29 first-year engineering students across four disciplines

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| Advising Experience (See also: https://www.jurneylab.org/) |
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1. Research advisor for three undergraduate and six graduate students. – AY 25-26
 - a. Mentee Competitive Research Awards:
 - i. CSUBIOTECH Don Eden Graduate Student Research Award Finalist
 - ii. Stanford MSTP BOOST Fellowship
 - iii. Research & Innovation Student RSCA Fellowship
 - iv. Walter C. Benzing Fellowship
2. Research advisor for eleven undergraduate and eight graduate students. – AY 24-25
 - a. Mentee Competitive Research Awards:
 - i. Bertha Kalm Scholarship
 - ii. Future of Silicon Valley Scholarship
 - iii. Dr. Richard J. Schlesinger Grant ASQ Device Division
 - iv. Walter C. Benzing Fellowship
 - v. McNair Scholarship
 - vi. Research & Innovation Student RSCA Fellowship
 - vii. College of Engineering Student Travel Grant
3. Research advisor for twelve undergraduate and seven graduate students. – AY 23-24
 - a. Mentee Competitive Research Awards:
 - i. Walter C. Benzing Fellowship
 - ii. McNair Scholarship
 - iii. Research & Innovation Student RSCA Fellowship
 - iv. Undergraduate Research Opportunity Program Award
 - v. College of Engineering Student Travel Grant
4. Research advisor for eleven undergraduate and eight graduate students. – AY 22-23
 - a. Mentee Competitive Research Awards:
 - i. CSUPERB Faculty-Graduate Student Research Collaboration Award
 - ii. Walter C. Benzing Fellowship
 - iii. Charles W. Davidson Student Scholarship
 - iv. College of Engineering Student Travel Grant
 - v. BME Outstanding Teaching Assistant Award
 - vi. BME Undergraduate Research Award
 - vii. BME Outstanding Graduate Student Award
5. Research advisor for eight undergraduate and three graduate students. – AY 21-22
 - a. Mentee Competitive Research Awards:
 - i. McNair Scholar – Fall 2021
 - ii. Summer Equity Intern (OHSU) – Summer 2021
 - b. BME Departmental Awards
 - i. BME Outstanding Teaching Assistant award
 - ii. BME Undergraduate Research Award
 - iii. BME Promise Award
6. Research advisor for fifteen undergraduate and two graduate students. – AY 20-21
 - a. Mentee Competitive Research Awards:
 - i. McNair Scholar – Fall 2020
 - ii. Professional Development Grant – Fall 2020
7. Research advisor for eleven undergraduate and one graduate student. – AY 19-20

- a. Mentee Competitive Research Awards:
 - i. Undergraduate Research Grant (2X) – Fall 2019
 - ii. Davidson Research Scholar (2X) – Fall 2019
 - iii. Professional Development Grant – Fall 2019
8. Undergraduate Student Mentor, American Heart Association Undergraduate Fellow, Oregon Health & Science University, Summer 2018, 2019
9. Undergraduate Student Mentor, MJ Murdock Charitable Trust, Oregon Health & Science University, Summer 2017
10. Undergraduate Student Mentor, BUILD EXITO, Oregon Health & Science University, 2017
11. Biotech Advisor (BME 550-Biomedical Engineering & Society Capstone), University of Portland, Spring 2017

