

Patricia Bernadette O'Hara
Amanda and Lisa Cross Professor of Chemistry
Amherst, Massachusetts 01002-5000
pbohara@amherst.edu phone +1 (413) 542-2732

DEGREES

B.A. Adelphi University *magna cum laude* Chemistry with Distinction, 1976
M.S, M. Phil, Ph.D. Columbia University Biophysical Chemistry, 1981
A.M. Amherst College (honorary), 1989

APPOINTMENTS TEACHING AND RESEARCH (INTERNATIONAL)

Amanda and Lisa Cross Professor of Chemistry	2008-PRESENT
Visiting Professor, Doshisha University, Kyoto, Japan	2018 Spring
Fellow, Kahn Liberal Arts Institute– Food; Smith College	2018-2019
Visiting Professor, Stellenbosch University, South Africa	2015 Spring
Visiting Professor, Boğaziçi University, Istanbul, Turkey	2014 Fall
Visiting Professor, UMass Amherst Biochemistry	2009 Spring
Senior Sabbatical Fellowship, IECB, Bordeaux, France	2004-2005
Talheimer Professor, Amherst College	2002-2004
Visiting Professor, UMass Amherst Chemistry	1997-1998
Professor of Chemistry, Amherst College	1995-2008
Bruss Reader, Amherst College	1994-1996
Visiting Scientist, Boston Biomedical Research Institute	1993-1994
Associate Professor, Amherst College	1989-1995
Visiting Professor, Penn. State University	1987-1988
Assistant Professor, Amherst College	1983-1989
Postdoctoral Research, Stanford University	1981-1983
Graduate Research, Columbia University	1976-1981
Undergraduate Research, Adelphi University	1974-1976

APPOINTMENTS ADMINISTRATIVE and INSTITUTIONAL REPORTS

Biochemistry and Biophysics Program (Chair)	2019-2022
Committee on Student Learning and Success (Chair)	2019-2022
Educational Studies Program (steering committee)	2021-present
Special Report Academic Structures in Time of COVID	2020
Dean of New Students, Amherst College	2010-2014
Committee of Six, Executive Committee of Faculty (elected)	2006-2008
Report of Special Committee on Advising (chair)	2012
New Major in Biochemistry and Biophysics (author)	2010
Report of the Task Force on Academic Support (chair)	2009
Senior Advisor to the Dean of Faculty -Academic Support	2008-2009
Committee on Educational Policy (elected)	2003-2004
Report of Special Committee -Technology in the Classroom	2000
Chemistry Department Chairman	1999-2002
5 College Campus Coordinator for NSF \$5 Million STEMTEC	1997- 2002
Committee of Six, Executive Committee of the Faculty (elected)	1995-1997
Report of President's Committee on Academic Support	1995
Committee of Six, Executive Committee of Faculty (elected)	1991-1992
Acting Affirmative Action Officer	1990

PROFESSIONAL ACTIVITIES AND MEMBERSHIP

Editorial Board: Food Science and Nutrition Technology 2024- present
 Conference Organizer: ACS CVS Undergraduate Research and Award Symp. 2019
 Advisory Board: Center for Community Engagement Amherst College 2008-2014
 Advisory Board: Superintendent's Council, Amherst Regional School Dist. 2010-2014
 Steering Committee: 5 College Biophysics Program 2009-2011
 Advisory Board: Ege'de Atölye, Istanbul, Turkey 2010-2015
 Advisory Board: UMass HHMI Grant to Molecular Chemistry and Biology 2006-2012
 Preparation Future Faculty program: UMASS, Amherst
 Membership: ACS, AWIS, AAUP, Biophysical Soc., CRUI, Sigma Xi, Phi Beta Kappa

REVIEWER

Grants for Beckman, NSF, NIH, ACS, Research Corp, PRF, CRUI and others;
 Research articles for Int'l J. Gast. & Food Sci., JACS, Biophy. J., J. Chem. Ed., others
 Textbooks for ACS, Nat. Com. on Sci. Ed. Standards & Assessment
 Program Reviewer: Depts. of Chemistry: Holyoke Community College, Skidmore
 College, Aquinas College; Thesis Examiner: Oberlin College, Marlborough College

TEACHING

Chemistry Courses

Chemical Basis of Biological Processes
 Molecular and Cellular Biophysics
 Biochemistry with lab
 Biochemical Principles of Life at the Molecular Level (no Lab)
 General Chemistry (first and second semester)
 Physical Chemistry
 Organic Chemistry Laboratory

Interdisciplinary Courses

Molecular Gastronomy: from Test Tubes to Taste Buds
 Liquid Gold: The Chemical Story of Olive Oil
 Cultural Humility & Competency in Health Care Delivery (Interterm)
 Genes, Genomes and Society
 Evolution and Revolution
 Medical Risk Assessment
 Women and Minorities in Science
 K-12 Science Teaching Internship k-(Interterm)

