



- 2013 – 2016 **HMI Postdoctoral Research Associate**  
Advisors: Catherine L Drennan and Collin M Stultz, Departments of Chemistry and Biology, Computational Biophysics Group in the Research Lab for Electronics, Massachusetts Institute of Technology, Boston, MA
- 2012 – 2013 **Assistant Professor**  
Chemistry and Biochemistry Department, University of Minnesota Duluth, Duluth, MN
- 2011 – 2012 **NIH F32 National Research Service Award Postdoctoral Fellow**  
Advisors: Catherine L Drennan and Collin M Stultz, Departments of Chemistry and Biology, Computational Biophysics Group in the Research Lab for Electronics, Massachusetts Institute of Technology, Boston, MA

## AWARDS & HONORS

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### *Awards & Honors since beginning my independent career*

- 2026 **Editorial Board Member of Biophysical Journal**; Protein Section
- 2026 **Elected Board Member of the American Union for Crystallography (AUC)**;  
The AUC represents crystallographers from the United States in the International Union of Crystallography (IUCr) as of 1/1/2026. The IUCr strives to promote international cooperation and publication in crystallography, to facilitate standardization of methods, units, nomenclatures and symbols, and to form a focus for the relations of crystallography to other sciences.
- 2025 **Elected Chair Stanford Synchrotron Radiation Lightsource User Executive Committee (SSRL UEC)**
- 2024 **Elected Fellow of the American Crystallographic Association (ACA)**; The ACA Fellows program recognizes the excellence of ACA Members whose efforts on behalf of the advancement of crystallography or its applications are scientifically or socially distinguished. ACA Fellows serve as scientific ambassadors to the broader scientific community and the general public to advance science education, research, knowledge, interaction, and collaboration.
- 2024 **Elected Member of the United States National Committee for Crystallography (USNC/Cr)**; The USNC/Cr previously represented U.S. crystallographers in the International Union of Crystallography (IUCr) through The National Academy of Sciences (*USNC/Cr ceased to be the adhering body for the IUCr representation in the US as of 12/31/2025 due to changes in the NAS*).
- 2024 **Elected to ACA Meeting Committee**
- 2024 **Elected Vice-Chair SSRL UEC**
- 2023 **Outstanding Scientist Award from Association of Biomolecular Resource Facilities (ABRF)**; Awarded to scientists who have made significant contributions to their institutional shared resource facility or to the ABRF
- 2023 **University of Arkansas Department of Biology Graduate Student Association**; Graduate Student Invited Seminar Speaker
- 2022 **Elected Chair ACA Biological Macromolecules Special Interest Group**
- 2022 **Elected to Membership of the SSRL UEC**; Represent macromolecular crystallography users at SSRL
- 2021 **Elected Vice-Chair ACA Biological Macromolecules Special Interest Group**

### ***Awards & Honors before beginning my independent career***

2011	<b>Ruth L Kirschstein National Research Service Award Postdoctoral F32 Fellowship</b>
2009	<b>United States Delegate to the 59<sup>th</sup> Lindau Meeting of Nobel Laureates and Young Researchers</b> ; International delegate, sponsored by National Institutes of Health; Selected as the Young Researcher to give closing remarks at the meeting alongside Kurt Wüthrich (2002 Nobel Prize in Chemistry)
2009	<b>Agnes M and George Messersmith Fellow</b> , University of Rochester
2008	<b>Division of Inorganic Chemistry Student Travel Award</b> , American Chemical Society
2008	<b>Elon Huntington Hooker Fellow</b> , University of Rochester
2008	<b>Graduate Women in Science Travel Award</b> , University of Rochester
2007	<b>Samuel Allen and Ellen Francis Lattimore Fellow</b> , Department of Chemistry, University of Rochester
2007	<b>Edward Peck Curtis Teaching Award</b> , University of Rochester
2006	<b>GAANN Fellow</b> , Department of Chemistry, University of Rochester
2006	<b>WD Walters Teaching Award</b> , Department of Chemistry, University of Rochester
2005	<b>Ewart Fellow</b> , Department of Chemistry, University of Rochester
2005	<b>Hypercube Scholar for Excellence in Chemistry</b> , Metropolitan State University of Denver
2004	<b>Cancer Research Fellow</b> , University of Colorado at Denver Health Science Center

### **PROFESSIONAL ORGANIZATIONS**

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2005 –	American Chemical Society (Biological and Inorganic Divisions)
2014 –	American Society for Biochemistry and Molecular Biology
2017 –	American Crystallographic Association – The Structural Science Society
2017 –	American Association for the Advancement of Science
2023 –	Pittsburgh Diffraction Society
2024 –	Society of Biological Inorganic Chemistry
2025 –	Biophysical Society

### **INVITED PRESENTATIONS**

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Jan 2027	Invited Speaker, Metals in Biology Gordon Research Conference, Ventura, CA
Fall 2026	Invited Speaker, University of Rochester Department of Biochemistry and Biophysics, <i>upcoming</i> , Rochester, NY
Fall 2026	Invited Speaker, 2026 Challenges in Structural Biology Summit, (invitation only meeting), Lake Arrowhead, CA
Spring 2026	Invited Speaker, Dartmouth College, <i>upcoming</i> , Hanover, NH
Mar 2026	Invited Spotlight Seminar Speaker, American Society for Biochemistry and Molecular Biology Annual Meeting: Application of AI in Pharma Protein Workflows Session, <i>High-throughput tools making cutting-edge structural methods work</i> , National Harbor, MD
Jan 2026	Invited Speaker, Canisius University Department of Chemistry and Biochemistry, <i>Charting New Territory in Biochemistry with X-Ray Crystallography</i> , Buffalo, NY

