

**James Vaughan Staros**  
*Curriculum Vitae*

Revised: April 5, 2024

Professor *Emeritus*, Department of Biochemistry & Molecular Biology  
Former Provost & Senior Vice Chancellor for Academic Affairs  
University of Massachusetts Amherst  
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Amherst, MA 01003

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**Email:** [jvs@umass.edu](mailto:jvs@umass.edu)

**Education:**

Dartmouth College  
Hanover, New Hampshire

A.B., 1969, Biology/Chemistry  
Honors Thesis: *Valence Isomers of  
Hexakis(trifluoromethyl) Benzene*

Yale University  
New Haven, Connecticut

Ph.D., 1974, Molecular Biophysics  
& Biochemistry; Dissertation: *Some Chemical  
Probes of Biomembrane Structure:  
Topology in One Dimension*

Harvard University  
Cambridge, Massachusetts

Postdoctoral fellowship, Bio-organic Chemistry

**Previous and Concurrent Appointments:**

Undergraduate Research Assistant in Chemistry, Dartmouth College, 1967-1969

Graduate Fellow in Molecular Biophysics & Biochemistry, Yale University, 1969-1973

Postdoctoral Research Associate in Molecular Biophysics & Biochemistry, Yale  
University, 1974

Research Fellow in Chemistry, Tutor in Biochemical Sciences, Harvard University, 1974-  
1977

Assistant Professor of Biochemistry, Vanderbilt University, School of Medicine, 1978-  
1983

Associate Professor of Biochemistry, Vanderbilt University, School of Medicine, 1983-  
1986

Director of Graduate Studies in Biochemistry, Vanderbilt University, 1984-1988

Professor of Biochemistry, Vanderbilt University, School of Medicine, 1986-2002

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**Previous and Concurrent Appointments (continued):**

Interim Chairman, Department of Biochemistry, Vanderbilt University, School of Medicine, 1988-1991

Professor of Molecular Biology, Vanderbilt University, College of Arts & Science, 1991-2002

Chair, Department of Molecular Biology, College of Arts & Science, Vanderbilt University, 1991-1999

Chair, Department of Biological Sciences, College of Arts & Science, Vanderbilt University, 1999-2002

Professor of Biological Sciences, Vanderbilt University, College of Arts & Science, 2000-2003

Adjoint Professor of Biological Sciences, Vanderbilt University, 2003-2009

Professor, Department of Biochemistry & Cell Biology, Stony Brook University (SUNY), 2002-2010

Dean, College of Arts & Sciences, Stony Brook University (SUNY), 2002-2009

Professor, Department of Biochemistry & Molecular Biology, University of Massachusetts, Amherst, 2009-2019.

Provost & Senior Vice Chancellor for Academic Affairs, University of Massachusetts, Amherst, 2009-2014.

**Fellowships, Honors, Awards, and Professional Activities:**

Alfred P. Sloan Scholarship, 1965-1969

Phi Beta Kappa, 1968

Highest Distinction in major field, 1969

*magna cum laude*, 1969

Eggleston Memorial Botany Prize, 1969

National Science Foundation Graduate Fellowship, 1969-1972

J. Willard Gibbs Fellowship, 1969-1973

Helen Hay Whitney Postdoctoral Fellowship, 1974-1977

National Science Foundation, External Reviewer, Biochemistry Program, 1980-1988.

NIH Special Study Sections, Member, 1984, 1986, 1990.

National Research Council, Graduate Fellowship Evaluation Panel in Biochemistry and Biophysics, Member, 1987

NIH, Cellular and Molecular Basis of Disease Review Committee, Special Reviewer and Site Visitor, 1987, 1995; Member, 1988-1990; Chair, 1990-1992.

NIH, 1989 MARC Scholar Conference Planning Committee, Member, 1989.

**Fellowships, Honors, Awards, and Professional Activities (continued):**

Biophysical Society, Education Committee, Member, 1989-1997; Lamport Award Committee, Member, 1990.

NIH, 1990 NIGMS Minority Programs Symposium Planning Committee, Member, 1990.

NIDDK Workshop on Membrane Protein Structure, Chair, 1990.

Vanderbilt University Affirmative Action Award, 1990

Protein Structure, Function, and Dynamics: A Symposium in Honor of Frederic M. Richards, Organizing Committee, Chair, 1990-1991.

NIH, Pharmacological Sciences Review Committee, Special Reviewer and Site Visitor, 1991.

NIH, NIGMS Workshop on Training at the Chemistry-Biology Interface, Invited Panelist, 1991.

CarboMed, Inc., Consultant and Member, Scientific Advisory Board, 1992-1999.

*Journal of Biological Chemistry*, Editorial Board, Member, 1992-1997.

Phi Beta Kappa Fall Lecturer, Alpha Chapter of Tennessee, 1992.

NIH, NIGMS, Special Study Section for Training Programs at the Biology-Chemistry Interface, Chair, 1993.

Universidad Interamericana de Puerto Rico, Magisterial Lecturer, 1993.

Whither Enzymology? A Symposium in Honor of Jeremy R. Knowles on the Occasion of His 60<sup>th</sup> Birthday, Organizing Committee, Chair, 1993-1995.

NIH, National Advisory General Medical Sciences Council, Consultant, 1994, 1997.

NIH, Office of the Director, Task Force on Tuition Reimbursement, Member, 1995.

NIH, NIGMS, Special Emphasis Panel on Minority Student Development Grants, Member, 1997.

NIH, NIGMS, Biomedical Research and Training Review Subcommittee 3, Member and Site Visit Chair, 1997.

Mayo Clinic Cancer Center, External Advisory Council, Member, 1997-2006.

NIH, NIGMS, Biomedical Research and Training Review Subcommittee B, Member and Site Visit Chair, 1998.

Phi Beta Kappa, Alpha of Tennessee Chapter, Executive Committee, 1998-2002, Vice President, 1999-2001, President 2001-2002.

Lehigh University, Department of Biological Sciences, Visiting Committee, 1998-2001.

First recipient of the Golden Apple Award, from Skull & Bones, the premedical student society at Vanderbilt, 1998-1999.

Thomas Jefferson Award, 1999, "...for distinguished service to Vanderbilt through extraordinary contributions as a member of the faculty in the councils and government of the University."

Association of American Universities, Arts & Sciences Deans Caucus, Member, 2002-2009.

**Fellowships, Honors, Awards, and Professional Activities (continued):**

Association of Public and Land Grant Universities, Council on Academic Affairs,  
Member, 2009-2014, Executive Committee, 2011-2013.

University of Massachusetts Amherst Foundation, Board of Directors, *ex officio* member,  
2009-2014.

New England Public Radio Foundation (WFRC, WNNZ), Board of Directors, member  
(elected), 2009-2015.

Massachusetts Legislative Commission on Establishing a Public School of Pharmacy,  
member, 2010-2011.

University of Colorado, Boulder, Aggregate-Level External Review Committee,  
member, 2012.

Personalized Learning Consortium, Oversight Board, member, 2013-2015: PLC  
Principles Working Group, convener, 2014.

Bay View Alliance (BVA), Campus representative and member of the BVA Steering  
Committee, 2014-2015; BVA Governance Committee, 2016-present, Chair, 2018-  
present.

Fellowship for Innovative Teaching, Center for Teaching & Faculty Development, 2014-  
2015.

Phi Beta Kappa, Nu Chapter of Massachusetts, Vice President, 2015-2016; President,  
2016-2021; Immediate Past President, 2021-present.

American Association for the Advancement of Science Fellow, elected 2020.

**Professional Societies:**

American Association for the Advancement of Science

American Chemical Society (and Biological Chemistry Division)

American Society for Biochemistry and Molecular Biology

Biophysical Society (and Molecular Biophysics and Membrane Structure and Function  
Subgroups)

Sigma Xi

**History of Extramural Grant Support:**

National Science Foundation HRD-1111219, "NEAGEP Summative Evaluation:

Identifying Effective Strategies for Paving the Pathway to the Professoriate," J.V. Staros, lead Principal Investigator, \$149,929 total costs; funded May 1, 2011 - May 31, 2012, with a no cost extension through May 31, 2013. This is an evaluation grant directly related to the multi-institutional AGEP grant described below.

National Science Foundation HRD-0450339, "No longer 'a dream deferred:' Greater minority STEM Participation through Academic Opportunity and Institutional Change," J.V. Staros, lead Principal Investigator, \$1,749,450 final grant-year total costs; originally funded through February 29, 2012, extended through February 28, 2014. Shortly after moving to UMass Amherst, I became the lead PI on this multi-institutional AGEP (Alliance for Graduate Education and the Professoriate) grant, which is focused on identifying young scholars in STEM fields who are members of underrepresented minorities and on providing support and mentoring to help them enter the professoriate.

Caroll and Milton Petrie Foundation, "Petrie Foundation Scholarship Loan Program," J.V. Staros, Program Director; \$150,000 per year support, for three years, 2007-2010. This grant supported scholarships awarded as forgivable loans to teacher candidates in Stony Brook's five-year bachelor's/master's programs and M.A.T. programs in science, math, and TESOL who commit to teaching in the New York City public school system. This grant was transferred to Dr. Keith Sheppard when I left Stony Brook to become Provost at UMass.