Professional Service

- **Director, SJSU-UCSF Clinical Immersion Program | (2024-Present)**
 - Leads a highly selective collaborative program providing SJSU students with direct clinical exposure at UCSF, fostering inter-institutional partnerships and enriching student learning experiences.
- **California State University Chancellor's Office University Faculty Advisor for STEM-NET | (2024-Present)**
 - Advises the CSU system on strategic STEM initiatives, contributing to system-wide educational, research, and workforce development strategies.
- **Founder and Director, Pathways in Biomedical Engineering Seminar Series | San José State University | (2020-Present)**
 - Established and lead a high-impact seminar series, bringing three speakers per semester from biomedical/biotech industry and academia to expose students to diverse professional roles.
 - Designed the program to address the documented challenge of underrepresented students self-limiting career aspirations, drawing upon academic research on student professional identity.
 - Consistently recognized in alumni and senior exit surveys for its positive impact on student experience, professional development, and enhancing career prospects post-graduation.
- **Committee on Research, Scholarship, and Creative Activity (RSCA) | (2022-Present)**
 - Contributes to the development and oversight of college-wide policies related to research, scholarship, and creative activities, promoting faculty success and institutional impact.
- **Strategic Planning Task Force | Charles W. Davidson College of Engineering | (2022-2023)**
 - Collaborated with consultants and college leadership to develop and refine the strategic plan and mission statement for the College of Engineering, shaping its future direction.
- **Undergraduate Curriculum Committee | Charles W. Davidson College of Engineering | (2020-2022)**
 - Reviewed and approved new courses, and contributed to shaping course offerings to align with evolving industry needs and the mission of the department, college, and university.
- **Biomedical Engineering Designated Faculty Advisor | San José State University | (2021-2022, 2024-2025)**
 - Served as the designated faculty advisor for Junior and Senior Biomedical Engineering Majors meeting individually with more than 100 students to develop their course schedules and ensure timely graduation as well as discussing plans for success after graduation.
- **Faculty Hiring Committee Member | Biomedical Engineering Department, San José State University | (2020)**
 - Participated in the full search process, including reviewing applications, conducting interviews, and contributing to strategic hiring decisions for new faculty within the Biomedical Engineering Department.
- **Faculty Hiring Committee Member | Biomedical Engineering Department, San José State University | (2020)**
- **Reviewer for Grant Proposals:**
 - National Institutes of Health (NIH) Reviewer (2025)
 - American Heart Association (AHA) Fellowship Review Committee (2021, 2022, 2023, 2024)

- National Science Foundation (NSF) Reviewer (2022, 2023, 2024)
- California State University Program for Education & Research in Biotechnology (CSUBIOTECH) (2022, 2023)
- **Reviewer for Academic Journals:**
 - Atherosclerosis, Thrombosis, and Vascular Biology
 - Journal of Controlled Release
 - Acta Biomaterialia
 - ACS Biomaterials Science & Engineering
 - Frontiers in Bioengineering
 - The International Journal of Artificial Organs
 - And more...
- **Reviewer for Conference Abstracts:**
 - Biomedical Engineering Society (BMES) Annual Meetings (2017-2023)
 - Summer Biomechanics, Bioengineering, and Biotransport Conference (2020-2022)

Community Service

- Lead mechanical engineer and Spanish translator for Engineers Without Borders, University of Portland chapter.
 - Agua Negra, Guatemala (2009)
 - Guadalupe Carney, Honduras (2009)
- Graduates Linked with Undergraduates in Engineering (GLUE) | University of Texas at Austin | (2013-2015)
- Colombian Food Bank Foundation | Vice President of International Relations (2015-2019)
- Fundación Barquitos de Papel, Ambassador | Tolú, Colombia (2015)

Professional Societies

- Biomedical Engineering Society (2010-Present)
- American Heart Association (2017-Present)
- North American Vascular Biology Organization (2024-Present)

Funding and Major Awards

1. National Institutes of Health (NIGMS) SCORE Program SC2GM140991, *Reactive Ion Plasma Treatment of Cardiovascular Biomaterials to Understand the Effect of Nanotopography on Endothelialization*
Role: PI
Period: 09/01/2021 – 07/31/2025
2. American Heart Association Merit Award 24MERIT1186873, *Nicotine induced gene-environment interactions in AAA disease*
Role: Co-PI
Period: 01/01/2024 – 12/31/2028
3. CSUBIOTECH Research Development Grant, *Exploring Mitochondrial Transplantation to Restore Endothelial Cell Function in Cardiovascular Disease*
Role: PI
Period: 01/01/2025 – 06/30/2026
4. California State University Program for Education & Research in Biotechnology (CSUPERB) Early Investigator Award, *Identifying the Molecular Mechanisms of Endothelialization of Next-Generation Vascular Grafts*
Role: PI
Period: 05/03/2021 – 11/30/2022
5. W.M. Keck Foundation, *Integrating Paper microfluidics in the Undergraduate Curriculum*
Role: Co-PI (sub-award)
Period: 01/04/2021 – 09/01/2022
6. California State University Program for Education & Research in Biotechnology (CSUPERB)