- Dec 2025 Invited Speaker, Metropolitan State University of Denver Department of Chemistry and Biochemistry, *Charting New Territory in Biochemistry with Spectroscopy & Diffraction Methods*, Denver, CO
- Nov 2025 Invited Speaker, University of Georgia, Department of Chemistry Inorganic Seminar Series, *Investigating metal identity and active site details in metalloproteins using combined structural and spectroscopic approaches*, Athens, GA
- Oct 2025 Invited Speaker, Center for Structural Dynamics in Biology P41 Meeting, Linac Coherent Light Source, Menlo Park, CA
- Oct 2025 Invited Speaker, Brookhaven National Laboratory Workshop #8 on Future Lightsource Capabilities, Whither Metals in Biology at NSLS-II: Spectroscopy Informed by Structural Biology/Bioimaging and Vice Versa, National Synchrotron Light Source-II, *Ironing out the details of metalloprotein structure and function*, Upton, NY
- Oct 2025 Invited Speaker, Pittsburgh Diffraction Conference, Metals Matter Session, National Synchrotron Light Source-II, *The iron-y of spectroscopy coupled crystal-based metalloprotein structural methods*, Upton, NY
- Sept 2025 Invited Speaker, SSRL/LCLS Annual Users Meeting, High Repetition Rate Sample Environment and Delivery for LCLS II HE Workshop: Heroic Experiments: Pushing the Boundary of the Experimental Envelope Session, *Tricks and tips to generate nano- & microcrystals*, Menlo Park, CA
- Sept 2025 Invited Speaker, SSRL/LCLS Annual Users Meeting, The Evolving Role of Macromolecular Crystallography (MX) in Structural Biology Workshop: Computational Advances and AI Integration Session, *AI in MX*, Menlo Park, CA
- Sept 2025 Invited Speaker, Department of Biochemistry, Jacobs School of Medicine and Biomedical Sciences, University at Buffalo, *Ironing out the details of metalloprotein structure and function*, Buffalo, NY
- Jul 2025 Invited Speaker, 21<sup>st</sup> International Conference on Biological Inorganic Chemistry *Structure and function in oxidative stress response proteins from emerging pathogens*, Long Beach, CA
- Jul 2025 Invited Speaker, 75<sup>th</sup> Annual Meeting American Crystallographic Association, *Pipe(line) dreams for MicroED/3DED sample preparation*, Lombard, IL
- May 2025 Invited Speaker, Stanford Synchrotron Radiation Lightsource, *RapiData Road Trip: Scenic postcards & peeks under the hood*, Menlo Park, CA
- Apr 2025 Invited Speaker, Buffalo Protein Science Group, *Shining a spotlight on metalloproteins: Multiple methods tell the story*, Buffalo, NY
- Mar 2025 Invited Speaker, Brookhaven National Laboratory, Center for BioMolecular Structures Lecture Series, *Shining light on metalloproteins: Multiple methods tell the story*, virtual
- Mar 2025 Invited Speaker, Rochester Institute of Technology Department of Chemistry Seminar Series, *Charting new territory in structural biology with crystal based methods*, Rochester, NY
- Nov 2024 Invited **Keynote Speaker** 18<sup>th</sup> International Conference on Crystallization of Biological Macromolecules, *Taking the High(-throughput) Road: Empowering Crystallization on the Path to Structure Determination*, Phoenix, AZ
- Oct 2024 Invited Speaker, 2024 Challenges in Structural Biology Summit, *Challenges & Opportunities in Crystal-Based Structural Biology* (invitation only meeting), Lake Arrowhead, CA

- Sept 2024 Invited Speaker, Pittsburgh Diffraction Conference, *Structural and spectroscopic investigations of metal-binding protein rubrerythrin from B. pseudomallei*, Ithaca, NY
- Jul 2024 Invited Speaker, 74<sup>th</sup> Annual Meeting American Crystallographic Association, *Don't Panic! Navigating Scientific Peer Review*, Denver, CO
- Jul 2024 Invited Speaker, Department of Biochemistry, Jacobs School of Medicine and Biomedical Sciences, University at Buffalo, *Sleuthing Protein Mysteries with Spectroscopy and Structure*, Buffalo, NY
- Apr 2024 Invited Speaker, Expression, Purification & Analysis of Proteins & Protein Complexes Course, Cold Spring Harbor Laboratory, *High-throughput nano-crystallization*, Cold Spring Harbor, NY
- Nov 2023 Invited Speaker, MicroED Symposium and Short Course, New York Structural Biology Center, *Electron diffraction of biomacromolecules*, Manhattan, NY
- Nov 2023 Invited Speaker, Department of Biology, University at Buffalo, *Adventures and challenges in diffraction-based structural biology*, Buffalo, NY
- Jul 2023 Invited Speaker, Meharry Medical College Summer Study Program, *Protein Crystallization*, virtual
- Jul 2023 Invited Speaker, X-Ray Science Gordon Research Conference, *Challenges in Metalloprotein X-Ray Science*, Easton, MA
- Apr 2023 Invited Speaker, University of Arkansas, Department of Biology Graduate Student Association, *At the Edge of the Map: Adventures in Structural Biology*, Fayetteville, AK
- Mar 2023 Invited Spotlight Seminar Speaker, American Society for Biochemistry and Molecular Biology Annual Meeting, *Structural investigations of rubrerythrin from B. pseudomallei: Metals, domain swapping, and other interesting features of this ferritin-like superfamily protein*, Seattle, WA
- Mar 2023 Invited **Expert Speaker**, Thermo Fisher Ask the Experts Webinar Series, *Leveraging the integration of cryo-EM and X-ray based methods for a comprehensive approach to structural biology*, virtual
- Nov 2022 Invited Speaker, New England Biolabs Seminar Series, *At the Edge of the Map in Structural Exploration*, Ipswich, MA
- Sept 2022 Invited Speaker, SSRL/LCLS Annual Users Meeting, Metals in Structural Biology Workshop, *Metals in bacterial pathogens*, Menlo Park, CA
- Jul 2022 Invited Speaker, Diffraction Methods in Structural Biology Gordon Research Conference, *Growing Good Crystals*, Lewiston, ME
- Jul 2022 Invited Speaker, 73<sup>th</sup> Annual Meeting American Crystallographic Association, *Advances using machine learning and computational tools for crystal growth and detection*, Portland, OR
- Jul 2022 Invited Speaker, 73<sup>th</sup> Annual Meeting American Crystallographic Association, *The National High-Throughput Crystallization Center and coming hands-on workshops*, Portland, OR
- Feb 2022 Invited Speaker, 9<sup>th</sup> International BioXFEL Conference, Invited, *What can imaging tell you about how your crystals grow? Advances using machine learning*, virtual
- Jan 2022 Invited Speaker, COVID Information Commons, *Crystallization Center at HWI: RAPID Enhanced SARS-CoV-2 High-Throughput Crystallization for Structural Studies*, virtual
- Nov 2021 Invited Speaker, Formulatrix Automation Webinar, *A Laser Focus on Crystallization Success*, virtual

