CURRICULUM VITAE

AARON T. SMITH

Education

Ph.D.	2012	University of Wisconsin—Madison, Chemistry
M.Sc.	2009	University of Wisconsin—Madison, Chemistry
B.A.	2007	Boston University, Chemistry

Experience in Higher Education

2022 – present	University of Maryland, Baltimore County, Associate Professor, Dept. of Chemistry and Biochemistry
2016 – 2022	University of Maryland, Baltimore County, Assistant Professor, Dept. of Chemistry and Biochemistry
2013 – 2016	Northwestern University, NIH-NRSA Postdoctoral Fellow, Dept. of Molecular Biosciences
2012 – 2013	Northwestern University, Postdoctoral Scholar, Dept. of Molecular Biosciences

Honors Received

2025	Career Center Impact Recognition Award (UMBC)
2023	Carl S. Weber Teaching Award (UMBC)
2022 – 2025	HHMI Gilliam Fellow Mentor (UMBC)
2022 – 2023	Beckman Scholar Mentor (UMBC)
2022 – present	Program Director (PD) of the NIH CBI T32 program (UMBC)
2022	CNMS Early-Career Faculty Excellence Award (UMBC)
2021 – 2022	UMBC Camille & Henry Dreyfus Teacher-Scholar Nominee
2020 – 2022	National Institute of Standards and Technology (NIST) Guest Researcher
2019 – 2022	co-Program Director (co-PD) of the NIH CBI T32 program (UMBC)
2019	NSF CAREER Award (UMBC)
2019	American Heart Association Career Development Award (UMBC)
2018	Career Center Impact Recognition Award (UMBC)
2017	Summer Faculty Fellowship (UMBC)
2015	Interdisciplinary Biological Sciences Postdoctoral Travel Award (NU)
2013	NIH Ruth L. Kirschstein NRSA Postdoctoral Fellowship (NU)
2011	University Housing's Honored Instructor Award (UW)
2011	Charles & Martha Casey Excellence in Research Award (UW)
2010	Outstanding Chemistry Teaching Award (UW)
2010	Undergraduate Mentoring Award (UW)
2007	Undergraduate Research Award (BU)
2007	Department of Chemistry Research Award (BU)
2005 – 2007	CHEMIA Vice President (BU)
2006	Mark Riemen Summer Research Prize (BU)

Research Support and/or Fellowships

Funded/Approved (total amount: $3,575,320; total proposals: 7)

2025 – 2030 **$1,535,160 ($1,455,300 Direct)**
T32 GM158458 "Graduate Training at The Chemistry Biology Interface" (NIH—NIGMS), Role: PD (100%)

2025 – 2026 **No direct costs**
New York Structural Biology Center (NYSBC) National Center for Cryo-EM Access and Training (NC-CAT) TP1 (Embedded Cross-Training) Proposal (NCCAT-TP1-AS250113) "Determination of the structure of ferrous iron protein B (FeoB) via cryo-EM"
(UMBC/NYSBC), Role: P.I. (100%)

2024 – 2029 **$1,870,160 ($1,261,491 Direct)**
R35 GM133497-06 (competing renewal) "Deciphering the Mechanism of Pathogenic Ferrous Iron Acquisition and the Role of Iron in the Eukaryotic Arginine Transferases" (NIH—NIGMS), Role: P.I. (100%) (years 6-10)

2022 – 2025 **$170,000 ($170,000 Direct)**
GT15765 "Biophysical Characterization of the *Pseudomonas aeruginosa* (*Pa*) BqsR and BqsS Two-Component System" (HHMI Gilliam Fellowship), Role: Mentor (of Alexander Paredes) and Diversity and Inclusion Awardee

2024 – 2026 **No direct costs**
Advanced Photon Source (APS) General User Proposal (GUP 1005362) "Structural Determination of the Bacterial Ferrous Iron Transport System" (UMBC/Argonne National Laboratory), Role: P.I. (100%)

2018 – present **No direct costs**
Advanced Light Source (ALS) RAPIDD Proposal (SB-01301) "Determination of the solution-state SAXS profile of a mammalian arginyltransferase 1 (ATE1)" (UMBC/Lawrence Berkeley National Laboratory), Role: P.I. (100%)

2018 – present **No direct costs**
bioXAS Beamtime Proposal "X-ray Absorption Spectroscopy of Eukaryotic, Iron-Binding Arg Transferases (ATE1s)" (UMBC/Stanford Synchrotron Radiation Lightsource), Role: co-P.I. (50%)

Completed (total amount: $3,497,384; total proposals: 21)

2024 – 2025 **$39,700 ($39,700 Direct)**
NSF Post-Baccalaureate Research Experience for LSAMP Students (PRELS) in support of Kate Magante
Role: Mentor (100%)

2019 – 2025 **$548,000 ($408,017 Direct)**
CAREER Award 1844624 "Structure, Mechanism, and Selectivity of Microbial Ferrous Iron Transport" (NSF—CHE, CLP), Role: P.I. (100%)

2022 – 2025 **$498,830 ($471,504 Direct)**
T32 GM066706 (years 19-20, and year 21 (NCE)) "Graduate Training at The Chemistry Biology Interface" (NIH—NIGMS), Role: co-P.D. (50%)

2023 – 2024	**$15,000 ($15,000 Direct)** RCA Strategic Award Supplement (UMBC), Role: PI (100%)
2019 – 2024	**$1,418,165 ($1,000,000 Direct)** R35 GM133497-01 “Deciphering the Mechanism of Pathogenic Ferrous Iron Acquisition and the Role of Iron in the Eukaryotic Arginine Transferases” (NIH—NIGMS), Role: P.I. (100%) (years 1-5)
2022 – 2024	**No direct costs** Advanced Photon Source (APS) General User Proposal (GUP 80032) “Structural Determinants of Post-Translational Arginylation” (UMBC/Argonne National Laboratory), Role: P.I. (100%)
2021 – 2023	**$141,412 ($96,416 Direct)** R35 GM133497-03S1 “Diversity Supplement: Deciphering the Mechanism of Pathogenic Ferrous Iron Acquisition and the Role of Iron in the Eukaryotic Arginine Transferases” (NIH—NIGMS), Role: P.I. and Mentor (100%)
2022 – 2023	**$199,540 ($199,540 Direct)** R35 GM133497-03S1 “Administrative Supplement for Equipment: Deciphering the Mechanism of Pathogenic Ferrous Iron Acquisition and the Role of Iron in the Eukaryotic Arginine Transferases” (NIH—NIGMS), Role: P.I. (100%)
2021 – 2022	**$1,300 (Direct)** Undergraduate Research Awards (UMBC), Role: Advisor
2020 – 2022	**No direct costs** Advanced Photon Source (APS) General User Proposal (GUP 70573) “Structural Determination of Components of Ferrous Iron Transport” (UMBC/Argonne National Laboratory), Role: P.I. (100%)
2020 – 2021	**$1,750 (Direct)** Undergraduate Research Awards (UMBC), Role: Advisor
2019 – 2022	**No direct costs** National Institute of Standards and Technology (NIST), Role: Guest Researcher
2019 – 2021	**$365,687 ($275,000 Direct)** R21 DE027803-01A1 “FeoA-based Regulation of Pathogenic Ferrous Iron Acquisition” (NIH—NIDCR), Role: P.I. (100%)
2019	**$1,500 (Direct)** Supplement for Undergraduate Research Experience (UMBC), Role: P.I. (100%)
2019	**$231,000 ($210,000 Direct)** Career Development Grant 19CDA34760033 “Structural and Regulatory Elements of the Arginine Transferases” (American Heart Association), Role: P.I. (100%) (relinquished early)
2018	**$1,500 (Direct)**

Supplement for Undergraduate Research Experience (UMBC), Role: P.I. (100%)