National Institutes of Health R01 GM55056; "Spectroscopic Studies of EGF-Receptor Interactions", J.V. Staros, original Principal Investigator; \$295,583 last grant-year funding; funded through June 30, 2007. This grant was funded for eight grant-years in two competitive cycles. To accommodate my responsibilities as Dean, my collaborator, Dr. Albert H. Beth, became PI, effective July 1, 2003. I was actively involved as co-investigator (and continued to publish the results of this research) until it ended.

National Institutes of Health R01 DK25489; "Protein Chemistry and Enzymology of the EGF Receptor", J.V. Staros, Principal Investigator; \$257,993 last grant-year funding; funded through June 30, 2003. This research grant, which was funded for eighteen grant-years through five competitive funding cycles, was closed out June 30, 2003, to accommodate my responsibilities as Dean.

**History of Extramural Grant Support (continued):**

National Institutes of Health T32 GM08320; "Molecular Biophysics Training Program at Vanderbilt," J. V. Staros, Program Director 1989-2002; \$217,175 2001-2002 grant-year funding; funded through June 30, 2004. This interdisciplinary training grant, which supports graduate education at the interface of the physical and biological sciences, was funded for fifteen years, through three competitive funding cycles. In 2002, following my appointment as Dean, it was transferred to Dr. Walter Chazin, who has continued the program and successfully renewed the grant.

National Institutes of Health T35 HL07717; "Short-Term Research Training Program for Minority Students," J.V. Staros, Program Director (1991-2002); \$76,140 2001-2002 grant-year funding; funded through August 31, 2006. This grant, which was funded for fifteen years, through three competitive funding cycles, supports summer traineeships in the biomedical sciences for underrepresented minority students. After my appointment as Dean in 2002, it was transferred to Dr. James G. Patton, who has continued the program.

National Science Foundation BIR-9419667; "Quantitative Biology Core," J.V. Staros, Principal Investigator; \$167,980 for the period January 15, 1995 - December 31, 1996. This grant funded (with College cost-sharing) the purchase of three major items of shared equipment: a fluorometer, a phosphorimager, and a CCD camera/image analysis system.

Howard Hughes Medical Institute 71195-513803; "Undergraduate Biological Sciences Education Program," J.V. Staros, Program Director; \$1,000,000 for the period October 1, 1994 - August 31, 1998 (extended to August 31, 2000). This grant supported equipping the Stevenson Center Computer Classroom and teaching laboratories for four undergraduate courses in genetics, cell biology, neuroscience, and biomedical engineering. It also supported summer research fellowships for Vanderbilt undergraduates and for minority undergraduates primarily from other institutions and a M.S. in Biological Sciences summer program for secondary school science teachers.

**History of Extramural Grant Support (continued):**

Howard Hughes Medical Institute 71192-518302; "Undergraduate Biological Sciences Education Initiative," J.V. Staros, Program Director; \$1,200,000 for the period July 1, 1992 - August 31, 1997 (extended to August 31, 1999). This grant supported equipping a computer-networked wet teaching laboratory for a new foundation course, Introduction to Biological Sciences. It also supported summer research fellowships for Vanderbilt undergraduates and for minority undergraduate primarily from other institutions and a M.S. in Biological Sciences summer program for secondary school science teachers.

National Institutes of Health P01 CA43720; "Mechanism of Action of Epidermal Growth Factor", G. Carpenter, Program Director. Project 1: "Spectroscopic Studies of EGF-Receptor Interactions", J.V. Staros, Principal Investigator. This program project grant, which was funded for ten grant-years (two funding cycles), January 1, 1987 - December 31, 1996, was replaced on by a new grant, R01 GM55056 (see above). Funding for the most recent grant-year (for Project 1) was \$189,232.

National Institutes of Health R13 DK43115; "Workshop on Membrane Protein Structure", J.V. Staros, Principal Investigator; \$19,992 for the period July 1, 1990 - June 30, 1991. This grant supported the international NIDDK Workshop on Membrane Protein Structure, which I chaired, held at Vanderbilt University October 13-18, 1990.

National Institutes of Health R01 DK31880; "New Chemical Probes of Membrane Protein Structure", J.V. Staros, Principal Investigator. This research grant ran for six grant-years, August 1, 1983 - March 31, 1990. Funding for the most recent grant year was \$149,765.

American Chemical Society, Petroleum Research Fund #11139-G1, "Photoaffinity Probes of Noncatalytic Peptide Receptors in *Escherichia coli* Membranes", J.V. Staros, Principal Investigator. This starter grant was funded at the level of \$10,000 for the period September 1, 1979 - August 31, 1981.

**Publications:**

Lemal, D.M., J.V. Staros, and V. Austel (1969), "Valence Isomers of  $(CCF_3)_6$ ", *J. Am. Chem. Soc.* **91**, 3373-3374.

Staros, J.V. and F.M. Richards (1974), "Photochemical Labeling of the Surface Proteins of Human Erythrocytes", *Biochemistry* **13**, 2720-2726.

Staros, J.V., B.E. Haley, and F.M. Richards (1974), "Human Erythrocytes and Resealed Ghosts: A Comparison of Membrane Topology", *J. Biol. Chem.* **249**, 5004-5007.

Richards, F.M., J.V. Staros, K. Wang, and H. Heitzmann (1975), "Chemical Probes for the Geometry of Membrane Proteins", in *Molecular Aspects of Membrane Phenomena*, H.R. Kaback, H. Neurath, G.K. Radda, R. Schwyzer, and W.R. Wiley, Eds. New York: Springer-Verlag, pp. 19-38.

Staros, J.V., F.M. Richards, and B.E. Haley (1975), "Photochemical Labeling of the Cytoplasmic Surface of the Membranes of Intact Human Erythrocytes", *J. Biol. Chem.* **250**, 8174-8178.

Staros, J.V., H. Bayley, D.N. Standring, and J.R. Knowles (1978), "Reduction of Aryl Azides with Thiols: Implications for the Use of Photoaffinity Reagents", *Biochem. Biophys. Res. Commun.* **80**, 568-572.

Staros, J.V. and J.R. Knowles (1978), "Photoaffinity Inhibition of Dipeptide Transport in *Escherichia coli*", *Biochemistry* **17**, 3321-3325.

Staros, J.V. (1980), "Aryl Azide Photolabels in Biochemistry", *Trends Biochem. Sci.* **5**, 320-322.

Staros, J.V., D.G. Morgan, and D.R. Appling (1981), "A Membrane-impermeant, Cleavable Cross-linker: Human Erythrocyte Band 3 Subunits Cross-linked at the Extracytoplasmic Membrane Face", *J. Biol. Chem.* **256**, 5890-5893.

Staros, J.V. (1982), "Membrane-impermeant Cleavable Cross-linkers: New Probes of Nearest Neighbor Relationships at One Face of a Membrane", *Biophys. J.* **37**, 21-22.



**Publications (continued):**

Buhrow, S.A., S. Cohen, and J.V. Staros (1982), "[Affinity Labeling of the Protein Kinase Associated with the Epidermal Growth Factor Receptor in Membrane Vesicles from A431 Cells](#)", *J. Biol. Chem.* **257**, 4019-4022.

Staros, J.V. (1982), "[N-Hydroxysulfosuccinimide Active Esters: Bis\(N-hydroxy-sulfosuccinimide\) Esters of Two Dicarboxylic Acids Are Hydrophilic, Membrane-impermeant, Protein Cross-linkers](#)", *Biochemistry* **21**, 3950-3955.

Giedroc, D.P., D. Puett, N. Ling, and J.V. Staros (1983), "Demonstration by Covalent Cross-linking of a Specific Interaction between  $\beta$ -Endorphin and Calmodulin", *J. Biol. Chem.* **258**, 16-19.

Buhrow, S.A., S. Cohen, D.L. Garbers, and J.V. Staros (1983), "[Characterization of the Interaction of 5'-p-Fluorosulfonylbenzoyl Adenosine with the Epidermal Growth Factor Receptor/Protein Kinase in A431 Cell Membranes](#)", *J. Biol. Chem.* **258**, 7824-7827.

Staros, J.V., and B.P. Kakkad (1983), "Cross-linking and Chymotryptic Digestion of the Extracytoplasmic Domain of the Anion Exchange Channel in Intact Human Erythrocytes", *J. Membr. Biol.* **74**, 247-254.

Limbird, L.E., S. A. Buhrow, J.L. Speck, and J.V. Staros (1983), "5'-p-Fluorosulfonylbenzoyl Guanosine as a Probe for the GTP-binding Protein in  $\alpha_2$ -Adrenergic Receptor-Adenylate Cyclase Systems", *J. Biol. Chem.* **258**, 10289-10293.

Bayley, H., and J.V. Staros (1984), "Photoaffinity Labeling and Related Techniques", in *Azides and Nitrenes: Reactivity and Utility*, E.F.V. Scriven, Ed., New York: Academic Press, pp. 433-490.

Kotite, N.J., J.V. Staros, and L.W. Cunningham (1984), "Interaction of Specific Platelet Membrane Proteins with Collagen: Evidence from Chemical Cross-linking", *Biochemistry* **23**, 3099-3104.