Science Teacher Training Workshops

NE Assoc. Science Teachers: Health Benefits of Olive Oil
 Interdisciplinary Course on Light
 Molecular Visualization
 Revisiting the Central Dogma of Biology with GFP

International Courses

Liquid Gold: Liberal Arts Initiative Summer Seminars Sum 2021 China, remote
 Zeytin Summer 2017- Karaburun, Turkey
 Zeytin Fall 2015- Sirinçe, Turkey
 Chemistry of Olive Oil - 2014 Boğaziçi University, Istanbul, Turkey
 Zeytin 2012, 2011 Yeni Foça, Turkey

BOOKS

- O'Hara, P. B. (2025) **University of California Press** ISBN 978-0-520-39762-0
Food Chemistry in Small Bites
- Blatchly, R.A., Nircan, Z.D., O'Hara, P.B., (2020), **Editorial Acribia** ISBN: 978-84-200-1200-1244-5
La Aventura química del aceite de oliva: El olivar a la mesa
- Blatchly, R.A., Nircan, Z.D., O'Hara, P.B., (2020) **İş Bankası Yayınları** ISBN: 978-6-25799-933-5
Zeytinlikten Sofraya Zeytinyağının Hikayesi (currently in its 3rd printing)
- Blatchly, R.A., Nircan, Z.D., O'Hara, P.B., (2017) **Royal Society Chemistry** ISBN: 978-1-78262-856-9
The Chemical Story of Olive Oil: From Grove to Table

PUBLICATIONS 23 (+2 in prep) (undergraduate student, high school teacher co-authors are underlined)

- Blatchly, R., Delen Nircan, Z., O'Hara, P. B. (2022) **Pomace Sustainability** 978-975-18-0320-7
Learning Design from the Olive
- O'Hara P (2022) **J Food Sci Nutr** 8: 139. [10.24966/FSN-1076/100139](https://doi.org/10.24966/FSN-1076/100139)
Transforming Food with Acid: Lessons from the Dairy
- O'Hara, P.B. in **Handbook of Molecular Gastronomy** (2021) Scientific Foundations, Educational Practices, and Culinary Applications, edited by Bure, R., Kelly, A., LaValle, C. and Hervé, T. ISBN:9781466594784 Routledge/ CRC Press
Molecular Gastronomy: A Universal Portal to the Molecular Sciences
- O'Hara, P.B., (2019) **Cell - Trends in Chemistry** V1, 2, DOI 10.1016/j.trechm.2019.02.001
Making Science Palatable with Molecular Gastronomy REPRINTED IN HIGHLIGHTS ISSUE
- O'Hara, P.B., Blatchly, R.A., Nircan, Z.D. (2014-2019) World Olive Press – (Volumes 1-17) An online newsletter documenting olive growing and processing in different regions in the world.
<http://worldolivepress.blogspot.com.tr>
- Blatchly, R. A., Delen, Z., O'Hara, P.B.; (2014) **J. Chem. Ed.** (article, six labs)
Making Sense of Olive Oil: Simple Experiments to Link Sensory Observations with Underlying Chemistry DOI 10.1021/ed300557r
- Jaswal, S., O'Hara, P., Williamson, P., Springer, A., (2013) **Biochem. & Mol. Bio. Ed.**
Teaching Structure: Student Use of Software Tools For Understanding Macromolecular Structure In An Undergraduate Biochemistry Course DOI 10.1002/bmb.20718
- Pauyo, T., Hilinski, G. J., Chiu, P.T., Hansen, D.E., Choi, Y.C., Ratner, D.I., Shah-Mahoney, N., Southern, C.A., O'Hara, P.B. (2006) **Mol. Imm.** Vol 43/7 pp 812-821 *Genetic and Fluorescence Studies of Affinity Maturation in Related Antibodies* DOI:10.1016/j.molimm.2005.07.001
- O'Hara, P.B., Engelson, C., and St. Peter, W. (2005) **J. Chem. Ed.** 82 1 (includes manuscript, five labs)
Turning on the Light: Lessons from Luminescence DOI: 10.1021/ed082p49
- O'Hara, P.B., Engelson, C. St. Peter, W., (2005) **J. Chem. Ed.** Activity: 82, p48A
Turning on the Light jce2005p0049w.zip (746.19 kB)
- Mohan, G. S., Chiu, P.T., Southern, C.A., O'Hara, P.B., (2004) **J.Phys.Chem. A** 108, 7871-7877
Steady State and Multifrequency Phase Fluorometry Studies of Binding Site Flexibility in Related Antibodies DOI:10.1021/jp049330m
- O'Hara, P.B., Howard, M.L.¹, Sanborn, J.A., (1999) **J. Chem. Educ.** 76 p1673-1677
Pesticides in Drinking Water: Project Based Learning within the Introductory Chemistry Curriculum ISSN-0021-9584
- O'Hara, P. B. (1997) *Calcium Binding Proteins*, Celio editor, Oxford University Press 1996 **J. Amer. Chem. Soc.** 119, p8581

