Emma C. Aldrich

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Research & Career Interests

Research Interests:

- I am interested in biophysics and biological engineering research that leverages computational tools to address questions at the interface of immunology, cancer, and other inflammatory diseases. Specific areas of focus include the development of novel immunotherapeutics for Alzheimer's disease and cancer, computational modeling of mechanisms that disrupt tumor immunosuppression, and the application of nanotechnology for targeted drug delivery. I am also deeply interested in education research and curriculum development aimed at helping students become more effective interdisciplinary problem solvers, quantitative thinkers, and scientific communicators.

Career Interests:

- I am pursuing a tenure track faculty position in physics, where I can continue conducting computational biophysics research while mentoring student researchers.

Education

University of Colorado (CU) Boulder - *Boulder, CO* 08/2022 - 06/2026

- **Ph.D., Biological Engineering** – CU Boulder Department of Chemical and Biological Engineering (ChBE) | GPA: 3.827 | Advisor: Dr. Kayla G. Sprenger
- **Thesis:** In Silico Elucidation of the Molecular Mechanisms Underlying Interfacial Phenomena for Cancer Immunotherapeutic Design
- **M.S. in Biomedical Engineering** - *Fall 2024*
- **National Science Foundation Graduate Research Program Fellow Recipient** - *Fall 2024*
- **Interdisciplinary Quantitative Biology Graduate Certificate** – CU BioFrontiers Institute
- National Science Foundation Research Traineeship: Integrated Data Science, Teams for Advancing Bioscience Diversity

Washington and Lee University (W&L) - *Lexington, VA* 08/2018 - 05/2022

- **B.S. Physics with Honors, B.A. Biology**
- **Honors Thesis:** A One-Dimensional Traffic Model on Tracks of Variable Length: Theory, Simulations and Potential Applications

Teaching & Mentorship Experiences

Summary of Teaching Philosophy:

- Aside from cultivating a culture of humble curiosity, high standards, and opportunities for self-growth, what separates a good teacher from a great one is the ability to be a great leader. Mentor-oriented leaders practice transformational leadership, helping students develop a clear sense of purpose and connection to the bigger picture. By communicating the 'why,' the teacher fosters internal motivation and drive, leading to deeper learning and student empowerment. In addition to contextualizing purpose, great teachers embody balance: they maintain discipline while remaining flexible, know when to provide guidance and when to encourage independence, and understand when to lead and when to follow. Through exemplary mentorship, the greatest teachers are not confined to the classroom—they help students grow into capable thinkers, confident communicators, and impactful leaders.

Visiting Assistant Professor of Physics - *W&L Physics and Engineering Department* 07/2026 - present

- Teaching General Physics I
- 2026-2027 Community-Based Learning Collaborative

Graduate Teaching Fellow - *CU Boulder* 08/2025 - 12/2025

- Develop curricula for new course, Fundamentals of Biotechnology

- Prepare lessons, interactive case studies, and assignments to implement for fall semester
- Lead class meetings, including lectures and case study discussions

College Teaching in Practice Micro-credential *(In Progress)* - *CU Boulder Center for Teaching & Learning* — Pending Certificate

- Engage in 10 hours of Center for Teaching & Learning workshops and 20 hours of discipline-specific teaching workshops
- Conduct a video consultation (recorded lecture) with reflection and feedback
- Receive valuable feedback from a faculty observer to enhance classroom management, content delivery, and student engagement
- Cultivate a teaching portfolio, including a teaching philosophy statement, sample course materials, evidence of teaching effectiveness, and assessment tools and outcomes

Graduate Teaching Circles - *CU Boulder Center for Teaching & Learning* — 09/2025 - 12/2025

- Engaged in cross-disciplinary graduate student teaching cohort to conduct and receive peer observations

Graduate Paid Teaching Instructor - *Boulder, CO* — 01/2025 - 05/2025

- Volunteered to co-instruct biomedical engineering capstone course
- Received Biomedical Engineering Teaching Research and Excellence Award

Fundamentals of Undergraduate Research Mentor - *Boulder, CO* — 09/2025 - 12/2025

- Mentor two undergraduate students on novel research projects

High School STEM outreach volunteer - *Chehalis, WA & Thornton, CO* — 09/2024 - 05/2026

- Develop, implement, and refine computational modeling curricula on interdisciplinary subjects, including chemistry, physics, and geology