2018 – 2020 **No direct costs**
Advanced Photon Source (APS) General User Proposal (GUP 59535) "Structural Determination of Components of Ferrous Iron Transport" (UMBC/Argonne National Laboratory), Role: P.I. (100%)

2017 – 2018 **$25,000 (Direct)**
Strategic Award for Research Transitions "The Mechanism of Fe^{2+} Transport in Pathogenic Bacteria" (UMBC), Role: P.I. (100%)

2017 – 2018 **$3,000 (Direct)**
Undergraduate Research Awards (UMBC), Role: Advisor

2017 **$6,000 (Direct)**
Summer Faculty Fellowship "The Mechanism of Fe^{2+} Transport in Pathogenic Bacteria" (UMBC), Role: P.I. (100%)

2016 – 2018 **No direct costs**
Advanced Photon Source (APS) General User Proposal (GUP 49494) "Structural Determination of the Fe(II) Membrane Transporter FeoB" (UMBC/Argonne National Laboratory), Role: P.I. (100%)

Submitted (total amount: $10,481,047; total proposals: 3)

2026 – 2031 **$9,407,164 ($9,001,109 Direct)**
T32 GM164039 "Trans-Departmental Basic Biomedical Science Training Program at UMBC" (NIH—NIGMS), Role: co-PD/co-PI (100%)

2026 – 2028 **$421,242 ($200,000 Direct to UMBC)**
R21 AI193604-A1 "Bacterial ferrous iron sensing via the BqsRS (CarRS) two-component system" (NIH—NIAID), Role: PI (75%)

2025 – 2030 **$652,641 ($438,517 Direct to UMBC)**
R01 AI198577 "Targeting Iron Homeostasis in Clostridioides difficile to Enable Microbiota-Sparing Antivirulence Therapeutics" (NIH—NIAID), Role: co-I (100%)

In Revision/Pending Submission (total amount: $911,706; total proposals: 2)

2025 – 2028 **$544,500 ($450,000 Direct to UMBC)**
Cystic Fibrosis Foundation Research Grant "The mechanism of *Pseudomonas aeruginosa* Fe^{2+} sensing and its connection to biofilm formation" (CFF), Role: PI (100%)

2025 – 2030 **$367,206 ($254,233 Direct to UMBC)**
R01 AI091957-10 renewal of "Characterization of the ferrous iron transporter Feo" (NIH—NIAID), Role: co-PI (100%)

Submitted But Unfunded (total amount: $9,523,708; total proposals: 22)

2025 – 2030 **$1,150,000 ($1,000,000 Direct)**
Chan Zuckerberg Initiative (CZI), Science Diversity Leadership Award, Role: co-PI (100%)

2025	**$54,869 ($36,979 Direct to UMBC)** R01 NS136916-A1 sub-award of “Identifying arginylation inhibitors to attenuate injury-induced neuronal cell death,” (NIH-NINDS), Role: sub-awardee (100%)
2025 – 2030	**$240,294 ($156,483 Direct to UMBC)** R01 “Targeting Multi-Drug-Resistant Bacteria with Reactivity-Based Antimicrobial Prodrugs” (NIH—NIAID), Role: co-PI (50%)
2024 – 2029	**$1,513,805 ($1,437,090 Direct)** T32 GM153539 (years 1-5) “Graduate Training at The Chemistry Biology Interface” (NIH—NIGMS), Role: PD (100%)
2024 – 2027	**$802,322 ($552,925 Direct)** “The mechanism of bacterial ferrous iron sensing via the BqsRS (CarRS) two-component system” (NSF, CHE-CLP), Role: PI (100%)
2024 – 2031	**Direct and indirect costs undeclared** “Structure and Mechanism of Iron-Dependent Biological Processes” (HHMI), Role: PI (100%)
2024 – 2026	**$241,394 ($165,698 Direct)** R35 GM133497-06S1 “Diversity Supplement: Deciphering the Mechanism of Pathogenic Ferrous Iron Acquisition and the Role of Iron in the Eukaryotic Arginine Transferases” (NIH—NIGMS), Role: P.I. and Mentor (100%)
2023 – 2028	**$230,312 ($150,000 Direct to UMBC)** R01 “Targeting Multi-Drug-Resistant Bacteria with Reactivity-Based Antimicrobial Prodrugs” (NIH—NIAID), Role: co-PI (50%)
2023 – 2026	$**156,000 ($156,000 Direct)** “Biophysical Characterization of Arginyltransferase 1 (ATE1)” (HHMI Gilliam Fellowship), Role: Mentor (of Misti Cartwright) and Diversity and Inclusion Awardee
2022 – 2027	**$100,000 (Direct)** Camille Dreyfus Teacher-Scholar Award “Iron Sensing and Microbial Pathogenesis” (The Camille & Henry Dreyfus Foundation), Role: P.I. (100%)
2022 – 2023	**$75,000 (Direct)** Sloan Research Fellowship, Role: Fellow (100%)
2021 – 2026	**$100,000 (Direct)** Camille Dreyfus Teacher-Scholar Award “Reductive Mechanisms of Iron Acquisition in Microbial Pathogenesis” (The Camille & Henry Dreyfus Foundation), Role: P.I. (100%)
2020 – 2021	**$145,000 (Direct)** Sloan Research Fellowship, Role: Fellow (100%)
2020 – 2025	**$500,000 (Direct)**

	Investigators in the Pathogenesis of Infectious Diseases “Microbial Pathogenesis and Ferrous Iron Acquisition, Transport, and Regulation” (Burroughs Wellcome Fund), Role: P.I. (100%)
2019 – 2024	**$500,000 (Direct)** Investigators in the Pathogenesis of Infectious Diseases “Microbial Pathogenesis and Ferrous Iron Acquisition, Transport, and Regulation” (Burroughs Wellcome Fund), Role: P.I. (100%)
2019 – 2024	**$100,000 (Direct)** Camille Dreyfus Teacher-Scholar Award “The Involvement of Iron in Pathogenesis and Posttranslational Modifications” (The Camille & Henry Dreyfus Foundation), Role: P.I. (100%)
2019 – 2020	**$145,000 (Direct)** Sloan Research Fellowship, Role: Fellow (100%)
2018 – 2023	**$1,738,712 ($1,250,000 Direct)** R01 GM133999 “Structure, Mechanism, and Selectivity of Microbial Ferrous Iron Transport” (NIH—NIGMS), Role: P.I. (100%)
2018 – 2023	**$500,000 (Direct)** Investigators in the Pathogenesis of Infectious Diseases “Structure and Mechanism of Pathogenic Ferrous Iron Acquisition” (Burroughs Wellcome Fund), Role: P.I. (100%)
2017 – 2021	**Direct and indirect costs undeclared** Beckman Young Investigator Program “Targeting Pathogenic Ferrous Iron Acquisition” (Beckman Foundation), Role: P.I. (100%)
2017 – 2020	**$1,000,000 (Direct)** Keck Foundation Proposal “Controlling Protein Half-life via Arginine-Mediated Post-translational Modifications” (Keck Foundation), Role: P.I. (100%)
2016 – 2019	**$231,000 ($210,000 Direct)** Scientist Development Grant “Structural and Regulatory Elements of the Arginine Transferases” (American Heart Association), Role: P.I. (100%)

Postdoctoral Researchers

Current (1)

Name	*Department/Program*	*University and Role*
Dr. Harvinder Singh	Chemistry & Biochemistry	UMBC; role: PD adviser

Past (1)

Name	*Department/Program*	*University and Role*
Dr. Janae Baptiste Brown	Chemistry & Biochemistry	UMBC; role: PD adviser

Ph.D. Students

Current (17)