- O'Hara, P.B., Rahman, M.A., Rowland, A., and Turjoman, A.J., (1995) **Photochem. and Photobio. B Biology** 30 p15-21.
Target Peptide Induced Changes in the Structure and Dynamics of Calmodulin as Probed by Frequency Domain Fluorometry of Bound Tb(III)
- O'Hara, P.B., Gorski, K.M., Rosen, M. (1988) **Biophys. J.** 53, 1007-1014
Thermal Profiles of Energy Transfer: Luminescent Probes of Protein Dynamics in Transferrin and Calmodulin
- O'Hara, P.B., Gorski, K.M. (1988) **Anal. Chim. Acta.** 205, 161.
Luminescent Probes of Protein Dynamics: Preliminary Results of Thermal Profiles of Förster Energy Transfer in Proteins
- O'Hara, P.B. (1987) **Photochem. Photobio.** 46 1067
Invited Paper *Lanthanide Ions as Luminescent Probes of Biomolecular Structure*
- O'Hara, P.B. and Koenig, S. (1986) **Biochemistry** 25, 1445
ESR and Magnetic Relax. Studies of Gd(III) Complexes with Human Serum Transferrin
- O'Hara, P.B. (1985) **J. Amer. Chem Soc.** 107, 4365. (H. Siegel, ed)
Review of *Calcium and its Role in Biology* Metal Ions in Biological Chem 17
- O'Hara, P.B. and Bersohn, R. (1982) **Biochemistry** 21, 5269.
Resolution of the Two Metal Binding Sites of Human Serum Transferrin by Low Temperature Excitation of Bound Eu(III)
- Sommer, J.H., O'Hara, P.B., Jonah, C., Bersohn, R. (1982) **Biochem. Biophys. Acta** 703, 62.
Relative Reducibilities of Complexes of Fe(III), Co(III), Mn(III), and Cu(II) with Apotransferrin Using Solvated Electrons and CO₂⁻
- O'Hara, P.B., Yeh, S.M., Meares, C.F., and Bersohn, R. (1981) **Biochemistry** 20, 4704.
The Intersite Distance in Transferrin Measured by Energy Transfer from Tb⁺³ to Mn⁺³ or Fe⁺³
- O'Hara, P.B. (1981) PhD Thesis, Columbia University, N.Y., N.Y.
The Binding Sites of Transferrin: Spectroscopic and Magnetic Studies of Lanthanide and Transition Metal Complexes
- Hebda, J., O'Hara, P. (2023 in preparation) final edits for **J. Chem. Ed.**
Selectivity of Non-Covalent Bonding Interactions Using ELISA as a Mimic for Receptor Function to Differentiate Between the Peptides Vasopressin and Oxytocin in an Undergraduate Lab
- O'Hara, P., Türköz, M., Blatchly, R., Wernz, C., & Delen, Z. (2023 in preparation) submitted to **J. Higher Ed. Outreach and Engagement** *Place and Space in Yeni Foça, Turkey: An Interdisciplinary Analysis of The Olive Culture in a Small Village*

PUBLISHED CONFERENCE PRESENTATIONS (30) undergraduate students

- Yusrah Kaudeer, Esi Obeng, Patricia B. O'Hara **Biophysical Journal** (2021) 120(3):200a
DOI:[10.1016/j.bpj.2020.11.1372](https://doi.org/10.1016/j.bpj.2020.11.1372) *Modelling PH Dependence of the Interaction of Alpha-B Crystallin With Client Proteins*
- Waleed Babar, Patricia B. O'Hara, Danny Jeong, **Biophysical Journal** (2021) 120(3) 3:260a
DOI:[10.1016/j.bpj.2020.11.1673](https://doi.org/10.1016/j.bpj.2020.11.1673) *Use of a Transgenic Yeast Line to Determine The Estrogenicity And Potential Health Risk Of Bisphenol Plasticizers Binding To The Estrogen Receptor*
- Kashmeera Baboolall, Yusrah Kaudeer, Anne Gershenson, Patricia B. O'Hara, (2020), **Biophysical Journal** 118(3):510a; DOI: [10.1016/j.bpj.2019.11.2809](https://doi.org/10.1016/j.bpj.2019.11.2809) *pH Dependence of Oligomerization And Functional Activity Of Alpha B Crystallin*
- Kashmeera Baboolall, Belelot Birhanu, Natalie Braun, Yusrah Kaudeer, Patricia B. O'Hara, (2019) **Biophysical Journal**, 116(3):190a DOI:[10.1016/j.bpj.2018.11.1051](https://doi.org/10.1016/j.bpj.2018.11.1051) *Enhanced pH Dependent*