Elementary STEM education volunteer - *Lyons Elementary School* — 04/2024 - 12/2024

- Worked with Lyons Elementary STEM Coordinator to teach active-learning physics and computer science lessons
- Developed and implemented hands-on interdisciplinary curriculum

Partnerships for Informal Science Education in the Community - *Northglenn High School, Northglenn, CO* — 09/2024 - 12/2024

- Mentored students on biomedical engineering senior capstone projects at a minority-serving (80.7%) high school

Science Community Outreach Program and Education - *Boulder, CO and Longmont, CO* — 03/2023 - 05/2026

- Engage as a lead volunteer in training and outreach for hands-on science education for underserved middle school students
- Member of curriculum development team

Denver Public Schools Coach Mentorship Program - *Northeast Early College (High School) engineering cohort, Denver, CO & East High School Women in STEAM cohort, Denver, CO* — 08/2023 - 05/2025

- Engage in monthly mentorship sessions to help high school mentees investigate post-secondary STEM education and careers

Summer Program for Undergraduate Research Mentor Supervisor - *CU Boulder* — 05/2024 - 07/2024

- Led presentations for mentors and students conducting summer undergraduate research
- Provided feedback on student presentations

Research mentor for undergraduate student - *Boulder, CO* — 08/2023 - present

- Work with a CU undergraduate student on research skills and professional development

Research mentor for high school students - *Boulder, CO* 06/2023 - present

- Work with several local high school students on research skills and professional development

Graduate Peer Mentoring Program - *Boulder, CO* 07/2023 - 12/2023

- Worked with an incoming graduate student to provide guidance and advice

Biochemistry Teaching Assistant - *CU Biochemistry Department — Dr. Aaron Whiteley, Dr. Alexandra Whiteley* 08/2023 - 05/2024

- Taught recitations on biochemistry concepts and led weekly office hours
- Wrote and corrected homework and test questions (approximately 10 hours weekly)

Physics Lab Teaching Assistant - *W&L Physics and Engineering Department — Dr. Dan Mazilu* 09/2019 - 05/2022

- Assisted in introductory undergraduate labs, including forces/motion and electricity/magnetism

Publications

- Emma E. Lietzke, David Saeb, **Emma C. Aldrich**, Kimberley D. Bruce, Kayla G. Sprenger. (2026). Uncovering the Biological Mechanisms of TREM2 with Molecular Simulations: A Comprehensive Review and Perspective. Progress in Biophysics and Molecular Biology. doi: 10.1016/j.pbiomolbio.2026.06.002
- Samuel A. Blackman, Ahlam Qerquez, Alison Lee, Nicole Johnson, Justin Owens, Grace Lai, **Emma C. Aldrich**, Kayla Sprenger, Jangsoon Lee, Sophie Verrier, Martin Stoddart, Annalee Nguyen, Jennifer A. Maynard. (2026). Antibodies blocking PlGF or VEGF interactions with the NRP1 receptor mediate antiproliferative effects. Journal of Biological Chemistry. 302(6):111476. doi: 10.1016/j.jbc.2026.111476