Buhrow, S.A., and J.V. Staros (1985), "5'-p-Fluorosulfonylbenzoyl Adenosine as a Probe of ATP-Binding Sites in Hormone Receptor-Associated Kinases", *Methods Enzymol.* **109**, 816-827.

**Publications (continued):**

- Giedroc, D.P., T.M. Keravis, J.V. Staros, N. Ling, J.N. Wells, and D. Puett (1985), "Functional Properties of Covalent  $\beta$ -Endorphin Peptide: Calmodulin Complexes. Chlorpromazine Binding and Phosphodiesterase Activation", *Biochemistry* **24**, 1203-1211.
- Russo, M.W., T. J. Lukas, S. Cohen, and J.V. Staros (1985), "[Identification of Residues in the Nucleotide Binding Site of the Epidermal Growth Factor Receptor/Kinase](#)", *J. Biol. Chem.* **260**, 5205-5208.
- Staros, J.V., S. Cohen, and M.W. Russo (1985), "Epidermal Growth Factor Receptor: Characterization of Its Protein Kinase Activity", in *Molecular Mechanisms of Transmembrane Signalling*, P. Cohen and M.D. Houslay, Eds., Amsterdam: Elsevier, pp. 253-277.
- Guyer, C.A., D.G. Morgan, N. Osheroff, and J.V. Staros (1985), "Purification and Characterization of a Periplasmic Oligopeptide Binding Protein from Escherichia coli", *J. Biol. Chem.* **260**, 10812-10818.
- Beth, A.H., T.E. Conturo, S.D. Venkataramu, and J.V. Staros (1986), "Dynamics and Interactions of the Anion Channel in Intact Human Erythrocytes. An Electron Paramagnetic Resonance Spectroscopic Study Employing a New Membrane-Impermeant Bifunctional Spin Label", *Biochemistry* **25**, 3824-3832.
- Staros, J.V., R.W. Wright, and D.M. Swingle (1986) "Enhancement by N-Hydroxysulfosuccinimide of Water-Soluble Carbodiimide-Mediated Coupling Reactions", *Anal. Biochem.* **156**, 220-222.
- Staros, J.V., D.M. Swingle, R.W. Wright, and P.S.R. Anjaneyulu (1986), "Enhancement by N-Hydroxysulfosuccinimide of Water-Soluble Carbodiimide-Mediated Couplings of Peptides to Protein Carriers", in *Protides of the Biological Fluids: Proceedings of the 34th Colloquium*, H. Peeters, Ed., Oxford: Pergamon, pp. 39-42.
- Guyer, C.A., D.G. Morgan, and J.V. Staros (1986), "Binding Specificity of the Periplasmic Oligopeptide Binding Protein from Escherichia coli", *J. Bacteriol.* **168**, 775-779.

**Publications (continued):**

- Beth, A.H., T.E. Conturo, N.A. Abumrad, and J.V. Staros (1987), "Studies of the Dynamics and Interactions of the Anion Channel in Intact Human Erythrocytes by Saturation Transfer EPR Spectroscopy", in *Membrane Proteins: Proceedings of the Membrane Protein Symposium*, S.C. Goheen, Ed., Richmond, CA: Bio-Rad Laboratories, pp. 371-382.
- Staros, J.V., W.T. Lee, and D.H. Conrad (1987), "Membrane-Impermeant Cross-Linking Reagents: Application to the Study of the Cell Surface Receptor for IgE", *Methods Enzymol.* **150**, 503-512.
- Anjaneyulu, P.S.R., and J.V. Staros (1987), "Reactions of N-Hydroxysulfosuccinimide Active Esters", *Internatl. J. Peptide Protein Res.* **30**, 117-124.
- Staros, J.V., (1988), "High Yield Membrane-Impermeant Cross-Linking Reagents as Probes of Tertiary and Quaternary Structure of Membrane Proteins", *J. Protein Chem.* **7**, 290-291.
- Anjaneyulu, P.S.R., A. H. Beth, B. J. Sweetman, L.A. Faulkner, and J.V. Staros (1988), "[Bis\(sulfo-N-succinimidyl\) \[<sup>15</sup>N,<sup>2</sup>H<sub>16</sub>\]Doxyl-2-spiro-4'-pimelate, A Stable Isotope-Substituted, Membrane-Impermeant Bifunctional Spin Label for Studies of the Dynamics of Membrane Proteins: Application to the Anion-Exchange Channel in Intact Human Erythrocytes](#)", *Biochemistry* **27**, 6844-6851.
- Staros, J.V. (1988), "[Membrane-Impermeant Cross-Linking Reagents: Probes of the Structure and Dynamics of Membrane Proteins](#)", *Accounts Chem. Res.*, **21**, 435-441.
- Staros, J.V., and P.S.R. Anjaneyulu (1989), "Membrane-impermeant Cross-linking Reagents", *Methods Enzymol.*, **172**, 609-628.
- Wang, K., B.O. Fanger, C.A. Guyer, and J.V. Staros (1989), "Electrophoretic Transfer of High Molecular Weight Proteins for Immunostaining", *Methods Enzymol.*, **172**, 687-696.
- Staros, J.V., B. O. Fanger, L. A. Faulkner, P. P. Palaszewski, and M. W. Russo, (1989), "Mechanism of Transmembrane Signaling by the Epidermal Growth Factor Receptor/Kinase", in *Receptor Phosphorylation*, V.K. Moudgil, Ed., Boca Raton, FL: CRC Press, pp. 227-242.

**Publications (continued):**

- Fanger, B.O., J.E. Stephens, and J. V. Staros (1989), "[High Yield Trapping of EGF-Induced Receptor Dimers by Chemical Cross-Linking](#)", *FASEB J.* **3**, 71-75.
- Anjaneyulu, P.S.R., A. H. Beth, C. E. Cobb, S. F. Juliao, B. J. Sweetman, and J. V. Staros (1989), "Bis(Sulfo-N-Succinimidyl) Doxyl-2-Spiro-5'-Azelaate: Synthesis, Characterization, and Reaction with the Anion Exchange Channel in Intact Human Erythrocytes", *Biochemistry* **28**, 6583-6590.
- Cobb, C. E., S. F. Juliao, K. Balasubramanian, J. V. Staros, and A. H. Beth (1990) "Effects of Diethyl Ether on Membrane Lipid Ordering and on Rotational Dynamics of the Anion Exchange Protein in Intact Human Erythrocytes: Correlations with Anion Exchange Function," *Biochemistry* **29**, 10799-10806.
- Faulkner-O'Brien, L. A., A. H. Beth, I. A. Papayannopoulos, P. S. R Anjaneyulu, and J. V. Staros (1991), "Preparation and Characterization of Spin-Labeled Derivatives of Epidermal Growth Factor (EGF) for Investigations of the Interactions of EGF with Its Receptor by Electron Paramagnetic Resonance Spectroscopy," *Biochemistry* **30**, 8976-8985.
- Staros, J.V., N.J. Kotite, and L.W. Cunningham (1992), "Membrane-impermeant Cross-linking Reagents for Structural and Functional Analyses of Platelet Membrane Glycoproteins", *Methods Enzymol.* **215**, 403-412.
- Woltjer, R.L., L. Weclas-Henderson, I.A. Papayannopoulos, and J.V. Staros (1992), "[High-Yield Covalent Attachment of Epidermal Growth Factor to Its Receptor by Kinetically Controlled, Step-Wise Affinity Cross-Linking](#)", *Biochemistry* **31**, 7341-7346.
- Woltjer, R.L., T.J. Lukas, and J.V. Staros (1992), "Direct Identification of Residues of the Epidermal Growth Factor Receptor in Close Proximity to the Amino Terminus of Bound Epidermal Growth Factor", *Proc. Natl. Acad. Sci. USA* **89**, 7801-7805.
- Rousseau, D.L., Jr., C.A. Guyer, A.H. Beth, I.A. Papayannopoulos, B. Wang, R. Wu, B. Mroczkowski, and J.V. Staros (1993), "Preparation and Characterization of a Bifunctionally Spin-Labeled Mutant of Murine Epidermal Growth Factor for Saturation-Transfer Electron Paramagnetic Resonance Studies of the Growth Factor/Receptor Complex", *Biochemistry* **32**, 7893-7903.

**Publications (continued):**

Guyer, C.A., Woltjer, R.L., Coker, K.J., and J.V. Staros (1994), "Peptide Substrate Recognition by the Epidermal Growth Factor Receptor", *Arch. Biochem. Biophys.* **312**, 573-578.

Coker, K.J., J.V. Staros, and C.A. Guyer (1994), "A Kinase-Negative Epidermal Growth Factor Receptor that Retains the Capacity to Stimulate DNA Synthesis", *Proc. Natl. Acad. Sci. USA* **91**, 6967-6971.

Staros, J.V., and C.A. Guyer (1995), "Dissection of Functional Sites on the Receptor for Epidermal Growth Factor", *Bioorg. Chem.* **23**, 369-379.

Rousseau, D.L., Jr., J.V. Staros, and J.M. Beechem, (1995) "The Interaction of Epidermal Growth Factor with Its Receptor in A431 Cell Membranes: A Stopped-Flow Fluorescence Anisotropy Study", *Biochemistry* **34**, 14508-14518.

Tong, K., C.A. Guyer, and J. V. Staros (1996), "Steric Constraints in the Recognition of Peptide Substrates for the Epidermal Growth Factor Receptor" *Internatl. J. Peptide Protein Res.* **47**, 219-226.

