

Curriculum Vitae

Name: Linda Joy Pike

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Education:

B.S. University of Delaware
Newark, Delaware
Chemistry, with high honors (1975)

Ph.D Duke University
Durham, North Carolina
Biochemistry (1980)

Academic Positions:

1980-1984 Postdoctoral Fellow
University of Washington
Seattle, Washington

1983-1993 Associate Investigator
Howard Hughes Medical Institute

1984-1991 Assistant Professor
Washington University School of Medicine
Dept. of Biochemistry and Molecular
Biophysics
St. Louis, Missouri

1991-2009 Associate Professor
Washington University School of Medicine
Dept. of Biochemistry and Molecular
Biophysics
St. Louis, Missouri

2009-present
Professor
Washington University School of Medicine
Dept. of Biochemistry and Molecular Biophysics
St. Louis, MO

2015-present
Alumni Endowed Professor of
Biochemistry and Molecular Biophysics

Honor Societies and Awards: Phi Beta Kappa (1975)
Phi Kappa Phi (1975)
American Chemical Society Award for
Outstanding Chemistry Student (1975)
American Heart Association of Washington
Postdoctoral Fellowship Grant (1980-1981)
Association of American Medical Colleges
Silver Achievement Award (2001)
(Honors individuals who have contributed
substantially to the development of women in
academic medicine)

Professional Societies: American Society for Biochemistry and
Molecular Biology
American Society for Cell Biology
Biophysical Society

Editorial Responsibilities:

Associate Editor: Journal of Lipid Research
(2003 to present)

Editorial Boards: Endocrinology
(1990-1993)

Journal of Lipid Research
(2001-2003)

Journal of Biological Chemistry
(1992-1996), (1997-2002), (2004-2009)

Frontiers in Molecular and Structural Endocrinology
(2011-present)

Ad Hoc Reviewer: Analytical Biochemistry
Archives of Biochemistry and Biophysics
BBA-Molecular Cell Research
Biochemical and Biophysical Research

Communications
Biochemistry
Biochemistry International
Biophysical Journal
Journal of Cell Biology
Journal of Clinical Investigation
Journal of Neurochemistry
Lancet
Molecular Biology of the Cell
Molecular and Cellular Biology
Molecular Pharmacology
Proceedings of the National Academy of Sciences
Science
Trends in Biochemical Sciences

Grant Reviewing:

Study Sections: American Cancer Society (1998-2002)
Tumor Biology and Endocrinology Study Section
Vice Chair – 2000-2001
Chair – 2001-2002

American Cancer Society (1993-1994)
Biochemistry and Endocrinology Study Section

Ad Hoc Reviewer : National Institutes of Health
National Science Foundation
Veteran's Administration Hospital (Kansas City,
KS)
Medical Research Council of Canada
Hungarian Scientific Research Fund (OKTA)

Teaching Responsibilities:

1997-present Molecular Foundations of Medicine for Medical Students
Course Director and Lecturer

1997-present Cell and Organ Systems Biology for Medical Students
Lecturer

1996 Macromolecular Structure
Lecturer

1991-1996 Principles of Protein Chemistry
Course Director and Lecturer

1987-1996 Advanced Cell Biology/Biochemistry of Membranes
 Lecturer

1985-1996 Advanced Biochemistry for Medical Students
 Lecturer – 1985-1996
 Course Director - 1995-1996

Teaching Awards:

1991-1992 Distinguished Service Teaching Award from first year medical school class

1992-1993 Distinguished Service Teaching Award from first year medical school class

1993-1994 Distinguished Service Teaching Award from first year medical school class
 Lecturer of the Year Award from first year medical school class

1995-1996 Distinguished Service Teaching Award from first year medical school class

1996-1997 Distinguished Service Teaching Award from first year medical school class

2001-2002 Distinguished Service Teaching Award from first year medical school class

2003-2004 Distinguished Service Teaching Award from first year medical school class

2004-2005 Distinguished Service Teaching Award from first year medical school class

2005-2006 Distinguished Service Teaching Award from first year medical school class

2006-2007 Distinguished Service Teaching Award from first year medical school class