- **Emma C. Aldrich**, David Saeb, Emma E. Lietzke, Luis Pais, Kimberley D. Bruce, Kayla G. Sprenger. Competitive Cation-Pi Interactions Drive TREM2 Complementary Determining Region 2 Dynamics and are Perturbed by Alzheimer's Disease Variants. *In preparation.* **(Submission planned for Oct. 2026)**
- **Emma C. Aldrich**, David Saeb, Emma E. Lietzke, Luis Pais, Kimberley D. Bruce, Kayla G. Sprenger. In Silico Sequence-to-Structure Analysis of Cancer-Associated TREM2 Variants to Inform Therapeutic Modulation of Macrophages. *In preparation.* **(Submission planned for Oct. 2026)**
- David Saeb, Emma E. Lietzke, **Emma C. Aldrich**, Kayla G. Sprenger. Investigating the Therapeutic Potential of Soluble TREM2 Interactions with Transgelin-2 in Alzheimer's Disease. *In preparation.* **(Submission planned for Oct. 2026)**
- Samuel A. Blackman, **Emma C. Aldrich**, Kayla G. Sprenger, Mark Badeaux, Martin Stoddart, Jennifer Maynard. Placental Growth Factor in Cancer: Challenges and Criteria for Effective Protein Therapeutics. *In preparation.* **(Submission planned for Oct. 2026)**
- Erika S. Langsfeld*, **Emma C. Aldrich***, Kimberley Erickson, Jake Drewes, Alexandra Holland, Christopher C. Ebmeier, Kayla G. Sprenger, Robert L. Garcea. Polyomavirus sT Binds PP2A to Modulate Localization of Phosphoproteins to Viral Replication Centers. *In preparation.* **(Submission planned for Dec. 2026)**
- Emma E. Lietzke, David Saeb, **Emma C. Aldrich**, Kimberley D. Bruce, Kayla G. Sprenger. (2025). Synergistic Reduction in Interfacial Flexibility of TREM2R47H and ApoE4 May Underlie AD Pathology. Alzheimer's and Dementia: The Journal of Alzheimer's Association. 21(4):e70120. doi: 10.1002/alz.70120.
- David Saeb, Emma E. Lietzke, Daisy Fuchs, **Emma C. Aldrich**, Kimberley D. Bruce, and Kayla G. Sprenger (2024). The flexible stalk region of sTREM2 modulates its interactions with phospholipids in the brain, eLife 10.7554/eLife.102269.2.
- Emily R. Rhodes, Nicole B. Day, **Emma C. Aldrich**, Kayla G. Sprenger, C. Wyatt Shields IV (2024). Elucidating the Role of Carrier Proteins in Cytokine Stabilization within Double Emulsion-Based Polymeric Nanoparticles. Bioengineering & Translational Medicine, e10722. doi: 10.1002/btm2.10722
- **Emma C. Aldrich** (2021). A general one-dimension traffic model for motion of molecular motors on microtubules of variable length. International Conference on Mathematical Modelling in Physical Sciences. Online. 2090(1), 012024. 10.1088/1742-6596/2090/1/012024.
- Beth Reed, **Emma C. Aldrich**, L. Stoleriu, Dan A. Mazilu, Irina Mazilu (2021). A one-dimensional