- Modulation of Alpha Crystallin Chaperone Function And Subunit Exchange In An N-Terminal Phosphorylation Mimic*
Pearlman, A.H., Salvi, Satyajeet, O'Hara, P.B., Hebda, J.A., **Biophysical Society Meeting** (2014) San Francisco *Stability and Dynamics of Alpha Crystallin Oligomers Probed by FRET and FCS Reveal Persistent Oligomerization Under Dilute Conditions* Platform Talk 1252-P
- Cabrejo, R., Hebda, J.A., O'Hara, P.B. **Biophysical Society Meeting** (2014) San Francisco *Clarifying the Interactions between Alpha-Crystallin B Function and Oligomerization By Altering Aggregation Conditions* Biophysical Journal, 2014, Vol.106 (2) DOI 10.1016/j.bpj.2013.11.2666
- Anwar, S., Peterson, J.W., Hebda, J.A., O'Hara, P.B. **Biophysical Society Meeting** (2014) San Francisco *Understanding the Interaction Between Calmodulin And Estrogen Receptor-ER-a Using Fluorescence Techniques (late abstract – not included in abstract book)*
- Hebda, J.A., Pearlman, A.H., O'Hara, P.B. **Biophysical Society Meeting** (2013) Philadelphia *Characterizing the Role of Palindromic Strand Exchange in alpha-Crystallin Oligomerization* Biophysical Journal, vol. 104, issue 2, p. 394a DOI: 10.1016/j.bpj.2012.11.2198
- Cheng, K., Cabrejo, R., Hebda, J. O'Hara, P.B. **Biophysical Society Meeting** (2013) Philadelphia *Clarifying Alpha-crystallin Chaperone Function Using an Insulin B Chain Aggregation Model* Biophysical Journal (01/2013; 104(2):48-. DOI: 10.1016/j.bpj.2012.11.305
- Santos, J., Cabrejo, R., Hebda, J. O'Hara, P.B. **Biophysical Society Meeting** (2012) San Diego *Elucidating Molecular Constraints that Effect Alpha Crystallin Oligomerization, Stability, and Chaperone Function* DOI: <http://dx.doi.org/10.1016/j.bpj.2011.11.359>
- O'Hara, P. B., Watson, J. **Biophysical Society Meeting** (2012) San Diego *Modification of estrogen dependent gene expression as measured by GFP based yeast expression system* DOI: <http://dx.doi.org/10.1016/j.bpj.2011.11.434>
- Aba-Milki, E., O'Hara, P.B. **Biophysical Society Meeting** (2010) San Francisco *Probing Changes in Antibody Flexibility during Affinity-Maturation by Single Molecule Spectroscopy* DOI: <http://dx.doi.org/10.1016/j.bpj.2009.12.1268>
- Knuff, C.T.; Varner, H.M; O'Hara, P.B. **Biophysical Society Meeting** (2010) San Francisco *Selectivity of Binding to Estrogen Receptors Alpha and Beta as Determined by Fluorescence Polarization* DOI: <http://dx.doi.org/10.1016/j.bpj.2009.12.203>
- Aba-Milki, E., Ampiah-Bonney, R., O'Hara, P.B. **Protein Society Meeting** (2009) Boston *Comparison of Flexibility in Antibody Binding Sites by Frequency Domain Fluorescence Spectroscopy*
- Luft, S., Alba Milki, E., Glustrom, E., Ampiah-Bonney, R., O'Hara, P.B. **Biophysical Society Meeting** (2009) 2292-Pos. *Binding of Organochloride and Pyrethroid Pesticides to Estrogen Receptors α and β : A Fluorescence Polarization Assay* DOI: <http://dx.doi.org/10.1016/j.bpj.2008.12.2282>
- Sullivan, Chantae; Briseno, Angelica; O'Hara, Patricia B. **Biophys. J.** (2007) (977-Pos/B34) *Probing the Evolution of Antibody Binding Affinity with Fluorescence Spectroscopy* 084.02.
- O'Hara, P.B., Mohan, G.S. Pauyo, T., Dolan, B.M., Southern, C.A. (2004) **Biophys. J.** 84 *Fluorescent Hapten Analogue Sheds Light on the Relative Affinity and Flexibility of Antibody Binding Sites*
- O'Hara, P.B., Southern, C.A, Pauyo, T., Hilinski, G. (2003) **Biophys. J.** 83, 453A *Probing Structural Annealing in the Binding Site of Antibodies by Fluorescence Spectroscopy*
- O'Hara, P.B., Chiu, P.T. (2002) **Biophys. J.** 82 312a *Evolution of Antibody Flexibility as Probed by Multifrequency Phase Fluorometry*
- O'Hara, P.B., Blatchly, R.A., Eisenberg, P.L, (2001) **Conf. Proc. Pathways to Change Partners in Chime: Models of Molecular Structure**
- O'Hara, P.B., Smith, G.B., Chung, J.S. (2000) **Biophys. J.** 78, 297A

