

MACIEJ KUKULA

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SUMMARY

Accomplished strategic leader and scientist with over 20 years of experience directing scientific programs and leading research teams in GxP-regulated and non-regulated environments. Expert in connecting advanced analytical tools, AI technology and -omics, NGS, WGS frameworks to drive innovation in R&D ecosystems. Experienced in establishing and managing advanced research centers, strengthening product development, process control, and laboratory efficiencies.

- Highly experienced in building, motivating and leading high performance research teams
- Skillful in establishing partnerships with stakeholders and C-level leadership in Public and Private ecosystems
- Demonstrated ability to apply problem solving skills independently to analytical issues, as well as within the context of cross-functional teams for larger project issues
- Strong financial acumen (operation, management, business development) and excellent communication skills

PROFESSIONAL EXPERIENCE

DSTG.tech | Discovery, Science, Transformation & Growth, Bedford, NH

Partner, <https://dstg.tech>

01/2025 – present

A service-focused organization dedicated to helping laboratories operate more effectively and sustainably. Its core mission is to support emerging, newly formed, and established labs by taking on the operational, administrative, and strategic burdens that often distract scientists from their research. Moreover, the company facilitates the soft-land or hard-launch of international startups and SMEs into the U.S.

Vizzhy Omics, Pittsburgh, PA

Director, Analytical Sciences Division

10/2025 – 03/2026

Guiding collaborative efforts with the University of Pittsburgh to expand the former High Throughput Genome Center into a comprehensive multi-omics facility. Developing integrated pipelines across lipidomics, metabolomics, proteomics, metagenomics, epigenomics, and transcriptomics. By analyzing multi-omics data from blood, plasma, urine, saliva, and stool to capture the full biological picture of individuals using in-house generated AI-powered GAINMED platform to transform the precision medicine healthcare by building BIOTWINS technology.

- Integrated AI platform with data infrastructures to bring together multi-omics, imaging, wearable, and EHR data to enable predictive health and precision medicine through an integrated and globally collaborative approach to build Cardio Metabolic Biotwins technology.
- Established protocols and workflows for -omics assays (Thermo Stellar, Exploris 240, Astral Zoom), including Seer Proteograph technology for scalable deep proteomics
- Scaled up and automated processes to accomplish high-throughput analyses up to 2,000 samples per month
- Increased efficacy on Next Generation Sequencing (NGS) and Illumina Protein Prep (IPP) workflows for DNA and RNA sequencing
- Built, mentor, and lead a high-performing team of scientists and associates

ARMI BioFabUSA/CDMO | The Advanced Regenerative Manufacturing Institute, Manchester, NH

Bioanalytical Core Director

12/2019 – 08/2025

Established the Deep Tissue and Cell Characterization Center (DTCC) for characterizing Critical Quality Attributes (CQAs) and In-Process Critical Attributes (PCAs). Contributed to advanced tissue and organ biofabrication initiatives supporting **Department of Defense** priorities, bringing hands-on experience in regulated, mission-driven biomedical innovation directly relevant to work in military medicine.

- Established and managed the Core Center of Excellence. Negotiated and purchased instrumentation (LC and GC mass spectrometers, flow cytometers, confocal microscopy, gene expression systems, FT-IR, UV-VIS, GPC)
- Developed “-omics” programs (proteomics, metabolomics, lipidomics, transcriptomics) for tissue and cell characterization

- Supported initiatives of Quality Assurance and Quality Control group (e.g., drafting appropriate SOPs, documentation, training of research personnel) -preparation for acting in a regulatory environment (GMP)
- Hired and managed research staff (PhD and MSc level)
- Developed and implemented analytical control strategies, including identifying CQAs and establishing product specifications, from development through commercialization
- Led Analytical Development and QC functions, including managing, coaching, and mentoring scientific staff within cross-functional CMC teams
- Implemented new analytical technologies or process improvements that enhanced product quality, compliance, or inspection readiness
- Drive manufacturability of product during development to ensure robust design controls, QC procedures.
- Oversaw data deliverables by working with data scientists to drive and interpret assay performance characterization including sensitivity, specificity, linearity, reproducibility, and robustness using various statistical data modeling and machine learning approaches.
- Operated as **Chemical Hygiene Officer**; established polices, trainings, etc.
- Built, mentor, and lead a high-performing team of scientists and associates.
- Managed multiple projects simultaneously with clear timelines, budgets, and deliverables.
- Collaborated cross-functionally with Clinical, Regulatory, Quality, Operations, and Commercial teams.
- Partnered with KOLs, academic collaborators, and technology vendors to accelerate innovation.
- Represented the company at scientific conferences, consortiums, and industry events.