modified TASEP model on a track of variable length: analytical and computational results. Journal of Physics: Conference Series, 2090(1). 10.1088/1742-6596/2090/1/012025

- Elise Baker, Matthew O. Withers, **Emma C. Aldrich**, Isabella Shaffrey, Justin Pusztay, Dan A. Mazilu, D. A, Irina Mazilu (2019). A computational model for the ionic self-assembly of nanoparticle under the influence of external electric fields. Journal of Physics: Conference Series, 1391(1), 012007. https://doi.org/10.1088/1742-6596/1391/1/012007.

[*] *denotes co-first authorship.*

Presentations

- **Emma C. Aldrich**, Kayla G. Sprenger (2026). In Silico Sequence-to-Structure Analysis of Cancer-Associated TREM2 Variants to Inform Therapeutic Modulation of Macrophages. *Kern Lipid Conference.* Breckenridge, CO. *Poster presentation and lightning talk.*
- **Emma C. Aldrich**, Erika Langsfeld, Robert Garcea, Kayla G. Sprenger (2025). In Silico Design Principles for Disrupting Polyomavirus Tumor Antigen–PP2A Interfaces. *CU Boulder Host Pathogen Supergroup.* Boulder, CO. *Oral presentation.*
- **Emma C. Aldrich**, Kimberley D. Bruce, and Dr. Kayla G. Sprenger (2025). In Silico Sequence-to-Structure Analysis of Cancer-Associated TREM2 Variants to Inform Therapeutic Modulation of Macrophages. *American Institute of Chemical Engineers 2025: Computational Molecular Science and Engineering Forum Poster Session.* Boston, MA. *Poster presentation.*
- **Emma C. Aldrich**, Samuel A. Blackman, Jennifer Maynard, Kayla G. Sprenger (2025). In silico Characterization of the Molecular Basis for the Cross-Reactivity of VEGFA- and PLGF2-Targeting Antibodies for Cancer Treatment. *American Institute of Chemical Engineers 2025: Engineering and Fundamentals in Life Science.* Boston, MA. *Poster presentation.*
- **Emma C. Aldrich**, Kimberley D. Bruce, and Dr. Kayla G. Sprenger (2024). Investigating the impact of TREM2 variant dynamics on ligand binding in cancer: Insights for therapeutic development. *American Institute of Chemical Engineers 2024: Computational and Experimental Approaches to Biomolecular Design.* San Diego, CA. Oral presentation. **Won Division 15 Oral Presentation Award.**
- **Emma C. Aldrich**, Kimberley D. Bruce, and Dr. Kayla G. Sprenger (2024). Investigating the impact of TREM2 variant dynamics on ligand binding in cancer: Insights for therapeutic development. *American Institute of Chemical Engineers 2024: Computational Molecular Science and Engineering Forum Poster Session.* San Diego, CA. *Poster presentation.*
- **Emma C. Aldrich**, Kimberley D. Bruce, and Dr. Kayla G. Sprenger (2024). Investigating the impact of TREM2 variant dynamics on ligand binding in cancer: Insights for therapeutic development. *CU Boulder Biophysics Supergroup.* Boulder, CO. *Oral presentation*
- **Emma C. Aldrich**, Kayla G. Sprenger (2024). Investigating the Impact of TREM2 Variants in Cancer: Insights for Therapeutic Development. *CU BioFrontiers and Education Advisory Board Annual Meeting.* Boulder, CO. *Oral presentation.*
- **Emma C. Aldrich**, Kayla G. Sprenger (2024). Investigating the Impact of TREM2 Variant Dynamics on Apolipoprotein E Binding in Cancer: Insights for Therapeutic Development. *Interdisciplinary Quantitative Biology 2024 Symposium.* Boulder, CO. *Oral presentation.* **Won first place talk.**
- **Emma C. Aldrich**, Kimberley D. Bruce, and Kayla G. Sprenger (2024). Investigating the impact of TREM2 variant dynamics on Apolipoprotein E binding in cancer: Insights for therapeutic development. *Foundations of Molecular Modeling and Simulation 2024.* Snowbird, UT. *Poster presentation.*
- **Emma C. Aldrich**, Kimberley D. Bruce, and Kayla G. Sprenger (2024). Investigating the impact of TREM2 variant dynamics on Apolipoprotein E binding in cancer: Insights for therapeutic development. *Kern Lipid Conference 2024.* Snowmass, CO. *Poster presentation.*
- **Emma C. Aldrich**, Samuel A. Blackman, Jennifer Maynard, Kayla G. Sprenger. Utilizing an integrated experimental and in silico approach to engineer cross reactive antibodies against VEGFA and PlGF2 in cancer. *Rocky Mountain Advanced Computing Consortium 2024.* Boulder, CO. *Poster presentation.*
- **Emma C. Aldrich** (2024). Investigating the impact of TREM2 variant dynamics on Apolipoprotein E binding in cancer: insights for therapeutic development. *Interdisciplinary Quantitative Biology Seminar.* Boulder, CO. *Oral presentation.*
- **Emma C. Aldrich**, Emily R. Rhodes, Nicole B. Day, Kayla G. Sprenger, C. Wyatt Shields IV (2023).

Enhanced Stabilization of Cytokines for Nanoparticle Delivery Applications. *American Institute of Chemical Engineers 2023: Applications of Molecular Modeling to Study Interfacial Phenomena.* Orlando, FL. *Oral presentation.*