Stein, R.A., and J.V. Staros (1996), "[Thermal Inactivation of the Protein Tyrosine Kinase of the Epidermal Growth Factor Receptor](#)", *Biochemistry* **35**, 2878-2884.

Scoggins, R.M., A.E. Summerfield, R.A. Stein, C.A. Guyer, and J.V. Staros (1996), "[5'-p-Fluorosulfonylbenzoyl-2' \(or 3'\)-Methylanthraniloyl Adenosine, Fluorescent Affinity Labels for Adenine Nucleotide Binding Sites: Interaction with the Kinase Active Site of the Receptor for Epidermal Growth Factor](#)", *Biochemistry* **35**, 9197-9203.

Summerfield, A.E., A.K. Hudnall, T.J. Lukas, C.A. Guyer, and J.V. Staros (1996), "[Identification of Residues of the Epidermal Growth Factor Receptor Proximal to Residue 45 of Bound Epidermal Growth Factor](#)", *J. Biol. Chem.* **271**, 19656-19659.

Staros, J.V. (1997), "Ethics in Science", in the *Macmillan Encyclopedia of Chemistry*, J.J. Lagowski, M. Bishop, J. Fisher, N. Hackerman, D. Lavalley, and P. Metz, Eds., Vol. 2, Macmillan Reference USA, Simon & Schuster-Macmillan, New York, pp 599-603.

**Publications (continued):**

Woltjer, R.L., and J.V. Staros (1997), "[Effects of Sulfhydryl Modification Reagents on the Kinase Activity of the Epidermal Growth Factor Receptor](#)", *Biochemistry* **36**, 9911-9916.

Staros, J.V. (1998), "A Multi-Layered Approach to Organizing a Program for Teaching the Responsible Conduct of Research", *The Responsible Conduct of Research: A Commitment for All Scientists, Public Responsibility in Medicine and Research*, Boston, pp. 109-112.

Staros, J.V. (1999), "Responsibilities of and to Principal Investigators in an Era of Oversight" *Proceedings of the Conference on Management of Biomedical Research Laboratories*, T.P. Davis, Ed., University of Arizona, pp. 19-27.

Stein, R.A., and J.V. Staros (2000), "[Evolutionary Analysis of the ErbB Receptor and Ligand Families](#)", *J. Mol. Evol.* **50**, 397-412.

Stein, R.A., J.C. Wilkinson, C.A. Guyer, and J.V. Staros (2001), "[An Analytical Approach to the Measurement of Equilibrium Binding Constants: Application to EGF Binding to EGF Receptors in Intact Cells Measured by Flow Cytometry](#)", *Biochemistry* **40**, 6142-6154.

Ewald, J.A., K.J. Coker, J.O. Price, J.V. Staros, J.V. and C.A. Guyer (2001), "[Stimulation of Mitogenic Pathways through Kinase-Impaired Mutants of the Epidermal Growth Factor Receptor](#)", *Exp. Cell Res.* **268**, 262-273.

Wilkinson, J.C., R.A. Stein, C.A. Guyer, J.M. Beechem, and J.V. Staros (2001), "[Real-Time Kinetics of Ligand/Cell Surface Receptor Interactions in Living Cells: Binding of Epidermal Growth Factor to the Epidermal Growth Factor Receptor](#)", *Biochemistry* **40**, 10230-10242.

Wilkinson, J.C. and J.V. Staros (2002), "[Effect of ErbB2 Coexpression on the Kinetic Interactions of Epidermal Growth Factor with Its Receptor in Intact Cells](#)", *Biochemistry* **41**, 8-14.

Stein, R.A., E.J. Hustedt, J.V. Staros, and A.H. Beth (2002), "[Rotational Dynamics of the Epidermal Growth Factor Receptor](#)", *Biochemistry* **41**, 1957-1964.

**Publications (continued):**

Wilkinson, J.C., J.M. Beechem, and J.V. Staros (2002), "[A Stopped-Flow Fluorescence Anisotropy Method for Measuring Hormone Binding and Dissociation Kinetics with Cell-Surface Receptors in Living Cells](#)", *J. Recept. Signal Transduction* **22**, 357-371.

Ewald, J.A., J.C. Wilkinson, C.A. Guyer, and J.V. Staros (2003), "[Ligand- and Kinase-Activity-Independent Cell Survival Mediated by the Epidermal Growth Factor Receptor Expressed in 32D Cells](#)", *Exp. Cell Res.* **282**, 121-131.

Zhen, Y., R.M. Caprioli, and J.V. Staros (2003), "[Characterization of Glycosylation Sites of the Epidermal Growth Factor Receptor](#)", *Biochemistry* **42**, 5478-5492.

Whitson, K.B., J.M. Beechem, A.H. Beth, and J.V. Staros (2004), "[Preparation and Characterization of Alexa Fluor 594-labeled Epidermal Growth Factor for Fluorescence Resonance Energy Transfer Studies: Application to the Epidermal Growth Factor Receptor](#)", *Anal. Biochem.*, **324**, 227-236.

Whitson, K.B., S.R. Whitson, M.L. Red-Brewer, A.J. McCoy, A.A. Vitali, F. Walker, T.G. Johns, A.H. Beth, and J.V. Staros (2005), "[Functional Effects of Glycosylation at Asn-579 of the Epidermal Growth Factor Receptor](#)", *Biochemistry* **44**, 14920-14931.

Whitson, K.B., Beth, A.H., and J.V. Staros (2006), "[Measurement of the Dynamic Rates of Association and Dissociation of EGF with Its Cell-surface Receptor in Intact Cells](#)", *Spectroscopy* **21** (2), 34 ff.

Harris, A.C., L.Y. Hyman, and J.V. Staros (2006), "What is Reproducibility?", *Linguistic Typology* **10**, 69-73.

Stein R.A., and J.V. Staros (2006), "[Insights into the evolution of the ErbB receptor family and their ligands from sequence analysis](#)", *BMC Evolutionary Biology* **6**, 79.

Staros, J.V. (2009) "[Retrospective: Frederic M. Richards \(1925-2009\)](#)", *ASBMB Today*, April 2009, 16-18.

Sawyer, T.K, Aral, E., Staros, J.V., Bobst, C.E., Garman, and Garman, S.C. (2024) Human Saposin B Ligand Binding and Presentation to  $\alpha$ -Galactosidase A", bioRxiv, doi: <https://doi.org/10.1101/2024.04.04.584535>

**Classroom Teaching, Vanderbilt:**

Biological Sciences 110a: Introduction to Biological Sciences. This is the entry-level course in the biological sciences for students who major in Molecular Biology, Biology, or Neuroscience in the College of Arts and Science, or in Biomedical Engineering in the School of Engineering. It also serves as the recommended introductory course in the biological sciences for all premedical students at Vanderbilt. The teaching laboratory for this course, which combines the features of a modern wet teaching laboratory and a state-of-the-art computer classroom was designed as part of the proposal to the 1992 competition of the HHMI Undergraduate Biological Sciences Education Program and was equipped in large part with funds from the resulting grant. Introduced in the Spring 1994 semester, the course underwent its first revision in 1997. For three academic years, 1996-1997 through 1998-1999, I co-taught with Professor William Eickmeier one of the Biological Sciences 110a lecture sections (enrollment *ca.* 200).

Biological Sciences 274/Molecular Biology 277: Protein Design. This course, introduced in the Fall 1996 semester for advanced undergraduates and graduate students, was developed by Professor Andrzej Krezel and myself. Taught entirely in the new Stevenson Center Computer Classroom, a facility equipped with funds from our 1994 grant from the Howard Hughes Medical Institute Undergraduate Biological Sciences Education Program, the course covered three-dimensional structure of proteins and the principles and practice of protein engineering. In the Fall 2001 semester, it had an enrollment of twenty.

Molecular Biology 275b: Undergraduate Seminar: Receptors. This was a seminar course for advanced majors (primarily seniors) in Molecular Biology. Restricted to an enrollment of twelve, this course provided students an opportunity to work closely with a faculty member in making the transition from textbooks to the primary literature. Topics varied In Spring 1996, I gave a new seminar on receptors and intracellular signaling.

Molecular Biology 280: Fundamentals of Biochemistry. This was a four semester-hour upper level undergraduate course in general biochemistry that was also open to graduate students who had not had an entry-level course in this area, with a total enrollment of approximately 100 students. The course consisted of three hours of lecture and a one hour discussion session (with the class split into three sections) each week. I completely rewrote this course and taught it in the Fall 1992, Fall 1993, and Fall 1994 semesters, after which it was replaced by a new, two-course sequence.



**Classroom Teaching, Vanderbilt (continued):**

Molecular Biology 344: Focal Topics in Molecular Biology. This was a three semester-hour course consisting of four modules, each taught by a different member of the Molecular Biology faculty. It served as a core course for the Molecular Biology graduate program. I taught a new module on tyrosine kinase receptors and intracellular signaling in the Spring 1996 semester.

Biological Sciences 349/Molecular Biology 349/Biochemistry 349: Graduate Seminar in Molecular Biophysics. This is a course that I organized (1989-1995; 2001-2002) as part of the core curriculum of our Molecular Biophysics Training Program, consisting of lectures, discussions, and student presentations on a selected topic in Molecular Biophysics.