Name	*Department/Program*	*University and Role*
Alexander Paredes^&	Chemistry & Biochemistry	UMBC; role: committee chair
Candice Armstrong	Chemistry & Biochemistry	UMBC; role: committee chair
Rajat Kumar Jha	Chemistry & Biochemistry	UMBC; role: committee chair
Jeanne Ngo*	Chemistry & Biochemistry	UMBC; role: committee chair
Charlie Waters*	Chemistry & Biochemistry	UMBC; role: committee member
Alex Reardon	Chemistry & Biochemistry	UMBC; role: committee member
Hasan Al Banna	Chemistry & Biochemistry	UMBC; role: committee member
Manju Ojha	Chemistry & Biochemistry	UMBC; role: committee member
Nina Lee	GPILS	UMBC; role: committee member
Rex Gonzales	GPILS	UMBC; role: committee member
Ian O'Keefe	GPILS	UMBC; role: committee member
Nav Phulara	Chemistry & Biochemistry	UMBC; role: committee member
Bijaya B. K.	Chemistry & Biochemistry	UMBC; role: committee member
Josh Camacho	Chemistry & Biochemistry	UMBC; role: committee member
Matt Denny	Chemistry & Biochemistry	UMBC; role: committee member
Bethel Beyene^+	Chemistry & Biochemistry	UMBC; role: committee member
Oliver Paszkowski	Chemistry & Biochemistry	UMBC; role: committee member

Past (35)

Name (Yr. of Ph.D.)	*Department/Program*	*University and Role*
Dr. Misti Cartwright^ (2025)	Chemistry & Biochemistry	UMBC; role: committee chair
Dr. Mark Lee* (2024)	Chemistry & Biochemistry	UMBC; role: committee chair
Dr. Verna Van (2022)	GPILS	UMBC; role: committee chair
Dr. Alex Sestok* (2022)	Chemistry & Biochemistry	UMBC; role: committee chair
Dr. Christianna Kutz (2025)	Chemistry & Biochemistry	UMBC; role: committee member
Dr. Lucia Hudson (2025)	GPILS	UMBC; role: committee member
Dr. Zach Nichols* (2025)	Chemistry & Biochemistry	UMBC; role: committee member
Dr. Mona Layegh (2025)	Chemistry & Biochemistry	UMBC; role: committee member
Dr. Naba Krishna Das^ (2025)	Chemistry & Biochemistry	UMBC; role: committee member
Dr. Mitasha Palha (2025)	GPILS	UMBC; role: committee member
Dr. Noha Ghonim (2025)	GPILS	UMBC; role: committee member
Dr. Winny Sun (2025)	GPILS	UMBC; role: committee member
Dr. Karndeep Singh^ (2024)	GPILS	UMBC; role: committee member
Dr. Joy Thames* (2024)	Chemistry & Biochemistry	UMBC; role: committee member
Dr. Matt Sherman (2023)	GPILS	UMBC; role: committee member
Dr. Xinmei Dong (2022)	Chemistry & Biochemistry	UMBC; role: committee member
Dr. Xi Chen (2022)	GPILS	UMBC; role: committee member
Dr. Brianna Young (2022)	GPILS	UMB; role: committee member
Dr. Daniel Kazal (2022)	Chemistry & Biochemistry	UMBC; role: committee member
Dr. Tyree Wilson^ (2022)	Pharmacy	UMBC; role: committee member
Dr. Mickayla Mickle^ (2022)	GPILS	UMB; role: committee member
Dr. Jordan Pritts* (2022)	Pharmacy	UMB; role: committee member

Patricia Boyd^ (N/A)	*Chemistry & Biochemistry*	*UMBC; role: committee member*
Dr. Rachael Knoblauch (2020)	Chemistry & Biochemistry	UMBC; role: committee member
Dr. Canessa Swanson^ (2020)	GPILS	UMBC; role: committee member
Dr. Miji Jeon (2020)	Chemistry & Biochemistry	UMBC; role: committee member
Dr. Alecia Dent (2020)	GPILS	UMB; role: committee member
Dr. Estela Monge^ (2020)	Biology	UMBC; role: committee member
Dr. Denise Williams^ (2020)	Chemistry & Biochemistry	UMBC; role: committee member
Dr. Mary Yates (2019)	Chemistry & Biochemistry	UMBC; role: committee member
Dr. Tonya Santaus (2019)	Chemistry & Biochemistry	UMBC; role: committee member
Dr. Courtney Chandler (2019)	GPILS	UMB; role: committee member
Dr. Hannah Rosenbach (N/A)	Exchange Student	HHU Düsseldorf
Andrew Butler (N/A)	*GPILS*	*UMBC; role: committee chair*
Dr. Janae Baptiste (2017)	Chemistry & Biochemistry	UMBC; role: committee member

Italics indicate the individual finished program without terminal graduate degree; *UMBC NIH T32 CBI Fellow; ^ Meyerhoff Scholar; **HHMI Gilliam awardee**; [&]NSF GRF awardee; [+]UMBC NIH T32 G-RISE Fellow

Master's Students

Current (0)

Name	*Department/Program*	*University and Role*
N/A		

Past (3)

Name (Yr. of M.Sc.)	*Department/Program*	*University and Role*
Timothy Cain (2020)	Chemistry & Biochemistry	UMBC; role: committee chair
Nathan Max (2019)	GPILS	UMBC; role: committee chair
Joseph Sparenberg (2019)	Chemistry & Biochemistry	UMBC; role: committee member

Post-Baccalaureates

Current (0)

Name, (Yrs. mentored), Awards	*University and Role*

Past (2)

Name, (Yrs. mentored), Awards	*University and Role*
Kate Magante[+] (2024 – present), USM NSF PRELS scholar	UMBC role: faculty mentor
Jonathan Calderon (2025)	UMBC role: faculty mentor

Undergraduate Students

Current (5)

Name, (Yrs. mentored), Awards	*University and Role*
Caleb Zelecke^[@] (2024 – present)	UMBC role: faculty mentor
Branwen She (2025 – present)	UMBC role: faculty mentor
Tayyiba Bari (2025 – present)	UMBC role: faculty mentor
Sara Patamawenu^ (2025 – present)	UMBC role: faculty mentor
Michelle Ibino[%] (2025 – present)	UMBC role: faculty mentor

Past (22)

Name, (Yrs. mentored), Awards	*University and Role*
Darryn Greene[%] (2022 – 2025)	UMBC role: faculty mentor
John McKenna Soto (2024 – 2025)	UMBC role: faculty mentor
Rya Holzman (2024)	UMBC role: faculty mentor
Kate Magante[%] (2022 – present)	UMBC role: faculty mentor
Jeanne Ngo (2023 – 2024)	UMBC role: faculty mentor
Chioma Iheacho^[@] (2021 – 2024)	UMBC role: faculty mentor

Ayomide Oduwole (2022 – 2024)	UMBC role: faculty mentor
Toluwani Akinselure[$] (2022 – 2023)	UMBC role: faculty mentor
Yassin Elalamy[$] (2022 – 2023)	UMBC role: faculty mentor
Noah Diaz Cruz^[@] (2021 – 2022)	UMBC role: faculty mentor
Nna-Emeka Ejimogu^[@], (2019 – 2022), URA Recipient (2021)	UMBC role: faculty mentor
Victor Omokehinde^[%] (2019 – 2020)	UMBC role: faculty mentor
Sean O'Sullivan, (2019 – 2021), URA Recipient (2020)	UMBC role: faculty mentor
Toan Bui, (2017 – 2021), SURE (2019) and URA Recipient (2020)	UMBC; role: faculty mentor
Korliss Britt, (Summer 2019)	UMBC; role: intern mentor
Julia Miller, (Summer 2018), REU National Conference Nominee	UMBC; role: REU mentor
Daniel Romero Figueroa, (2016 – 2017)	UMBC; role: faculty mentor
Tobias Coombs^ (2018)	UMBC; role: faculty mentor
Samantha Harris, (2017 – 2019), SURE Recipient (2018)	UMBC; role: faculty mentor
Richard Linkous, (2016 – 2018), URA Recipient (2017)	UMBC; role: faculty mentor
Ijaz Mohamed, (2016 – 2018), URA Recipient (2017)	UMBC role: faculty mentor
Kenya Platero Lopez, (2016 – 2017)	UMBC; role: faculty mentor