- **Emma C. Aldrich**, Kimberley D. Bruce, Kayla G. Sprenger (2023). Understanding the multifaceted roles of TREM2: Exploring OPA as a dual immunotherapeutic approach to Alzheimer's Disease and cancer. *Cancer Metabolism Workshop.* CU Anschutz, Denver, CO. *Poster presentation.*
- **Emma C. Aldrich**, Georgia E. Barone, Nolan Bonnie, Kurt Winkler, Ryan Layer, Kayla G. Sprenger (2023). Identifying apolipoprotein E variants that alter canonical phenotype in Alzheimer's Diseases. *Interdisciplinary Quantitative Biology Team Rotation Seminar.* Boulder, CO. Oral presentation.
- **Emma C. Aldrich**, Kimberley D. Bruce, and Kayla G. Sprenger (2023). Analyzing mechanistic interactions between apolipoprotein E, triggering receptor expressed on myeloid cells 2, and amyloid beta as a target for Alzheimer's Disease. *Interdisciplinary Quantitative Biology Rotation 3 Seminar.* Boulder, CO. *Oral presentation.*
- **Emma C. Aldrich**, Emily R. Rhodes, Nicole B. Day, C. Wyatt Shields, Kayla G. Sprenger (2022). Do you need help to be stable? Investigating heparin as an agent for cytokine stability. *Interdisciplinary Quantitative Biology Rotation 2 Seminar.* Boulder, CO. *Oral presentation.*
- **Emma C. Aldrich**, Samuel A. Blackman, Jennifer Maynard, Kayla G. Sprenger (2022). Designing a vascular endothelial growth factor A/placental like growth factor 2 dual antibody: A computational approach. *Interdisciplinary Quantitative Biology Rotation 1 Seminar.* Boulder, CO. *Oral presentation.*
- **Emma C. Aldrich**, Beth Reed, L. Stoleriu, Dan Mazilu, Irina Mazilu (2021). A general one-dimension traffic model for motion of molecular motors on microtubules of variable length. *10th International Conference on Mathematical Modeling in Physical Sciences.* Online. *Oral presentation.*
- **Emma C. Aldrich**, Ryder Babik, Griffin Coffee, Callie Garst, Tyler Grunge, Riwaj Shrestha, Jonathon Erickson (2019). Engineering Community Development 2019 Service Project: Engineering a Passive Biosand Water Filtration Unit in Belmopan, Belize. *Washington and Lee University 2019 Science, Society, and the Arts Conference.* Lexington, VA. *Oral presentation.*

Accomplishments & Awards

Max S. Peter's Faculty Service Award for Teaching and Mentorship - *CU Boulder ChBE* 03/2026

- Departmental award, nominated to recognize outstanding service in teaching and mentorship

Sigma Xi National Honor Society 03/2026

- National Research Honor Society, nominated for scholarly achievements and contributions to research.

Philanthropic Education Organization Scholar Awards Finalist 10/2026

- Pending results for a $25,000 national merit scholarship to recognize female leadership and potential to make an impact in one's field.

ChBE Graduate Teaching Fellowship - *CU Boulder* 08/2025

Outstanding Mentorship Award - Discovery Learning Apprenticeship Program - *CU Boulder* 08/2025

Biomedical Engineering Teaching & Research Excellence Award - *CU Boulder* 01/2025

Division 15 Oral Presentation Award - *AICHE 2024* 10/2024

- One of six graduate students voted by audience members

First place lightning talk - *Interdisciplinary Quantitative Biology 2024 Symposium* 08/2024

Schrödinger Catalyzing Gender Equity Symposium 2024 - *Schrödinger Institute, New York City, NY* 06/2024

- One of 25 graduate / post-doctoral women selected to attend a two-day symposium in New York City to participate in sessions on research and development projects at Schrödinger and participate in an interactive molecular modeling workshop led by Schrödinger education team

National Science Foundation Graduate Research Fellowship - *National Science Foundation* 04/2024

- Awarded three years of annual funding including opportunities for professional development

Olke C. Uhlenbeck Graduate Fellowship - *CU BioFrontiers Institute* 08/2022

- Awarded every two years to top graduate students pursuing doctorates in STEM fields with the Interdisciplinary Quantitative Biology program

Dean's Future Leadership Fellowship - *CU College of Engineering and Applied Science* 08/2022

Chair's Fellowship - *CU College of Engineering and Applied Science* 08/2022

Omnicron Delta Kappa - *Alpha Circle, W&L* Initiated 10/2021

- National honor society to recognize meritorious leadership and service in extracurricular activities

Sigma Pi Sigma - *W&L Physics and Engineering Department* Initiated 05/2021

- Physics national honor society, served as chapter president 2021-2022
- Attended Conference for Undergraduate Women in Physics, Baltimore, MD, 01/2020

Walter LeConte Stevens Scholarship - *W&L Physics and Engineering Department* 03/2021

- Nominated by faculty for excellence in coursework and contributions to the department

W&L Summer Research Scholar - *Two-Year Fellow, W&L Biology Department, Whitworth Lab* 02/2019-09/2022

- Earned funding for summer research for two summers, including academic year and winter breaks
- Presented research internally with oral and poster presentations

Tri-Beta - *W&L Biology Department* Initiated 04/2020

- National biology honor society

Emerging Leader of the Year - *W&L Leadership Education and Development* 05/2020

- Awarded to students noted for their campus leadership

Elizabeth & Johnathon W. Warner Honor Scholarship - *W&L Department of Financial Aid* 08/2018 - 05/2022