SHIMADZU CENTER FOR ADVANCED ANALYTICAL CHEMISTRY, Arlington, TX

08/2012 – 11/2019

Core/Division Facility Manager

- Established and managed the Shimadzu Center for Advanced Analytical Chemistry infrastructure in partnership with the Shimadzu Corporation
- Managed and implemented core services across the campus (LC/MSMS, ITOF, MALDIs, GC/MSMS, FT-IR, DSC, TGA, ICP-OES, GPC, TOC)
- Developed and executed countless research programs and projects shared across the university ecosystem.
- Managed people, financing, budgeting, invoicing, and annual cost control.

THE BOYCE THOMPSON INSTITUTE, CORNELL UNIVERSITY, Ithaca, NY

07/2011 – 07/2012

Manager of Mass Spectrometry Facility

- Established and managed the BTI Mass Spectrometry Facility.
- Managed and coordinated core services in metabolomics (small molecules analyses using Micromass Quattro II, Waters Xevo G2 Q-ToF and Varian GC/MS).
- Increased number of projects, customers and revenue

PRE-CLINICAL CRO SERVICES, Ft Worth, TX

2009 – 06/2011

Research Scientist

- Headed up the bio-analytical part (mass spectrometry) of the Pre-Clinical Services (CRO) to support pharmacokinetic (PK/PD) and drug metabolism analyses. Performed studies (LC, LC/MSMS) aimed at the discovery, evaluation and development of lead candidates in several therapeutic areas (infectious diseases)
- Provided project planning, scheduling, tracking, managing and project direction required for the successful and timely completion of bio-pharmaceutical and pharmaceutical product analysis according to FDA guidelines (GLP) and non-GLP
- Implemented GLP polices for analytical techniques in the CRO environment

Laboratory Manager

- Established Proteomics Core Facility
- Executed research projects in early-stage drug discovery (proteomics & metabolomics)
- Increased revenue of the laboratory

MEDICAL AND LIFE SCIENCE COMPANIES (DAKO, BECTON-DICKINSON, DIAGMED), Poland and Denmark 2002 – 2007

Life Science Sales Representative and Account Manager

- Increased market share and annual revenue by 30% and 50%, respectively.

EDUCATION

Executive MBA, The University of Texas at Dallas, TX

MSc, Biotechnology, The University of Wrocław

Graduate Certificate in Strategic Decision & Risk Management, The University of Texas at Austin, TX

Graduate Certificate in Leadership, The SMU Cox School of Business, Dallas, TX

Graduate Certificate in Project Management, The University of Texas at Dallas

AREAS OF EXPERTISE

Analytical chemistry: Mass spectrometry techniques (proteomics, metabolomics and lipidomics assays)

Laboratory automation and operation

Leadership & Management

Publications:

1. “Quantification of aminobutyric acids and their clinical applications as biomarkers for osteoporosis” Zhiying Wang, Liangqiao Bian, Chenglin Mo, Hui Shen, Lan Juan Zhao, Kuan-Jui Su, Maciej Kukula, Jauh Tzuoh Lee, Daniel W. Armstrong, Robert Recker, Joan Lappe, Lynda F. Bonewald, Hong-Wen Deng, and Marco Brotto; <https://doi.org/10.1038/s42003-020-0766-y>; **Nature Communications Biology**, 2020, 22-Jan.
2. “Metal- and chloride reagent-free synthesis of mixed thiophosphates” Jeffrey Ash, Hai Huang, and Jun Yong Kang DOI: 10.1039/c9ob00370c; **Org. Biomol. Chem.**, 2019, 17, 3812 IF = 3.56. (Maciej Kukula – Acknowledged for mass spectra data; HRMS).
3. “A Chemiluminescent Probe for HNO Quantification and Real-Time Monitoring in Living Cells” Weiwei An, Lucas S. Ryan, Audrey G. Reeves, Kevin J. Bruemmer, Lyn Mouhaffel, Jeni L. Gerberich, Alexander Winters, Ralph P. Mason, and Alexander R. Lippert DOI: 10.1002/ange.201811257; **Angew. Chem. Int. Ed.** 2019, 58, 1361–1365 IF = 11.97. (Maciej Kukula – Acknowledged for assistance with mass spectrometry).
4. “Kinetics-Based Measurement of Hypoxia in Living Cells and Animals Using an Acetoxymethyl Ester Chemiluminescent Probe” Lucas S. Ryan, Jeni Gerberich, Jian Cao, Weiwei An, Becky A. Jenkins, Ralph P. Mason, Maciej Kukula and Alexander R. Lippert DOI: 10.1021/acssensors.9b00360; **ACS Sensors.**, 2019, April 19 IF = 5.71. (Maciej Kukula – Acknowledged for assistance with mass spectrometry).
5. “Base-controlled Fe(Pc)-catalyzed aerobic oxidation of thiols for the synthesis of S–S and S–P(O) bonds” Hai Huang, Jeffrey Ash and Jun Yong Kang DOI: 10.1039/c8ob00908b; **Org. Biomol. Chem.**, 2018, 16, 4236 IF = 3.56. (Maciej Kukula – Acknowledged for mass spectra data; HRMS).
6. “Tf₂O-Promoted Activating Strategy of Phosphate Analogues: Synthesis of Mixed Phosphates and Phosphinate” Hai Huang, Jeffrey Ash, and Jun Yong Kang. **Organic Letters**, DOI: 10.1021/acs.orglett.8b02073 IF = 6.57. (Maciej Kukula - Acknowledged for mass spectra data; HRMS).
7. “A chemiluminescent probe for cellular peroxynitrite using a self-immolative oxidative decarbonylation reaction” Jian Cao, Weiwei An, Audrey G. Reeves and Alexander R. Lippert. **Chem. Sci.**, 2018, 9, 2552 IF = 9.063. (Maciej Kukula – Acknowledged for mass spectra data; HRMS).
8. “Energy transfer chemiluminescence for ratiometric pH imaging” Weiwei An, Ralph P. Mason and Alexander R. Lippert **Org. Biomol. Chem.**, 2018, 16, 4176 IF = 3.42 (Maciej Kukula – Acknowledged for mass spectra data; HRMS).
9. “Direct Aryloxylation/Alkyloxylation of Dialkyl Phosphonates for the Synthesis of Mixed Phosphonates” Hai Huang, Johanna Denne, Chou-Hsun Yang, Haobin Wang, and Jun Yong Kang. **Angew. Chem. Int. Ed.** 10.1002/anie.201802082 IF = 11.97. (Maciej Kukula – Acknowledged for mass spectra data; HRMS).
10. “Regio- and Stereoselective Hydrophosphorylation of Ynamides for the Synthesis of β -Aminovinylphosphine Oxides” Hai Huang, Hongjun Zhu, and Jun Yong Kang. **Org. Lett.** DOI: 10.1021/acs.orglett.8b01065 IF = 6.57. (Maciej Kukula - Acknowledged for mass spectra data; HRMS).
11. “One-pot Synthesis of Phosphorodiamidothioates Using N-Heterocyclic Phosphine (NHP)-Thiourea” Ngantu Le, Hai Huang, Jun Yong Kang. **Tetrahedron Letters**. <https://doi.org/10.1016/j.tetlet.2018.04.080> IF = 1.97. (Maciej Kukula – Acknowledged for mass spectra data; HRMS).