2007-2008 Distinguished Service Teaching Award from first year medical school class

2008 Samuel R. Goldstein Leadership Award in Medical Student Education

2008-2009 Distinguished Service Teaching Award from first year medical school class

2009-2010 Distinguished Service Teaching Award from first year medical school class

2010-2011 Distinguished Service Teaching Award from first year medical school class

2011-2012 Distinguished Service Teaching Award from first year medical school class

2012-2013 Distinguished Service Teaching Award from first year medical school class

2013-2014 Distinguished Service Teaching Award from first year medical school class

2014-2015 Distinguished Service Teaching Award from first year medical school class

Teaching Mentees:

2002 Kellie Flood, M.D., for The Practice of Medicine
(Attended lectures, reviewed teaching materials and provided feedback on her teaching style)

Professional Service Work:

National:

1996 Organizer, Keystone Symposium on Receptor Tyrosine Kinases
Taos, NM

2000-2004 American Society for Biochemistry and Molecular Biology
Publications Committee
Chair 2002-2003

2002-2003 American Society for Biochemistry and Molecular Biology
Finance Committee, *ex officio*

2002-2003 American Society for Biochemistry and Molecular Biology
Council Member, *ex officio*

2003-2006 American Society for Biochemistry and Molecular Biology
Centennial Celebration Committee

2003-2004 American Society for Biochemistry and Molecular Biology
Program Committee (2004 ASBMB Meeting)

2004-2006 Organizer Keystone Symposium on Lipid Rafts and Cell Function
Steamboat Springs, CO

2005-2008 American Society for Biochemistry and Molecular Biology
Council Member

University:

1997-1999 University Judicial Board

1997-2001 Medical School Representative to the Faculty of Arts and Sciences

1997-2003 Senate Council Committee on Gender Pay Equity
Chair, Medical School Subcommittee

1998-2001 Executive Advisory Group on Research Administration

1999-2001 Member, Research Administration Project Management Team

- 1999-2001 Human Resources Policy Advisory Council
- 2004-2006 Faculty Senate Council
 At-large representative
 Chair, 2004-2006
- 2004-2006 Faculty Representative to the University Council
- 2004-2006 Faculty Representative to the Board of Trustees

Medical School:

- 1991-1995 Pay Equity Committee
- 1991-present Academic Women's Network
 Founding Member
 President - 1992-1993
 Editor of quarterly newsletter, AWNings - 1992-2002
- 1993-1997 Conflict of Interest/Disclosure Review Committee
- 1994-1997 Faculty Rights Committee
- 1995-1997 Preclinical Representative to the Executive Faculty
 3 elected two-year terms
 (The Executive Committee is the governing body of Washington
 University School of Medicine)
- 1995-2001 Executive Committee of the Faculty Council
 (The ECFC represents faculty interests at Washington University
 School of Medicine)
- 1996 Research Track Committee
- 1996-2001 Research Affairs Subcommittee of the Executive Faculty
- 1996-present Curriculum Evaluation Committee I
- 1996-present Committee for the Academic and Professional Evaluation of Students
 Chair: 2014 - present
- 1997-1998 Task Force on the Status of Women
- 1997-1998 Chair, Faculty Survey Subcommittee of the Task Force on the
 Status of Women
- 1997-1999 LCME Site Visit Steering Committee

- 1997-1999 LCME Site Visit Subcommittee on Governance and Academic Administration
- 1998 - 2000 Search Committee for Head of the Dept. of Ophthalmology and Visual Sciences
- 1998 - 2001 Pay Equity Committee
- 1998 - 2001 Chair, Joint Faculty Retreat Planning Committee
- 1998-2001 Chair, Core Facilities Subcommittee of the Research Affairs Committee
- 2000- 2001 Faculty Retreat Implementation Committee
- 2001-2003 Search Committee for Head of the Dept. of Radiation Oncology
- 2002 Neurology Promotions Committee
- 2003-2004 Medical School Pay Equity Committee
- 2008 Education Technology Advisory Committee
- 2008 Chair, Distinguished Faculty Teaching Awards Committee
- 2015 Teaching Support Task Force