Faculty-Graduate Student Research Collaboration Program, *Establishing a Platform to Elucidate the Adhesome of Endothelial Cell Attachment, Proliferation, and Migration*

Role: PI

Period: 06/30/2022 – 05/31/2023

Awards and Honors

- Kordestani Endowed Chair (2025-Present)
- Fellow of The American Heart Association (2024-Present)
- College of Engineering Faculty Award for Excellence in Scholarship (2024)
- Quantum Corporation Faculty Teaching Fellow Award (2023)
- ASEE DELTA Junior Faculty Institute (2023)
- Clinical Assistant Professor, Oregon Health & Science University (2019-2021)
- Adjunct Faculty Member, The University of Portland (2017-2018)
- NIH T-32 Postdoctoral Fellow (2016-2018)
- Chapter President - American Society for Engineering Education (2014-2015)
- Chapter Treasurer - American Society for Engineering Education (2013-2014)
- David Bruton, Jr. Graduate School Fellowship (2013-2014)
- NSF Graduate Research Fellowship Honorable Mention (2010)
- Graduate Presidential Scholar (2010)
- The Outstanding Mechanical Engineering Student (Donald P. Shiley School of Engineering, 2009)
- Karel and Marta Tietze Endowed Scholar (2005-2009)
- University of Portland Men's Soccer Cumulative GPA Award (2006-2008)
- University of Portland Men's Soccer Team Captain (2007-2008 and 2008-2009)
- NCAA Academic All American | All-West Region (2007 and 2008)
- University of Portland Dean's List (2006-2009)
- West Coast Conference Commissioner's Honor Roll (2006-2009)
- Presidential Scholarship (2005-2009)
- AP Scholar with Distinction (2005)
- New Mexico 4A High School State Player of the Year (2005)

Languages

- English (Native Speaker)
- Spanish (Fluent)

Publications and Patents

1. Schnurr, T.M., Johnson, M.L., ..., **Journey, P.**, ..., Knowles, J.W., Palmisano, B.T., Colocalization and Functional Analyses Identify GBE1 as a Gene Linking Muscle Strength and Cardiometabolic Fitness. *American Journal of Physiology Endocrinology and Metabolism*, <https://doi.org/10.1152/ajpendo.00470.2025> (2026)
2. Yuhasz, D., Shewandagn, B., **Journey P.**, Label-Free Quantification of Mitochondrial Dynamics Through Mitosis Using Holotomographic Microscopy. *The Journal of Precision Medicine: Health and Disease* 5, 100029 <https://doi.org/10.1016/j.premed.2026.100029> (2026)
3. Leineweber, W., Acevedo Munares, G., Leycam, C., Michael, R., Noyer, J., **Journey P.**, Holotomographic Microscopy Reveals Label-Free Quantitative Dynamics of Endothelial Cells During Endothelialization. *European Journal of Cell Biology* 104, 151492 <https://doi.org/10.1101/2024.11.04.621934> (2025)