^Meyerhoff Scholar; [@]U-RISE scholar; [$]STEM Build Scholar; [%]LSAMP scholar; **Beckman Scholar**; [+]USM NSF PRELS Post-Bac Scholar

PUBLICATIONS, PRESENTATIONS, AND CREATIVE ACHIEVEMENTS

Publications

Pre-Prints and Commentaries

42. Paredes, A.; Singh, H.; Hull, M.; Greene, D.[#]; Northrup, A. J.[#]; Brown, J. B.; Chacón, K. N.; Patrauchan, M. A.; and **Smith, A. T.** The Response Regulator BqsR/CarR Controls Ferrous Iron (Fe^{2+}) Acquisition in *Pseudomonas aeruginosa*. *bioRxiv*. **2025**, DOI: 10.1101/2025.04.12.648518
41. Paredes, A.; Iheacho, C.[#]; Chacón, K. N.; and **Smith, A. T.** The *Pseudomonas aeruginosa* Membrane Histidine Kinase BqsS/CarS Directly Senses Environmental Ferrous Iron (Fe^{2+}). *bioRxiv*. **2025**, DOI: 10.1101/2025.04.06.647434
40. Cartwright, M.; Parakra, R.; Oduwole, A.[#]; Zhang, F.; Deredge, D. J.; and **Smith, A. T.** Identification of an intrinsically disordered region (IDR) in arginyltransferase 1 (ATE1). *bioRxiv.* **2024**, DOI: 10.1101/2024.08.23.609426
39. Lee, M.; Magante, K.; Gómez-Garzón, C.; Payne, S. M.; and **Smith, A. T.** Structural determinants of *Vibrio cholerae* FeoB nucleotide promiscuity. *bioRxiv*. **2024** DOI: 10.1101/2024.05.22.595361
38. Van, V.; Ejimogu, N.-E.[#]; Bui, T. S.[#]; and **Smith, A. T.** The structure of an arginyltransferase 1 (ATE1). *bioRxiv*. **2022**, DOI: 10.1101/2022.07.20.500667
37. **Smith, A. T.** Protein arginylation is regulated during SARS-CoV-2 infection. *Rapid Reviews:COVID-19*. **2022**, DOI: 10.1162/2e3983f5.b4da4031
36. Sestok, A. E.*; Brown, J. B.*; Obi, J. O.; O'Sullivan, S. M.[#]; Garcin, E. D.; Deredge, D. J.; and **Smith, A. T.** Biochemical and structural characterization of the fused *Bacteroides fragilis* NFeoAB domain reveals a role for FeoA. *bioRxiv*. **2021**, DOI: 10.1101/2021.09.29.462438v1
35. **Smith, A. T.** Linkous, R. O.[#]; Max, N. J.; Sestok, A. E.; Szalai, V. A.; Chacón, K. N.; *Escherichia coli* FeoC binds a redox-active, rapidly oxygen-sensitive [4Fe-4S] cluster. *ChemRxiv*. **2019**, DOI: 10.26434/chemrxiv.8411408.v1

Peer-Reviewed Articles and Reviews

34. Paredes, A.; Iheacho, C.[#]; Chacón, K. N.; and **Smith, A. T.** The *Pseudomonas aeruginosa* Membrane Histidine Kinase BqsS/CarS Directly Senses Environmental Ferrous Iron (Fe^{2+}). **2025**. *J. Biol. Chem*. In revision.
33. Cartwright, M.; Jha, R. K.; and **Smith, A. T.** Structure and mechanism of aminoacyl-tRNA-protein L/F- and R-transferases. *J. Mol. Biol.* **2025**, *437*, 169210.
32. Lee, M.; Armstrong, C. M.; and **Smith, A. T.** Characterization of intact FeoB in a lipid bilayer using styrene-maleic acid (SMA) copolymers. *BBA—Biomembranes.* **2025**, *1867*, 184404.
31. Cartwright, M.; Parakra, R.; Oduwole, A.[#]; Zhang, F.; Deredge, D. J.; and **Smith, A. T.** Identification of an intrinsically disordered region (IDR) in arginyltransferase 1 (ATE1). *Biochemistry.* **2024**, *63*, 3236-3249.
30. Lee, M.; Magante, K.[#]; Gómez-Garzón, C.; Payne, S. M.; and **Smith, A. T.** Structural determinants of *Vibrio cholerae* FeoB nucleotide promiscuity. *J. Biol. Chem*. **2024**, *300*, 107663.
29. Paredes, A.; Iheacho, C.[#]; and **Smith, A. T.** Metal messengers: communication in the bacterial world through transition-metal-sensing two-component systems. *Biochemistry*. **2023**, *23*, 2339-2357.
28. Van, V.; Brown, J. B.; O'Shea, C. R.; Rosenbach, H.; Mohamed, I.[#]; Ejimogu, N.-E.[#]; Bui, T. S.[#]; Szalai, V. A.; Chacón, K. N.; Span, I.; Zhang, F.; and **Smith, A. T.** Iron-sulfur clusters are involved in post-translational arginylation. *Nature Communications.* **2023**, *14*, 458.
27. Van, V. and **Smith, A. T**. Reconstitution of the arginyltransferase (ATE1) iron-sulfur cluster. In: *Protein Arginylation: Methods and Protocols, Second Edition*. Methods in Molecular Biology, *2620*, (Anna Kashina, Ed.). **2023**, *2620*, 209-217.†
26. Cartwright, M.; Van, V.; and **Smith, A. T.** The preparation of recombinant arginyltransferase 1 (ATE1) for biophysical characterization. *Methods Enzymol.* **2023**, *679*, 235-254.
25. Van, V.; Ejimogu, N.-E.[#]; Bui, T. S.[#]; and **Smith, A. T.** The structure of *Saccharomyces cerevisiae* arginyltransferase 1 (ATE1). *J. Mol. Biol*. **2022**, *434*, 167816.
24. Brown, J. B.; Lee, M. A.; and **Smith, A. T.** The NMR structure of *Vibrio cholerae* FeoC reveals conservation of the helix-turn-helix motif but not the cluster-binding domain. *J. Biol. Inorg. Chem.* **2022**, *27*, 485-495.

23. Sestok, A. E.; O'Sullivan, S. O. [#]; and **Smith, A. T.** A general protocol for the expression and purification of the intact transmembrane transporter FeoB. *BBA—Biomembranes*. **2022**, *1864*, 183973.
22. Sestok, A. E.*; Brown, J. B.*; Obi, J. O.; O'Sullivan, S. M.[#]; Garcin, E. D.; Deredge, D. J.; and **Smith, A. T.** A fusion of the Bacteroides fragilis ferrous iron import proteins reveals a role for FeoA in stabilizing GTP-bound FeoB. *J. Biol. Chem.* **2022**, *298*, 101808.
21. Sestok, A. E.; Lee, M.; and **Smith, A. T.** Prokaryotic ferrous iron uptake: exploiting pools of reduced iron across multiple microbial environments. In: *Advances in Environmental Microbiology. Microbial Metabolism of Metals and Metalloids* (Hurst, C. J., ed.). **2022**, *10*, 299-357.
20. Brown, J. B.; Lee, M. A.; and **Smith, A. T.** In and out: recent advancements in membrane-protein mediated prokaryotic ferrous iron transport. *Biochemistry*. **2021**, *60*, 3277-3291.
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    - Article recommended by the Faculty of 1000 (F1000): https://facultyopinions.com/prime/740943184
    - Article promoted by *The Conversation*: https://theconversation.com/viruses-are-both-the-villains-and-heroes-of-life-as-we-know-it-169131