Interdisciplinary Graduate Program 300a: Bioregulation. This is the core introductory course for all students in the Interdisciplinary Graduate Program at Vanderbilt. In the Fall 1995 and Fall 1996 semesters, I taught the module on protein structure and enzymology (14 hours in Fall 1996).

Biochemistry 321/5010: Biochemistry. This was a lecture course taken by entering medical students and by entering graduate students in the biomedical sciences. (Total enrollment *ca.* 100.) Its format included six hours of lecture each week, plus optional help sessions. From 1983 through 1991, I gave approximately one quarter of the lectures which made up this course. During the latter part of that period, my lectures covered amino acid, peptide and protein chemistry; primary, secondary, tertiary, and quaternary structure of proteins; allostery; and enzyme kinetics and mechanisms.

Biochemistry 331/5241: Membrane Biochemistry. This course formed part of the core curriculum for the Ph.D. in Biochemistry until the 1987-1988 academic year, when, due to a major course reorganization, this course was discontinued with much of the subject matter being added to the basic lecture course and to two new graduate courses. It was a popular elective for graduate students in other Ph.D. programs in the biomedical sciences, and was a medical elective, usually taken by first and second year medical students. (Total enrollment averaged *ca.* 15.) I organized this course from the 1981-1982 academic year until it was discontinued. In its later years, I gave lectures on the development of current concepts of membrane structure, membrane fluidity, lipid and protein mobility, asymmetrical distribution of lipids, and the structure and biosynthesis of membrane proteins, all of which constituted approximately 40% of the course.

**Classroom Teaching, Vanderbilt (continued):**

Biochemistry 334/5310: Chemical Mechanisms of Enzyme Catalysis. This course used to form part of the core curriculum for the Ph.D. in Biochemistry and was an elective for medical students and other graduate students. (Total enrollment *ca.* 10.) I played a minor role in this course through 1991-1992, giving lectures on protein cross-linking and photoaffinity labeling.

Other Courses: In addition to the above assignments, I guest lectured in other courses in the Departments of Biochemistry, Chemistry, Pharmacology, and Molecular Physiology and Biophysics at Vanderbilt, and the in the Graduate Program in Biochemistry and Structural Biology at Stony Brook. I also organized and lectured in workshops (1990, 1991) or lecture series (1992-1995) on the Responsible Conduct of Research at Vanderbilt, until organization of the series was assumed by the Interdisciplinary Graduate Program in 1995-1996, and I lectured annually in the corresponding program at Stony Brook.

**Classroom Teaching, UMass:**

Biochem 423/523: General Biochemistry I. This is the first semester of our junior-level core course for majors (available for graduate credit as 523). As part of the leave that I was granted on stepping down as Provost, I began redesigning the course as a [Team-Based Learning \(TBL\)](#) course, which I have delivered each semester beginning with fall 2015 in one of the TBL classrooms that I had a role in building during my term as Provost, two sections in the fall, one in the spring, until my retirement in 2019. Enrollments ranged from 30 - 50 (spring, one section) to 174-180 (fall, two sections total).

**Undergraduate Honors Thesis Committees, UMass:**

Alesia Vialichka, 2016	Benjamin Laliberte, 2018-2019
Chirag Mehta, 2016-2017	Taylor Guertin, 2018-2019
Sachita Ganesa, 2016-2017	Shakirah Ssebyala, 2018-2019
Margareta Ianosi-Irimie, 2017-2018	Andrew Burden, 2018-2019
T. Riley Potter, 2017-2018	Gabrielle Martin, 2019-2020
Stephanie Choi, 2017-2018	
Tetsu (Kevin) Zhao, 2017-2018	
Nick Fragola, 2017-2018	
Priyank Patel, 2017-2018	
John Weeks, 2018	

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**Research Training:**

Undergraduates who carried out major projects in my laboratory (1991-2002):

Anne Eugenia Kornegay (Hudnall), B.A. 1993, Co-winner of the 1993 Molecular Biology Prize for excellence in undergraduate research. Current position: Realtor (and former high school science teacher), Dallas, Texas.

Ashley F. Stokes, B.S. 1994 *magna cum laude*, with Honors in Molecular Biology, honors project in Molecular Biology, Spring 1993-Spring 1994. Last known position: Fisher Scientific, Research Triangle Park, NC.

Robert M. Scoggins, B.S. 1995 *cum laude*, with Honors in Molecular Biology, honors project Spring 1994 - Spring 1995. M.D., 2002, Ph.D., 2001, University of Virginia. Current position: Medical Director of Critical Care, Respiratory Therapy and Pulmonary Rehab at Kootenai Health, Coeur d'Alene, ID, and Chief Medical Officer, Cytovale, Inc.

Michael K. Han, B.A. 1995, project carried out Summer 1994 - Spring 1995. Last known position: Research Assistant, Vanderbilt University School of Medicine.

Virginia E. Anderson, B.S. 1995, project carried out Spring 1995. Ph.D. in Biochemistry, Vanderbilt University, 1999. Last known position: Postdoctoral Research Associate, Vanderbilt University.

Selina Shah, B.S. 1996 *magna cum laude*, project carried out Summer - Fall 1995. M.D., Vanderbilt University 2000; Last known position: Resident in Internal Medicine, Vanderbilt University Medical Center.

Michael E. Nemergut, B.S. 1996 *summa cum laude*, with Honors in Molecular Biology; Co-winner of the 1996 Molecular Biology Prize for excellence in undergraduate research, honors project Spring 1995 - Summer 1996. M.D., 2003, Ph.D., 2002, University of Virginia. Current position: Anesthesiologist, Pediatrician and Critical Care physician, Mayo Clinic.

Trever G. Bivona, B.S. 1998, with Honors in Molecular Biology, honors project Spring 1996 - Spring 1998. M.D., Ph.D. 2005, New York University. Current position: Professor, Hematology/Oncology, UCSF, and Investigator, Chan Zuckerberg Biohub.

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Undergraduates who carried out major projects in my laboratory (continued):

Brian A. Fissel, B.S. 1998, project carried out Fall 1996 - Spring 1998. Current position: Orthopedic Surgeon, Signature Medical Group, St. Louis, MO.

Aaron P. Bayne, B.S. 1998, with Honors in Molecular Biology, honors project Fall 1997 - Spring 1998. M.D., Vanderbilt University. Current position: Urologist, Portland Oregon.

Johanna C. Chang, B.S. 2000, *summa cum laude*, with High Honors in Molecular Biology; honors project Summer 1998 - Spring 2000. M.D., Stanford University. Current position: Pediatric Rheumatologist, San Diego, CA.

Bhavesh J. Patel, B.S. 2000 *cum laude*, with Honors in Molecular Biology; honors project Summer 1999 - Spring 2000. Last known position: part-time post-baccalaureate student, taking business courses.

Alexandra Edwards (Oster), B.S. 2000 *summa cum laude*, Summer 1999 - Spring 2000. M.D., University of Pennsylvania, 2004. Current position: Medical Epidemiologist at the Centers for Disease Control and Prevention, Atlanta, Georgia.

Jessica Hutti, B.S. 2001 *summa cum laude*, Honors in Molecular Biology; honors project Spring 2000 - Spring 2001. Ph.D., Harvard. Current position: Senior Scientist, Abbott Laboratories.

Graduate students trained in my laboratory:

Susan A. Buhrow, Ph.D. 1983, Dissertation: *Identification and Structural Characterization of the Protein Kinase Associated with the Receptor for Epidermal Growth Factor*. Current position: Video Director and member, Board of Directors, First Presbyterian Church of Lexington, Kentucky.

David G. Morgan, Ph.D. 1985, Dissertation: *Functional and Structural Studies of the Oligopeptide Transport System in Escherichia coli*. Current Position: Director, Electron Microscopy Center, Indiana University, Bloomington.

Cheryl A. Guyer, Ph.D. 1985, Dissertation: *The Oligopeptide Permease of Escherichia coli: Purification and Characterization of a Periplasmic Binding Protein*. Current Position: homemaker and community volunteer in Nashville, TN.

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Graduate students trained in my laboratory (continued):

Mark W. Russo, Ph.D. 1986, M.D. 1987, Dissertation: *Structural Studies of the Epidermal Growth Factor Receptor*. Current Position: Director, Pediatric Oncology, U.S. Therapeutics, Novartis.

Lee Anne Faulkner (O'Brien), M.D. 1991, Ph.D. 1991. Dissertation: *Preparation and Characterization of Spin-Labeled Epidermal Growth Factor for Investigation of EGF-Receptor Interactions*. Current Position: Clinical Instructor in Pediatrics, Vanderbilt University Medical Center, and private practice.

Randall L. Woltjer, Ph.D. 1992, M.D. 1994 Dissertation: *Structural Studies on the Mechanism of Activation of the Epidermal Growth Factor Receptor*. Current position: Professor of Pathology; Director, Neuropathology Core of the Layton Aging & Alzheimer's Disease Center, Oregon Health Sciences University, Portland, Oregon.