12. "Regioselective Synthesis of α - and γ -Amino Quinolinyl Phosphonamides Using N-Heterocyclic Phosphines (NHPs)" Manasa Shetty and Jun Yong Kang. *Organic Letters*, 10.1021/acs.orglett.7b03829 **IF = 6.57**. (Maciej Kukula – Acknowledged for mass spectra data; HRMS).
13. "Organocatalytic Phosphonylation of in Situ Formed *o*-Quinone Methides" Hai Huang and Jun Yong Kang. *Organic Letters*, 10.1021/acs.orglett.7b03019 **IF = 6.57**. (Maciej Kukula – Acknowledged for mass spectra data; LCMS).
14. "Synthesis, DNA Cleavage Activity, Cytotoxicity, Acetylcholinesterase Inhibition, and Acute Murine Toxicity of Redox-Active Ruthenium(II) Polypyridyl Complexes" Nagham Alatrash, Eugenia S. Narh, Abhishek Yadav, Mahn-Jong Kim, Thamara Janaratne, James Gabriel, and Frederick M. MacDonnell. *ChemMedChem*, 2017, 12, 1-16 **IF = 3.5**. (Maciej Kukula – Acknowledged for LCMS analyses).
15. "The Application of Mass Spectrometry in Clinical Diagnostics" Joanna Piechowicz, Agnieszka GajewskaNaryniecka, Maciej Kukula, Jerzy Wisniewski, Andrzej Gamian. *Medical Science and Technology* (accepted for publication).
16. "Targeted quantification of lipid mediators in skeletal muscles using restricted access media-based trap-and-elute liquid chromatography-mass spectrometry" Zhiying Wang, Bian Liangqiao, Chenglin Mo, Maciej Kukula, Kevin A. Schug, Marco Brotto. *Analytica Chimica Acta* 2017 Sep 1;984:151-161. **IF = 4.95**.
17. "1,3,2-Diazaphospholidine (N-Heterocyclic Phosphine)-Mediated Carbon-Phosphorus Bond Forming One-Pot Tandem Reaction: A route to β -amino Phosphonates" Karimulla Mulla, and Jun Yong Kang. *The Journal of Organic Chemistry*, May 2019, DOI: 10.1021/acs.joc.6b00326, **IF = 4.72**. (Maciej Kukula – Acknowledged for HRMS analyses).
18. In Vivo Chemiluminescent Imaging Agents for Nitroreductase and Tissue Oxygenation Jian Cao, James Campbell, Li Liu, Ralph P. Mason, and Alexander R. Lippert, *Anal. Chem.* 2016, 88, 4995-5002 (Characterization of new compounds *via* HRMS).
19. Direct Analysis in Real Time (DART) of an Organothiophosphate at Ultrahigh Resolution by Fourier Transform Ion Cyclotron Resonance Mass Spectrometry and Tandem Mass Spectrometry Laszlo Prokai and Stanley M. Stevens Jr. *Int. J. Mol. Sci.* 2016, 17, 116; (The authors appreciate the contribution of Maciej Kukula for making the swabbing tools).
20. "Utility of Bifunctional N-Heterocyclic Phosphine (NHP)-Thioureas for Metal-Free Carbon-Phosphorus Bond Construction toward Regio- and Stereoselective Formation of Vinylphosphonates" Karimulla Mulla, Kyle L. Aleshire, Paul M. Forster, and Jun Yong Kang. *The Journal of Organic Chemistry*, December 2015, DOI: 10.1021/acs.joc.5b02184, **IF = 4.72**. (Maciej Kukula – Acknowledged for mass spectra data *via* MALDI and IT-TOF).
21. "Cellular metabolism of unnatural sialic acid precursors" Nam D. Pham, Charles S. Fermaintt, Andrea C. Maciej Kukula, Rodriguez, Janet E. McCombs, Nicole Nischan1 & Jennifer J. Kohler. *Glycoconjugate Journal*, May 2015, DOI 10.1007/s10719-015-9593-7, **IF = 1.98**. (Maciej Kukula – Acknowledgments for aiding with mass spectrometry identification of NeuAc- 9-P).
22. "Regio- and Enantioselective Catalytic Monoepoxidation of Conjugated Dienes: Synthesis of Chiral Allylic cisEpoxides Jawahar L. Jat, Saroj Ranjan De, Ganesh Kumar, Adeniyi Michael Adebesein, Shyam K. Gandham, and John R. Falck. *Org. Lett.*, 2015, 17, 1058-1061, **IF = 6.36**. (Characterization of new compounds *via* HRMS).