4. Michael, R., Modirzadeh, T., Issa, T.B., **Journey, P.**, Label-Free Visualization and Segmentation of Endothelial Cell Mitochondria Using Holotomographic Microscopy and U-Net. *Chemical & Biomedical Imaging*. <https://doi.org/10.1021/cbmi.4c00100> (2025)
5. Faase, R., Bates, N., Plaut, J., Leycam, C., Acevedo Munares, G., Hinds, M., Baio, J., **Journey, P.**, Temporal Changes in the Surface Chemistry and Topography of Reactive Ion Plasma-Treated Polyvinyl Alcohol Alter Endothelialization Potential. *ACS Applied Materials & Interfaces*. <https://doi.org/10.1021/acsami.3c16759> (2024)
6. **Journey, P.***, Parthiban, S. P.*, Athirasala, A., Franca, C., Tahayeri, A., Menezes, P., Bertassoni, L., '3D Bioprinting of Blood Vessels and Vascular Networks: Progress and Challenges Toward Biofabrication of Functional Vascularized Tissues and Organs', *Emerging Technologies for Biofabrication and Biomanufacturing*. World Scientific Publishing. doi: 10.1142/9789811226090_0008 (2023)
7. Lakshmanan, HHS., Estonilo, A., Reitsma, S., Melrose, A., Subramanian J., Zheng, T., Maddala, J., Tucker, E., Gailani, D., McCarty, O., Puy, C., **Journey, P.** Revised model of the tissue factor pathway of thrombin generation: role of the feedback activation of FXI. *Journal of Thrombosis and Haemostasis*. <https://doi.org/10.1111/jth.15716> (2022)
8. **Journey, P.**, Glynn, J., Dykan, I., Hagen, M., Kaul, S., Wampler, R., Hinds, M., Giraud, G., Characterization of a Second Generation Pulsatile Rotary Total Artificial Heart *Artificial Organs* 2020.doi:10.1111/aor.13810 (2021)
9. Lakshmanan, H. H. S., Pore, A., Kohs, T., Yazar, F., Thompson, R., **Journey, P.**, Maddala, J., Olson, S., Shatzel, J., Vanapalli, S., and McCarty, O. Design of a Microfluidic Bleeding Chip to Evaluate Antithrombotic Agents for Use in COVID-19 Patients. *Cell. Mol. Bioeng.* 1–9, (2020)
10. Bates, N., Puy, C., **Journey, P.**, McCarty, O. J. T., Hinds M. T., Evaluation of the Effect of Crosslinking Method of Poly(Vinyl Alcohol) Hydrogels on Thrombogenicity. *Cardiovasc. Eng. Technol.* 11:448–455, (2020)
11. **Journey, P.**, Anderson, D., Pohan, G., Yim, E., Hinds, M., Reactive ion plasma modification of poly(vinyl-alcohol) increases primary endothelial cell affinity and reduces thrombogenicity *Macromolecular Bioscience* 18(9) (2018)
12. **Journey, P.**, Agarwal, R., Singh, V., Roy, K., Sreenivasan, S.V., Shi, L., Unique Size and Shape-Dependent Uptake Behaviors of Non-Spherical Nanoparticles by Endothelial Cells due to a Shearing Flow *Journal of Controlled Release* 245, 170–176 (2017).
13. **Journey, P.**, Agarwal, R., Roy, K., Sreenivasan, S.V., Shi, L., Size-Dependent Nanoparticle Uptake by Endothelial Cells in a Capillary Flow System *Journal of Nanotechnology in Engineering and Medicine* 6(1) 011007 (2015)
14. Agarwal, R., **Journey, P.**, Raythatha, M., Singh, V., Sreenivasan, S.V., Shi, L., Roy, K., Effect of Shape, Size and Aspect Ratio on Nanoparticle Penetration and Distribution Inside Solid Tissues using 3D Spheroid Models. *Advanced Healthcare Materials* 4(15) 2269-2280 (2015)
15. Singh, V., Agarwal, R., Marshall K., **Journey, P.**, Roy K., Shi, L., Sreenivasan, S.V., Scalable Fabrication of Low Elastic Modulus Polymeric Nanocarriers with Controlled Shapes for Diagnostics and Drug Delivery. *Journal of Micro and Nano-Manufacturing* 3(1) 011002 (2015)
16. **Journey, P.**, Agarwal, R., Singh, V., Roy, K., Sreenivasan, S.V., Shi, L., Size-Dependent Nanoparticle Margination and Adhesion Propensity in a Microchannel. *Journal of Nanotechnology in Engineering and Medicine* 4(3) 031002 (2013)
17. Agarwal, R., Singh, V., **Journey, P.**, Shi, L., Sreenivasan, S.V., Roy, K., Mammalian Cells Prefer Nanodiscs over Nanorods and Use Shape-specific Uptake Mechanisms. *Proceedings of the National Academy of Sciences* 110 17247-17252 (2013)
18. Agarwal, R., Singh, V., **Journey, P.**, Shi, L., Sreenivasan, S.V., Roy, K., Scalable Imprinting of Shape-Specific Polymeric Nanocarriers Using a Release Layer of Switchable Water Solubility. *ACS Nano* 6 2524-2531 (2012)