Dennis L. Rousseau, Jr., Ph.D. 1993, M.D. 1995. Dissertation: *Examination of the Rotational Dynamics and Ligand Binding Kinetics of the Epidermal Growth Factor Receptor by Electron Paramagnetic Resonance Spectroscopy and Fluorescence Spectroscopy*. Current position: Physician Partner, Surgical Oncology Associates of South Texas, San Antonio, Texas.

Kirk Tong, M.S. 1993. Thesis: *Steric Limitations in High-Affinity Synthetic Peptide Substrates for the EGF Receptor*. Current position: Partner, Jun He Law Offices, Shenzhen, China.

Kenneth J. Coker, Ph.D. 1994. Dissertation: *Functional Dissection of the Epidermal Growth Factor Receptor Tyrosine Kinase*. Current position: Oncology Medical Science Liaison, Merck, Nolensville, Tennessee.

Anne Kornegay Hudnall, M.S. 1995. Thesis: *Development of Methods for the Identification of Epidermal Growth Factor Receptor Residues Cross-Linked to Epidermal Growth Factor*. Current position: Realtor (and former high school science teacher), Dallas, Texas.

Jennifer Dye, M.S. 1998 (in the summer program for secondary school science teachers), Thesis: *Interaction of N1pE/H22Y/T30K Murine Epidermal Growth Factor with the Epidermal Growth Factor Receptor*. Current position: High school science teacher, Gallatin, Tennessee (won the 2001 Presidential Award of Excellence in Math and Science Teaching).

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Graduate students trained in my laboratory (continued):

Jonathan Ewald, Ph.D. 2001, Dissertation: *Roles of the Kinase Domain in Epidermal Growth Factor Receptor Signaling: Comparison of Wild Type and Kinase-Impaired Mutant Receptor Function*. Current position: Director of Research Compliance, Beth Israel Lahey Health, Boston, MA.

John Wilkinson, Ph.D. 2001, Dissertation: *Real-Time Kinetics of Ligand/Cell Surface Receptor Interactions in Living Cells: Binding of Epidermal Growth Factor to the EGF Receptor in the Absence or Presence of ErbB2*. Current position: Associate Professor, Department of Chemistry & Biochemistry, North Dakota State University, Fargo.

Kristin B. Whitson, Ph.D. 2003, Dissertation: *Epidermal Growth Factor / Epidermal Growth Factor Receptor Interactions in Intact Cells Investigated by Fluorescence Spectroscopy*. Current position: Independent Author.

Postdoctoral fellows trained in my laboratory:

Susan A. Buhrow, Ph.D. Vanderbilt, January 1, 1983-December 31, 1983. Current position: Video Director and member, Board of Directors, First Presbyterian Church of Lexington, Kentucky.

P.S.R. Anjaneyulu, Ph.D. Indian Institute of Technology, Bombay, March 1, 1984-October 31, 1987. Last known position: Senior Research Scientist, Thermogen, Inc., Chicago.

Cheryl A. Guyer, Ph.D. Vanderbilt, October 1, 1985-September 30, 1986. Current position: Homemaker and community volunteer, Nashville, TN.

Bradford O. Fanger, Ph.D. Vermont, June 1, 1986-October 31, 1987. Current Position: Bioapplications Scientist, SRU Biosystems, Inc., Woburn, MA.

Jaime E. Nieves, Ph.D. Miami (Florida), October 20, 1987-July 31, 1991. Current Position: Senior Director of Research and Development at Siemens Healthineers, Newark, Delaware.

Ludmila Weclas-Henderson, Ph.D. Technical University of Wroclaw (Poland), April 1, 1989-December 31, 1991. Current Position: unknown.

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Postdoctoral fellows trained in my laboratory (continued):

- Randall L. Woltjer, Ph.D. Vanderbilt, February 1, 1992-August 31, 1992 (transitional).  
Current position: Professor of Pathology, Oregon Health Sciences University;  
Director, Neuropathology Core of the Layton Aging & Alzheimer's Disease Center.
- Richard A. Stein, Ph.D. University of Minnesota, December 29, 1992-March 31, 1999.  
Currently between positions. Current position: Research Instructor, Vanderbilt  
University School of Medicine.
- Ann E. Summerfield, Ph.D., University of Virginia, J.D., Georgetown, October 1, 1993-  
February 28, 1997. Current position: Global Intellectual Property Counsel at Mylan,  
Inc., Morgantown, WV.
- Kenneth J. Coker, Ph.D. Vanderbilt University, March 1, 1994-June 30, 1994 (transitional).  
Current position: Oncology Medical Liaison Consultant, Eli Lilly, Nashville,  
Tennessee.
- Brenda Green-Jarvis, Ph.D. Meharry Medical College, October 1, 1999 - December 31, 2001.  
Last known position: Research Associate in Radiology, Vanderbilt University  
Medical Center.
- Yuejun (Eugene) Zhen, Ph.D. Michigan State University, October 11, 1999 - June 30, 2001.  
Current position: Scientist, Eli Lilly, Indianapolis, Indiana.
- Jonathan A. Ewald, Ph.D. Vanderbilt University, July 1, 2001 - September 30, 2001  
(transitional). Current position: Director of Research Compliance, Beth Israel Lahey  
Health, Boston, MA.
- John C. Wilkinson, Ph.D. Vanderbilt University, October 1 - November 30, 2001  
(transitional). Current position: Associate Professor, Department of Chemistry &  
Biochemistry, North Dakota State University, Fargo.

In addition to the above long-term research projects, I have supervised short term research training for numerous undergraduate, graduate, and medical students.

**Invited Extramural Lectures, Research Seminars, and Presentations:**

- 1978 University of Southern Illinois - Carbondale, Department of Chemistry and Biochemistry
- 1980 University of Texas - Austin, Clayton Foundation Biochemical Institute
- 1982 FASEB Summer Research Conference on Receptors, Saxtons River, Vermont  
Cornell University, Ithaca, New York, Biochemistry Program
- 1983 University of Virginia, Charlottesville, Department of Chemistry  
Washington State University, Pullman, Biochemistry/Biophysics Program
- 1984 Gordon Research Conference on Chemistry and Biology of Peptides, Santa Barbara, CA  
Strangeways Research Laboratory, Cambridge, England, U.K.  
Amersham International, Cardiff Laboratories, Cardiff, Wales, U.K.  
St. Jude Children's Research Hospital, Memphis, Tennessee
- 1985 Biophysical Society, 29th Annual Meeting, Baltimore, Maryland  
Federation of American Societies of Experimental Biology, 69th Annual Meeting, Anaheim, California
- 1986 Harvard Medical School, Boston, Massachusetts, Department of Medicine
- 1987 Ohio State University, Columbus, Biochemistry Program  
Temple University, Philadelphia, Pennsylvania, Department of Chemistry  
University of Texas - Austin, Clayton Foundation Biochemical Institute  
Meharry Medical College, Nashville, Tennessee, Department of Biochemistry  
University of Massachusetts - Amherst, Department of Biochemistry
- 1988 Biophysical Society, 32nd Annual Meeting, Phoenix, Arizona  
University of California-Berkeley, Lawrence Berkeley Laboratory
- 1989 Southern Association of Agricultural Scientists, 86th Annual Meeting, Nashville, TN  
Mayo Foundation, Rochester, MN, Department of Biochemistry and Molecular Biology



**Invited Extramural Lectures, Research Seminars, and Presentations (continued):**

- 1990** Lane College, Jackson, Tennessee, Minority Access to Research Careers Program  
National Institute for Medical Research, Mill Hill, London  
University of Texas, Southwestern Medical Center, Dallas, Department of  
Pharmacology
- 1991** University of Minnesota-Twin Cities, Department of Biochemistry, College  
of Biological Sciences  
Cornell University, Ithaca, New York, Biotechnology Program  
Lane College, Jackson, Tennessee, Minority Access to Research Careers Program  
University of California-Berkeley, Division of Biochemistry and Molecular Biology  
NIGMS Minority Programs Symposium, Washington, D.C.
- 1992** Jefferson Cancer Center, Jefferson Medical College, Thomas Jefferson University,  
Philadelphia, Pennsylvania.  
Dartmouth College, Hanover, New Hampshire, Department of Chemistry  
Lane College, Jackson, Tennessee, Minority Access to Research Careers Program  
National Institutes of Health, Conference on Training in the Responsible Conduct  
of Research, Bethesda, Maryland  
American Association of Medical Colleges Annual Meeting, New Orleans,  
Louisiana  
NIH Conference on Minimizing Pain and Distress in Laboratory Animals,  
Nashville, Tennessee
- 1993** Dorothy Danforth Compton Fellows 6<sup>th</sup> Biennial National Meeting, Nashville,  
Tennessee  
Magisterial Lecture, Universidad Interamericana de Puerto Rico, San Germán,  
Puerto Rico
- 1994** University of Chicago, Department of Biochemistry and Molecular Biology  
FASEB Summer Research Conference on Membrane Molecular Biophysics:  
Structure and Dynamics, Saxton's River, Vermont
- 1995** Whither Enzymology? A Symposium in Honor of Jeremy R. Knowles on the  
Occasion of His 60<sup>th</sup> Birthday, Harvard University, Cambridge, Massachusetts  
Howard Hughes Medical Institute Undergraduate Program Directors Meeting,  
Chevy Chase, Maryland

