October 2025

YING WAI LAM

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PROFESSIONAL EXPERIENCE

2019 **Research Associate Professor**, Department of Biology, UVM

2011 **Research Assistant Professor**, Department of Biology, UVM

2011 **Director**, Proteomics Facility, UVM

My colleagues and I offered proteomics services to hundreds of investigators at UVM and nationwide. Specifically, over the past 5 years (2020 - 2024), I worked directly with 87 UVM users (33 faculty, 8 staff, 15 postdocs, and 31 graduate students) from 15 UVM departments and 22 external investigators, providing expertise, training, and guidance for their proteomics projects.

2005 **Research Assistant Professor**, University of Cincinnati

My research focused on using stable isotope-based quantitative proteomics to elucidate proteomic changes in prostate aging and identify nitrosative stress-induced protein modifications in prostate cancer.

2001 **Postdoctoral Fellow**, University of Massachusetts Medical School

Developed an MALDI-TOF-MS approach to identify prostate cancer-specific serum protein profiles

EDUCATION

2001 Ph.D. in Biochemistry, The Chinese University of Hong Kong

Thesis: Purification and Characterization of Defense Proteins.

1998 B.Sc. in Biochemistry, The Chinese University of Hong Kong

RESEARCH AND COLLABORATIONS

I have worked with numerous investigators from diverse backgrounds, many of whom might have little or no prior experience in proteomics, to design and carry out experiments characterizing networks of protein expression, post-translational modifications, and protein interactomes. Through collaborations, since 2011 I have co-authored **35** publications with **11** UVM principal investigators from **7** departments and **4** outside collaborators. Some of these collaborative efforts involved the use of large-scale proteomics as a discovery platform to generate new hypotheses to address important research questions, which cannot be interrogated by other biochemical or genomics strategies. In response to the growing need for complementary mass spectrometry methods in the community to probe protein conformational changes and dynamics, my current efforts involve establishing structural proteomics techniques, including hydrogen-deuterium exchange mass spectrometry, isotope-based cross-linking, and disulfide bond elucidation.

Major collaborations (since 2011) for which I worked closely with the PIs, their postdocs and graduate students are listed below:

Institution Department	PI	Research Areas and Proteomics Approaches	Representative Publications
UVM MMG	Ward	Phosphoproteome SILAC PRM and Skyline analysis	Krishnamurthy S (2016) MBio 7, pii: e00754-16.
UVM	Mintz	Membrane proteome	Smith et al (2015) Proteomics 15:1859-67. Smith KP et al (2015) Mol Oral Microbiol 30:97-110.

MMG		Stable isotope dimethyl labeling SCX fractionation	
UVM MMG	Huston	Phosphoproteomics Stable isotope dimethyl labeling	Hasan et al (2020) MBio 11(4):e00660-20.
UVM Pathology	Van der Vliet	Redox biology/*S*-sulfenylation Dimedone/dimedone-d6 labeling PRM and Skyline analysis	Heppner et al (2018) Nat Commun 9:4522. Hristova et al (2014) Redox Biol 2: 436-446.
UVM Pathology	Shukla	Exosome proteomics TMT-based profiling	Munson et al (2018) J Cell Biochem 119:6266-6273. Munson et al (2018) FASEB J fj201701291RR.
UVM Pathology	Heininger	Redox biology/glutathionylation PRM and Skyline analysis TMT-based profiling	Corteselli et al (2023) Nat Commun 14: 4550
UVM Pathology	Anathy	Interactome	Chandrasekaran et al (2022) Am J Physiol Lung Cell Mol Physiol 324:L141-L53. Kumar et al (2021) Thorax 77:669-678
UVM OBGYN	Nallasamy	ECM protein profiling TMT profiling	Ouellette et al. (2025) J. Endocr Soc 9:bvaf028.
UVM Pulmonary Medicine	Weiss	ECM protein profiling Spectral/peptide counting	Platz et al (2016) Tissue Eng Part C Methods 22: 725-739. Wagner et al (2014) Biomaterials 35: 2664-2679. Wagner et al (2014) Biomaterials 35: 3281-3297. Sokocevic et al (2013) Biomaterials 34: 3256-3269. Bonenfant et al (2013) Biomaterials 34: 3231-3245.
UVM Biology	Delay	Small molecule quantification SRM absolute quantification	Cherian et al (2014) Neuroscience 269: 43-58.
UVM Animal Sci.	Greenwood	Milk Proteome Spectral counting TMT-based profiling	Tacoma et al. (2016) J Proteomics 130: 200-210. Tacoma et al. (2016) Data Brief 6: 843-846.
Mayo Clinic	Lee	Cleavage site mapping TMT Pro profiling	Peng et al. (2025) J Biol Chem 301:110315 Lee et al. (2017) Mol Neurodegener 12: 55.
Univ. of Connecticut Chemistry	Yao	SILAC analysis	Li et al (2017) Anal Chem 89: 6295-6299.
Univ. of Cincinnati Environmental Health	Yadav	Small molecule characterization Accurate mass/MS^n	Syed et al (2013) Appl Environ Microbiol 79: 2692-2702.
Mississippi. State Univ. Biochemistry	Li	Protein IDs from 2D gels	Liu et al (2017) Acta Physiol Plant 39:215.

SERVICES

Departmental

UVM

Sep. 2023 -	Thesis committee member - Emily Joyce (PhD candidate)	CMB
Oct. 2021 -Oct. 2022	Thesis committee member - Emily Price (PhD candidate)	Biology
Jan. 2017 - Dec. 2020	Thesis committee member - Lynda Menard (PhD candidate)	Biology
Jul. 2016 - Apr. 2020	Thesis committee member - Wyatt Chia (PhD candidate)	CMB
Dec. 2014 -	Thesis committee member - Ravi Nagori (PhD candidate)	Biology
May 2014 - May 2016	Outside committee member - Robert Bauer (PhD candidate) Qualifying Exam (Phase II)	CMB
Jan. 2014 - Dec. 2014	Thesis committee member - Wei Du	Biology
Nov. 2020 – Jan. 2021	*ad-hoc* RPT guidelines review committee	Biology
May 2024	Search committee, Agilent Lab for Chem. Analysis Manager	Chemistry

Prior to 2011

Jul. 2009 - May 2011	Thesis committee member, *Mentor, Gene-Environment Interactions Training Program (NIEHS, T32ES016646)* Jared Isaac (PhD, graduated 06/12)	Cancer& Cell Biol, *Univ. Cincinnati*

Regional / National

2022, 2023	NSF Reviewer *Northeast Regional Lab Staff and Core Directors Meeting*
Oct. 18, 2024	Session panelist: *"Training the next generation of Core Scientists"*
Oct. 18, 2023	Session chair: *"Regional Analytical Resources Core"*
Nov. 4, 2021	Session chair: *"Mass spectrometry 101"*

MENTORING / TEACHING / OUTREACH

I) Facility technicians trained

Since 2012, I have trained five full-time facility technicians. They were involved in many aspects of the facility operation, and were equipped with solid proteomics knowledge and technology, general laboratory techniques, and scientific writing/communications skills before moving onto their next stage of careers.