23. "Methyl labeling and TROSY NMR spectroscopy of proteins expressed in the eukaryote *Pichia pastoris*" Clark, Lindsay; Zahm, Jacob; Ali, Rustam; Kukula, Maciej; Bian, Liangqiao; Gardner, Kevin; Rosen, Michael; Rosenbaum, Daniel; *Journal of Biomolecular NMR.*, **IF = 3.30** (accepted for publication).
24. "Chemiluminescent probes for imaging H₂S in living animals" J. Cao, R. Lopez, J. M. Thacker, J. Y. Moon, C. Jiang, v.S. N. S. Morris, J. H. Bauer, P. Tao, R. P. Mason and A. R. Lippert; *Chemical Science*, 2015, 6, 1975– 1985, **IF = 8.60**. (Maciej Kukula – Acknowledgments for full characterization of new compounds *via* HRMS).
25. "Bulk derivatization and cation exchange restricted access media-based trap-and-elute liquid chromatography mass spectrometry method for determination of trace estrogens in serum" Jana Chalupova, Bian Liangqiao, Hui Fan, Marek Sebel, Maciej Kukula, Joe Barrera, Kevin A. Schug; *Analytica Chimica Acta*, Volume 858, pp 74–81, **IF = 4.71**.
26. "A Photocleavable Masked Nuclear-Receptor Ligand Enables Temporary Control of *C. elegans* Development" Joshua C. Judkins, Parag Mahanti, Jacob B. Hoffman, Isaiah Yim, Adam Antebi, Frank C. Schroeder, *Angewandte Chemie International Edition*, 53, 2110–2113 (2014); **IF = 13.45** (Maciej Kukula – Acknowledgments for assistance with mass spectrometry analysis).
27. "Direct Stereospecific Synthesis of Unprotected N-H and N-Me Aziridines from Olefins." Jawahar L. Jat, Mahesh P. Paudyal, Hongyin Gao, Qing-Long Xu, Muhammed Yousufuddin, Deepa Devarajan, Daniel H. Ess, László Kürti, John R. Falck, *Science* 343, 61 (2014), **IF = 31.03** (Maciej Kukula – Acknowledgments for assistance in full characterization of new compounds *via* HRMS & FT-IR).
28. "Ylide mediated carbonyl homologations for the preparation of isatin derivatives" Christina T. Lollar, Katherine M. Krenek, Kevin J. Brummer and Alexander R. Lippert, *Org. Biomol. Chem.* 12, 406, (2014), **IF = 3.563** (Maciej Kukula – Acknowledgments for assistance with mass spectrometry analysis).
29. "Gold-Mediated Expulsion of Dinitrogen from Organic Azides" Chandrakanta Dash, Muhammed Yousufuddin, Thomas R. Cundari, and H. V. Rasika Dias. *J. Am. Chem. Soc.*, 135, 15479-15488, (2013), **IF=9.9** (Maciej Kukula – Acknowledgments for collecting MS spectroscopic data).
30. "Density dependence in *Caenorhabditis* larval starvation" Alexander B. Artyukhin, Frank C. Schroeder, Leon Avery. *Scientific Reports*, 19, 73–83, (2013), **IF=2.92** (Maciej Kukula – Acknowledgments for help with HPLC analysis).
31. "Succinylated octopamine ascarosides and a new pathway of biogenic amine metabolism in *Caenorhabditis elegans*" Alexander B. Artyukhin, Joshua J. Yim, Jagan Srinivasan, Neelanjan Bose, Stephan H. von Reuss, Yeara Jo, James M. Jordan, L. Ryan Bough, Micheong Cheong, Paul W. Sternberg, Leon Avery, Frank C. Schroeder. *J. Biol. Chem.*, 288, 18778–18783 (2013), **IF=5.02** (Maciej Kukula – Acknowledgments for assistance with HRMS analysis).
32. "Perturbation of *Staphylococcus aureus* Gene Expression by the Enoyl-Acyl Carrier Protein Reductase Inhibitor AFN- 1252." Joshua B. Parsons, Maciej Kukula, Pamela Jackson, Mark Pulse, Jerry W. Simecka, David Valtierra, William J. Weiss, Nachum Kaplan and Charles O. Rock. *Antimicrobial Agents and Chemotherapy*, 57(5):2182–90, (2013), **IF=4.9**.
33. "A Nonribosomal Peptide Synthetase-Derived Iron(III) Complex from the Pathogenic Fungus *Aspergillus fumigatus*." Wen-Bing Yin, Joshua A. Baccile, Jin Woo Bok, Yiming Chen, Nancy P. Keller, Frank C. Schroeder. *J. Am. Chem. Soc.*, 2013, 135, 2064-2067, **IF= 9.9** (Maciej Kukula – Acknowledgments for assistance with HRMS analysis).