- Apr 2021 Invited Speaker, Buffalo Protein Science Group, *Metal Detectors: Using EDX to Identify Metals in Biomolecular Samples*, virtual
- Feb 2021 Invited Speaker, National Institutes of Health TransNIH Project 5, virtual
- Aug 2020 Invited Speaker, 73<sup>rd</sup> Annual Meeting American Crystallographic Association, *Remote Opener: Breaking Barriers to Crystallization Using Remote Crystal Growth Screening and Imaging*, virtual
- Mar 2019 Invited **Keynote Speaker**, Australia CSIRO Collaborative Crystallisation Centre Annual Meeting, *High-Throughput Crystallization Screening*, Parkville, Australia
- Oct 2018 Invited Speaker, Formulatrix Protein Crystallization Automation Webinar *High-Throughput Crystallization Screening and Detection: A View from The Cutting Edge*, virtual
- Feb 2018 Invited Speaker, Department of Biochemistry, Jacobs School of Medicine and Biomedical Sciences, University at Buffalo, *Structural investigation of metal tug-of-war protein calprotectin*, Buffalo, NY
- Dec 2016 Invited Speaker, Los Alamos National Laboratory Colloquium Series, *Spectroscopic and crystallographic investigation of redox modulation and metal tug-of-war proteins*, Los Alamos, NM
- Jul 2016 Invited Speaker, Diffraction Methods in Structural Biology Gordon Research Conference, *What Can Spectroscopic Techniques Tell You About Your Crystal?* Lewiston, ME
- Apr 2013 Invited Speaker, Department of Chemistry, St. Cloud State University, *What can biophysical techniques tell us about protein structure and function?* St. Cloud, MN
- Jan 2009 Invited Speaker, Gordon Research Seminar in Bioinorganic Chemistry, *NMR Analysis of the His-Fe(III) Interaction and Porphyrin Conformation in Cytochromes c*, Ventura, CA

#### CONTRIBUTED PRESENTATIONS

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- Jan 2025 *Structural and spectroscopic investigations of metal-binding proteins from bacterial pathogens*, Poster, Metals in Biology Gordon Research Conference, Ventura, CA
- Jul 2023 *Structural and spectroscopic investigations of metal-bound rubrerythrin from *B. pseudomallei**. Speaker, ACA Annual Meeting, Baltimore, MD
- May 2023 *Enabling Access to Biomolecular Crystallization Capabilities with Robotics and Advanced Imaging*, Poster, ABRF Meeting, Boston, MA
- Dec 2021 *RAPID Enhanced SARS-CoV-2 High-Throughput Crystallization for Structural Studies*, Speaker, NSF PREPARE RAPID PI Meeting, virtual
- Aug 2021 *Pushing the Boundaries in Crystallization Screening: Making Automated, User-accessible Crystallization Work*. Speaker, ACA Annual Meeting, virtual
- Jul 2018 *Enhancing high-throughput detection of protein nanocrystals*, Speaker, ACA Annual Meeting, Toronto, Canada
- Jan 2016 *Leveraging the unique features of transition metals in metalloprotein crystallography*. Poster, International BioXFEL Conference, San Juan, Puerto Rico
- Aug 2015 *Crystallographic studies of the immune-response, metal chelating protein calprotectin*, Speaker, ACS National Meeting, Boston, MA
- Feb 2015 *Getting a handle on metal binding in the EF-hand domains in calprotectin*, Speaker, MIT Protein Structure-Function Supergroup, Cambridge, MA

- Feb 2012 *Investigating the structural stability of H. pylori NikR using MD simulations*,  
Poster, Biophysical Society Annual Meeting, San Diego, CA
- Oct 2009 *Investigation of axial histidine character and heme planarity in cytochromes c*.  
Poster, 11th Upstate NY NMR Symposium, Buffalo, NY, Oct 2009.
- Aug 2008 *Spectroscopic investigation of the iron-histidine interaction in cytochromes c*,  
Speaker, ACS National Meeting, Philadelphia, PA

#### SERVICE TO THE PROFESSION

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- 2026 – 2028 Editorial Board Member, Biophysical Journal, Proteins Section
- 2023 – 2028 Elected Member, Stanford Synchrotron Radiation Lightsource (SSRL) User  
Executive Committee (UEC)  
Duties: Represent macromolecular crystallography users at SSRL
- 2023 – 2027 Standing Study Section Member, NIH MSFB Study Section
- 2024 – 2027 Elected Member, American Crystallographic Association Meeting Committee  
Duties: Program chair for the Annual ACA Meeting (4 year term), including  
arranging the program, collecting session proposals, leading the opening/closing  
ceremonies, proposing meeting themes, and making recommendations to ACA  
Council
- 2024 – 2026 Elected Board Member, American Union of Crystallography (previously the  
United States National Committee for Crystallography (National Academy of  
Sciences))  
Duties: Represent US crystallographers in the International Union of  
Crystallography; Chair of the Research Infrastructure Subcommittee; Member of  
the Finance Subcommittee
- 2025 – 2026 Elected Chair, Stanford Synchrotron Radiation Lightsource UEC  
Duties: Represent SSRL User Community as a member of the SSRL Scientific  
Advisory Council, coordinate activities with representatives from national labs to  
increase awareness and support for basic sciences and the role of user facilities,  
and serve on LCLS UEC as an ex-officio member
- 2024 – 2025 Member, NIH Mature Synchrotron Resources Working Group for NIGMS Council
- 2024 – 2025 Elected Vice-Chair, Stanford Synchrotron Radiation Lightsource UEC  
Duties: SSRL UEC representative for planning the 2025 User Meeting, including  
arranging the six-day program and chairing the plenary session
- 2018 – 2025 Organizer, *Metals in Structural Biology Workshop* at the SSRL/LCLS Users  
Meeting  
Duties: Organize an annual full-day workshop focused on tools to investigate  
metals in biological systems
- 2026 Invited Session Co-Chair, *X-ray and Electron Crystallography: from Single  
Crystal to Serial Diffraction*, 27<sup>th</sup> Congress and General Assembly of the  
International Union of Crystallography (IUCr) Triennial Congress
- 2026 Workshop Organizer, *Biomolecular Crystallization*, 27<sup>th</sup> IUCr Congress
- 2026 Member, Site Selection Committee, American Crystallographic Association  
Annual Meeting
- 2025 Reviewer, 2026 Cottrell Scholar Award, Research Corporation for Science  
Advancement
- 2025 Alternate Chair, NIH MSFB Study Section June Meeting
- 2025 Meeting Co-Organizer, SSRL/LCLS Users Meeting, Menlo Park, CA
- 2025 Tenure review evaluation, Howard University College of Medicine

2025 Guest Editor, *Frontiers in Chemical Biology*, Bioinorganic Chemistry Research Topics Special Issue on Zinc-binding proteins: New perspectives on their roles in health and disease and in biotechnological applications

2025 Reviewer, United States Department of Energy, Office of Science, Basic Energy Science, 2025 National Synchrotron Light Source II (NSLS-II) Quadrennial Operations Review at Brookhaven National Laboratory

2025 Reviewer, Oak Ridge National Laboratory, Science Review Committee

2025 Member, Phenix R24 National Resource Scientific Advisory Committee

2024 Organizer, National Academies of Sciences, Engineering and Medicine, Advancing Drug Discovery Webinar Series

2024 Member, EWALD Advisory Team for Neutrons in Structural Biology

2024 Session Chair, *Metallobiomolecules*, Pittsburgh Diffraction Conference

2024 Session Chair, *Structural Biology of Metallobiomolecules*, 74<sup>th</sup> Annual Meeting American Crystallographic Association

2024 Session Chair, *Structural Biology Eco-system*, Workshop on Neutrons in Structural Biology, Challenges and Opportunities