Division of Biology and Biomedical Sciences:

- 1986-1989 Medical Scientist Training Program Committee
- 1990-1992 Molecular Cell Biology Steering Committee
- 1995-2003 Biochemistry/Biophysics Program Steering Committee
- 2008- Biochemistry Program Prelim Writing Committee

National/International Invited Talks (last 10 years):

- 1/2006 “Lipid Rafts and EGF Receptor Signaling”
Rosalind Franklin University of Medicine and Science, Chicago, IL
- 4/2006 “Cholesterol-dependent Clustering of the EGF Receptor Investigated by Fluorescence Intensity Cluster Analysis”
Keystone Symposium on Lipid Rafts and Cell Function,
Steamboat Springs, CO

- 10/2006 “Lipid Rafts and the Clustering of EGF Receptors”
University of New Mexico, Albuquerque, NM
- 11/2006 “Lipid Rafts and the Clustering of EGF Receptors”
American Society of Nephrology, San Diego, CA
- 7/2007 “Oligomerization of the EGF Receptor”
FASEB Summer Research Conference on Lipid Signaling in Cancer
Indian Wells, CA
- 3/2008 “Signal Transduction by the EGF Receptor: The Intersection of Membrane
Structure and Protein Function”
Univ. of Indiana, Bloomington, IN
- 4/2008 “Lipid Rafts and EGF Receptor Signaling”
American Society of Investigative Pathology, San Diego, CA
- 5/2008 “Lipid Rafts and EGF Receptor Signaling”
NIEHS Symposium on Raft Biology, Research Triangle Park, NC
- 10/2008 “Early Steps of EGF Receptor Activation and Signal Transduction”
Keystone Symposium on Structural Biology and Activation Mechanisms of
Membrane Receptors
St. John’s College, Cambridge, UK
- 1/2009 “Allosteric Regulation of EGF Receptor Function”
University of North Carolina, Chapel Hill
- 4/2009 “Allosteric Regulation of EGF Receptor Function”
American Society for Biochemistry and Molecular Biology Meeting
New Orleans, LA
- 5/2009 “Allosteric Regulation of EGF Receptor Function”
University of Virginia, Charlottesville, VA
- 7/2009 “Regulation of EGF Receptor Function by Lipid Rafts”
FASEB Summer Research Conference on Protein Lipidation,
Signaling and Membrane Domains, Saxton’s River, VT
- 5/2010 “Bidirectional Signaling in the EGF Receptor”
Johns Hopkins University, Baltimore, MD
- 5/2011 “Allosteric Regulation of the EGF Receptor”
University of Miami, Miami, FL
- 6/2011 “Negative Cooperativity in the EGF Receptor”
Biochemical Society Meeting, Edinburgh, Scotland

- 4/2012 “Visualizing ErbB Receptor Dimerization”
Loyola University, Chicago, IL
- 5/2012 “Dimerization of ErbB Receptors”
Symposium on imaging cell surface receptors
Kings College, London
- 4/2013 “Signal Transduction Through ErbB Receptors”
University of Tennessee-Memphis

Patents:

Inhibitors of Tyrosine Kinase Receptor Dimerization
Patent No. 8404838, Issued: 3/26/13

Publications:

1. Pike, L.J. and Lefkowitz, R.J. (1978) Agonist-Specific Alterations in Receptor Binding Affinity Associated with Solubilization of Turkey Erythrocyte Membrane Beta-Adrenergic Receptors. *Mol. Pharmacol.* 14: 370-375.
2. Pike, L.J. and Lefkowitz, R.J. (1978) Multiple Effects of N,N' Dicyclohexyl Carbodiimide on the Beta-Adrenergic Receptor-Adenylate Cyclase System in Frog Erythrocytes. *J. Cyclic Nucleotide Res.* 4: 27-34.
3. Limbird, L.E., DeLean, A., Hickey, A.R., Pike, L.J. and Lefkowitz, R.J. (1978) Differential Effects of GTP on the Coupling of Beta-Adrenergic Receptors to Adenylate Cyclase from Frog and Turkey Erythrocytes: Application of New Graphical Methods for the Analysis of Receptor-Effector Coupling. *Biochim. Biophys. Acta* 586: 298-314.
4. Lefkowitz, R.J., Williams, L.T., Pike, L.J. and Wessels, M. (1978) Receptor Binding Studies of Beta-Adrenergic Receptors: New Insights into Activation and Desensitization of Adenylate Cyclase. *Adv. Pharmacol. Therapeut.* 1: 189-199.
5. Pike, L.J., Limbird, L.E. and Lefkowitz, R.J. (1979) Beta-Adrenergic Receptors Determine Affinity but not Intrinsic Activity of Drugs for Stimulation of Adenylate Cyclase. *Nature* 280: 502-504.
6. Pike, L.J. and Lefkowitz, R.J. (1980) Parallel Activation and Desensitization of Beta-Adrenergic Receptor-Coupled GTPase and Adenylate Cyclase in Frog and Turkey Erythrocytes. *J. Biol. Chem.* 255: 6860-6867.
7. Pike, L.J. and Lefkowitz, R.J. (1980) Use of Cell Fusion Techniques to Probe the Mechanism of Catecholamine-Induced Desensitization of Adenylate Cyclase in Frog Erythrocytes. *Biochim. Biophys. Acta* 632: 354-365.

8. Pike, L.J. and Lefkowitz, R.J. (1981) Correlation of Beta-Adrenergic Receptor-Stimulated [³H]GDP Release and Adenylate Cyclase Activation: Differences Between Frog and Turkey Erythrocyte Membranes. *J. Biol. Chem.* 256: 2207-2212.
9. Casnellie, J.E., Harrison, M.L., Pike, L.J., Hellstrom, K.E. and Krebs, E.G. (1982) Phosphorylation of Synthetic Peptides by a Tyrosine Protein Kinase from the Particulate Fraction of a Lymphoma Cell Line. *Proc. Natl. Acad. Sci. USA* 79:282-286.
10. Pike, L.J., Gallis, B., Casnellie, J.E., Bornstein, P. and Krebs, E.G. (1982) Epidermal Growth Factor Stimulates the Phosphorylation of Synthetic Tyrosine-Containing Peptides by A431 Cell Membranes. *Proc. Natl. Acad. Sci. USA* 79: 1443-1447.
11. Schaffhausen, B., Benjamin, T.L., Pike, L., Casnellie, J. and Krebs, E.G. (1982) Antibody to the Nonapeptide Glu-Glu-Glu-Glu-Tyr-Met-Pro-Met-Glu is Specific for Polyoma Middle T Antigen and Inhibits *In Vitro* Kinase Activity. *J. Biol. Chem.* 257: 12467-12470.
12. Pike, L.J., Marquardt, J., Todaro, G.J., Gallis, B., Casnellie, J.E., Bornstein, P., and Krebs, E.G. (1982) Transforming Growth Factor and Epidermal Growth Factor Stimulate the Phosphorylation of a Synthetic, Tyrosine-Containing Peptide in a Similar Manner. *J. Biol. Chem.* 257: 14628-14631.
13. Pike, L.J., Bowen-Pope, D.F., Ross, R. and Krebs, E.G. (1983) Characterization of Platelet-Derived Growth Factor-Stimulated Phosphorylation in Cell Membranes. *J. Biol. Chem.* 258: 9383-9390.
14. Cassel, D., Pike, L.J., Grant, G.A., and Krebs, E.G. and Glaser, L. (1983) Interaction of Epidermal Growth Factor-Dependent Protein Kinase with Endogenous Membrane Proteins and Soluble Peptide Substrate. *J. Biol. Chem.* 258: 2945-2950.
15. Pike, L.J., Kuenzel, E.A., Casnellie, J.E. and Krebs, E.G. (1984) A Comparison of the Insulin- and EGF-Stimulated Protein Kinases from Human Placenta. *J. Biol. Chem.* 259: 9913-9921.
16. Benovic, J.L., Pike, L.J., Cerione, R.A., Staniszewski, C., Yoshimasa, T., Codina, J., Birnbaumer, L., Caron, M.G. and Lefkowitz, R.J. (1985) Phosphorylation of the Mammalian Beta-Adrenergic Receptor by Cyclic AMP-Dependent Protein Kinase: Regulation of the Rate of Receptor Phosphorylation and Dephosphorylation by Agonist Occupancy and Effects of Coupling of the Receptor to the Stimulatory Guanine Nucleotide Regulatory Protein. *J. Biol. Chem.* 260: 6989-7101.
17. Pike, L.J. and Krebs, E.G. (1986) "Protein Tyrosine Kinase Activity of Hormone and Growth Factor Receptors" in The Receptors, Academic Press (P. Michael Conn, Ed.) 93-134.
18. Maller, J.L., Pike, L.J., Freidenberg, G.R., Cordera, R., Stith, B.J., Olefsky, J.M., and Krebs, E.G. (1986) Increased Phosphorylation of Ribosomal Protein S6 Following Microinjection of Insulin Receptor/Kinase Into *Xenopus* Oocytes. *Nature* 320: 459-461.