34. "Effect of parent history on purine metabolism in L1-arrested *C. elegans*" Alexander B. Artyukhin, Catherine I. Dumur, Frank C. Schroeder, Young-Jai You and Leon Avery. *The Worm Breeder's Gazette*. Volume 19, Number 3 (February 2013). (Maciej Kukula – Acknowledgments for assistance with **HPLC-MS** analysis).
35. "Transition Metal-Free Direct Arylation: Synthesis of Halogenated 2,2'-Aminohydroxy-1,1'-Biaryls and Mechanism by DFT Calculations." Hongyin Gao, Daniel H. Ess, Muhammed Yousufuddin and László Kürti *J. Am. Chem. Soc.*, DOI: 2013,135 (19), 7086-7089, **IF= 9.9** (Maciej Kukula – Acknowledgments for assistance with **mass spectrometry** analysis).
36. "Homologous NRPS-like Gene Clusters Mediate Redundant Small-Molecule Biosynthesis in *Aspergillus flavus*." Ry R. Forseth, Saori Amaike, Daniel Schwenk, Katharyn J. Affeldt, Dirk Hoffmeister, Frank C. Schroeder, and Nancy P. Keller. *Angewandte Chemie International Edition*, Volume 52, Issue 5, pp. 1590–1594, 2013, **IF=13.45** (Maciej Kukula – Acknowledgments for assistance with **mass spectrometry**).
37. "2D NMR-based metabolomics reveals interaction between conserved biochemical pathways in the model organism *Caenorhabditis elegans*." Yevgeniy Izrayelit, Steven L. Robinette, Neelanjan Bose, Stephan H. von Reuss, Frank C. Schroeder. *ACS Chem. Biol.*, 2013, 8, 314–319, **IF=6.44** (Maciej Kukula – Acknowledgments for assistance with **mass spectrometry**).
38. "Complex small-molecular architectures regulate phenotypic plasticity in a nematode." Neelanjan Bose, Akira Ogawa, Stephan H. von Reuss, Joshua J. Yim, Erik J. Ragsdale, Ralf J. Sommer, Frank C. Schroeder. *Angew. Chem. Int. Ed.*, 2012, 51, 12438–12443, **IF=13.45** (Maciej Kukula – Acknowledgments for assistance with **mass spectrometry**).
39. "Comparative metabolomics reveals biogenesis of ascarosides, a modular library of small molecule signals in *C. elegans*." Stephan H. von Reuss, Neelanjan Bose, Jagan Srinivasan, Joshua J. Yim, Joshua C. Judkins, Paul W. Sternberg, and Frank C. Schroeder. *J. Am. Chem. Soc.*, 2012, 134, 1817–1824, **IF= 9.9** (Maciej Kukula – Acknowledgments for assistance with **HRMS**).
40. "Proteins with Spectrin Motifs Which Do Not Belong to the Spectrin- α -Actinin Dystrophin Family." Maciej Kukula, Jacek Leluk and Aleksander F. Sikorski. *Z. Naturforsch.* 59c, 565–571, **IF = 0.8**.