2023 Reviewer, Diamond Light Source Macromolecular Crystallography Beamline Review, United Kingdom

2023 Session Chair, *Microcrystal Electron Diffraction*, 73<sup>rd</sup> Annual Meeting American Crystallographic Association

2023 Organizer, *Sample Attributes for Multiple-techniques and Principal Requirements for Experiments in Pan-structural biology (SAMPREP)*, 73<sup>rd</sup> Annual Meeting American Crystallographic Association

2023 Reviewer, SLAC National Accelerator Laboratory, Laboratory Directed Research And Development Award

2023 Discussion Leader, Metals in Biology Gordon Research Conference

2023 Organizer, Metals in Biology Gordon Research Conference Power Hour

2023 Tenure review evaluation, Brigham Young University

2022 Organizer, SciArt Show at the 72<sup>nd</sup> American Crystallographic Association

2022 Chair, American Crystallographic Association Biological Macromolecules (BioMac) Special Interest Group (SIG)  
Duties: Organize sessions for BioMac SIG for 2023 Annual ACA Meeting, including finding session chairs, and present annual report to ACA Council

2022 Temporary Member, NIH MSFB Study Section

2022 Member, NSF Bio Review Panel

2022 Temporary Member, NIH ZRF1 and ZGM1 Special Emphasis Panel

2021 Vice-Chair, American Crystallographic Association Biological Macromolecules Special Interest Group

2021 Session Chair, *Getting the First Crystal*, 71<sup>st</sup> Annual Meeting American Crystallographic Association

2021 Session Chair, *Structural Biology against Coronavirus* International Union of Crystallography 25<sup>th</sup> Congress

2021 Temporary Member, NIH MSFA and MSFB Study Section

2020 Early Career Reviewer, NIH MSFB Study Section

2012 – present Reviewer: *Acta Cryst D & F*, *Biochem*, *Crystals*, *Inorg Chem*, *iScience*, *IUCrJ*, *JACS*, *J Appl Cryst*, *JBIC*, *J Chem Ed*, *J Structural Biology X*, *Nat Comm*, *Nat Methods*

## SERVICE TO THE UNIVERSITY/INSTITUTE

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2025 –	Member, Biomedical Research Advisory Panel, Office of Biomedical Research, Jacobs School of Medicine and Biomedical Sciences
2023 – 2025	Chair, Scientific Governance Council, HWI (now UB HWI)
2023 – 2025	Member, HWI Board of Directors, HWI (now UB HWI)
2020 – 2024	Member, HWI/IMCA-CAT Science Seminar Series, HWI (now UB HWI)
2020 – 2024	Member, Marketing and Communication Committee HWI Board of Directors, HWI (now UB HWI)
2018 – 2024	Member, Development Committee HWI Board of Directors, HWI (now UB HWI)
2019 – 2024	Member, IMCA-CAT New Technologies Working Group
2021 – 2023	Vice-Chair, Scientific Governance Council, HWI (now UB HWI)
2021 – 2022	Member, Science Safety Committee, HWI (now UB HWI)
2021	Member, Search Committee, CryoEM Center Director, HWI (now UB HWI)
2020	Member, Search Committee, Business Development Director, HWI (now UB HWI)

## SERVICE TO UB DEPARTMENT OF BIOCHEMISTRY

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Dec 2025 –	Member, Biochemistry Faculty Search Committee
Aug 2025 –	Member, Biochemistry Graduate Affairs Committee
May 2025	Poster Judge, Biochemistry Department Research Day
Jan 2025 –	Member, Biochemistry IFR Committee
Jan 2025 –	Director, National Crystallization Center, UB-HWI

While I have been Director of the National Crystallization Center since joining HWI in 2017, with the merger between HWI and UB, as of January 2025 the Center is now part of the Biochemistry Department in the Jacobs School of Medicine and Biomedical Sciences. It is one of only 20 NIGMS supported National Resources in the US

## SERVICE TO THE COMMUNITY & OUTREACH

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2017 –	Tours of the National Crystallization Center
2025	Judge, United States Crystal Growing Competition, Buffalo, NY
2024	Organizer, American Crystallographic Association Outreach Event at the Buffalo Museum of Science
2024	Science Expert, Buffalo Museum of Science SciNight: Snowflake Studies, Volunteer Outreach with American Crystallographic Association
2024	Poster Judge, 18 <sup>th</sup> International Conference on Crystallization of Biological Macromolecules, Phoenix, AZ
2024	Moderator, NASEM, Advancing Drug Discovery Webinar, <i>Protein Data Bank: From two epidemics and the global pandemic to mRNA vaccines and Paxlovid</i> presented by Stephen Burley, Virtual
2024	Poster Judge, SSRL/LCLS User Meeting, SLAC National Accelerator Lab at Stanford, Menlo Park, CA
2023	SBGrid Member Tale <i>The Crystal Whisperer</i> <a href="https://sbgrid.org/members/tale/the-crystal-whisperer">https://sbgrid.org/members/tale/the-crystal-whisperer</a>
2023	Nerdy Jobs Pilot Episode with Dr. Raven the Science Maven Baxter <a href="https://www.youtube.com/watch?v=siFfzoFv61I">https://www.youtube.com/watch?v=siFfzoFv61I</a>

2023	Crystallization Center Outreach Video <a href="https://www.youtube.com/watch?v=Xo8E5Wqv04">https://www.youtube.com/watch?v= Xo8E5Wqv04</a>
2023	Poster Judge, SSRL/LCLS User Meeting, SLAC National Accelerator Lab at Stanford, Menlo Park, CA
2021	Crystal Clear Red Magazine Article <a href="https://red.msudenver.edu/2021/crystal-clear/">https://red.msudenver.edu/2021/crystal-clear/</a>
2021	Post performance panelist Photograph 51 Jewish Repertory Theater, Buffalo, NY
2021	Crystallizing Coronavirus with Sarah Bowman. Point of Learning Podcast <a href="https://hornedconsulting.org/pointoflearningpodcast/crystals">https://hornedconsulting.org/pointoflearningpodcast/crystals</a>
2021	Buffalo News Front Page Article 2/7/2021 <a href="#">A crystallization lab in Buffalo is at center of global war against coronavirus</a>
2021	Presentation at the Buffalo Sunrise Rotary Club
2021	Presentation at the BNMC Rotary Club
2020	Crystal Clear. Buffalo-Niagara Invest Bell Ringer Podcast <a href="https://investbuffaloniagara.podbean.com/e/crystal-clear-1597858264/">https://investbuffaloniagara.podbean.com/e/crystal-clear-1597858264/</a>
2020	Science Panel Discussion. Bunker Hill Community College, Virtual
2018	Poster Judge, SSRL/LCLS User Meeting, SLAC National Accelerator Lab at Stanford, Menlo Park, CA
2013	Behind the Scenes at MIT Video Series <i>Targeting Ulcer-causing H. pylori Bacteria and Personal Story</i> <a href="http://chemvideos.mit.edu">http://chemvideos.mit.edu</a>