Jul. 2022 -	Sydney Cohn Guthrie	Coauthored 1 paper
Sep. 2019 - May 2022	Clarissa Gold	Coauthored 2 papers
May 2017- May 2019	Catrina Hood	*Enrolled in UVM medical school*
Jan. 2016 - Feb. 2017	Bethany Ahlers	Coauthored 3 publications
Aug. 2012 - Dec. 2015	Julia Fields	Coauthored 6 publications (as second author on 5 papers. (1 in *Proteomics* and 1 in *Journal of Proteomics*) *Enrolled in the Master of Science in Medical Laboratory Science* *Currently a medical laboratory scientist*

II) Proteomics Internship Program

I established a Proteomics Internship Program in September 2022. During the program, trainees learn modern proteomics approaches using state-of-the-art mass spectrometry instrumentation and acquire skills that will be useful for their future careers in academia or industry, including literature analysis, experimental design, optimization and troubleshooting, and data analysis/interpretation. Training and learning are guided and achieved by setting incremental specific goals. Interns work directly with me throughout the entire internship period. Such a close mentor-mentee relationship allows for flexibility in adjusting the learning objectives/experiences according to individuals' interests, time commitment, and career aspirations.

Training Structure. For interns who do not have prior proteomics knowledge, they will be trained through a 4-6 week proteomics "boot camp" exercise involving protein identification and quantification, followed by active participation in a 4–6 week method development pilot project focusing on structural proteomics (i.e., disulfide bond elucidation, cross-linking mass spectrometry, and hydrogen-deuterium exchange (HDX) mass spectrometry). Interns with relevant coursework can choose to join the method development efforts immediately. Once established, these methods will be applied to several ongoing collaborative projects with UVM investigators and external collaborators. Interns will have opportunities to present their findings at professional events, including VBRN Career Day and the UVM Student Research Conference. Depending on their career aspiration, trainees can allocate their time between method development and core facility operation. Trainees can also choose to work on users' projects under our supervision and report progress and findings back to investigators during consultation/discussion meetings.

Name	Department	Research Project	
Lucas Leon	Biology	Optimizing High-pH Reversed-Phase HPLC Fractionation Proteomics Workflows	Fall 2022 – Spring 2024

		BIOL190 (6 cr.); BIOL2995 (2 cr.)	
Brian Boyle	Biochemistry	Internship *BIOL190 (3 cr.)*	Spring 2022
Charlotte Pearson	Biochemistry	Crosslinking MS and Bioinformatics (XlinkX vs. Kojak) *BIOL3995 (3 cr.); BIOL3991 (3 cr.)*	Summer 2023 – Spring 2024
Osmand Evans	Biochemistry	HDX-MS *BIOL3995 (3 cr.); BIOL3991 (3 cr.)*	Summer 2023 – Spring 2024
Ava Vitters	Biology	Internship *BIOL3991 (2 cr.)*	Fall 2023 – Spring 2024
Lauren Schwartz	Biology	HDX-MS *BIOL3991 (2 cr.); CAS Summer Internship*	Fall 2023 – Summer 2024
Mateo Sulpizio	Biochemistry		Fall 2023 – Spring 2024
Beatrice Zaleski	BioMed Eng.	Crosslinking and HDX MS Bioinformatics (XlinkX vs. Kojak)	Fall 2023 -
Favio Dupiton	Biochemistry Landmark College	Evaluating various quantitative proteomics approaches: DDA, DIA, TMT *VBRN Summer Internship;* *Landmark Internship (3 cr.)*	Summer 2024 -
Adam David	Biochemistry	Monitoring LC performance for proteomics using Skyline *BIOL3995 (3 cr.)*	Fall 2024 -
Harry Gritsch	Biochemistry	HDX-MS	Spring 2025 -
John Hayward	Biochemistry	HDX-MS	Summer 2025 -

Outcomes: Since the program's inception, 12 students have joined, and seven method development posters were presented at the UVM Student Research Conference.

III) Provide support for UVM and Vermont PUI classes (sample analysis/lectures/facility tours)

Collaborate with the VGN Outreach Core, UVM, and PUI faculty members to integrate a proteomics experimental component into their courses or laboratory curricula, aiming to equip future scientists with state-of-the-art knowledge in proteomics. Give customized proteomics guest lectures and facility tours.

UVM Course	Course Director	Year	No. of Students	# of Sample Analysis	Facility Tour (Date)	Lecture (Date)
PATH 6070	Zhang	2025, Spring		-		Feb. 27
BIOL 205	Van Houten	2018, Spring	11	10	Apr. 17	Mar. 22/Apr. 19
	Van Houten	2017, Spring	10	15	Apr. 18	Mar. 23/Apr. 18
	Van Houten	2016, Spring	12	24	Apr. 7	Mar. 15/Apr. 14
	Van Houten	2015, Spring	9	--	Mar. 31	Mar. 10/Apr. 9
	Van Houten	2014, Spring	11	--	Apr. 2	Mar. 12/Apr. 10
	Van Houten	2013, Spring	13	--	Apr. 2	Mar. 12/Apr. 9
BIOC 207	Everse/Silveira	2022, Spring	21	21	No tour	By course instructor
BIOC3007	Everse/Silveira	2019, Spring	35	35	No tour	By course instructor
	Everse/Silveira	2018, Spring	30	30	No tour	By course instructor
	Everse/Silveira	2017, Spring	24	24	No tour	By course instructor
	Everse/Silveira	2016, Spring	26	31	No tour	By course instructor
	Everse/Silveira/Bouchard	2015, Spring	24	33	No tour	By course instructor
	Everse/Silveira/Bouchard	2014, Spring	16	35	No tour	By course instructor
MLS 221	Ray	2016, Spring	24	No	Mar. 4	Mar. 4
NSCI 306	Nishi	2016, Summer	5	No	Aug. 6	Aug. 6
	Nishi	2014, Summer	6	No	Aug. 19	Aug. 19
PBIO 187	Almstead	2015, Summer	11	18	No tour	By course instructor
	Almstead	2014, Summer	8	14	No tour	By course instructor
	Almstead	2013, Fall	109	No Analysis	Oct. 14-18 (4)	By course instructor
	Almstead	2013, Summer	13	No Analysis	No tour	By course instructor

Colleges	Course Director	Year	No. of Students	# of Sample Analysis	Facility Tour	Lecture
Vermont						
Saint Michael's College	Lamos	2023, Fall	2	No Analysis	Dec. 4	By course instructor
	Lamos	2021, Fall	6	No Analysis	Nov. 1	By course instructor