Conference Presentations

1. Yuhasz, D., Shewardagn, B., Noyer, J., **Journey P.** Quantifying Changes in Mitochondrial Network Structure during Fluidic Shear Stress Cessation. Biomedical Engineering Society Annual Meeting.: October 2025; San Diego, CA. **Poster**
2. Shraim, N., Raghuraman, S., **Journey P.** Development of an In-Vitro Model Comparing AC and DC Electrical Stimulation Effects on HEKa Cell Migration in Diabetic Wound Healing. Biomedical Engineering Society Annual Meeting.: October 2025; San Diego, CA. **Poster**
3. Castellanos, D., Chirkova, A., **Journey P.** Fluid Shear in Coupled in-vitro and in-silico Model of Coronary Artery Bypass Graft Geometries. Biomedical Engineering Society Annual Meeting.: October 2025; San Diego, CA. **Poster**

4. Picard, M., Ngov, T., Tompkins-Rhoades, C., Roy, S., **Journey P.** Alumina Surface Property Characterization for Implantable Bioartificial Kidney Biomedical Engineering Society Annual Meeting.: October 2025; San Diego, CA. **Podium**
5. Noyer, J., Leineweber, W., **Journey, P.** Holotomographic Microscopy Imaging to Quantify the Role of Mechanotransduction of Fluidic Shear Stresses in Mitochondrial Network Structure and Function. Vascular Biology.: October 2024; Monterey, CA. **Podium/Poster**
6. Noyer, J., **Journey, P.** Holotomographic Microscopy Imaging to Quantify the Role of Mechanotransduction of Fluidic Shear Stresses in Mitochondrial Network Structure and Function. Biomedical Engineering Society Annual Meeting.: October 2024; Baltimore, MA. **Podium**
7. Catano, C., Rhee, Y.H., Tsao, P., **Journey, P.** Disrupting Aortic Smooth Muscle Cell and Inflammatory Macrophage Signaling Using PCSK9 Inhibition. Biomedical Engineering Society Annual Meeting.: October 2024; Baltimore, MA Poster
8. Raul, M., Modirzadeh T., Bachar, I., **Journey, P.** A Machine Learning Model for Identifying Mitochondria Fusion and Fission Points. Biomedical Engineering Society Annual Meeting.: October 2024; Baltimore, MA Poster
9. Noyer, J., **Journey, P.** Characterizing the Role of Fluidic Shear Stress Mechanotransduction by Endothelial Cells in Mitochondrial Network Dynamics. Stanford-Arizona-Morehouse-UAB Cardiovascular Research Symposium: August, 2024; Palo Alto, CA Poster (**Best Poster Award**)
10. Raul, M., Modirzadeh T., Bachar, I., **Journey, P.** A Machine Learning Model for Identifying Mitochondria Fusion and Fission Points. Vasculata.: July 2024; Palo Alto, CA. Poster
11. Noyer, J., **Journey, P.** Characterizing the Role of Fluidic Shear Stress Mechanotransduction by Endothelial Cells in Mitochondrial Network Structure and Function, using Holotomographic Microscopy. Vasculata.: July 2024; Palo Alto, CA. **Podium (invited)**
12. Catano, C., Rhee, Y.H., **Journey, P.**, Disrupting Aortic Smooth Muscle Cell and Inflammatory Macrophage Signaling Using PCSK9 Inhibition. Vasculata.: July 2024; Palo Alto, CA. Poster
13. Noyer, J., **Journey, P.** Holotomography, a Platform to Investigate the Role of the Adhesome in Endothelial Cell Metabolism CSU Biotechnology Symposium.: January 2024; Santa Clara, CA. Poster
14. Babiker, A., Capuyon, O., **Journey, P.** A Proposed Workflow to Standardize the Measurement of Endothelialization of Vascular Biomaterials. Biomedical Engineering Society Annual Meeting.: October 2023; Seattle, WA. Poster
15. Noyer, J., **Journey, P.** Holotomographic Microscopy - a Platform to Investigate the Role of the Adhesome in Endothelial Cell Metabolism. Biomedical Engineering Society Annual Meeting.: October 2023; Seattle, WA. Poster
16. Leycam, C., Acevedo-Munares, G., **Journey, P.** 3D Holotomographic Imaging of Live Cells to Characterize Endothelialization. Biomedical Engineering Society Annual Meeting.: October 2022; San Antonio, TX. Poster
17. Lakshmanan, HHS., Estonilo, A., Reitsma, S., Melrose, A., Zheng, T., Maddala, J., Gailani, D., **Journey, P.**, Puy, C., McCarty, O. An Integrative Biology Approach to Model the Role of the Feedback Activation of FXI by Thrombin in the Tissue Factor Pathway. International Society of Thrombosis and Haemostasis International Congress July 2022. **Podium**
18. Lakshmanan, HHS., Reitsma, S., Zheng, T., Subramanian, J., Melrose, A., Estonilo, A., Maddala, J., Gailani, D., **Journey, P.**, Puy, C., McCarty, O. Systems Biology of the Tissue Factor Pathway of Thrombin Generation: Role of the Feedback Activation of FXI. 19th U.S. National Congress on Theoretical and Applied Mechanics. June 2022.
19. Faase, R., Bates, N., Plaut, J., Guerra, A., Hinds, M., Baio, J., **Journey, P.** A Platform For Studying The Effects of Nanotopography and Reactive Chemical Species On Integrin Selection. SB³C. June 2021. **Podium**
20. Lakshmanan, HHS., Pore, A., Shatzel, JJ., Puy, C., **Journey, P.**, Maddala, J., Vanapalli, SA., McCarty OJT. Development of a Microfluidic Pillar Device to Study Hemostasis in vitro. Res Pract Thromb Haemost. 2020; 4 (Suppl 1).
21. Lakshmanan, H., Estonilo, A., Maddala, J., Puy, C., McCarty, O., **Journey, P.** “Predicting and Validating the Role of Coagulation Factor XI in Hemostasis and Thrombin Generation” Oregon Bioengineering Symposium. November 2020; Virtual. Poster
22. Yazar, F., **Journey, P.** “Microfluidic Hemostasis Assay to Study the Mechanisms of Coagulation” Biomedical Engineering Society Annual Meeting.: October 2020; Virtual. Poster