## COURSES TAUGHT & OTHER EDUCATIONAL ACTIVITIES

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### University at Buffalo

Summer 2026	Biomolecular Crystallization Workshop, 27 <sup>th</sup> Congress and General Assembly of the International Union of Crystallography (IUCr) Triennial Congress, <b>Course Director</b> , Course Organizer, Lecturer, Calgary, Canada
Spring 2026	BCH507 Protein Structure and Function, Graduate Biochemistry Course
Spring 2026	BCH498 Undergraduate Research, Biochemistry Undergraduate Research Laboratory Research in the Bowman Lab (two BCH undergraduate students)
Spring 2026	Applied Crystallization Workshop, National Crystallization Center, <b>Course Director</b> , Course Organizer, Lecturer, Lab Instructor (two on-site workshops), Buffalo, NY
Fall 2025	BCH498 Undergraduate Research, Biochemistry Undergraduate Research Laboratory Research in the Bowman Lab
Fall 2025	BCH405 Research Topics in Biochemistry, <b>Course Coordinator</b> , Undergraduate Biochemistry Course
Spring 2025	BCH507 Protein Structure and Function, Graduate Biochemistry Course
Spring 2025	BCH498 Undergraduate Research, Biochemistry Undergraduate Research Laboratory Research in the Bowman Lab (1 BCH undergraduate)
Fall 2024	BCH405 Research Topics in Biochemistry, Undergraduate Biochemistry Course (Volunteer Instructor)
Fall 2022	BCH405 Research Topics in Biochemistry, Undergraduate Biochemistry Course (Volunteer Instructor)
Fall 2019	BCH405 Research Topics in Biochemistry, Undergraduate Biochemistry Course (Volunteer Instructor)

## Hauptman-Woodward Medical Research Institute

Fall 2024	Macromolecular Crystallization Satellite Workshop at the Pittsburgh Diffraction Conference, <b>Course Director</b> , Course Organizer, Lecturer, Lab Instructor, Ithaca, NY
Summer 2024	Applied Crystallization Workshop, National Crystallization Center, <b>Course Director</b> , Course Organizer, Lecturer, Lab Instructor (two on-site workshops), Buffalo, NY
Spring 2024	Applied Crystallization Workshop, National Crystallization Center, <b>Course Director</b> , Course Organizer, Lecturer, virtual
Spring 2024	Expression, Purification, & Analysis of Proteins & Protein Complexes, Lecturer, Cold Spring Harbor Laboratory Course, Cold Spring Harbor, NY
Spring 2024	Breakthrough Capabilities for Neutron Macromolecular Crystallography, Workshop on Neutrons in Structural Biology, Panelist, Arlington, VA
Summer 2023	Sample Attributes for Multiple-techniques and Principal Requirements for Experiments in Pan-structural biology (SAMPREP) Workshop at the American Crystallographic Association Meeting, <b>Course Director</b> , Course Organizer, Lecturer, Baltimore, MD
Summer 2021	Structural Biology Workshop, HWI (now UB HWI), Lecturer, virtual
Summer 2019	Structural Biology Workshop, HWI (now UB HWI), Lecturer, Buffalo, NY
Summer 2018	Structural Biology Workshop, HWI (now UB HWI), Lecturer, Buffalo, NY
Summer 2018	Bioinorganic Workshop, Nuclear Magnetic Resonance Section, Penn State University Bioinorganic Workshop, Lecturer, State College, PA

## RESEARCH SUPERVISION & MENTORING

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### ***Mentoring since beginning my independent career***

#### Undergraduate Research Mentoring

1/2026 – present	Tanmayi Kapalli, Biochemistry undergraduate (UB), expected graduation 2027 <b>Recognition: Experiential Learning Network URCA Research Funding</b>
1/2025 – present	Samantha Arnone, Biochemistry undergraduate (UB), expected graduation 2026 <b>Recognition: Experiential Learning Network Travel Award to attend ASBMB 2026</b>
Summer 2021	Luz Alfaro, BioXFEL Summer Intern (HWI)
Summer 2020	Ethan Holleman, PhD UC Davis (BioXFEL Summer Intern (HWI)) Current: Postdoc Northwestern University <b>Recognition: Poster Award at the 2020 SSRL/LCLS User Meeting</b>
Summer 2019	Kailey Fergar, PhD UC Berkeley (HWI Summer Intern) Current: Postdoc Dana Farber Cancer Institute
Summer 2018	Max Dudek, HWI Summer Intern (HWI) Current: Graduate student at UPenn <b>Recognition: NSF Graduate Fellowship</b>

#### Graduate Research Mentoring

Spring 2026	Vaishnavi Mahankal, visiting graduate student from collaborator's lab (Perry Lab), University of Massachusetts Amherst Department of Chemical and Biomolecular Engineering
Spring 2025	Cole Masuga, PPBS PhD Rotation
Fall 2024	Sean Johnson, Biochemistry Masters Rotation

Fall 2023 William Dowdle, visiting graduate student from collaborator's lab (Bridwell-Rabb Lab), University of Michigan Department of Chemistry (HWI)  
 2020 – 2021 Yana Shimanovich, Materials Design and Innovation Masters Student (HWI)

Postdoctoral Fellow Supervised and Mentored

8/2023 – present Dr. Christopher Campomizzi  
**Recognition: 2025 Travel Award, American Crystallographic Association Annual Conference**  
**Recognition: 2025 Structural Dynamics Poster Award, American Crystallographic Association Annual Conference**

Research Supervision and Mentoring

11/2022 – present Tiffany Wright, Research Associate  
**Recognition: 2024 Travel Award, Pittsburgh Diffraction Conference**  
 9/2022 – present Dr. Gabrielle Budziszewski, Research Scientist  
**Recognition: 2024 Outstanding Scientist Award, ABRF**  
**Recognition: 2024 Travel Award, Pittsburgh Diffraction Conference**  
**Recognition: NIH Loan Repayment Program Award**  
 2/2022 – present M Elizabeth Snell, Research Associate  
**Recognition: 2024 Travel Award, Pittsburgh Diffraction Conference**  
 2017 – Jul 2022 Angela Lauricella, Research Associate (HWI)

Dissertation Committees

01/2026 – Veronica Nickerson, PhD student in Department of Biochemistry, University at Buffalo  
 01/2026 – Vaishnavi Mahankal, PhD student in Department of Chemical and Biomolecular Engineering, UMass Amherst