- Evidence for T7 RNA polymerase Induced Perturbations in the Structure of Promoter DNA from Fluorescence Energy Transfer*
- Johnson, C.K. Sun, H-Y, Squire, T., Osborne, K.D., O'Hara, P.B., Xie, X.S. (2000) **Biophys. J.** 78, 386A
Detection of Single Molecule Binding of Calmodulin to the Plasma Membrane Calcium ATPase and Target Peptides
- O'Hara, P.B., Smith, G.B., Chang, E. (1999) **Biophys. J.** 76, A478
Dynamic Changes in DNA Induced by Binding of Polymerase to Fluorescently Labeled DNA
- Rotberg, A. V., O'Hara, P.B., Dosemeci, A., Albers, R.W. (1998) **Biophys. J.** 74, A379
Calmodulin Trapping and Autophosphorylation in Ca/Camodulin Dependent Protein Kinase II
- O'Hara, P.B., Barczak, A. , Kim, P., (1997) **Biophys. J.** 72 A87
Characterization of CaM Binding to Nitric Oxide Synthase by Fluorescence Energy Transfer
- O'Hara, P.B., Rahman, M.A., Chandani, A. and Lee, M.J., (1995) **Biophys. J.** 68 A194
Fluorescence Studies of Calmodulin Complexes with Target Proteins and Peptides
- O'Hara, P.B., Grabarek, Z., Mabuchi, Y., Macek, V.J., Pianka, G.A., Hallert, G.E. (1994) **Biophys. J.** 66 A58.
Structure and Flexibility of Calmodulin and its Complexes with Target Proteins
- O'Hara, P.B., Rahman, M.A., Rowland, A., Turjoman, A.J., **20th Int'l Conf. on Rare Earth Metals**, 9/93
- O'Hara, P.B., Gorski, K. M., (1986) **Fed. Proc.** 45, (6) 1601. ASBC meeting - Washington, D.C.
- O'Hara, P.B., Gorski, K. M., (1987) **5th Conversation in the Discipline of Biomolecular Stereo.** N.Y.

RESEARCH STUDENTS (*detailed list available*)

Honor Students (75 total: 37 women, 34 Students of Color),
Special Topics Students (22 total)
Research - Non-Thesis Students (90 total, including High School students)

RESEARCH COLLABORATORS (*detailed list available*)

High School Teachers (6); Postdoctoral Students (7); Post-baccalaureate Students (8)

PRESENTATIONS: GENERAL PUBLIC AND CHEMICAL EDUCATION (17 more before 2000)

- Lessons in Chemistry: Amherst Edition, Invited Faculty Speaker, Senior Assembly (2024)
- From Quantum Dots to Proteostasis: A Research Sampler from Chemistry at Amherst College, invited presentation to the Chemistry Faculty and ACS student chapter, American University of Beirut (2023)
- Building Community and Agency: Panel Discussion of Women in Academia, Provost invited discussion to the public, the American University of Beirut, Lebanon (2023)
- The Chemical Story of Olive Oil, from Grove to Table, invited lecture to the Olive Grower's Association of Lebanon (2023)
- The Chemical Story of Olive Oil, from Grove to Table – public lecture given at the American University of Beirut, Lebanon (2023)
- Chemical Story of Olive Oil from Grove to Table - The Capitol, Washington, DC (2023)
- Reflections on Teaching: Four Decades in the Classrooms at Amherst College - Amherst Series on Reflections on Teaching (2023)
- The Alchemy of the Kitchen: Molecular Transformation in Food Preparation, Conference on Innovations in Food Science and Nutrition in Barcelona, Spain (2022 - cancelled)
- Using Culinary Arts to Teach Science (Sabanci University, Istanbul, Turkey) by Zoom (2022)
- Looking Back with Gratitude – Four Decades of Teaching at Amherst, Alumni Series (2019)
- Chemistry – A Portal to the Molecular Sciences (Smith College) (2019)