	Lamos	2019, Fall	9	No Analysis	Dec. 2	By course instructor
	Schroll	2019, Spring	9	No Analysis	Apr. 25	Apr. 25
	Lamos	2018, Fall	6	No Analysis	Dec. 3	By course instructor
	Schroll	2018, Spring	10	18	Apr. 26	Apr. 26
	Schroll	2017, Spring	4	4	May 1	May 1
	Lamos	2017, Fall	8	No Analysis	Nov. 27	By course instructor
	Schroll	2016, Spring	6	6	Apr. 25	Apr. 25
	Schroll	2015, Spring	--	20	Apr. 27	By course instructor
	Schroll	2014, Spring	--	12	Apr. 14	By course instructor
	Lamos	2014, Fall	--	No Analysis	Oct. 24	By course instructor
	Schroll	2013, Spring	9	--	Apr. 18	By course instructor
	Lamos	2013, Fall	10	No Analysis	Nov. 21	Oct. 24
	Schroll	2012, Spring	--	--	Apr. 19	By course instructor
	Schroll	2011, Spring	--	--	Apr.	By course instructor
Northern Vermont University	Landesman	2021, Fall	4	4	Nov. 30	Nov. 30
Green Mountain College	Landesman	2018, Spring	7	12	No tour	--
	Coe	2016, Spring	13	No Analysis	Apr. 13	Apr. 13
	Coe	2013, Spring	8	No Analysis	Dec. 2	Dec. 2
Community College of Vermont	Joy	2017, Fall	20	No Analysis	Nov. 20	Nov. 20
Castleton University	Palmer	2017, Fall	9	No Analysis	Dec. 6	Dec. 6
	Palmer	2015, Fall	10	No Analysis	Oct. 27	Oct. 27
Marlboro College	Smith	2015, Spring	5	No Analysis	Apr. 10	Feb. 20/Mar. 6
Norwich University	Guth	2014, Spring	--	44	Feb. 24/28	Feb. 24/28
	Guth	2013, Spring	7	--	Nov.11	Nov.11
	Guth	2012, Spring	--	--	Apr. 16	Apr. 16
Others						
SUNY Plattsburgh	Valentine	2018, Fall	7	27	Nov. 1	By course instructor

(-- : information not collected)

IV) Research collaboration with PUI faculty on proteomics and mass spectrometry

Since 2012, I have met investigators from Vermont Colleges regularly to discuss their research projects, provided research support, as well as helped design, run, and interpret proteomics and mass spectrometry experiments. We also discussed ideas for grant applications and facilitated their research connection with UVM investigators.

- Provided expertise for 8 PUI faculty (3 from St. Michael's College, 4 from Middlebury, and 1 from NVU)
- Supported 3 VGN awards ('12-'13, '14-'16, '17-'18), 1 NSF, and 1 R01
- Served as faculty mentor on proteomics research for 2 BPI faculty (from St. Michael College ('12-'13) and Norwich Univ., '14-'15)
- Hosted a sabbatical stay for a St. Michael College PI in the facility (summer '14)

V) Other services/outreach activities

Local (via VGN / VBRN)

10/12/17	Proteomics webinar speaker for PUIs (with VGN Professional Development and Education Core) (https://www.youtube.com/watch?v=MaVbYhjngXQ
11/30/18	Proteomics webinar speaker for the Community College of Vermont
4/12/17, 4/11/18	Round table discussion guest, VGN Career Day
4/16/14, 4/13/16, 4/12/17	Poster judge, VGN Career Day
11/12/15	Poster judge, New England Regional Shared Resources Conference
4/11/18, 4/3/19, 4/13/22, 4/12/23	Facility tours, VGN Career Day (for Vermont PUI undergraduates)
'12, '13, '15, '18, '19. '24	Article contributor, VGN newsletters/magazines/handbooks
'18, '20 – '24	Reviewer, grant proposal/pitch paper for VGN/VBRN grant writing workshop

GRANTS SUPPORTED

Since 2011, I have provided **108** letters of support, preliminary data, and write-ups (as collaborator, key personnel, significant contributor, or consultant) for grant applications to federal and non-federal agencies. No percent effort was included in those applications prior to 2025, as I was fully supported by VGN INBRE. Percent effort on grants is listed in "Research Support".

Twenty-two have been funded, **8** are currently active (underlined). (**12 from NIH**: F31HL142221 (Dustin), F32HL129706 (Heppner), R01DE014711 (Spatafora), R15GM123393 (Hass/Cen), R01HL122383 (Anathy), R01NS045940 (Cipolla), R01AI105191 (Ward), R01HL085646 (Van der Vliet), R01HL138708 (Van der Vliet), R01HL137268 (van der Vliet/Dixon), R01GM054899 (Francklyn), R01GM117155 (Jordan, Johns Hopkins Univ.);**1 from DOD**: IDeA W81XWH-14-1-0199 (Shukla); **2 from Foundation**: Hearing Health Foundation Res. Grant (Bond), Preeclampsia Foundation (Ko); **1 from NSF**: MCB 1817793 (Garcia, Castleton Univ.); **1** Hatch Award, USDA-NIFA HATCH VT-H02009 (Greenwood), **3 from UVM**: CVRI ECAC award (Ko), FAHC Res. Award (Krag), COBRE PIP (Dixon); **3 VGN Pilot/Project Award**: (Lamos, Wuorinen, Garcia)).

AWARDS

2005 **Partial Travel Award, American Urological Association**
Society for Basic Urologic Research Summer Research Conference
Oxidative and Nitrosative Stresses and Inflammation as Early Events of Hormone-induced Prostatic Carcinogenesis in Noble Rats

2003 **Department of Defense-Prostate Cancer Program Postdoctoral Research Award**
Proteomics Approach to Evaluate the Impact of Diet and Stress Reduction on Prostate Cancer Progression. (2003-2005)
Role: Principal Investigator. $98,000

PROFESSIONAL SOCIETY MEMBERSHIPS

2019 - Member, Association of Biomolecular Resource Facilities
2014 - Faculty, Graduate College, University of Vermont
2002 - Member, American Chemical Society
2002 - Member, American Society of Mass Spectrometry

PREPRINTS / MANUSCRIPTS SUBMITTED / IN PREPARATION

2026 Hou Y, Omi, OA, Stuck MW, Cheng X, Walker B, Lam YW, Schmoker AM, Nguyen SN, Gonzalez-Perez MP, Ballif BA, Lechtreck KF, Witman GB, Pazour GJ. "LF2 phosphorylation of the CDKL5 activation loop controls CDKL5's activity" **PLOS Biology**, under revision.

PEER-REVIEWED PUBLICATIONS

Total: 52; Since 2011: 41

2025 Peng H, Lam YW, Zhou Z, Herdt AR, Gelb MH and Lee CW. Quantitative profiling and pharmacological rescue of galactosylceramidase function and trafficking in missense mutation cell models of Krabbe Disease. **J Biol Chem**, 301(7):110315. PMCID: PMC12256330

2025 Ouellette A, Do C, Cohn-Guthrie S, Lam YW, Mahendroo M, Nallasamy S. Lysyl Oxidases are Necessary for Myometrial Contractility and On-Time Parturition in Mice. **J. Endocr Soc** , 9(5):bvaf028. PMCID: PMC11959360

2024 Chandra H, Gupta ML, Lam YW, and Yadav JS. A Predominantly Orphan Secretome in Mycobacterium abscessus as Revealed by a Multi-pronged Strategy. **Microorganisms**,12:378.