***Mentoring prior to beginning my independent career***

Undergraduate Research Mentoring

Summer 2014 Lindsey Richelle Fernandez Backman, PhD MIT (MIT MSRP Summer Intern)  
 Current: Whitehead Institute Fellow  
 Summer 2014 Alessio Caruso, PhD Princeton (MIT MSRP Summer Intern)  
 Current: Postdoc Harvard University  
 Summer 2011 Tsehai Grell, PhD MIT (MIT MSRP Summer Intern)  
 Current: Research Scientist at Janssen  
 Summer 2011 Abdulquadri Olawin, MD (MIT MSRP Summer Intern)  
 Current: MD  
 Spring 2011 Andrew Van Benschoten, PhD UCSF (MIT Undergraduate Researcher)  
 Current: Director of Advanced Analytics at Land O'Lakes, Minneapolis, MN  
 2008 – 2009 Ferdous Zannat, MD (University of Rochester Undergraduate Researcher)  
 Current: MD  
 2007 – 2008 Breanne Holmes, PhD (University of Rochester Undergraduate Researcher)  
 Current: Scientist at Ecotox Centre, Switzerland  
 Summer 2007 Erin Kleingardner, RN (University of Rochester Summer Intern)  
 Current: RN  
 2006 – 2007 Benjamin Levin, PhD (University of Rochester Undergraduate Researcher)  
 Current: Scientist at Stablix, Boston, MA  
 2006 Yelena Lerman, PhD (University of Rochester Summer Intern)

## GRANTS & RESEARCH AWARDS

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### **Grants & Research Awards – Active**

- 9/2022 – 8/2026 Funding Agency: NIH NIGMS (Federal) R01GM141273  
Title: New techniques for detecting and handling nanocrystals for cutting edge structural biology methods  
PI name: Bowman; Role: MPI/Contact PI, Total Costs: \$1,570,000
- 7/2021 – 6/2026 Funding Agency: NIH NIGMS (Federal) R24GM141256  
Title: National HTX Center: Enabling Access to State-of-the-Art Crystallization Capabilities  
PI name: Bowman; Role: PI, Total Costs: \$4,910,000
- 8/2025 – 7/2026 Funding Agency: NIH NIGMS (Federal) R24GM141256-06S1 Admin Supplement  
Title: Acquisition of an SPT Labtech Mosquito Administrative Supplement  
National HTX Center: Enabling Access to State-of-the-Art Crystallization Capabilities  
PI name: Bowman; Role: PI, Total Costs: \$167,746
- 11/2025 – 8/2026 Funding Agency: University at Buffalo Bridge Funding Opportunity-UB LAUNCH & Department of Biochemistry  
Title: Probing evolutionary pathways in metalloprotein structure and function from emerging bacterial pathogens  
PI name: Bowman; Role: PI, Total Costs: \$50,000
- 11/2025 – 12/2026 Funding Agency: University at Buffalo Undergraduate Research and Creative Activities Program  
Title: Studying structure and function of bacterial proteins using structural biology and enzymatic assays  
PI name: Bowman; Role: PI and undergraduate student mentor, Total Costs: \$15,500

### **Grants & Research Awards – Pending**

- Submitted 2/2026* Funding Agency: NIH NIGMS (Federal) R21  
Title: Developing new tools to interrogate protein-RNA interactions  
PI name: Jeffery (UIC); Role: Co-I, Total Direct Costs: \$275,000
- Submitted 9/2025* Funding Agency: NIH NIGMS (Federal) R24GM141256 Renewal  
Title: National Crystallization Center: Enabling Access to State-of-the-Art Crystallization Capabilities  
PI name: Bowman; Role: PI, Total Costs: \$7,020,490

### **Grants & Research Awards – Completed**

- 7/2023 – 12/2024 Funding Agency: James H Cummings Foundation (Foundation)  
Title: Supporting successful researchers at HWI – expanding capabilities for new discoveries  
PI name: Bowman; Role: PI (with Monteiro and Paz), Total Costs: \$100,000

- 1/2023 – 12/2024 Funding Agency: Australian Research Council Linkage Infrastructure, Equipment, and Facilities  
Title: Integrated Crystallisation Facility (Australia)  
PI name: C Bond, University of Western Australia; Role: Expert International Consultant, Total Costs: A\$410,195
- 7/2023 – 6/2024 Funding Agency: NIH NIGMS (Federal) R24GM141256-03S1  
Title: Acquisition of a Rock Imager 1000 with SONICC Administrative Supplement National HTX Center: Enabling Access to State-of-the-Art Crystallization Capabilities  
PI name: Bowman; Role: PI, Total Costs: \$200,000
- 7/2023 – 6/2024 Funding Agency: Empire State Development Matching Grant Leverage Program (New York State)  
Title: Acquisition of a Rock Imager 1000 with SONICC Matching Grant Fund  
PI name: Bowman; Role: PI, Total Costs: \$100,000
- 4/2022 – 5/2024 Funding Agency: Dr. Louis Skarlow Memorial Fund (Foundation)  
Title: New Tools to Develop New Drugs: An Application to Antibiotics  
PI name: Bowman; Role: PI, Total Costs: \$25,000
- 5/2020 – 4/2022 Funding Agency: NSF (Federal) BIO DBI 2029943  
Title: RAPID Enhanced SARS-CoV-2 High-throughput Crystallization for Structural Studies  
PI name: Bowman; Role: PI, Total Costs: \$200,000
- 9/2017 – 8/2021 Funding Agency: NIH NIGMS (Federal) R24GM124135  
Title: Community Crystallization Resource for Biological Macromolecules  
PI name: Snell; Role: Co-Investigator, Total Costs: \$1,276,000
- 9/2019 – 8/2021 Funding Agency: NIH NIGMS (Federal) R24GM124135-02S1  
Title: COVID Administrative Supplement Community Crystallization Resource for Biological Macromolecules  
PI name: Snell; Role: Co-Investigator, Total Costs: \$246,000
- 9/2018 – 8/2019 Funding Agency: NIH NIGMS (Federal) R24GM124135-01S1  
Title: Acquisition of a Rock Imager 54 Administrative Supplement Community Crystallization Resource for Biological Macromolecules  
PI name: Snell; Role: Co-Investigator, Total Costs: \$149,000
- 1/2018 – 12/2019 Funding Agency: Dr. Louis Skarlow Memorial Fund (Foundation)  
Title: The Structure of the EML4-ALK Fusion Protein: Shaping a Solution in Non-small Cell Lung Cancer  
PI name: Bowman; Role: PI, Total Costs: \$20,000
- 11/2017 – 10/2019 Funding Agency: Seymour Knox Foundation (Foundation)  
Title: Enhancing the Impact of Buffalo's High-throughput Crystallization Screening Center and Accelerating Pharmaceutical Development Nationwide  
PI name: Bowman; Role: PI, Total Costs: \$20,000

8/2011 – 8/2012

Funding Agency: NIH NIGMS (Federal) F32GM099257

Title: Structural investigation of *Helicobacter pylori* Transcription Regulator NikR; PI name: Bowman; Role: PI, Postdoctoral fellowship at MIT, Total Costs: \$46,000