- Four-year merit scholarship awarded for outstanding academic promise and a distinguished record of leadership

Research Experiences

Mechanism, Ensemble, and Design Lab for Next Generation Immunotherapeutics - *W&L Physics and Engineering Department* 07/2026 - present

- Analyze shifts in conformational ensembles and underlying molecular mechanisms that drive pleiotropic protein function across inflammatory states, using computational biophysics to identify targets and design novel therapeutics

Rationally Designed Immunotherapeutics and Interfaces Lab - *CU ChBE* 08/2022 - 07/2026

- Conducted physics-based models and molecular dynamics simulations to model biological systems and address questions in immunology and cancer

Interdisciplinary Quantitative Biology Rotations - *CU BioFrontiers* 08/2022 - 05/2023

- Investigated particle design and molecular mechanisms for BSA and heparin-mediated cytokine stability. Advisors: C. Wyatt Shields (CU ChBE) and Kayla G. Sprenger)
- Conducted computational modeling of interactions between triggering receptor expressed on myeloid cells 2, Apolipoprotein E, and amyloid beta. Advisors:

Kimberley Bruce (CU Anschutz Division of Endocrinology, Metabolism, and Diabetes) and Kayla G. Sprenger

- Used computational tools to investigate the role of non-canonical variants in apolipoprotein E on phenotype and Alzheimer's Disease risk. Advisors: Ryan Layer (CU Computer Science) and Kayla G. Sprenger

Analyzing mRNA Sequences to Identify Obesity-Related Novel Splice Isoforms - *W&L Biology Department, Whitworth Lab* 02/2020 - 09/2021

- Conducted computational analysis of RNA sequencing data using R and Amazon Web Services to identify the effect of diet and estrogen on alternative splicing patterns in female rats
- Designed and tested primers using polymerase chain reaction and quantitative polymerase chain reaction to validate computational findings

A General One-dimension Traffic Model for Motion of Molecular Motors on Microtubules of Variable Length - *W&L Physics and Engineering Department, I. Mazilu Lab* 09/2019 - 06/2022

- Utilized Python and Monte Carlo to model the movement of motor molecules on dynamic microtubule tracks with time and length dependence
- Expanded the publication as a Physics Honors Thesis, completed May 2022

Software Experience & Relevant Coursework

Relevant graduate coursework (CU Boulder): Systems Analysis of Cells and Tissues, Teaching and Learning in Physics; Infectious Disease Modeling; Physiology and Anatomy for Biomedical Engineers; Biomolecular Kinetics, Transport, and Thermodynamics; Software Engineering for Scientists; Bioinformatics and Genomics; Biology-Inspired Multi-Agent Systems; Analysis of the Human Genome; Responsible Conduct of Research; Scientific Communication
Relevant undergraduate coursework (W&L): Statistical Mechanics, Quantum Mechanics, Newtonian Mechanics, Electricity and Magnetism, Ordinary Differential Equations, Molecular Mechanics, Mathematical Methods, Organic Chemistry, Biochemistry
Programming Languages: Python, Bash, R, TCL, Maple, LaTeX
Software Experiences: Canvas, Gradescope, GROMACS, AlphaFold, Visual Molecular Dynamics, Github, AutoDockTools

Volunteer Work

W&L Physics and Engineering Alumni Graduate School Panelist - *W&L* 10/2025

- Invited to lead discussion with W&L undergraduates about graduate school applications, decisions, and experiences

Graduate Society of Women in Engineering - *CU Boulder* 07/2024 - 07/2026

- Engage in social and outreach events for the graduate student community
- Served as office board member 08/2024 - 05/2025

Engineering Community Development - *W&L* 02/2019 - 05/2022

- Served as president of engineering service club, planning and contributing to local and international projects
- Traveled with a team of students to Belize to engineer a biosand passive water filtration system for a local church (2019) and school (2020)
- Modified previous Engineering Community Development designs to improve filtration efficiency and ease of maintenance
- Educated students on design and upkeep, maintained communication with locals to ensure proper operation
- Co-wrote an operation manual for locals to use as reference when using or troubleshooting the filter
- Presented work at the W&L Science, Society and Arts Conference