2024 Chandra H, Ahlers B, Lam YW, Yadav JS. (2024) Dominant Circulating Cell-free Mycobacterial Proteins in In-use Machining Fluid and their Antigenicity Potential. **Curr Protein Pept Sci**. 2024;25:613-625.

2023 Corteselli EM, Sharafi M, MacPherson M, White S, Lam YW, Gold C, Manuel A, van der Vliet A, Schneebeli ST, Anathy V, Li J, and Janssen-Heininger Y. Structural and functional fine mapping of cysteines in mammalian glutaredoxin reveal a hierarchy of susceptibility to oxidative inactivation. **Nat Commun,** 14: 4550. PMCID: PMC10382592

2022 Chandrasekaran R, Bruno SR, Mark ZF, Walzer J, Caffry S, Gold C, Kumar A, Chamberlain N, Butzirus IM, Morris CR, Daphtary N, Aliyeva M, Lam YW, van der Vliet A, Janssen-Heininger Y, Poynter ME, Dixon AE, Anathy V. Mitoquinone mesylate attenuates pathological features of lean and obese allergic asthma in mice. **Am J Physiol Lung Cell Mol Physiol.** 324(2):L141-L53. PMCID: PMC9902225.

2021 Kumar A, Elko E, Bruno SR, Mark ZF, Chamberlain N, Korwin-Mihavics B, Chandrasekaran R, Walzer J, Ruban M, Gold C, Lam YW, Ghandikotad S, Jeggad AG, Gomez JL, Janssen-Heininger YMW and Anathy V. Inhibition of PDIA3 in Club Cells Attenuates Osteopontin Production and Lung Fibrosis. **Thorax** 77:669-678. PMCID:PMC8847543

2021 Aboushousha R, Elko E, Chia SB, Manuel AM, van de Wetering C, van der Velden J, MacPherson M, Erikson C, Reisz JA, D'Alessandro A, Wouters EFM, Reynaert NL, Lam YW, Anathy V, van der Vliet A, Seward DJ, Janssen-Heininger Y. Glutathionylation chemistry promotes interleukin 1 beta-mediated glycolytic reprogramming and pro-inflammatory signaling in lung epithelial cells. **FASEB J,** 35: e21525 PMCID: PMC8073242

2021 Yano J, Wells R, Lam YW, Van Houten JL. Two Ca2+ Pumps that Regulate Intraciliary Ca2+ Following the Action Potential Are Found in the Same Ciliary Membrane Fractions as Ciliary Voltage-Gated Ca2+ Channels. **J Exp Biol**, 224: jeb232074. PMCID: PMC9563298

2020 Hasan M, Teixeira JE, Lam YW, Huston CD. Coactosin phosphorylation *controls Entamoeba histolytica* 1 cell membrane protusions and cell motility **MBio** 11: e00660-20. PMCID: PMC7407079

2020 Chia SB, Elko EA, Aboushousha R, Manuel AM, van de Wetering C, Druso JE, van der Velden J, Seward DJ, Anathy V, Irvin CG, Lam YW, van der Vliet A, Janssen-Heininger Y. Dysregulation of the glutaredoxin/S-glutathionylation redox axis in lung diseases. **Am J Physiol Cell Physiol** 318:C304-C327. PMCID: PMC7052607

2019 Scuderi RA, Ebenstein DB, Lam YW, Kraft J, Greenwood SL. Inclusion of grape marc in dairy cattle rations alters the bovine milk proteome. **J Dairy Res**. 2019;86(2):154-61. PMCID: PMID: 31210125.

2018 Heppner DE, Dustin CM, Liao C, Hristova M, Veith C, Little AC, Ahlers BA, White SL, Deng B, Lam YW, Li J, van der Vliet A Direct cysteine sulfenylation drives Src kinase activation. **Nat Commun** 9:4522. PMCID: 6207713

2018 Wrenn SM, Griswold ED, Uhl FE, Uriarte JJ, Park HE, Coffey AL, Dearborn JS, Ahlers BA, Deng B, Lam YW, Huston DR, Lee PC, Wagner DE, Weiss DJ Avian lungs: A novel scaffold for lung bioengineering. **PLoS One** 13: e0198956. PMCID: 6021073

2018 van der Velden JL, Wagner DE, Lahue KG, Abdalla ST, Lam YW, Weiss DJ, Janssen-Heininger YMW TGF-beta1-induced deposition of provisional extracellular matrix by tracheal basal cells promotes epithelial-to-mesenchymal transition in a JNK1-dependent manner. **Am J Physiol Lung Cell Mol Physiol** 314: L984-L997. PMCID: PMC6032072

2018 Munson P, Lam YW, MacPherson M, Beuschel S, Shukla A Mouse serum exosomal proteomic signature in response to asbestos exposure. **J Cell Biochem** 119: 6266-6273. PMCID: PMC6335961

2018 Munson P, Lam YW, Dragon J, MacPherson M, Shukla A Exosomes from asbestos-exposed cells modulate gene expression in mesothelial cells. **FASEB J**: fj201701291RR. PMCID: PMC6044058

2018 Burgess EJ, Hoyt LR, Randall MJ, Mank MM, Bivona JJ, 3rd, Eisenhauer PL, Botten JW, Ballif BA, Lam YW, Wargo MJ, Boyson JE, Ather JL, Poynter ME Bacterial lipoproteins constitute the TLR2-stimulating activity of serum amyloid A. **J Immunol** 201: 2377-2384. PMCID: 6179936

2017 Tacoma R, Gelsinger SL, Lam YW, Scuderi RA, Ebenstein DB, Heinrichs AJ, Greenwood SL Exploration of the bovine colostrum proteome and effects of heat treatment time on colostrum protein profile. **J Dairy Sci** 100: 9392-9401. PMCID: PMC6350923

2017 Tacoma R, Fields J, Ebenstein DB, Lam YW, Greenwood SL Ratio of dietary rumen degradable protein to rumen undegradable protein affects nitrogen partitioning but does not affect the bovine milk proteome produced by mid-lactation Holstein dairy cows. **J Dairy Sci** 100: 7246-7261. PMCID: PMC6350925

2017 Liu Y, Wang BX, Li J, Song ZQ, Lu BG, Chi M, Yang B, Liu JB, Lam YW, Li JX, Xu DY Salt-response analysis in two rice cultivars at seedling stage. **Acta Physiologiae Plantarum** 39: 215. PMCID: PMC6858053

2017 Li S, Diego-Limpin PA, Bajrami B, Keshipeddy S, Lam YW, Deng B, Farrokhi V, McShane AJ, Nemati R, Howell AR, Yao X Scaling proteome-wide reactions of activity-based probes. **Anal Chem** 89: 6295-6299. PMCID: PMC6368408

2017 Lee CW, Stankowski JN, Chew J, Cook CN, Lam YW, Almeida S, Carlomagno Y, Lau KF, Prudencio M, Gao FB, Bogyo M, Dickson DW, Petrucelli L The lysosomal protein cathepsin L is a progranulin protease. **Mol Neurodegener** 12: 55. PMCID: 5526245

2017 Toomey CC, Weiss D, Chant A, Ackerman M, Ahlers BA, Lam YW, Ricciardi C, Bourne D, Kraemer-Chant CM. (2017) Development and Applications of a Calmodulin-Based Fusion Protein System for the Expression and Purification of WW and Zinc Finger Modules. **Adv Biol Chem**. 7:89-106.