18. Cain, T. J. and **Smith, A. T.** Ferric iron reductases and their contribution to unicellular ferrous iron uptake. *J. Inorg. Biochem.* **2021**, *218*, 11407.
17. Van, V. and **Smith, A. T.** ATE1-mediated post-translational arginylation is an essential regulator of eukaryotic cellular homeostasis. *ACS Chem. Biol.* **2020**, *15*, 3073-3085.
16. **Smith, A. T.**; Linkous, R. O.[#]; Max, N. J.; Sestok, A. E.; Szalai, V. A.; Chacón, K. N.; The FeoC [4Fe-4S] cluster is redox-active and rapidly oxygen-sensitive. *Biochemistry*. **2019**, *58*, 4935-4949.
15. Linkous, R.O.[#]; Sestok, A. E.; and **Smith, A. T.** The crystal structure of *Klebsiella pneumoniae* FeoA reveals a site for protein-protein interactions. *Proteins.* **2019**, *87*, 897-903.
14. Sestok, A. E.; Linkous, R. O.[#]; **Smith, A. T.** Toward a mechanistic understanding of Feo-mediated ferrous iron uptake. *Metallomics*. **2018**, *10*, 887-898.[†]
13. **Smith, A. T.** and Sestok, A. E. Expression and purification of functionally active ferrous iron transporter FeoB from *Klebsiella pneumoniae*. *Protein Expr. Purif*. **2018**, *142*, 1-7.
12. **Smith, A. T.**; Ross, M. O.; Hoffman, B. M.; Rosenzweig, A. C. Metal selectivity of a Cd-, Co-, and Zn-transporting P_{1B}-ATPase. *Biochemistry*. **2017**, *56*, 85-95.
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Prior to 2016

10. Kathman, S.; Span, I.; **Smith, A. T.**; Xu, Z.; Zhan, J.; Rosenzweig, A. C.; Statsyuk, A. Discovery and structural characterization of covalent inhibitors of Nedd4-1 ubiquitin ligase processivity *J. Am. Chem. Soc.* **2015**, *137*, 12442-12445
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8. **Smith, A. T.**[*]; Pazicni, S.[*]; Marvin, K. A.[*]; Stevens, D. J.; Freeman, K. M.; Burstyn, J. N. Functional divergence of heme-thiolate proteins: a classification based on spectroscopic attributes. *Chem. Rev*. **2015**, *115*, 2532-2558.
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6. **Smith, A.T.**; Marvin, K.A.; Freeman, K.M.; Kerby, R.L.; Roberts, G.P.; Burstyn, J.N. Identification of Cys^{94} as the distal ligand to the Fe(III) heme in the transcriptional regulator RcoM-2 from *Burkholderia xenovorans*. *J. Biol. Inorg. Chem.* **2012**, *17*, 1071-1082.
5. **Smith, A.T.**; Su, Y.; Stevens, D. J.; Majtan, T.; Kraus, J.P.; Burstyn, J.N. Effect of the disease-causing R266K mutation on the heme and PLP environments of the human enzyme cystathionine β-synthase. *Biochemistry* **2012**, *51*, 6360-6370.

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3. Barr, I.; **Smith, A.T.**; Senturia, R.[#]; Chen, Y.; Burstyn, J.N.; Guo, F. DiGeorge Critical Region 8 (DGCR8) is a double-cysteine-ligated heme protein. *J. Biol. Chem.* **2011**, *286*, 16716-16725.
2. **Smith, A.T.**; Majtan, T.; Freeman, K.M.; Su, Y.; Kraus, J.P.; Burstyn, J.N. Cobalt cystathionine β-synthase: a cobalt-substituted heme protein with a unique thiolate ligation motif. *Inorg. Chem.* **2011**, *50*, 4417-4427.
1. Majtan, T.; Freeman, K.M.; **Smith, A.T.**; Burstyn, J.N.; Kraus, J.P. Purification and characterization of cystathionine beta-synthase bearing cobalt protoporphyrin. *Arch. Biochem. Biophys.* **2011**, *508*, 25-30.

Articles and Reviews In Preparation

3. Jha, R. K.; Carwright, M.; Zeleke, C.[#]; and **Smith, A. T.** The effects of divalent metals on the structure and function of arginyltransferase 1 (ATE1). **2025** (In preparation)
2. Magante, K.[#]; Armstrong, C. M.; Lee, M.; and **Smith, A. T.** Structural determination of the complete catalytic cycle of *Vibrio cholerae* NFeoB, an FeoB NTPase. **2025** (In preparation)
1. Magante, K.[#]; Lee, M. and **Smith, A. T.** The ferrous iron protein D (FeoD) is a small transmembrane protein that binds an [Fe-S] cluster. **2025** (In preparation)

[#] Indicates undergraduate authors; [*] Indicates equal contributions of these authors; ***[†] Selected as journal and/or book cover article***

Presentations

Conference/Poster Presentations

Non-juried/Refereed

48. (Alexander Paredes), Chioma Iheacho, Darryn J. Green, and Aaron T. Smith “Biophysical Characterization of the *Pseudomonas aeruginosa* (Pa) Bqs Two- Component System” International Conference on Bioinorganic Chemistry (ICBIC). Poster presentation. Irvine, California. **August 2025**.
47. (Rajat Kumar Jha) and Aaron T. Smith “Characterization of the metal-binding properties of arginyltransferase 1 (ATE1)” FCBIS. Poster presentation. Baltimore, Maryland. **May 2025**.
46. (Misti Cartwright), Rinky Parakra, Ayomide Oduwole, Fangliang Zhang, Daniel J. Deredge, and Aaron T. Smith. "Identification of an Intrinsically Disordered Region (IDR) in Arginyltransferase 1 (ATE1)" National ASBMB Meeting. Oral presentation and poster presentation. Chicago, Illinois. **April 2025**.
45. (Rajat Kumar Jha) and Aaron T. Smith “Characterization of the metal-binding properties of arginyltransferase 1 (ATE1)” National ASBMB Meeting. Poster presentation. Chicago, Illinois. **April 2025**.
44. (Alexander Paredes), Chioma Iheacho, Darryn J. Green, and Aaron T. Smith “Biophysical Characterization of the *Pseudomonas aeruginosa* (Pa) Bqs Two- Component System” National ASBMB Meeting. Poster presentation. Chicago, Illinois. **April 2025**.
43. (Alexander Paredes) and Aaron T. Smith “The Two-Component System BqsRS Controls Ferrous Iron (Fe^{2+}) Acquisition in *Pseudomonas aeruginosa*” HHMI Science Meeting. Poster presentation. Chevy Chase, Maryland. **April 2025**.
42. (Candice Armstrong) and Aaron T. Smith “Structural and biophysical characterization of the prokaryotic ferrous iron transport (Feo) system” Frontiers in Metals in Medicine. Poster presentation. Baltimore, Maryland. **October 2024**.
41. (Misti Cartwright) and Aaron T. Smith "Biophysical Characterization of *Mus musculus* ATE1-1" Frontiers in Metals in Medicine. Poster presentation. Baltimore, Maryland. **October 2024**.
40. (Rajat Kumar Jha) and Aaron T. Smith “Characterization of the metal-binding properties of arginyltransferase 1 (ATE1)” Frontiers in Metals in Medicine. Poster presentation. Baltimore, Maryland. **October 2024**.
39. (Candice Armstrong) and Aaron T. Smith “Biophysical characterization of the *Vibrio cholerae* FeoABC complex” FCBIS. Poster presentation. Baltimore, Maryland. **May 2024**.
38. (Rajat Kumar Jha) and Aaron T. Smith “Characterization of the metal-binding properties of arginyltransferase 1 (ATE1)” FCBIS. Poster presentation. Baltimore, Maryland. **May 2024**.
37. (Misti Cartwright) and Aaron T. Smith "Characterization of *Mus musculus* ATE1-1 with SAXS and HDX-MS" FCBIS. Poster presentation. Baltimore, Maryland. **May 2024**.
36. (Alexander Paredes), Chioma Iheacho, Darryn Greene, and Aaron T. Smith “Biophysical Characterization of the *Pseudomonas aeruginosa* (Pa) Bqs Two Component System” ASBMB National Meeting. Poster presentation. San Antonio, Texas. **March 2024**.
35. (Candice Armstrong) and Aaron T. Smith “Biophysical characterization of the *Vibrio cholerae* FeoABC complex” ASBMB National Meeting. Poster presentation. San Antonio, Texas. **March 2024**.
34. (Rajat Kumar Jha) and Aaron T. Smith “Characterization of the metal-binding properties of arginyltransferase 1 (ATE1)” ASBMB National Meeting. Poster presentation. San Antonio, Texas. **March 2024**.
33. (Misti Cartwright) and Aaron T. Smith "Characterization of *Mus musculus* ATE1-1 with SAXS and HDX-MS" ASBMB National Meeting. Poster presentation. San Antonio, Texas. **March 2024**.
32. (Alexander Paredes), Chioma Iheacho, Janae Baptiste-Brown, and Aaron T. Smith “Biophysical Characterization of the *Pseudomonas aeruginosa* BqsR/BqsS Two-Component System” HHMI Investigator Science Meeting. Poster presentation. Chevy Chase, Maryland. **January 2024**.