23. **Jurney, P.**, “Reactive Ion Plasma Treatment of Poly(Vinyl-Alcohol) (PVA) to Study the Mechanisms of Endothelial Cell Attachment, Migration, Proliferation, and Thrombogenicity” 9th International Bio-Fluid Mechanics And Vascular Mechano-Biology Symposium: February 2020; Tucson, Arizona. **Podium**
24. **Jurney, P.**, Yim, E., Hinds, M., “Reactive Ion Plasma Treatment of Poly(Vinyl-Alcohol) (PVA) to Study the Mechanisms of Cell Attachment, Migration, and Proliferation” Biomedical Engineering Society Annual Meeting: October 2019; Philadelphia, Pennsylvania. Poster
25. **Jurney, P.**, Glynn, J., Dykan, I., Hagen, M., Kaul, S., Wampler, R., Hinds, M., Giraud, G., “Characterization of a Pulsatile Rotary Total Artificial Heart” Biomedical Engineering Society Annual Meeting: October 2019; Philadelphia, Pennsylvania. Poster
26. **Jurney, P.**, Anderson, E.J., Pohan, G., Yim, E., Hinds, M., “Has Your Biocompatible Surface Changed? Reactive Ion Plasma Introduces Unstable Functional Groups onto the Surface of Poly(vinyl alcohol)” Biomedical Engineering Society Annual Meeting: October 2018; Atlanta, Georgia. Poster
27. **Jurney, P.**, Anderson, E.J., Pohan, G., Yim, E., Hinds, M., “Reactive Ion Surface Modification of Poly(vinyl alcohol) Affects Endothelial Colony Forming Cell Affinity and Thrombogenicity” International Vascular Biology Meeting: June 2018; Helsinki, Finland. Poster
28. **Jurney P.**, Anderson D., Pohan G., Yim E., Hinds M., “Reactive Ion Plasma Modification of Poly(vinyl alcohol)” Canadian Biomaterials Society Annual Meeting: May 2018, Victoria, Canada. Poster
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