PUBLICATIONS – PEER REVIEWED

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 [orcid.org/0000-0002-7426-7328](https://orcid.org/0000-0002-7426-7328)

[Google Scholar link](#)

Annotations: Direct Mentee <sup>U</sup>Undergraduate <sup>G</sup>Graduate <sup>P</sup>Postdoc <sup>#</sup>Mentee (Other) <sup>\*</sup>Corresponding Author

**Peer reviewed journal publications since beginning my independent career**

1. Saha, S<sup>G</sup>, Chen, Y<sup>G</sup>, Budziszewski, GR<sup>#</sup>, Koprek, S, Seifert, K, Cohen, A, Russi, S, **Bowman, SEJ**, Perry, SL<sup>\*</sup>. (2026) LEGO-Inspired Electrically-Actuated Microfluidics For On-Chip Protein Crystallization and In-Situ X-Ray Crystallography. *Lab on a Chip Just Accepted*
2. Budziszewski, GR<sup>#</sup>, Stojanoff, V, **Bowman, SEJ<sup>\*</sup>**. (2025) Preparing for successful protein crystallization experiments. *Acta Crystallographica Section F, Structural Biology Communications*, 81(7):272-280-doi.org/10.1107/S2053230X25004650  
**Recognition: Featured on journal cover**  
**Recognition: Author interview: <https://www.youtube.com/watch?v=m34RI500OFU>**
3. **Bowman, SEJ**, Byrnes, J, Russi, S, Zimanyi, CM<sup>\*</sup>. (2024) Preparing research samples for safe arrival at centers and facilities: recipes for successful experiments. *Acta Crystallographica Section F, Structural Biology Communications*, 80(8): 165-172. doi:10.1107/S2053230X24006174  
All authors equal and listed alphabetically
4. Aragon, M, **Bowman, SEJ**, Chen, CH, Cruz, MJ, Decato, DA<sup>\*</sup>, Eng, ET, Flatt, KM, Gulati, S, Li, Y, Lomba, CJ<sup>G</sup>, Mercado, B, Miller, J, Palatinus, L, Rice, WJ, Waterman, D, Zimanyi, CM. (2024) Applying 3D ED/MicroED workflows toward the next frontiers. *Acta Crystallographica Section C, Structural Chemistry*, 6(80): 179-189. doi.org/10.1107/S2053229624004078  
  
All authors equal and listed alphabetically
5. Acehan, D, Spoth, KA, Budziszewski, GR<sup>#</sup>, Snell, ME<sup>#</sup>, Campomizzi, CS<sup>P</sup>, Lynch, ML, **Bowman, SEJ<sup>\*</sup>**. (2024) Reaching the potential of electron diffraction. *Cell Reports Physical Science*, 6(5): 102007. doi.org/10.1016/j.xcrp.2024.102007
6. Lynch, ML, Snell, ME<sup>#</sup>, Potter, SA, Snell, EH, **Bowman, SEJ<sup>\*</sup>**. (2023) 20 years of crystal hits: progress and promise in ultrahigh-throughput crystallization screening. *Acta crystallographica. Section D, Structural Biology*, 79(3): 198-205. doi:10.1107/S2059798323001274  
**Recognition: Featured on journal cover**  
**Recognition: Wiley Top Cited Article published in 2023**  
**Recognition: Wiley Top Read Article published in 2023**

7. Budziszewski, GR<sup>#</sup>, Snell, ME<sup>#</sup>, Wright, TR<sup>#</sup>, Lynch, ML, **Bowman, SEJ<sup>\*</sup>**. (2023) High-Throughput Screening to Obtain Crystal Hits for Protein Crystallography. *Journal of Visualized Experiments: JoVE*, (193):e65211. doi:10.3791/65211
  
8. Miller, RD<sup>G</sup>, Iinishi, A, Modaresi, SM, Yoo, BK<sup>P</sup>, Curtis, TD, Lariviere, PJ, Liang, L, Son, S, Nicolau, S, Bargabos, R, Morrisette, M, Gates, MF, Pitt, N, Jakob, RP, Rath, P, Maier, T, Malyutin, AG, Kaiser, JT, Niles, S, Karavas, B, Ghiglieri, M, **Bowman, SEJ**, Rees, DC, Hiller, S<sup>\*</sup>, Lewis, K<sup>\*</sup>. (2022) Computational identification of a systemic antibiotic for gram-negative bacteria. *Nature Microbiology*, 7(10): 1661-1672. doi:10.1038/s41564-022-01227-4  
**Top 5% of all research outputs ever scored by Altmetric**
  
9. Chattopadhyay, S, Mukherjee, M, Kandemir, B, **Bowman, SEJ**, Bren, KL<sup>\*</sup>, Dey, A<sup>\*</sup>. (2021) Contributions to cytochrome c inner- and outer-sphere reorganization energy. *Chemical Science*, 12(35): 11894-11913. doi:10.1039/d1sc02865k
  
10. Lynch, ML, Snell, EH, **Bowman, SEJ<sup>\*</sup>**. (2021) Structural biology in the time of COVID-19: perspectives on methods and milestones. *IUCrJ*, 8(3): 335-341. doi:10.1107/S2052252521003948  
**Top 5% of all research outputs ever scored by Altmetric**
  
11. Holleman ET<sup>U</sup>, Duguid E, Keefe LJ, **Bowman SEJ<sup>\*</sup>**. (2021) Polo: an open-source graphical user interface for crystallization screening. *Journal of Applied Crystallography*, 54(2): 673-679. doi:10.1107/S1600576721000108
  
12. Westerman, EL<sup>\*</sup>, **Bowman, SEJ**, Davidson, B, Davis, MC, Larson, ER, Sanford, CPJ. (2020) Deploying Big Data to Crack the Genotype to Phenotype Code. *Integrative and comparative biology*, 60(2): 385-396. doi.org/10.1093/icb/icaa055
  

All authors equal

  
13. Lynch, ML, Dudek, MF<sup>U</sup>, **Bowman, SEJ<sup>\*</sup>**. (2020) A Searchable Database of Crystallization Cocktails in the PDB: Analyzing the Chemical Condition Space. *Patterns*, 1(4): 100024. doi:10.1016/j.patter.2020.100024  
**Recognition: Featured on journal cover**  
 Associated database available online at Zenodo: <https://doi.org/10.5281/zenodo.3931012>  
 \*downloaded 870 times as of March 2026
  
14. **Bowman, SEJ**, Backman, LRF<sup>U/G</sup>, Bjork, RE, Andorfer, MC<sup>P</sup>, Yori, S<sup>U</sup>, Caruso, A<sup>U</sup>, Stultz, CM, Drennan, CL<sup>\*</sup>. (2019) Solution structure and biochemical characterization of a spare part protein that restores activity to an oxygen-damaged glycol radical enzyme. *Journal of Biological Inorganic Chemistry*, 24(6): 817-829. doi:10.1007/s00775-019-01681-2
  