- Chemical Story of Olive Oil: Senior Symposium Greenfield Community College (2018)
- Teaching Molecular Gastronomy Makes Science Palatable for All Students; ACS Meeting, Boston (2018)
- Chemistry of Olive Oil – Zeytin Okul, Karaburun, Turkey (2017)
- Focus on Food: Tales from the Grove – Alumni Event at Amherst College (2017)
- Branching Out: A Chemist's Love for EVOO – Alumni Event at Boston College (2017)
- Tales from the Grove – Alumni Event Cape Cod, MA (2016)
- Tales from the Grove – invited speaker for Emeriti Dinner Amherst College (2016)
- At the Lab Bench with Pioneering Women Science Faculty at Amherst College (2016)
- Center for Humanistic Inquiry – Olive Oil Sensorium and Olive Oil Tasting (2016)
- Invited Speaker, Pindar Dinner at Amherst College, Olive Oil Tasting (2015)
- NYIOOC: First Olive Oil International Competition, "Health Benefits of Olive Oil" (2013)
- New England Ass. of Science Teachers Workshop "Making Olive Oil Chemistry Visible" (2013)
- Zeytin Workshop Ege de Atölye, Foça Turkey (2012)
- Zeytin Workshop Ege de Atölye, Foça Turkey (2011)
- Liberal Arts Workshop in Istanbul, Turkey "The Power of An Olive to Make Connections" (2010)
- Imaging the Future: Fluorescence Workshop for High School Teachers. UMass STEM (2009)
- Alumni Reunion "Hot Flashes/Osteoporosis: Estrogen's Role in development and aging" (2009)
- Light II - Interdisciplinary Course to Middle and High School Teachers (2007)
- Light-Interdisciplinary Course to Middle and High School Teachers (2006)
- Luminescence Workshop to High School Teachers (2004)
- Preparing Future Faculty Presentation at UMass (2003)
- Pathways to Change Workshop w. Wayne St. Peter & Carol Engelson Washington DC (2002)
- Preparing Future Faculty Presentation at UMass Amherst (2002)
- Preparing Future Faculty, UMass Amherst, "Negotiating Educational Space" (2001)
- STEMTEC Statewide Institute UMass, "True Stories, Course Based projects" (2000)
- Pathways to Change, Hamp. College "Partners in Chime: Models of Molecular Structure" (2000)
- Faculty Mellon Seminar, Amherst College "Use of Web Based Discussion Boards" (2000)
- Faculty Mellon Seminar, Amherst College "Web Based Course Delivery CourseInfo" (2000)

RESEARCH PRESENTATIONS (20 more prior to 2000)

- Proteostasis: Protein Expression, Degradation, and Regulation at the American University of Beirut, to Chemistry Department American University of Beirut, Lebanon 10/23
- Biophysics Five College Group, Single Molecule FRET and FCS studies of Self Assembly in α -Crystallin, UMass 03/18
- Bowdoin College, The Chemical Story of Olive Oil from Grove to Table 10/16
- Department of Horticultural Science, Stellenbosch University, South Africa: Tales from the Olive Groves of the Northern and Southern Hemispheres 06/15
- Australian Olive Growers Association, Wagga Wagga, AU: Tales from the Olive Grove 05/15
- New Zealand Olive Growers Assoc., Greytown, NZ: Chem-Tales from the Olive Grove 05/15
- Department of Biochemistry, Stellenbosch University, Stellenbosch, South Africa: Relating Molecular Properties to the Health Benefits of Extra Virgin Olive Oil 03/15
- Ege University, Izmir, Turkey: Three Ways Olive Oil Works to Make You Healthy 01/15
- Boğaziçi University, Istanbul, Turkey, Leziz Zeytinyağı: A Chemist's View of the History, Health Benefits, and Wonderful Taste of Olive Oil 12/14

- Catalonia, Spain, Leziz Zeytinyağı: A Chemist's View of the History, Health Benefits, and Wonderful Taste of Olive Oil 12/14
- Sabanci University, Istanbul, Turkey, Leziz Zeytinyağı: A Chemist's View of the History, Health Benefits, and Wonderful Taste of Olive Oil 11/14
- Nesen Math Village, Şirince, Turkey, Leziz Zeytinyağı: A Chemist's View of the History, Health Benefits, and Wonderful Taste of Olive Oil 10/14
- Işık University, Şile, Turkey, Leziz Zeytinyağı: A Chemist's View of the History, Health Benefits, and Wonderful Taste of Olive Oil 10/14
- Amherst College A Chemist's View of Oleo Europa; Chemistry of Olive Oil with Tasting 02/12
- Colby College, A Chemist's View of Oleo Europa; Chemistry of Olive Oil 10/11
- University of Rhode Island, Chemistry Department "Phytoestrogens and Xenoestrogens Act as Selective Estrogen Receptor Modulators" 10/09
- University of MA, Biochemistry Dept: Fluorescence Insights into Transferrin's Trafficking of Anticancer Drugs into Cancer Cells 02/09
- University of MA, Biochem Dept: M. Phase Fluorometry in the Study of Antibody Flexibility 01/09
- U. of Siena, Italy A Fluorescence Spectroscopy Investigation of Ru(III)/ Anticancer Compounds 06/08
- Use of Fluorescence for Determining Biochemical Events to Athletic coaches and staff 01/08
- Amherst Alumni Weekend *Terras Irradiant* at the Biomolecular Level 05/07
- Biophysical Society Meeting: Nature of Research and Collaboration at Undergrad Res. Inst. 03/07
- Collaborating and Surviving at PUI: Mt Holyoke College Hughes Sponsored Panel 09/06
- Boston Biomedical Research Association
- Fluorescent Characterization of Affinity Maturation in Antibodies 06/02