19. Pike, L.J., Eakes, A.T. and Krebs, E.G. (1986) Characterization of Affinity-Purified Insulin Receptor/Kinase. Effects of Dithiothreitol on Receptor/Kinase Function. *J. Biol. Chem.* 261: 3782-2789.
20. Eide, B.L., Krebs, E.G., Ross, R., Pike, L.J. and Bowen-Pope, D.F. (1986) Tumor Promoter Enhances Mitogenesis by PDGF with Little Effect on PDGF Binding. *J. Cell. Physiol.* 126: 254-258.
21. Stefanovic, D., Erikson, E., Pike, L.J., and Maller, J.L. (1986) Activation of a Ribosomal Protein S6 Protein Kinase in *Xenopus* Oocytes by Insulin and Insulin Receptor/Kinase. *EMBO J.* 5: 157-160.
22. Pike, L.J. (1987) "Assay of Growth Factor-Stimulated Tyrosine Kinases Using Synthetic Peptide Substrates" in *Methods in Enzymology*. 146: 353-362.
23. Walker, D.H., Kuppuswamy, D., Visvanathan, A. and Pike, L.J. (1987) Substrate Specificity and Kinetic Mechanism of Human Placental Insulin Receptor/Kinase. *Biochem.* 26: 1428-1433.
24. Pike, L.J. and Eakes, A.T. (1987) Epidermal Growth Factor Stimulates the Production of Phosphatidylinositol-monophosphate and the Breakdown of Polyphosphoinositides in A431 Cells. *J. Biol. Chem.* 262: 1644-1651.
25. Walker, D.H. and Pike, L.J. (1987) A Phosphatidylinositol Kinase is Activated in Membranes Derived from Cells Treated with Epidermal Growth Factor. *Proc. Natl. Acad. Sci. USA* 84: 7513-7517.
26. Dadabay, C.Y. and Pike, L.J. (1987) Rapid Increase in the Transglutaminase Activity of A431 Cells Following Treatment with Epidermal Growth Factor. *Biochem.* 26: 6587-6591.
27. Walker, D.W., Dougherty, N., and Pike, L.J. (1988) Purification and Characterization of a Phosphatidylinositol Kinase from A431 Cells. *Biochem.* 27: 6504-6511.
28. Kuppuswamy, D. and Pike, L.J. (1989) Ligand Induced Desensitization of ¹²⁵I-EGF Internalization. *J. Biol. Chem.* 264: 3357-3363.
29. Cunningham, T., Kuppuswamy, D. and Pike, L.J. (1989) Treatment of A431 Cells with EGF Induces Desensitization of EGF-Stimulated Phosphatidylinositol Turnover. *J. Biol. Chem.* 264: 15351-15356.
30. Dadabay, C.Y. and Pike, L.J. (1989) Purification and Characterization of a Cytosolic Transglutaminase from a Cultured Human Tumor Cell Line. *Biochem. J.* 264: 679-685.
31. Walker, D.H. and Pike, L.J. (1990) Stimulation of Purified Phosphatidylinositol 4-Kinase by Cobra Venom Cardiotoxin. *Biochim. Biophys. Acta* 1055: 295-298.
32. Kuppuswamy, D. and Pike, L.J. (1991) Desensitization of the EGF Receptor Alters its Ability to Undergo EGF-Induced Dimerization. *Cell Signal.* 3: 107-117.