15. Nakashige, TG<sup>G</sup>, **Bowman, SEJ**, Zygiel, EM<sup>G</sup>, Drennan, CL<sup>\*</sup>, Nolan, EM<sup>\*</sup>. (2018) Biophysical Examination of the Calcium-Modulated Nickel-Binding Properties of Human Calprotectin Reveals Conformational Change in the EF-Hand Domains and His3Asp Site. *Biochemistry*, 57(28): 4155-4164. doi:10.1021/acs.biochem.8b00415

**Peer reviewed journal publications prior to beginning my independent career**

16. Gagnon, DM, Brophy, MB, **Bowman, SEJ**, Stich, TA, Drennan, CL, Britt, RD\*, Nolan, EM\*. (2015) Manganese binding properties of human calprotectin under conditions of high and low calcium: X-ray crystallographic and advanced electron paramagnetic resonance spectroscopic analysis. *Journal of the American Chemical Society*, 137(8): 3004-16. doi:10.1021/ja512204s
17. Galinato, MG, **Bowman, SEJ**, Kleingardner, JG, Martin, S, Zhao, J, Sturhahn, W, Alp, EE, Bren, KL\*, Lehnert, N\*. (2015) Effects of protein structure on iron-polypeptide vibrational dynamic coupling in cytochrome c. *Biochemistry*, 54(4): 1064-76. doi:10.1021/bi501430z
18. Kleingardner, JG, **Bowman, SEJ**, Bren, KL\*. (2013) The influence of heme ruffling on spin densities in ferricytochromes c probed by heme core <sup>13</sup>C NMR. *Inorganic Chemistry*, 52(22): 12933-46. doi:10.1021/ic401250d
19. Galinato, MG, Kleingardner, JG, **Bowman, SEJ**, Alp, EE, Zhao, J, Bren, KL\*, Lehnert, N\*. (2012) Heme-protein vibrational couplings in cytochrome c provide a dynamic link that connects the heme-iron and the protein surface. *Proceedings of the National Academy of Sciences of the United States of America*, 109(23): 8896-900. doi:10.1073/pnas.1200345109
20. Levin, BD, Can, M, **Bowman, SEJ**, Bren, KL, Elliott, SJ\*. (2011) Methionine ligand lability in bacterial monoheme cytochromes c: an electrochemical study. *The Journal of Physical Chemistry B*, 115(40): 11718-26. doi:10.1021/jp203292h
21. Chung, JK, Thielges, MC, **Bowman, SEJ**, Bren, KL, Fayer, MD\*. (2011) Temperature dependent equilibrium native to unfolded protein dynamics and properties observed with IR absorption and 2D IR vibrational echo experiments. *Journal of the American Chemical Society*, 133(17): 6681-91. doi:10.1021/ja111009s
22. **Bowman SEJ**, Bren KL\*. (2010) Variation and analysis of second-sphere interactions and axial histidinate character in c-type cytochromes. *Inorganic Chemistry*, 49(17): 7890-7. doi:10.1021/ic100899k
23. Kim S, Chung JK, Kwak K, **Bowman SEJ**, Bren KL, Bagchi B, Fayer MD\*. (2008) Native and unfolded cytochrome c--comparison of dynamics using 2D-IR vibrational echo spectroscopy. *The Journal of Physical Chemistry B*, 112(32): 10054-63. doi:10.1021/jp802246h
24. Michel, LV, Ye, T, **Bowman, SEJ**, Levin, BD, Hahn, MA, Russell, BS, Elliott, SJ, Bren, KL\*. (2007) Heme attachment motif mobility tunes cytochrome c redox potential. *Biochemistry*, 46(42): 11753-60. doi:10.1021/bi701177j

**Peer reviewed journal articles submitted and pending submission**

25. Budziszewski, GR<sup>#</sup>, Snell, ME<sup>#</sup>, Lynch, ML, Monteiro, DCF\*, **Bowman, SEJ\***. (2026) *Burkholderia pseudomallei* Rubrerythrin promiscuously binds metals in a structurally pre-formed bimetallic binding site. *Submitted and in revision; bioRxiv*: doi: <https://doi.org/10.1101/2025.06.01.657255>

26. Campomizzi, CS<sup>P</sup>, Snell, ME<sup>#</sup>, Mikolajek, H, Sandy, J, Sanchez-Weatherby, J, Budziszewski, GR<sup>#</sup>, Russi, S, Cohen, AE, Hough, MA\*, **Bowman, SEJ**\*. (2026) Does crossing the pond affect crystal quality? The effect of international shipment on protein crystals for *in-situ* room-temperature X-ray diffraction. *Submitted and in revision; bioRxiv*: doi: <https://doi.org/10.1101/2025.06.12.659325>
27. Henthorn, CL<sup>G</sup>, Bruchs, AT<sup>G</sup>, O'Steen, M<sup>G</sup>, Dowdle, W<sup>G</sup>, Wang, E<sup>G</sup>, Wang, H<sup>G</sup>, Knapp, M<sup>G</sup>, Budziszewski, GR<sup>#</sup>, **Bowman, SEJ**, Keane, SC, Bridwell-Rabb, J\*. (2026) Structure-function Relationships in the Chlorophyll Catabolic Enzyme Pheophytinase *in preparation*

**Non-peer reviewed journal for a professional audience (prior to beginning my independent lab)**

28. **Bowman, SEJ**, Bren, KL\*. (2006) Condensation Article: Direct-Detected 13C NMR to Investigate the Iron(III) Hemophore HasA. *Chemtracts - Inorganic Chemistry*, 19, 344-349.

PUBLICATIONS – SCHOLARLY REVIEWS

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29. **Bowman, SEJ**, Bridwell-Rabb, J, Drennan, CL\*. (2016) Metalloprotein Crystallography: More than a Structure. *Accounts of Chemical Research*, 49(4): 695-702. doi:10.1021/acs.accounts.5b00538  
**Recognition: Featured on journal cover**  
**Recognition: ACS Editors' Choice**
30. **Bowman, SEJ**, Bren, KL. (2008) The chemistry and biochemistry of heme c: functional bases for covalent attachment. *Natural Product Reports*, 25(6): 1118-30. doi:10.1039/b717196j

PUBLICATIONS – BOOK CHAPTER

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31. Lynch, ML and **Bowman, SEJ**\*. (2026) Chapter 3: Contributions from Structural Biology to the Pandemic Response During the SARS-CoV-2 Pandemic: Lessons Learned for the Future. In: *The COVID Information Commons – Research Insights from the Coronavirus*. Springer Nature, *in press*  
Book due out May 2026, ISBN 978-3-032-06124-9