GRANT SUPPORT (\$2.3 million in grants as PI and \$6 million in institutional grants)

- Amherst College Faculty Research Award Program "Structural Dynamics at the Single Molecule Level (2014) \$14,540
- Making Science Palatable for All Students with Molecular Gastronomy, Amherst Chem, \$4554
- Amherst College Program in Innovative Curriculum and Teaching Award for "Bringing Technology to Molecular Gastronomy: (2014) \$4,965 Fulbright Scholar Award for Research and Teaching Work in Turkey, first level approval, final round not funded (2014-2015)
- Senior Sabbatical Funding Proposal - Amherst College (2014-2015)
- Dean's Research Fund during term of Dean of Students (2010-2014) \$3,500/year
- Amherst College Faculty Research Award Program *Structural Dynamics at the Single Molecule Level \$14,540* (2013)
- Amherst College Faculty Research Award Program: *Cellular Communication* \$5000 (2011)
- Whiting Travel Award, \$6,000 (2010)
- Amherst College Faculty Research Award Program "Folding Polymers" \$15,000 (2008)
- Beckman Scholar Award Program \$79,000 awarded 2006-2009 (PI)
- Senior Sabbatical Fellowship Spring 2009 \$12,000
- Amherst College Faculty Research Award "*Single Molecule Fluorescence Correlation Spectroscopy*" awarded 2004 \$25,000
- Senior Sabbatical Fellowship \$20,000 2004-2005
- Amherst College Faculty Research Award "*Construction of a Single Molecule Fluorescence Microscope*" awarded 2003 \$31,000
- Dreyfus Award Program, *Fluorescent Studies of Biological Molecules*, 2001-2004 \$80,000
- NIH "*Single Molecule Dynamics of Target Binding by Calmodulin*" 6/00-6/03 \$704,206 Co-investigator with C. Johnson and T. Squier

- Preparing Future Faculty Program to AACU and ACS by Five College Consortium, Steering Committee Member and Contributor \$20,000-2yrs 9/99
- NSF-CRUI "*Antibody Catalysts from Immunoglobulin Repertoires of Enhanced Diversity*" \$848,255 9/99-9/04 co-investigator with D.E.Hansen, D.A.Goldsby, D.I.Ratner,
- NSF-DUE Amherst representative for STEMTEC grant to recruit and improve educational for science and math k-12 teachers \$5,000,000 9/97-02
- NSF-ROA sabbatical funding to work with C.Martin at UMass Amherst \$20,000 1/98
- Amherst College Faculty Research Grant, *Fluorescent Characterization of DNA Flexibility During Transcription* \$12,000 9/99
- NECUSE Faculty Development Grant to support Development of Problem Based Lab in Introductory Chemistry (Local Pesticide Contamination in Drinking Water and Its Correlation to Breast Cancer Incidence in the Pioneer Valley) \$4,000
- NSF-CRUI grant with D.Hansen, D.Ratner, R.Goldsby, "*The Characterization of Catalytic Antibodies from Germinal-Center B Cells*" 9/95-8/00 \$849,676
- Amherst College Faculty Research Grant, "*Changes in the Flexibility of HIV-1 Protease*", 6/94 \$6.4K
- NIH-AREA Grant, "*Phase Resolved Fluorescence Studies of Protein Dynamics*", 6/93 \$113,000
- Amherst College Faculty Research Grant, "*The Coupling of Flexibility to Function in CaM*" 9/92 \$14,000
- Kresge Award to Amherst College to Purchase a MF Phase Fluorometer 11/91 \$100,000
- Amherst College Faculty Research Grant, "*Synthesis and Characterization of Fluorescent Probes for Fluorescence Microscopy*" 7/90-7/92 \$15,000.
- ACS-PRF "*Energy Transfer as a Probe of Biomolecular Dynamics*" 8/89-8/92, \$20,000.
- Amherst College Faculty Research Grant "*Localization of the Site of Interaction of Calmodulin with a Lissamine Rhodamine Dye*" 7/89-7/90, \$15,000.
- NSF-ILIP, "*Lasers and Optical Equipment for a Laser Laboratory Course and Student Research Projects in Physics and Chemistry*" 9/89, \$71,898 with Professors R.C. Hilborn and L. Hunter
- NSF-RUI, "*Acquisition of a Molecular Graphics Workstation*", 1/90, \$22,012 with Professors J. N. Kushick and D. E. Hansen (matching funds from Amherst College Research Funds)
- NSF-DMB, RUI "*Laser-Induced, Steady State, and Time-Resolved Investigation of Biomolecular Structure*", 8/86-2/90, \$134,000
- ACS-PRF "*Thermal Profiles of the Energy Transfer Process in Biomolecules: A Novel Probe of Macromolecular Dynamics*", 7/86-7/88, \$18,000
- Amherst College Faculty Research Grant, "*Purification of New Calcium Binding Peptides by HPLC*", 9/87, \$10,000
- Research Corporation: "*Fluorescence, Photoaffinity Labeling and Energy Transfer Studies of Calmodulin*", 84-86, \$13,500