**Invited Extramural Lectures, Research Seminars, and Presentations (continued):**

- 1996** Shared Governance vs. Corporate Management: A Governance Conference for Faculty Leaders, Ann Arbor, Michigan  
The Responsible Conduct of Research: A Commitment for All Scientists, San Diego, California
- 1997** National General Medical Sciences Advisory Council, Special Session on Minority Recruitment, Bethesda, Maryland
- 1998** National Institutes of Health, Office of Research Integrity Conference on the Management of Biomedical Research Laboratories, University of Arizona, Tucson
- 1999** Conference on Educating for the Responsible Conduct of Research in the Next Millennium: New Dilemmas, Continuing Questions, and Effective Strategies, Bethesda, Maryland
- 2000** Nashville Rotary Club, Nashville, Tennessee  
Ludwig Institute for Cancer Research, Melbourne, Australia
- 2001** Oregon Health Sciences University, Department of Biochemistry and Molecular Biology  
University of California, Davis, Division of Biological Sciences  
Sigma Xi, Nashville Chapter  
State University of New York at Stony Brook, Department of Biochemistry & Cell Biology
- 2002** National Research Council - Biotechnology Research Institute, Montreal, Canada
- 2003** EGF Receptor Meeting "ErbB's on the Beach", Lorne, Australia
- 2004** Tradeline Conference: Research Buildings 2004, San Francisco, California  
Rhode Island College, Department of Physical Sciences, Providence, RI
- 2005** Association of Biomolecular Resource Facilities Annual Meeting, Savannah, GA  
Colloquium in Protein Structure, Function and Dynamics, University of Puerto Rico, San Juan  
University of Oslo, Norway, Institute of Pathology

**Invited Extramural Lectures, Research Seminars, and Presentations (continued):**

- 2006** AAU Arts & Sciences Deans Annual Meeting, University of Minnesota, Minneapolis
- 2007** AAU Arts & Sciences Deans Annual Meeting, Cambridge, MA
- 2009** AAU Arts & Sciences Deans Annual Meeting, Rochester, NY  
University of Massachusetts Amherst, Department of Biochemistry & Molecular  
Biology
- 2011** Keynote address to KRE-11, an international conference in Prague, Czech Republic
- 2012** APLU Council on Academic Affairs Annual Summer Meeting, Washington, D.C.  
Tradeline Conference: College & University Science Facilities 2012, San Diego,  
California  
APLU National Meeting, Denver, CO
- 2013** University of Massachusetts System Symposium on Curriculum Redesign,  
Shrewsbury, MA  
APLU Council on Academic Affairs Annual Summer Meeting, Stevenson, WA
- 2015** Tradeline Conference: Strategic Facility & Space Planning for Science, Scottsdale,  
Arizona
- 2016** Learning Spaces Collaboratory Roundtable, Boston University, Boston, MA  
Learning Spaces Collaboratory Forum, Georgetown University, Washington, D.C.

**University Service, UMass Amherst:**

**Department of Biochemistry & Molecular Biology:**

Organizer of the application for Accreditation of our undergraduate degrees by the American Society for Biochemistry & Molecular Biology, 2014-2015.

Academic Affairs Committee, member, 2015-2016.

Department Personnel Committee 2014-2018; DPC Working Group, member, 2015-2018, Chair, 2016-2017.

Lecturer Search Committees, member, 2016-2017; Chair, 2019.

Nordin Lectures Committee, Chair, 2018-2019.

M.S. Thesis Committee for Priyank Patel, 2018-2019.

**Campus and System:**

Acting Chancellor in the absence of the Chancellor, 2009-2014.

Campus Leadership Council (Chancellor's cabinet), member (Acting Chair in the Chancellor's absence), 2009-2014.

Academic Advisory Council (UMass System), member, 2009-2014.

Provost's Council (formerly Deans' Council), Chair, 2009-2014.

Capital Assets Board, member, 2009-2014.

Executive Budget Group, member, 2009-2014.

Executive Oversight Committee, member, 2009-2014.

Enrollment Management Team, member, 2009-2014.

Faculty Senate, *ex officio* member, 2009-2014.

Oversight Committee for Export Control Compliance, member, 2010-2014.

Joint Task Force on Curriculum, Credits, and Costs, member, 2011.

Vice Chancellor for Administration & Finance Search Committee, member, 2011.

University (UMass System) IT Steering Committee, member, 2011-2014.

Committee for the Evaluation of Centers & Institutes, Chair, 2012-2014.

Undergraduate Programs Coordinating Council, Chair, 2012-2014.

LMS (Learning Management System) Working Group, Chair, 2012-2013.

Council of Deans, Chair, 2013-2014.

Institute for Applied Life Sciences, Executive Committee, member, 2013-2014.

Campus and System representative to the Personalized Learning Consortium Oversight Board, 2013-2015.

University (UMass System) Committee on Academic Efficiency & Effectiveness, member, 2014.

Bay View Alliance, Campus representative on the BVA Steering Committee, 2014-2015; Governance Committee, member, 2016-2018; Chair, 2018-present.

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**University Service, UMass Amherst (continued):**

Pew Scholar Nominating Committee, member, 2015.  
Pew Scholar & Searle Scholar Nominating Committee, member, 2016.  
STEM-NEAGEP Steering Committee, member, 2017-2019.  
College of Natural Sciences Personnel Committee, 2018.  
Retired Faculty Association, Executive Committee, 2019-present; Vice President, 2021-2022; President, 2022-present.

**Related Community Service:**

UMass Amherst Foundation Board, *ex officio* member, 2009-2014.  
New England Public Radio (WFCR, WNNZ) Foundation Board, member (elected), 2009-2015.  
Massachusetts Legislative Commission on Establishing a Public School of Pharmacy, member, 2010-2011.  
Dartmouth College Alumni: Alumni Council, member (elected), 2015-2018;  
Dartmouth Club of Pioneer Valley, member Executive Committee, 2019-present;  
President, Class of 1969, 2019-2024.  
Town of Leverett, Massachusetts: Revenue Committee, member, 2019-2020; Board of Assessors, member, 2020-2021, Chair, 2021- present.  
Yale Graduate School Alumni Association Board, advisor 2021-2022; member, 2022-present.

**University Service, Stony Brook:**

Provost's Advisory Group, member, 2002-2009.  
Academic Review Committee, member, 2002-2009.  
Committee on Classroom Utilization, member, 2002- 2007.  
Conflicts of Interest Committee, member, 2002-2003.  
*ad hoc* Committee on University Ranking, Convener, 2002-2009.  
Provost's Budget Advisory Group, member, 2002-2009.  
*ad hoc* Committee on Responsible Conduct of Research, member, 2002-2003.  
SUNY (System) Provost's Honors Advisory Council, member, 2004-2005.  
Institute of Chemical Biology & Drug Discovery Advisory Board, member, 2004-2009.  
Advisory Board, Freshman College of Science & Society, member, 2004-2007.  
Centers for Molecular Medicine Executive Committee, member, 2004-2009.  
State Employees Federated Appeal (SEFA) Annual Campaign, University Chair, 2005-2006.

**University Service, Stony Brook, continued:**

*ad hoc* Committee for Pew Scholar Award Nominations, Chair, 2005.  
Provost's Enrollment Planning Group, member, 2005-2006.  
Education Working Group, Clinical and Translational Science Award Planning Group,  
member, 2007-2008.  
Provost's Working Group on Study Sites Abroad, member, 2007-2008.  
Steering Committee, Clinical and Translational Science Award, member, 2008-2009.  
Provost/University Senate joint Committee on Intellectual Property, Chair, 2009.

**University Service, Vanderbilt:**

**Department of Biological Sciences:**

Department Chair (founding Chair), 1999-2002.

**Department of Molecular Biology:**

Department Chair, 1991-1999  
Chair, Stevenson Professor Search, 1992-1994.  
Chair, Junior Faculty Searches, 1992, 1994-1995, 1996-1997, 1997-1998

**College of Arts and Science:**

Arts and Science Faculty Council, member, 1992-1994, 1997-1999; chair, 1993-1994;  
secretary, 1997-1998.  
Executive Committee, Howard Hughes Undergraduate Biological Sciences Education  
Program, chair, 1991-2000.  
Natural Science Committee, member, 1991-2002.  
Committee on Academic Standards and Procedures, member, 1992-1994.  
College Natural Science Brochure Committee, member, 1992-1993.  
Faculty Investigative Committees, chair, 1992; member, 1993.  
Committee on Educational Programs, chair, 1994-1995.  
Dean's Advisory Committee for Academic Planning, member, 1995-1996.  
Computer Advisory Committee, member, 1997-2002.  
Strategic Planning Committee for the Biological Sciences, co-chair, 1998-2000; chair,  
2000-2001.  
Strategic Academic Planning for the College of Arts and Science, Caucus 2, chair,  
2000-2001.

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**University Service, Vanderbilt (continued):**

**Department of Biochemistry:**

Interim Chairman, 1988-1991.

Director of Graduate Studies, 1984-1988.

M.D.-Ph.D. Program Coordinator, 1979-1984.

Graduate Education Committee, member, 1979-1984; chair, 1984-1988; authored "Guidelines for the Ph.D. in Biochemistry," 1980, 1985; Chair of the Departmental Comprehensive Examination, 1980.