31. (Alexander Paredes), Chioma Iheacho, Janae Baptiste-Brown, and Aaron T. Smith “Biophysical Characterization of the *Pseudomonas aeruginosa* BqsR/BqsS Two-Component System” HHMI Investigator Science Meeting. Poster presentation. Chevy Chase, Maryland. **September 2023**.
30. (Misti Cartwright) and Aaron T. Smith "Biophysical Characterization of *Mus musculus* ATE1-1" Institute for Bioscience and Biotechnology Research (IBBR). Oral presentation. Rockville, Maryland. **September 2023**.
29. (Alexander Paredes), Janae Baptiste-Brown, and Aaron T. Smith “Biophysical Characterization of the *Pseudomonas aeruginosa* (Pa) Bqs Two Component System” American Crystallography Association (ACA). Poster presentation. Baltimore, Maryland. **July 2023**.
28. (Alexander Paredes), Janae Baptiste-Brown, Chioma Iheacho, and Aaron T. Smith “Biophysical characterization of the BqsR response regulator from the *Pseudomonas aeruginosa* BqsR/S two-component system” Howard Hughes Medical Institute (HHMI). Poster Presentation. Chevy Chase, Maryland. **March 2023**.
27. (Alexander Paredes) and Aaron T. Smith “Biophysical characterization of the BqsR response regulator from the *Pseudomonas aeruginosa* BqsR/S two-component system” ASBMB National Conference 2023. Poster presentation. Seattle, Washington. **March 2023**
26. (Mark Lee) and Aaron T. Smith “Structural and biophysical characterization of the *Vibrio cholerae* ferrous iron transport protein B (FeoB)” ASBMB National Conference 2023. Poster presentation. Seattle, Washington. **March 2023**
25. (Alexander Paredes), Janae Baptiste-Brown, and Aaron T. Smith “Biophysical characterization of the BqsR response regulator from the *Pseudomonas aeruginosa* BqsR/S two-component system” Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS). Oral Presentation. Anaheim, California. **November 2022**.
24. (Verna Van), Nna-Emeka Ejimogu, and Aaron T. Smith Smith “Structural investigations of arginyltransferases” American Crystallographic Association (ACA) Conference 2022. Oral presentation and “hot structure” selection. Portland, Oregon. **July 2022**.
23. (Mark Lee) and Aaron T. Smith “Purification and functional analysis of the ferrous iron transport protein B (FeoB) incorporated into SMA-copolymer nanodiscs” Experimental Biology Conference 2022. Poster presentation. Philadelphia, Pennsylvania. **April 2022**
22. (Verna Van), Nna-Emeka Ejimogu, Toan Bui, and Aaron T. Smith “Structural investigations of arginyltransferases” Experimental Biology Conference 2022. Poster presentation. Philadelphia, Pennsylvania. **April 2022**
21. (Nna-Emeka Ejimogu), Verna Van, and Aaron T. Smith “Sequence Conservation and Structural Modeling of an Arginyl-tRNA Transferase 1 (ATE1)” Experimental Biology Conference 2021. Virtual poster presentation. **April 2021**
20. (Verna Van) and Aaron T. Smith “Structural modeling and biophysical characterization of arginyl-tRNA transferase (ATE1)” Experimental Biology Conference 2021. Virtual poster presentation. **April 2021**
19. (Kelly N. Chacón) and Aaron T. Smith “Bioinorganic Investigations of Tellurium Detoxification in Bacteria” Metals in Biology Gordon Research Conference. Poster presentation. Ventura, California. **January 2020**
18. (Aaron T. Smith), Alexandrea E. Sestok, Richard O. Linkous, Nathan J. Max, Veronika A. Szalai, and Kelly N. Chacón “Characterization of the Ferrous Iron Transport Protein C (FeoC)” Metals in Biology Gordon Research Conference. Poster presentation. Ventura, California. **January 2020**
17. (Alexandrea E. Sestok), Sean O’Sullivan, and Aaron T. Smith “Toward a Mechanistic Understanding of Feo-Mediated Ferrous Iron Uptake” Bioinorganic Gordon Research Seminar. Poster presentation. Ventura, California. **January 2020**
16. (Verna Van), Ijaz R. Mohamed, Toan Bui, Kelly N. Chacón, and Aaron T. Smith. “Spectroscopic, biophysical, and functional studies of *Saccharomyces cerevisiae* arginine tRNA transferase 1 (ATE1)” Metallotherapeutics Symposium. Poster presentation. Baltimore, Maryland. **November 2019**
15. (Alexandrea E. Sestok), Sean O’Sullivan, and Aaron T. Smith “Toward a Mechanistic Understanding of Feo-Mediated Ferrous Iron Uptake” Metallotherapeutics Symposium. Poster presentation. Baltimore, Maryland. **November 2019**