Posters:

1. "Rapid quantification of Extremely Polar Metabolites in Biological Fluids Using Negative Electrospray HILIC Mass Spectrometry" – 67th ASMS Conference on Mass Spectrometry and Allied Topics, Atlanta, 2019.
2. "A New Sensitive LC-MS/MS Method for Separation and Quantification of Underivatized Aminobutyric Acid Isomers in Animal and Human Biological Fluids" – 66th ASMS Conference on Mass Spectrometry and Allied Topics, San Diego, 2018.
3. "Targeted determination of lipid mediators in mice muscle tissues using restricted access media-based pretreatment and liquid chromatography-mass spectrometry" – 65th ASMS Conference on Mass Spectrometry and Allied Topics, Indianapolis, 2017.
4. "Fast and Sensitive LC-MS Workflow for Determination of Endogenous Secretory Peptides in Biological Fluids" – 64th ASMS Conference on Mass Spectrometry and Allied Topics, San Antonio, 2016.
5. "Targeted MRM-LC/MS Quantification of Low-Abundance Interleukin-6 in Serum Without Affinity Enrichment." – 63rd ASMS Conference on Mass Spectrometry and Allied Topics, May 30–June 4, 2015.
6. "On-Line Pre-Treatment and Quantification of Trace Estrogens in Serum by Bulk Derivatization and Direct Cation Exchange Trap-and-Elute LC/MS/MS." – 62nd ASMS Conference on Mass Spectrometry and Allied Topics, June 15–19, 2014.
7. "Validated Method for Quantification of ultra-trace estrogens in serum by bulk derivatization and direct cation exchange trap-and-elute LC-MS/MS" – 32nd Informal Meeting on Mass Spectrometry, 11–14 May, 2014, Balatonszarszo, Hungary.
8. "The Shimadzu Centre for Advanced Analytical Chemistry" at Northeast Regional Life Sciences Core Directors meeting.
9. "AFN-1252 Alters In Vitro and In Vivo *Staphylococcus aureus* Gene Expression and Reduces Bacterial Counts in a Mouse Granuloma Infection Model."
10. "Effects of AFN-1252 on In Vitro and In Vivo *Staphylococcus aureus* Virulence Gene Expression."
11. "Efficacy of Fluorocycline TP-434 in the Neutropenic Thigh Infection Model is Predicted by AUC/MIC."
12. "Pharmacokinetics/Pharmacodynamics of Flunoxacin in the Murine Thigh Infection Model with *S. aureus* and *E. coli*."
13. "Oral Pharmacokinetics and Efficacy of AFN-1252 in a Murine Septicemia Infection Model with *S. aureus*."

Grants:

"EFRI-PSBR: Microalgae Lab-on-Chip Photobioreactor Platform for Genetic Screening and Metabolic Analysis Leading to Scalable Biofuel Production" Awarded Amount: \$2,000,000. Investigator(s): Arum Han (Principal Investigator); David Stern (Co-Principal Investigator), Timothy Devarenne (Co-Principal Investigator), Jefferson Tester (Co-Principal Investigator), Tzachi Samocha (Co-Principal Investigator) – provided help with protocols and cost estimates of GC/MS and LC/MS/MS (mass spectrometry) studies.

Oral presentations:

1. "Mass spectrometry – is it a career that is worth pursuing" – an invited speaker on mass spectrometry for BIOT 896 - Graduate Seminar in Biotechnology at the University of New Hampshire, Manchester, NH.
2. Organizer of a series of technical workshops in cooperation with partners from Industry and Academia.
3. "BTI Mass Spectrometry Center – Application of Mass Spectrometry in Plant Sciences Research" oral presentation at Boyce Thompson Institute for Plant Research, Cornell University. 2) Session (organizer and chair) on metabolomics, Northeast Regional Life Sciences Core Directors (NERLSCD) meeting. October 24–26, 2012, Whitefield, New Hampshire.