2016 Tacoma R, Fields J, Ebenstein DB, Lam YW, Greenwood SL Characterization of the bovine milk proteome in early-lactation Holstein and Jersey breeds of dairy cows. **J Proteomics** 130: 200-210. PMCID: 4859431

2016 Tacoma R, Fields J, Ebenstein DB, Lam YW, Greenwood SL Comparative proteomics dataset of skimmed milk samples from Holstein and Jersey dairy cattle. **Data Brief** 6: 843-846. PMCID: 4749939

2016 Platz J, Bonenfant NR, Uhl FE, Coffey AL, McKnight T, Parsons C, Sokocevic D, Borg ZD, Lam YW, Deng B, Fields JG, DeSarno M, Loi R, Hoffman AM, Bianchi J, Dacken B, Petersen T, Wagner DE, Weiss DJ Comparative decellularization and recellularization of wild-type and alpha 1,3 galactosyltransferase knockout pig lungs: a model for ex vivo xenogeneic lung bioengineering and transplantation. **Tissue Eng Part C Methods** 22: 725-739. PMCID: 4991572

2016 Krishnamurthy S, Deng B, Del Rio R, Buchholz KR, Treeck M, Urban S, Boothroyd J, Lam YW, Ward GE Not a simple tether: binding of *Toxoplasma gondii* AMA1 to RON2 during invasion protects AMA1 from rhomboid-mediated cleavage and leads to dephosphorylation of its cytosolic tail. **MBio** 7. PMCID: 5021801

2016 Smith KP, Fields JG, Voogt RD, Deng B, Lam YW, Mintz KP Alteration in abundance of specific membrane proteins of *Aggregatibacter actinomycetemcomitans* is attributed to deletion of the inner membrane protein MorC. **Proteomics** 15: 1859-67. PMCID: 4456248

2015 Smith KP, Fields JG, Voogt RD, Deng B, Lam YW, Mintz KP The cell envelope proteome of *Aggregatibacter actinomycetemcomitans*. **Mol Oral Microbiol** 30, 97-110 PMCID: 4305030

2014 Wagner DE, Bonenfant NR, Sokocevic D, DeSarno MJ, Borg ZD, Parsons CS, Brooks EM, Platz JJ, Khalpey ZI, Hoganson DM, Deng B, Lam YW, Oldinski RA, Ashikaga T, Weiss DJ Three-dimensional scaffolds of acellular human and porcine lungs for high throughput studies of lung disease and regeneration. **Biomaterials** 35: 2664-2679.

2014 Wagner DE, Bonenfant NR, Parsons CS, Sokocevic D, Brooks EM, Borg ZD, Lathrop MJ, Wallis JD, Daly AB, Lam YW, Deng B, DeSarno MJ, Ashikaga T, Loi R, Weiss DJ Comparative

decellularization and recellularization of normal versus emphysematous human lungs. **Biomaterials** 35: 3281-3297.

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prior to 2011

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2002 Lam YW, Ng TB Purification and characterization of a rhamnose-binding lectin with immunoenhancing activity from grass carp (*Ctenopharyngodon idellus*) ovaries. **Protein Expr Purif** 26: 378-385.

2001 Lam YW, Ng TB, Wang HX Antiproliferative and antimitogenic activities in a peptide from puffball mushroom *Calvatia caelata*. **Biochem Biophys Res Commun** 289: 744-749.

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TALKS

Year		Location	Scope
2025	Research Technologies Seminar Series, CBSR	UVM	Local
2024	NERLSCD Meeting (panelist, "Onboarding + educating interns/new staff")	Albany, NY	Regional
2024	Research Technologies Seminar Series, CBSR	UVM	Local
2024	Research Technologies Seminar Series, CBSR	UVM	Local
2023	Northeast Regional Laboratory Staff and Core Directors (NERLSCD) Meeting (session chair. ""Regional Analytical Resource Cores")	Burlington, VT	Regional
2023	Vermont Biomedical Research Network (VBRN) Retreat	Burlington, VT	Local
2022	Vermont Biomedical Research Network (VBRN) Retreat	Burlington, VT	Local
2021	Northeast Regional Laboratory Staff and Core Directors (NERLSCD) Meeting (session chair "Mass Spectrometry 101")	Portsmouth, NH	Regional
2020	Symposium for Proteomics Core Directors and Staff (IDeA National Resource for Proteomics)	Arkansas	National
2019	Northeast Regional IDeA Conference (NERIC)	Washington, DC	Regional
2019	Symposium for Proteomics Core Directors and Staff (IDeA National Resource for Proteomics)	Little Rock, AR	National
2018	Webinar (for Community College of Vermont)	Burlington, VT	Local
2018	Department Seminar (Biology)	UVM	Local
2018	Retreat	VGN	Local
2017	Webinar (for primarily undergraduate institutions in Vermont)	VGN	Online
2015	New England Regional Shared Resources Conference (NERSRC)	Dartmouth College	Regional
2015	Vermont Genetics Network Retreat	Burlington, VT	Local
2014	Redox Biology Meeting (Pathology)	UVM	Local
2014	Department Seminar (Chemistry)	Saint Michael's	Local
2012	Basic Science/Translational Strategic Planning (Cancer Center)	UVM	Local
2012	Population Health Sciences Strategic Planning (Pathology)	UVM	Local
2012	Environmental Pathology and Carcinogenesis Seminar Series	UVM	Local

2011	Behavior and Health Focus Group Meeting	UVM	Local
2011	Facility Open House	UVM	Local
2011	Department Seminar (Biochemistry)	UVM	Local
2011	Department Seminar (MPB)	UVM	Local
2011	"Cell Lunch" Graduate Student Seminars (Biology)	UVM	Local
2011	Department Seminar (Biology)	UVM	Local
2011	Vermont Genetics Network Retreat	UVM	Local
2011	Department Seminar (Biology)	UVM	Local
2011	Department Seminar (Environmental Health)	Uni. of Cincinnati	Local
2011	Invited Seminar (Chemistry & Biochem. Department)	Miami University	Local
2010	7th Annual Ohio Mass Spectrometry Symposium	Columbus, OH	Regional
2009	6th Annual Ohio Mass Spectrometry Symposium	Columbus, OH	Regional
2007	39th Central Regional Meeting of the American Chemical Society (Mass Spectrometry II Session),	Covington, KY	Regional
2006	Prostate Cancer Working Group Symposium	Uni. of Cincinnati	Local
2006	3rd Annual Ohio Mass Spectrometry Symposium Extended Poster (podium) Presentation	Columbus, OH	Regional
2005	Prostate Cancer Working Group Symposium	Uni. of Cincinnati	Local