COMMITTEES

- Chemistry Anti-Racism Advisory Committee (2020-2022)
- *ad hoc* Faculty Committee on Academic Structures during COVID-19 (report June 2020)
- *ad hoc* Committee on Student Learning, Chair (2019-2022)
- Student-Athletes of Color Faculty Liaison (2017-present)
- Advisory Committee Center for Humanistic Inquiry (2017-2018)
- Advisory Committee Quantitative Center (2017- 2019)
- Faculty Lecture Committee (2015-2017)
- Liberal Arts Consortium for Online Learning, Amherst College rep (2015-2020)
- Fifty Years of Teaching at Amherst: Gender Matters: steering committee (2011)
- Search Committee: Librarian of the College successful hiring of Bryn Geffert (2010)
- Library Committee (2009-2014)
- Football Team Faculty Liaison (2008-2010)
- Search Committee: Director of Academic Computing - Scott Payne (2006)

- First Year Committee (2005-2006)
- Mellon Committee on Teaching and Learning (2005-2007)
- Working Group on Experiential Education (2005-2007)
- Committee on Educational Policy (elected) (2003-2004)
- Chair of Search Committee Director of Quantitative Center 2003 hiring of Jennifer Innes
- Mellon Committee on Teaching and Learning (2002-2004)
- Five College Steering Committee for Race, Gender, and Science Initiative (2002-2004)
- Five College Advisory Board, STEMTEC Scholarship (1998-2002)
- Holyoke Community College: Chemistry Program Evaluator: (1998)
- Five College Organizing Committee- 1st Undergraduate Teaching Workshop (1996)
- Amherst College Hughes Committee, preparation of \$1.5 million grant (1995)
- Library Search Committee, science librarian (1995)
- AC Rep, Campus Compact Meeting, Integrating Service in Academy, Brown U, (1995)
- NECUSE Regional Conf., Recruitment Retention of Minorities in Science, Smith (1995)
- Committee on Priorities and Resources (1995)
- Organizing Committee for Five College Workshop on Teaching Intro Science (1993)
- Panel Member "*Speaking Out in the Classroom*" Affirmative Action Workshop (1994)
- Health Professions Advisory Committee (1992-1995)
- Brookhaven National Labs Invited Member, Review "From PDB to 3DB" (1994)
- President Sigma Xi (1994-present), delegate to national meeting (1993)
- Skidmore College Panel "Workshop on Diversity in Classroom" (1993)
- President Phi Beta Kappa (1991-1992)
- Moderator, Affirmative Action in Higher Education, Black Alumni Weekend, (1992)
- Parents' Weekend "Culture of Science in a Liberal Arts College (1991)
- Affirmative Action Advisory Committee (1988-91) Chair (1989-1991)
- Faculty Advisor, Black Students Premedical Group
- Faculty Advisor and Founder, Women in Science Group

BIOGRAPHICAL STORIES, INTERVIEWS, PHOTO-ESSAYS

- Chemistry of Olive Oil Chemistry Caucus at the Capitol, Washington DC 2023
https://www.instagram.com/p/Cte2oSvvtSA/?img_index=1; <https://www.coons.senate.gov/news/press-releases/photos-senator-coons-hosts-chemistry-caucus-event-on-the-chemistry-of-olive-oil-at-capitol-with-foreign-dignitaries-nobel-laureate-house-and-senate-colleagues>
- Professor Patricia O'Hara presentation at the American University of Beirut 2023
https://www.instagram.com/css_aub/p/CxsN0y0sEQn/
- Food and Chemistry: An Interview with Professor O'Hara by Doug Appenzeller '20
<https://www.amherststemnetwork.com/2020/10/13/food-and-chemistry-an-interview-with-professor-ohara/>
- The Legacy of Womanhood at Amherst College by Gaby Meyer '16
<https://www.beinghumaninstem.com/updates/the-legacy-of-womanhood-at-amherst-college>
- The Pioneer Faculty Women – Conversation w. Elizabeth Aries & Patricia O'Hara, 2016
<https://www.amherst.edu/alumni/events/history-series/node/643687>
- Photo Essay - 50 Years of Women Teaching at Amherst 2012
<https://www.flickr.com/photos/amherstcollege/albums/72157627855534431/>
- Photo Essay Cryogenic Cuisine – Molecular Gastronomy with Professor O'Hara
<https://www.flickr.com/photos/amherstcollege/albums/72157641620366455/>
- Photo Essay Pindar Field Dinner Olive Oil Tasting and Dinner
<https://www.flickr.com/photos/amherstcollege/albums/72157664813577551/>