Faculty Search Committees, member, 1979, 1980-1982, 1982-1983; chair, 1983, 1984-1985, 1986-1988.

Safety Committee, member, 1978-1983.

Computer Committee, member, 1980-1982; chair, 1982-1988.

**School of Medicine/Medical Center:**

Executive Faculty, member, 1988-1991; Executive Committee, member, 1988-1989

Advisory Council of the School of Medicine, member, 1984-1985.

Standing Policy Committee on Goals and Governance, member, 1982-1984; chair, 1984-1985.

Faculty Appointments & Promotions Committee, member, 1987-1989; chair, 1989-1990.

*ad hoc* Committee on Integrity in Research, Chair, 1990-1991.

Howard Hughes Medical Institute Liaison Committee, 1990-1991.

Clinical Research Center Advisory Committee, member, 1986-1988.

M.D.-Ph.D. Committee, member, 1981-1984.

American Cancer Society Institutional Research Grant Committee, member, 1986-1989.

Biomedical Information Technology Steering Committee, member, 1986-1987.

*ad hoc* Committee on Animal Care Facilities, 1990-1991.

Protein Chemistry Laboratory Advisory Committee, member, 1985-1991.

Light Hall Planning Committee, *ad hoc* member, 1978-1979.

Advisory Committee for the Vanderbilt Faculty Scholars Program, member, 1983-1984.

Computer Graphics Committee, member, 1984-1985.

Information Technology Committee, member, 1985-1986.

Wellcome Visiting Professorship in Biochemistry, nominator and host, 1985.

Diabetes Research and Training Center, member 1980-, Research Review Committee, member, 1980, 1983; Advisory Committee, member, 1985-1989, 1991-1992.

**University Service, Vanderbilt (continued):**

Medical School Accreditation-Evaluation Committee, Committee for Evaluation of Graduate Education/Basic Sciences, member, 1981-1982, LCME Education Program for the M.D. Degree Subcommittee, member, 1990-1991.  
Center for Population & Reproductive Biology Research, affiliate member, 1982-1985; member, 1985-1995.  
Visual Sciences Training Program, preceptor, 1983-1985; Trainee Selection and Evaluation Committee, member, 1983-1984.  
Diabetes and Endocrinology Training Program, preceptor, 1985-1995.  
Multidisciplinary Basic Research Training Program in Cancer, preceptor, 1987-2002.  
Biochemical and Chemical Training Program in Cancer Research, preceptor, 1987-2002.  
Molecular Endocrinology Training Program, Preceptor, 1987-1991; Associate Director, 1987-1989.  
Information Systems Planning Advisory Committee, member, 1988.  
Advisory Committee of the SCOR in Hypertension, 1989-1991.  
MSTP Class Advisor (for the entering class of 1995).  
*ad hoc* Committee on Graduate Education, member, 1998.  
Bridges Committee, member, 1999-2002.  
Search Committee for Chief of Pediatric Gastroenterology, member, 2000-2001.  
Proteomics Core Advisory Committee, member, 2001-2002.  
Bioinformatics Core Advisory Committee, member, 2001-2002.

**Graduate School:**

Graduate Faculty Council, member, 1983-1986; Vice-Chair 1985-1986; Student Affairs Committee, member, 1983-1985; *Ad Hoc* Subcommittee to Amend the Graduate School Constitution, Chair, 1985; Executive Committee, member, 1985-1986.  
Molecular Biophysics Training Program, Program Director, 1989-2002.  
Cell and Molecular Biology Training Program, Seminar Committee, member, 1983-1984.  
Cellular, Biochemical, and Molecular Biosciences Training Program, Executive Committee, Chair, 1995-2000.  
Interdisciplinary Graduate Program, Executive Committee, Member, 1991-2002.  
Ph.D. Standing Committees (\* students for whom I was dissertation advisor):  
Susan A. Buhrow, Ph.D. 1983, Biochemistry\*  
David G. Morgan, Ph.D. 1985, Biochemistry\*  
Cheryl A. Guyer, Ph.D. 1985, Biochemistry\*



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**University Service, Vanderbilt (continued):**

Mark W. Russo, Ph.D. 1986, Biochemistry, M.D. 1987\*  
Lee Anne Faulkner, M.D. 1991, Ph.D. 1991, Biochemistry\*  
Randall L. Woltjer, Ph.D. 1992, Biochemistry, M.D. 1994\*  
Dennis L. Rousseau, Jr., Ph.D. 1993, Biochemistry, M.D. 1995\*  
Kenneth J. Coker, Ph.D. 1994, Biochemistry\*  
Jonathan A. Ewald, Ph.D. 2001, Molecular Biology\*  
John C. Wilkinson, Ph.D. 2001, Molecular Biology\*  
Kristin B. Whitson, Ph.D. 2003, Molecular Biology\*  
Jerry Weir, Ph.D. 1980, Biochemistry  
Karl E. Krueger, Ph.D. 1981, Biochemistry  
Dean R. Appling, Ph.D. 1981, Biochemistry  
Martin C. Dyroff, Ph.D. 1982, Biochemistry  
William F. Glass II, Ph.D. 1982, Biochemistry  
Susan L. Bane, Ph.D. 1983, Biochemistry  
Zainy M. A. Banjar, Ph.D. 1983, Biochemistry  
Steven B. Porter, Ph.D. 1984, Biochemistry  
David P. Giedroc, Ph.D. 1984, Biochemistry  
Arthur E. Jackson, Ph.D. 1985, Biochemistry  
W. Steven Ward, Ph.D. 1985, Biochemistry  
Edith S. Lovegren, Ph.D., 1986, Biochemistry  
Fiona M. Herr, Ph.D., 1993, Biochemistry  
Samuel M.C. Liu, Ph.D., 1992, Biochemistry  
Stephanie E. Dew, Ph.D., 1994, Biochemistry  
Karen M. Richards, Ph.D., 1996, Biochemistry  
Cheryl Anne Lanzo, Ph.D. 1998, Biochemistry  
James A. Huntington, Ph.D., 1997, Biochemistry  
John M. Fortune, Ph.D. 1999, Biochemistry  
Susan D. Cline, Ph.D. 1999, Biochemistry  
Gary T. Bowman, Ph.D. 1981, Chemistry  
Sankaran Mahalingam, Ph.D. 1981, Chemistry  
Dale E. O'Dell, Ph.D. 1982, Chemistry  
Muthukrishna Raja, Ph.D. 1984, Chemistry  
David Johnston, Ph.D. 1999, Chemistry  
Agieszka Kowalczyk, Ph.D. 2000, Chemistry  
Leonard Lothstein, Ph.D. 1983, Molecular Biology  
Eric J. Aamodt, Ph.D. 1984, Molecular Biology  
LuAnn P. Thompson, Ph.D. 1986, Molecular Biology

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**University Service, Vanderbilt (continued):**

Anne L. Hitt, Ph.D. 1988, Molecular Biology  
Jeffrey Franklin, Ph.D. 1992, Molecular Biology  
Mei Huang, Ph.D. 1992, Molecular Biology  
Stevan R. Pekovich, Ph.D., 1997, Molecular Biology  
Amy Nicole Fox, Ph.D. 2002, Molecular Biology  
Michelle Lee Baltz-Knorr, Molecular Biophysics  
Melissa K. Thomas, Ph.D. 1989, Molecular Physiology  
Francisca Tausk, Ph.D. 1988, Pathology  
Amy L. Wilson, Ph.D. 1991, Pharmacology  
Stephan W. Edwards, Ph.D. 1999, Pharmacology  
Mark O. Walderhaug, Ph.D. 1984, Physiology  
Charles E. Cobb, Ph.D. 1986, Physiology

**University (and Multi-School):**

Dreyfus Lectures Coordinating Committee, member, 1980-1981; host for Dreyfus Lecturer, March, 1981.  
External Affairs Council, member, 1982-1983.  
Patent Review Committee, member, 1983-1986.  
Network Committee (Data Communications), member, 1985-1987.  
Appellate Review Board, member, 1986-1988.  
Promotion and Tenure Review Committee (Medical Center), member, 1986-1987.  
Vanderbilt Minority Summer Research Program, Director, 1988-2002.  
Provost Search Committee, member, 1992-1993.  
Faculty Senate, member, 1994-1997; chair-elect, 1995-1996; chair, 1996-1997; Academic Policies and Services Committee, member, 1994-1996; Senate Affairs Committee, member, 1996-1997; Executive Committee, member, 1995-1997, chair, 1996-1997; Consultative Committee, member, 1995-1998, chair, 1996-1997.  
*ad hoc* Committee on Tenure Appeal, chair, 1994.  
Biomedical Science and Technology Initiative, Committee on Transinstitutional Research Initiatives, co-chair, 1998-1999.  
Biological Sciences/Medical Research Building III Planning Committee, member, 1998-2002.  
Chancellor Search Advisory Committee, member, 1999-2000.  
Strategic Academic Planning Subcommittee on Continuing Education and Community Outreach, member, 2000.  
Strategic Trajectory Committee for a Transinstitutional Initiative in Bioinformatics, member, 2000-2001.

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**University Service, Vanderbilt (continued):**

- Bioinformatics Executive Steering Committee, member, 2001-2002.  
*ad hoc* Committee on University Faculty Awards, member, 2001-2002.