POSTER PRESENTATIONS

Year	Facility / Proteomics	Location	Scope
	Since 2011: 5 facility conferences; 1 mass spectrometry conference; 1 VBRN		
	Association of Biomolecular Resource Facilities (ABRF) Annual Meeting		
2023	Vermont Biomedical Research Network	Boston, MA	National
2019	Lam YW, Deng B, Hood C. Vermont Genetics Network Proteomics Facility. J Biomol Tech. 2019 Dec;30 (Suppl):S41.	San Antonio, TX	National
	Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE)		
2024	Lam YW, Deng B, Cohn-Guthrie S. Vermont Genetics Network Proteomics Facility	Washington, DC	National
2018	Lam YW, Deng B, Hood C. Vermont Genetics Network Proteomics Facility.	Washington, DC	National
2016	Deng B, Ahlers B, Lam YW. Driving to a sustainable proteomics core facility	Washington, DC	National
	Northeast Regional IDeA Conference (NERIC)		
2019	Lam YW, Deng B, Hood C. Vermont Genetics Network Proteomics Facility	Bretton Woods, NH	Regional
2017	Lam YW, Deng B, Hood C. Vermont Genetics Network Proteomics Facility	Burlington, VT	Regional
2015	Fields J, Deng B, Lam YW. Growing Success - Vermont Genetics Network Proteomics Facility	Bar Harbor, ME	Regional
2015	Vincent J, Hunter T, Murray J, Driscoll H, Deng B, Lam YW, Van Houten J. Highlights of the Vermont Genetics Network.	Bar Harbor, ME	Regional

2013	Fields J, Deng B, Lam YW. Growing success in the Vermont Genetics Network Proteomics Facility.	Newark, DE	Regional
2011	Deng B, Lam YW. The establishment and growth of Vermont Genetics Network Proteomics Facility	New Port, RI	Regional
	Northeast Regional Life Sciences Core Directors (NERLSCD) Meeting		
2015	Uhl F, Zvarova B, Fields J, Deng B, Lam YW, Weiss D, Wagner D. Enhanced mass spectrometry proteomics can be used to distinguish differences in protein compositions of acellular emphysematous versus normal lungs.	Burlington, VT	Regional
2015	Fields J, Lam YW, Deng B, Smith K, Voogt R, Mintz K. Quantification of the membrane differential proteomes by stable isotope labeling.	Burlington, VT	Regional
2015	Lam YW, Fields J, Deng B. Growing Success - Vermont Genetics Network Proteomics Facility.	Burlington, VT	Regional
	American Society for Mass Spectrometry on Mass Spectrometry and Allied Topics (ASMS Conference)		
2017	Krishnamurthy S, Deng B, del Rio R, Buchholz KR, Treeck M, Urban S, Boothroyd J, Lam YW, Ward GE. Dephosphorylation of AMA1 cytosolic tail during *Toxoplasma gondii* invasion.	Indianapolis, IN	National
2015	Lam YW, Deng B, Fields J, Smith K, Voogt R, Mintz K. Quantification of the membrane differential proteomes by stable isotope labeling and spectral counting strategies.	St. Louis, MO	National
2013	Li S, Diego P, Keshipeddy S, Bajrami B, Farrokhi V, McShane A, Lam YW, Deng B, Nemati R, Howell A, Yao X. High-throughput scheduled MRM for multiplexed quantitation of chemical probe labeled enzymes in human cells.	Minneapolis, MN	National
2012	Li S, Keshipeddy S, Diego P, Bajrami B, Mcshane A, Deng B, Lam YW, Howell AR, Yao X. Using chemical probes and multiple reaction monitoring mass spectrometry for monitoring multiple enzymes in human cells.	Vancouver, Canada	National
	Conferences at Dartmouth College		
2015	Lam YW, Fields J, Deng B. VGN Proteomics. New England Regional Shared Resources Conference (NERSRC)	Hanover, NH	Regional
2013	Fields J, Deng B, Lam YW. Proteomics at UVM. Dartmouth Shared Resources Fair.	Hanover, NH	Regional
	Annual Vermont Genetics Network (VGN) Retreat		
2014	Fields J, Deng B, Lam YW. Growing success in the Vermont Genetics Network Proteomics Facility.	South Burlington, VT	Local
2013	Fields J, Deng B, Lam YW. Growing Success in the Vermont Genetics Network Proteomics Facility.	South Burlington, VT	Local
2012	Lam YW, Deng B. Growing success in the Vermont Genetics Network Proteomics Facility.	South Burlington, VT	Local

Year	***prior to 2011***	**Location**	**Scope**

2010	Lam YW, Isaac J, Yuan Y, Suresh Babu CV, Meller J, Ho SM. Comprehensive identification and modified-site mapping of S-nitrosylated targets in normal prostate cell Line. **ASMS Conference**	Salt Lake City, UT	National
2009	Xiong SD, Liu X-H, Yin HF, Kirschenbaum A, Yao S, Narla G, DiFeo A, Yu K, Wu JB, Yuan Y, Ho S-M, Lam YW, Levine AC. Ribosome-inactivating proteins isolated from dietary bitter melon induce apoptosis and inhibit histone deacetylase-1 selectively in premalignant and malignant prostate cancer cells**. Annual Meeting of the American Association for Cancer Research**	Denver, CO	National
2006	Lam YW, Tam NNC, Green KM Evans JE, Ho SM. Comparison of relative protein levels in the prostates of young and old Noble rats by ICAT. **3rd Annual Ohio Mass Spectrometry Symposium**	Columbus, OH	Local
2005	Lam YW, Sun P, Green KM, Evans JE, Ho SM. Protein profiling of serum from prostate cancer patients by isotope-coded affinity tag (ICAT) analysis. **ASMS Conference**	San Antonio, TX	National
2005	Tam NN, Lam YW, Ho SM. Oxidative and nitrosative stresses and inflammation as early events of hormone-induced prostatic carcinogenesis in Noble rats. **American Urological Association/Society for Basic Urologic Research Summer Research Conference, "**Inflammation in Prostate Diseases"	Baltimore, DC	National
2004	Lam YW, Tam NNC, Sun P, Green KM, Evans JE, Ho SM. Comparison of relative protein levels in prostate from young and old Noble rat by ICAT. **ASMS Conference**	Nashville, TN	National
2004	Lam YW, Mobley JA, Evans JE, Carmody JF, Ho SM. Mass profiling and multidimensional separation of serologic proteome of patients with advanced disease. **95th American Association for Cancer Research (AACR) Annual Meeting**	Orlando, FL	National
2002	Lam YW, Mobley JA, Carmody JF, Ho SM. Proteomics approach to evaluate the impact of diet on prostate cancer progression. **9th Prouts Neck Meeting on Prostate Cancer**	Prouts Neck, ME	National