14. (Alexandrea E. Sestok), Richard O. Linkous, and Aaron T. Smith "The Ferrous Iron Uptake (Feo) System: Investigating Interactions Between FeoA and FeoB" CanBIC-7. Poster presentation. Parry Sound, Ontario, Canada. **May 2019**
13. (Verna Van), Ijaz R. Mohamed, Toan Bui, Kelly N. Chacón, and Aaron T. Smith. "Spectroscopic, biophysical, and functional studies of *Saccharomyces cerevisiae* arginine tRNA transferase 1 (ATE1)" CanBIC-7. Poster presentation. Parry Sound, Ontario, Canada. **May 2019**
12. (Alexandrea E. Sestok), Richard O. Linkous, and Aaron T. Smith "The Ferrous Iron Uptake (Feo) System: Investigating Interactions Between FeoA and FeoB" FCBIS 12. Poster presentation. NIH, Bethesda, MD. **May 2019**
11. (Verna Van), Ijaz R. Mohamed, Toan Bui, and Aaron T. Smith. "Crystallization and characterization of *Saccharomyces cerevisiae* arginine tRNA transferase (ATE1)" FCBIS 12. Poster presentation. NIH, Bethesda, MD. **May 2019**.
10. (Alexandrea E. Sestok), Richard O. Linkous, and Aaron T. Smith "The Ferrous Iron Uptake (Feo) System: Investigating Interactions Between FeoA and FeoB" Metals in Biology Gordon Research Seminar. Poster presentation. Ventura, California. **Jan. 2019**
9. (Verna Van), Ijaz R. Mohamed, Toan Bui, and Aaron T. Smith. "Crystallization and characterization of *Saccharomyces cerevisiae* arginine tRNA transferase (ATE1)" Biochemistry and Molecular Biology Retreat. Poster presentation. University of Maryland School of Medicine, Baltimore, Maryland. **Jan. 2019**.
8. (Julia M. Miller), Alexandrea E. Sestok, and Aaron T. Smith "Purification and Crystallization of *Porphyromonas gingivalis* NFeoAB" National REU Symposium. Poster presentation. Alexandria, Virginia. **Oct. 2018**.
7. Ijaz R. Mohamed, Andrew F. Butler, Kelly N. Chacón, and (Aaron T. Smith) "Unexpected Binding of an [Fe-S] Cluster by a Eukaryotic Arginine Transferase" Frontiers in Metallobiochemistry. Poster presentation. Pennsylvania State University, State College, Pennsylvania. **June 2018**.
6. Alexandrea E. Sestok, Richard O. Linkous, and (Aaron T. Smith) "Efforts Towards Understanding Feo-Mediated Ferrous Iron Transport" Metals in Biology Gordon Research Conference and Seminar. Poster presentation. Ventura, California. **Jan. 2018**.
5. (Alexandrea E. Sestok), Richard O. Linkous, and Aaron T. Smith "The Ferrous Iron Uptake (Feo) System: Investigating Interactions Between FeoA and FeoB" Graduate Research Conference. University of Maryland, Baltimore County, Baltimore, Maryland. **March 2018**.
4. (Aaron T. Smith), Matthew O. Ross, Brian M. Hoffman, and Amy C. Rosenzweig "Determinants of Metal Selectivity of a Cd-, Co-, and Zn-transporting P_{1B}-ATPase" Metals in Biology Gordon Research Conference and Seminar. Poster presentation. Ventura, California. **Jan. 2016**.
3. (Aaron T. Smith) and Amy C. Rosenzweig "Role of the N-terminal Metal-Binding Domain of the Cd-, Co-, and Zn-Transporting P_{1B}-ATPase CzcP" Frontiers in Metallobiochemistry. Poster presentation. Pennsylvania State University, State College, Pennsylvania. **June 2014**
2. (Aaron T. Smith), Tomas Majtan, Katherine M. Freeman, Matthew J. Scheske, Jan P. Kraus, Judith N. Burstyn "The Effect of the Disease-Causing R266K Mutation on the Heme and PLP Environments of the Human Enzyme Cystathionine β-Synthase" 15th International Conference on Bioinorganic Chemistry. Poster presentation. Vancouver, British Columbia. **Aug. 2011**.
1. (Aaron T. Smith), Katherine M. Freeman, Tomas Majtan, Yang Su, Jan P. Kraus, Judith N. Burstyn "Cobalt Cystathionine β-Synthase: A Cobalt-Substituted Heme Protein with a Unique Thiolate Ligation Motif" Chemistry & Biology of Tetrapyrroles Gordon Research Conference. Poster presentation. Newport Rhode Island. **July 2010**.

(Parentheses) indicate presenting author.

Other Professional Presentations

Invited Lectures and Seminars

44. Oral presentation. 21st International Conference on Bioinorganic Chemistry. Irvine, California. **August 2025**. (Declined)
43. Departmental seminar. Oklahoma State University, Department of Microbiology and Molecular Genetics. **April 2025**.

42. Oral presentation. DiscoverBMB (ASBMB National Meeting) 2025, Chicago, Illinois. **April 2025**.
41. Departmental seminar. Shippensburg University, Department of Chemistry and Biochemistry, Shippensburg, Pennsylvania. **March 2025**.
40. Oral presentation. 2024 Metallotherapeutics Symposium, Baltimore, Maryland. **October 2024**.
39. Departmental seminar. Brandeis University, Department of Biochemistry, Waltham, Massachusetts. **October 2024**.
38. Oral presentation. International Protein Termini Conference, Oxford, England. **September 2024**.
37. Oral presentation. 2024 Conference on Fe-S Proteins, Winston-Salem, North Carolina. **June 2024**.
36. Oral presentation. DiscoverBMB (ASBMB National Meeting) 2024, San Antonio, Texas. **March 2024**.
35. Oral presentation and discussion leader. Bioinorganic Gordon Research Seminar (GRS). Ventura, California. **January 2024**.
34. Departmental seminar. University of North Carolina, Greensboro, Department of Chemistry and Biochemistry. Greensboro, North Carolina. **October 2023**.
33. Oral presentation. American Crystallographic Association (ACA) National Meeting, Baltimore, Maryland, **July 2023**.
32. Oral presentation. IBBR Structural Biology Meeting, Rockville, Maryland, **May 2023**.
31. Departmental seminar. University of Maryland, Baltimore County, Department of Biological Sciences. Baltimore, Maryland. **May 2023**.
30. Oral presentation and Session Moderator. DiscoverBMB (ASBMB National Meeting) 2023, Seattle, Washington. **May 2023**.
29. Departmental seminar. Johns Hopkins University, Department of Biochemistry and Molecular Biology. Baltimore, Maryland. **February 2023**.
28. Departmental seminar. Temple University, Department of Chemistry. Philadelphia, Pennsylvania. **October 2022**.
27. Departmental seminar. Boston University, Department of Chemistry. Boston, Massachusetts. **April 2022**.
26. Oral presentation. Experimental Biology (ASBMB National Meeting) 2022, Philadelphia, Pennsylvania. **April 2022**.
25. HHMI/U-RISE seminar. University of Maryland, Baltimore County, Baltimore, Maryland. **March 2022**.
24. Departmental seminar. University of Texas—Dallas, Department of Chemistry and Biochemistry. Dallas, Texas. **January 2022**.
23. Oral presentation. Cell Biology of Metals Gordon Research Conference. Mt. Snow, Vermont. **October 2021**.
22. Departmental seminar. Cornell University, Department of Microbiology, Ithaca, New York. **October 2021**.
21. Departmental seminar. University of Maryland, Baltimore County, Department of Chemistry and Biochemistry, Baltimore, Maryland. **October 2021**.
20. Institutional seminar. Aix Marseille Université, Laboratoire Information Génomique et Structurale (IGS), Marseille, France. **June 2021**.
19. Oral presentation. 13th Frontiers at the Chemistry-Biology Interface Symposium (FCBIS), University of Maryland, College Park, Department of Chemistry and Biochemistry, College Park, Maryland. **May 2021**.
18. Departmental seminar. University of Maryland, Baltimore, Department of Pharmaceutical Sciences, Baltimore, Maryland. **April 2021**.
17. Departmental seminar. University of Wisconsin—Madison, Department of Chemistry, Madison, Wisconsin. **April 2021**.
16. Departmental seminar. Washington University, Department of Chemistry, St. Louis, Missouri. **September 2020**.
15. Departmental seminar. Lehigh University, Department of Chemistry, Bethlehem, Pennsylvania. **February 2020**.
14. Metallotherapeutics Symposium. University of Maryland, School of Pharmacy, Baltimore, Maryland. **November 2019**.

13. Departmental seminar. George Mason University, Department of Chemistry and Biochemistry, Fairfax, Virginia. **October 2019**.
12. Departmental seminar. University of Delaware, Department of Chemistry and Biochemistry. Newark, Delaware, **September 2019**.
11. Oral presentation. 19th International Conference on Bioinorganic Chemistry. Interlacken, Switzerland. **August 2019**.
10. Oral presentation and plenary lecture. Young Researchers Conference (YRC). Texas A&M University. College Station, Texas. **June 2019**.
9. Oral presentation. Mid-Atlantic Regional ACS Meeting. UMBC, Baltimore, Maryland. **May 2019**.
8. Oral presentation. Biochemistry and Molecular Biology Retreat. University of Maryland School of Medicine, Baltimore, Maryland. **Jan. 2019**.
7. Departmental seminar. The George Washington University, Department of Chemistry, Washington D.C. **Dec. 2018**.
6. Departmental seminar. University of Maryland School of Medicine, Department of Biochemistry and Molecular Biology, Baltimore, Maryland. **Dec. 2017**.
5. Oral presentation. NIH New Faculty in Organic and Biological Chemistry. Kansas City, Missouri. **June 2017**.
4. Oral presentation. Biochemistry and Molecular Biology Retreat. University of Maryland School of Medicine, Baltimore, Maryland. **Jan. 2017**.
3. Departmental seminar. University of Maryland, Baltimore County, Department of Chemistry and Biochemistry. Baltimore, Maryland. **April 2016**.
2. Departmental seminar. University of Arizona, Tucson, Department of Chemistry and Biochemistry. Tucson, Arizona. **Feb. 2016**.
1. Oral presentation. Metals in Biology Gordon Research Conference and Seminar. Ventura, California. **Jan. 2015**.