Year	Mentored Research Conducted by UVM / PUI Undergraduates	Location	Scope
2025	Favio-Antonio Terrero Dupiton (Landmark College senior), Adam Davis (Biochemistry senior), Ying-Wai Lam. Evaluating Various Quantitative Proteomics Approaches: DDA, DIA, and TMT. **VBRN Career Day**	VBRN	Local
2025	Favio-Antonio Terrero Dupiton (Landmark College senior), Adam Davis (Biochemistry senior), Ying-Wai Lam. Evaluating Various Quantitative Proteomics Approaches: DDA, DIA, and TMT. **American Society for Biochemistry and Molecular Biology**	Chicago, IL	National
2025	Adam Davis (Biochemistry senior), Ying-Wai Lam. Developing a New Quality Control Protocol for LC-MS: A Case Study Comparing Commercially Produced Columns to Homemade Columns. **UVM Student Res. Conference**	UVM	Local
2025	Harry Gritsch (Biochemistry senior), Beatrice Zaleski (Biomedical Engineering junior), Ying-Wai Lam. Applying Automation to Improve the Feasibility and Reproducibility of Hydrogen-Deuterium Exchange Mass Spectrometry Experiments. **UVM Student Res. Conference**	UVM	Local
2025	Beatrice Zaleski (Biomedical Engineering), Harry Gritsch (Biochemistry), Ying-Wai Lam. Integrating and Optimizing	UVM	Local

	Computational Approaches to HDX-MS Protein Structure Elucidation. **UVM Student Res. Conference**		
2024	Lucas Leon (Biology senior), Sydney Cohn Guthrie (VBRN), Mateo Sulpizio (Biochemistry freshman), Ying-Wai Lam. Optimizing High-pH Reversed-Phase HPLC Fractionation Proteomics Workflows. **UVM Student Res. Conference**	UVM	Local
2024	Charlotte Pearson (Biochemistry senior), Beatrice Zaleski (Biomedical Engineering sophomore), Ava Vitters (Biology sophomore), Ying-Wai Lam. Crosslinking Mass Spectrometry and Bioinformatics (XlinkX vs. Kojak). **UVM Student Res . Conference**	UVM	Local
2024	Osmand Evans (Biochemistry senior), Lauren Schwartz (Biochemistry sophomore), Ava Vitters (Biology sophomore), Ying-Wai Lam. Hydrogen Deuterium Exchange – Mass Spectrometry (HDX—MS). **UVM Student Res. Conference**	UVM	Local

Year	Selected Posters from Collaborations	Conference	Institution
2024	Aboushousha R, MacPherson M, Abdelhamid H, Erickson C, Corteselli E, Lam YW, Seward DJ, Mistri S, Boyson J, Li J, Janssen-Heininger YMW. Upregulation of glutathione S transferase P in aberrant distal lung epithelial cells augments interleukin 1 beta (IL1B)-induced pro-inflammatory signaling in association with oxidation of ovarian tumor deubiquitinase 1 (OTUB1).	American Thoracic Society	UVM Pathology
2023	Mattice EB, Schubert T, Charlotte Pearson, Osmand Evans, Teixeira JE, Cohn-Guthrie S, Lam YW, Meyers MJ, Huston CD. A photo-reactive crosslinker for Cryptosporidium drug lead MMV665917 target identification.	Molecular Parasitology Meeting	UVM Immunobiology
2021	Memon N, Eckman E, Lam YW, Herdt A, Lee C. Proteomic Alterations in the Plasma of Rat Pups Exposed to Phytosterols. (Virtual Meeting)	Pediatric Academic Societies	BRinj
2020	Ko NL, Mukhtarova N, Hood C, Lam YW, Osol G Restricted Uterine Venous Blood Flow Results in Attenuated Uterine Vascular Remodeling and Preeclampsia-Related Placental Secretomics During Pregnancy.	Society of Reproductive Investigation (SRI) Annual meeting	UVM OBGYN
2019	Teixeira JE, Hasan MM, Lam YW, Huston CD Coactosin phosphorylation controls *Entamoeba histolytica* cell membrane protrusions and cell motility.	Annual Woods Hole Molecular Parasitology Meeting	UVM Immunobiology
2018	Manuel A, Qian X, Chia SB, Aboushousha R, van de Wetering C, van der Velden J, Dixon AE, Lam YW, Irvin CG, Janssen-Heininger YMW. S-Glutathionylation of pyruvate kinase M2 is associated with metabolic reprogramming and cytokine production in the development of allergic obese airway disease.	Annual Conference of the Society for Redox Biology and Medicine	UVM Pathology
2018	Uhl FE, Zvarova B, Ahlers BA, Hood CM, Deng B, Lam YW, Beatman E, Schweitzer KS, Petrache I, Weiss DJ,	Lung Science Conference	UVM

	Wagner DE. Characterization of decellularized COPD lung matrices using mass spectrometry proteomics.		Pulmonary Disease
2017	Madasu S, Lam YW, Morielli A. Quantitative MS identifies potential targets for cerebellar disorders	Discovery on Target	UVM Pharmacology
2017	Chia SB, Aboushousha R, Qian X, Lahue KG, Lam YW, Irvin CG, Anathy V, Poynter M, van der Vliet A, Heininger YMW. Glutaredoxin-1 regulates airway basal cell plasticity.	Gordon Research Conference	UVM Pathology
2017	Wrenn SM, Griswold ED, Uhl FE, Uriarte JJ, Park HE, Coffey AL, Dearborn JS, Hommel RJ, Lam YW, Deng B, Ahlers BA, Lee PC, Huston DR, Wagner DE, Weiss DJ. Lung bioengineering using avian tissue.	Stem Cell Conference	UVM Pulmonary Disease
2017	Wrenn SM, Griswold ED, Uhl FE, Coffey AL, Dearborn JS, Hommel RJ, Lam YW, Deng B, Ahlers BA, Wagner DE, Weiss DJ. Avian lung de-and recellularization: A novel biomaterial for pulmonary therapeutics.	American Thoracic Conference	UVM Pulmonary Disease
2017	Scuderi RA, Ebenstein DB, Lam YW, Kraft J, Greenwood SL. The effect of dietary grape marc on the bovine milk proteome.	ADSA Annual Meeting	UVM Animal Science
2016	Chia SB, Nolin JD, Qian X, Aboushousha R, Lahue KG, van der Velden J, Schneider R, Lam YW, Irvin CG, Anathy V, van der Vliet A, Heininger YMW. Glutaredoxin-1 regulates allergic remodeling in house dust mite-induced allergic airways disease.	Gordon Research Conference	UVM Pathology
2016	Heppner DE, Dustin CM, Liao C, Hristova M, Veith C, Little AC, Ahlers BA, White SL, Deng B, Lam YW, Li J, van der Vliet A. Molecular origin of thiol-based redox-regulation of the Src Kinase.	Gordon Research Conference	UVM Pathology
2016	Heppner DE, Dustin CM, Liao C, Hristova M, Veith C, Little AC, Ahlers BA, White SL, Deng B, Lam YW, Li J, van der Vliet A. Molecular origin of redox regulation of the Src kinase	National Meeting of the Society for Redox Biology and Medicine	UVM Pathology
2016	Uhl F, Zvarova B, Fields J, Deng B, Lam YW, Weiss D, Wagner D. Enhanced mass spectrometry proteomics can be used to distinguish differences in protein compositions of acellular emphysematous versus normal lungs.	American Thoracic Conference	UVM Pulmonary Disease
2016	Uhl F, Costa R, Zvarova B, Fields JG, Deng B, Lam YW, Königshoff M, Weiss DJ, Wagner DE. Acellular emphysematous lungs retain pathophysiological attributes and can be used as a novel *in vitro* culture system for studying disease biology.	German Lung Center (DZL) conference	UVM Pulmonary Disease
2015	Tacoma R, Lam YW, Fields JG, Greenwood S. Characterization of the bovine milk proteome produced by Holstein and Jersey breeds of dairy cows.	ADSA-ASAS Joint Annual Meeting	UVM Animal Science
2014	Robey-Bond S, Lam YW, Ebert A, Fields J, Lefebvre P, Francklyn C. Molecular basis of histidyl-tRNA	tRNA Conference	UVM Biochemistry

	synthetase-associated Usher Syndrome Type 3B in cochlear-derived mouse cells and zebrafish		
2014	Robey-Bond S, Fields J, Lam YW, Francklyn C. Identification of protein networks disrupted by a mutation in HARS	UVM Neuroscience, Behavior and Health Forum	UVM Biochemistry
2013	Abbott J, Deng B, Lam YW, Francklyn CS, Robey-Bond S. The role of human histidyl-tRNA synthetase mutations in human diseases, Type IIIB Usher Syndrome and Peripheral Neuropathy.	RNA Metabolism in Neurological Disease Conference	UVM Biochemistry
2013	Robey-Bond S, Fields J, Lam YW, Francklyn C. Identification of protein networks disrupted by a mutation in HARS	International Symposium on Aminoacyl-tRNA Synthetases Conference	UVM Biochemistry
2013	Smith K, Voogt R, Lam YW, Mintz K. Membrane proteome changes in *Aggregatibacter actinomycetemcomitans* dependent on one protein.	Penn Periodontal Conference	UVM MMG
2013	Borsinger T, Lam YW, Cluss B. Initial determination of the proteome of *Borrelia burgdorferi*, the lyme disease spirochete.	VGN Career Day	Middlebury Biochemistry

PROFESSIONAL DEVELOPMENT

Courses, workshops, on-site training, and other informational meetings attended.

Year	Organizer	Topic
2025	ASMS	Fall workshop: Fundamentals of Instrumentation for MS
2025	Cold Spring Harbor Laboratory	Expression, Purification & Analysis of Proteins & Protein Complexes
2024	UVM	Leadership Development Pilot program (Nov. 1)
2023	ASMS	Short course: Quantitative Proteomics: Case Studies
2023	ABRF	Business Skills for Core Facility Personnel
2022	Thermo Fisher Scientific	3 - day on-site Eclipse and Exploris 240 training (Jul. 26-28 & Sep. 13 - 15)
2021	VT IDeA Retreat	StrategicDoing Workshop (Aug. 19)
2021	Arkansas/Oklahoma IDeA	Symposium for Proteomics Core Directors and Staff (Jan.28 - 31)
2020	Celdara Medical Inc./NIGMS/ DRIVEN	Core Business Virtual Meeting (Oct. 5)
2020	UVM	Online Teaching Boot Camp (Aug. 4)
2020	ASMS	Short course: LC-MS: Practical Maintenance and Troubleshooting
2020	Arkansas/Oklahoma IDeA	Symposium for Proteomics Core Directors and Staff (Jan.28 - 31)
2019	Maine INBRE	Bioinformatics (T3): Train the Trainer (Jun. 29 - July 6)
2019	ASMS	Short course: Native MS
2019	Arkansas/Oklahoma IDeA	Symposium for Proteomics Core Directors and Staff (Feb. 20 - 23)
2018	May Institute	Computation and Statistics for MS and Proteomics (Apr. 30 – May 9)
2018	Arkansas/Oklahoma IDeA	Symposium for Proteomics Core Directors and Staff (Apr. 4 - 5)
2017	ASMS	Short course: DMPK: Experimentation and Data Interpretation
2017	Arkansas/Oklahoma IDeA	Symposium for Proteomics Core Directors and Staff (Apr. 4 - 6)
2016	ASMS	Short course: Protein Therapeutics: Practical Characterization and Quantitation by MS
2015	Thermo Fisher Scientific	3 - day on-site Q-Exactive training (Sep. 8 - 10)

2015	ASMS	Short course: Protein Structural Analysis by MS: HDX and Covalent Labeling
2014	ASMS	Short course: Ion Mobility in Mass Spectrometry
2014	Waters Corporation	SYNAPT G2-Si Workshop in Salem, MA (Feb. 19)
2014	AB SCIEX	New Developments in Clinical Research and Forensic Toxicology Using LC/MS/MS (Apr. 22)
2013	ASMS	Short course: Glycans and Glycoproteins in Mass Spectrometry
2013	Thermo Fisher Scientific	MS Thought Leader Summit (Feb. 26)
2012	ASMS	Short course: Metabolomics
2010	ASMS	Short course: High Resolution LC-MS for Structural Identification and Quantitation
2009	ASMS	Short course: Protein Structural Analysis by MS: HDX and Covalent Labeling
2007	ASMS	Short course: FTMS: Principles and Applications
2006	ASMS	Short course: MS of Peptides and Proteins
2006	Institute for Systems Biology	Proteomics Informatics Course (May 25 - 26)
2006	University of Louisville	Metabolomics Symposium
2005	ASMS	Short course: Quadrupole Ion Trap MS
2004	ASMS	Short course: Practical LCMS: Fundamentals, Techniques and Applications

RESEARCH SUPPORT

Ongoing Research Support

5P20GM103449-19 — Christopher Francklyn (PI) — 06/01/20 - 05/31/25
NIH/NIGMS
Vermont INBRE

The major goal of this grant is to increase the culture of research in the state's four-year institutions by facilitating faculty members' research/grant productivity and undergraduate education in the sciences.
Role: Project Leader / Core Facility Director

Completed Research Support

P20 GM103449 — Rex Forehand (PI) — 06/01/15 - 05/31/20
NIH/NIGMS
INBRE Vermont Genetics Network

The goal of this grant is to invest in the Vermont biomedical research infrastructure, including physical and human resources, in order to bring about sustainable changes in how we in Vermont carry out research and educate our next generation of scientists and doctors.
Role: Project Leader / Core Facility Director

P20 GM103449 formerly P20RR16462 — Van Houten (PI) — 06/01/11 - 05/31/15
NIH/NIGMS

The goal of this grant is to invest in the Vermont biomedical research infrastructure, including physical and human resources, in order to bring about sustainable changes in how we in Vermont carry out research and educate our next generation of scientists and doctors.
Role: Project Leader / Core Facility Director