<u>Upcoming</u>

3. Oral presentation. Spring ACS National Meeting. Atlanta, Georgia. **March 2026**.
2. Departmental seminar. University of Wisconsin—Madison, Department of Biochemistry. **October 2025**.
1. Departmental seminar. Catholic University of America, Department of Biology. **Fall 2025**.

SERVICE TO THE DEPARTMENT, UNIVERSITY, COMMUNITY AND PROFESSION

Service to the Department

2023	Dept. of Chemistry and Biochemistry Graduate Program Coordinator Search *ad hoc* Committee (UMBC). Role: Committee Member.
2023 – Present	Post-tenure five-year review committee (UMBC). Role: Committee Member.
2022 – Present	Biochemistry Undergraduate Teaching Committee (UMBC). Role: Committee Member.
2021 – 2022	Biochemistry Teaching Division (UMBC). Role: Teaching Unit Head (Assoc. Prof. Songon An, normal Teaching Unit Head, on sabbatical)
2021	Dept. of Chemistry and Biochemistry Assistant Professor of Organic Chemistry/Toxicology Recruitment *ad hoc* Committee (UMBC). Role: Committee Member.
2020	Dept. of Chemistry and Biochemistry Online Assessment *ad hoc* Committee (UMBC). Role: Committee Member.
2019	Dept. of Chemistry and Biochemistry New Chair Search *ad hoc* Committee (UMBC). Role: Committee Member.
2019	Dept. of Chemistry and Biochemistry Assistant Professor of Biochemistry Recruitment *ad hoc* Committee (UMBC). Role: Committee Member.
2019 – Present	LGBTQ+ SafeZone Trained (UMBC). Role: LGBTQ FSA SafeZone Member.
2019	Dept. of Chemistry and Biochemistry Seventh Year Review Graduate Student Concerns *ad hoc* Committee (UMBC). Role: Committee Member.
2019	Dept. of Chemistry and Biochemistry Seventh Year Review Scholarship Preparation *ad hoc* Committee (UMBC). Role: Committee Member.
2018	Dept. of Chemistry and Biochemistry Seventh Year Review *ad hoc* Committee (UMBC). Role: Committee Member.
2018	Dept. of Chemistry and Biochemistry Pre-Faculty Recruitment *ad hoc* Committee (UMBC). Role: Committee Member.
2017	Dept. of Chemistry and Biochemistry Assistant Professor of Analytical Chemistry Recruitment *ad hoc* Committee (UMBC). Role: Committee Member.
2016 – 2021	Dept. of Chemistry and Biochemistry Graduate Recruitment Committee (UMBC). Role: Committee Member.
2016 – Present	Dept. of Chemistry and Biochemistry CHEM 101H/102H (UMBC). Role: Guest Lecturer.

Service to the University

2025	Dept. of Biological Sciences BIOL 712 (UMBC). Role: Guest Lecturer.
2023 – Present	UMBC Campus-wide Facilities Stakeholders Committee. Role: Research Infrastructure Member and Dept. of Chemistry and Biochemistry Representative
2022 – Present	Chemistry-Biology Interface (CBI) Program. Role: Director
2022 – Present	Biochemistry and Molecular Biology undergraduate major steering committee. Role: Committee Member
2020 – 2022	Chemistry-Biology Interface (CBI) Program. Role: co-Director
2019 – Present	Permanent member of the UMB-UMBC Joint Biochemistry & Molecular Biology Program (GPILS) Governing Board. Role: Governing Member.
2018 – Present	University of Maryland, School of Pharmacy Metallotherapeutics Research Center. Role: Laboratory Member.
2018 – 2019	*Ad hoc* member of the UMB-UMBC Joint Biochemistry & Molecular Biology Program Governing Board. Role: Governing Member.

2018	Graduate Research Conference (UMBC). Role: Judge.
2016 – Present	LGBTQ+ Faculty-Staff Association (UMBC). Role: Association Member.
2016 – Present	UMB-UMBC Joint Biochemistry & Molecular Biology Program. Role: Faculty Member
2016	Undergraduate Research Symposium (UMBC). Role: Judge.

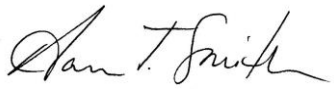
Service to the Community and the Profession

2025 – Present	NIH Maximizing Investigators' Research Award B (MRAB) Study Section. Role: *Ad hoc* reviewer
2025 – Present	NIH Macromolecular Structure and Function C (MSFC) Study Section. Role: *Ad hoc* reviewer
2024	15th Annual Frontiers in Chemistry and Biology Interface Symposium (FCBIS) Organizing Committee
2024	Session chair, Bioinorganic Gordon Research Seminar (GRS)
2024 – Present	NIH Macromolecular Structure and Function A (MSFA) Study Section. Role: *Ad hoc* reviewer
2023 – Present	National High-Throughput Crystallization Center (HWI, University of Buffalo): Advisory Board Member.
2023 – Present	American Crystallographic Association: Member.
2023	Undergraduate Poster Competition Judge, DiscoverBMB (ASBMB 2023 National Meeting)
2023	Session Chair, DiscoverBMB (ASBMB 2023 National Meeting)
2022	Proposal reviewer for NSF CLP CAREER study section
2022	American Chemical Society Division of Biochemistry and Chemical Biology Fall National Meeting, Chicago, Illinois. Role: Session Chair
2020	FCBIS 13 Poster Judge
2020 – Present	American Chemical Society Division of Biochemistry and Chemical Biology Executive Committee. Role: Alternate Councilor
2020 – 2021	AAAS Science & Technology Policy Fellowship Committee. Role: Committee Member
2020 – Present	Proposal reviewer for SSRL Bio XAS/Single Crystal XAS Beamtime Requests
2020 – Present	Proposal reviewer for NSF Chemistry of Life Processes (CLP) division
2019 – Present	American Society for Biochemistry and Molecular Biology. Role: Member.
2019	FCBIS 12. Role: Session Chair
2018 – 2019	NIH Early Career Reviewer Program. Role: Participant.
2018	Metals in Biology Power Hour "Nurturing Inclusivity" Session. Role: Session Leader
2016 – 2020	American Heart Association. Role: Member.
2016 – Present	Society of Biological Inorganic Chemistry. Role: Member.
2012 – Present	American Chemical Society. Role: Member.

Reviewer for the following scientific journals: *ACS Chemical Biology*; *Acta Crystallographica*; *Analytical Biochemistry; Archives of Biochemistry and Biophysics; Biochemistry*; *Biometals*; *Chemistry: a European Journal; Communications Biology; eLife; Frontiers in Cell and Developmental Biology*; *Inorganic Chemistry (IC)*; *Journal of the American Chemical Society (JACS)*; *Journal of Biological Inorganic Chemistry (JBIC); Journal of Molecular Biology (JMB); Journal of Inorganic Biochemistry (JIB); Microbiology Spectrum; Molecular Microbiology; Molecules; Nature Chemical Biology; Nature Communications; Proceedings of the National Academy of Sciences of the United States of America (PNAS); Proteomics; Scientific Data; Scientific Reports*

Guest editor for the following scientific journals: *Journal of Molecular Biology (JMB); PNAS*

I certify that this document is accurate and true.



Aaron T. Smith Date: December 9, 2025