33. Dadabay, C.Y., Patton, E., Cooper, J.A. and Pike, L.J. (1991) Lack of Correlation Between Changes in Polyphosphoinositide Levels and Actin/Gelsolin Complexes in A431 Cells Treated with Epidermal Growth Factor. *J. Cell Biol.* 112: 1151-1156.
34. Spizz, G. and Pike, L.J. (1992) Growth Factors Promote Uptake of Inositol in BC3H1 Cells. *Biochem. Biophys. Res. Commun.* 182: 1008-1015.
35. Pike, L.J. (1992) Dimer Formation and Desensitization of the Epidermal Growth Factor Receptor. *J. Lab. Clin Med.*, 120: 688-692.
36. Pike, L.J. (1992) Phosphatidylinositol 4-Kinases and the Role of Polyphosphoinositides in Cellular Regulation. *Endocrine Rev.* 13: 1-15.
37. Kuppaswamy, D., Dalton, M. and Pike, L.J. (1993) Serine 1002 is an *In Vivo* and *In Vitro* Site of Phosphorylation of the EGF Receptor. *J. Biol. Chem.* 268, 19134-19142.
38. Schuh, S.M., Newberry, E.P., Dalton, M.A. and Pike, L.J. (1994) Mutation of Proline-1003 to Glycine in the Epidermal Growth Factor (EGF) Receptor Enhances Responsiveness to EGF. *Mol. Biol. Cell.* 5: 739-746.
39. Hope, H.R. and Pike, L.J. (1994) Purification and Characterization of a Polyphosphoinositide Phosphatase from Rat Brain. *J. Biol. Chem.* 269: 23648-23654.
40. Newberry, E.P. and Pike, L.J. (1994) Cell Cycle-Dependent Modulation of EGF Receptor-Mediated Signaling". *Biochem. Biophys. Res. Commun.*, 208: 253-259.
41. Pandit, S.D., Donis-Keller, H., Iwamoto, T., Tomich, J.M. and Pike, L.J. (1996) The Multiple Endocrine Neoplasia Type 2B Point Mutation Alters Long-term Regulation and Enhances the Transforming Capacity of the Epidermal Growth Factor Receptor. *J. Biol. Chem.* 271, 5850-5858.
42. Hope, H.R. and Pike, L.J. (1996) Phosphoinositides and Phosphoinositide-Utilizing Enzymes in Detergent-Insoluble Lipid Domains, *Mol. Biol. Cell* 7, 843-851.
43. Pike, L.J. and Casey, L. (1996) Localization and Turnover of Phosphatidylinositol 4,5-bisphosphate in Caveolin-Enriched Membrane Domains, *J. Biol. Chem.* 271, 26453-26456.
44. Pandit, S.D., O'Hare, T. Donis-Keller, H. and Pike, L.J. (1997) Functional Characterization of an EGF Receptor/RET Chimera, *J. Biol. Chem.* 272, 2199-2206.
45. Liu, Y., Casey, L. and Pike, L.J. (1998) Compartmentalization of Phosphatidylinositol 4,5-bisphosphate in Low Density Membrane Domains in the Absence of Caveolin, *Biochem. Biophys. Res. Commun.* 45, 684-690.
46. Pike, L.J. and Miller, J. M. (1998) Cholesterol Depletion De-localizes Phosphatidylinositol-bisphosphate and Inhibits Hormone-Stimulated Phosphatidylinositol Turnover, *J. Biol. Chem.* 273, 22298-22304.

47. Shyng, S.-L., Barbieri, A., Gumusboga, A., Cukras, C., Pike, L., Davis, J.N., Stahl, P.D., and Nichols, C.G. (2000) Modulation of Nucleotide Sensitivity of K_{ATP} Channels by PI-4-P 5-Kinase, *Proc. Natl. Acad. Sci. U.S.A.*, 97, 937-941.
48. Loussouarn, G., Pike, L.J., Ashcroft, F.M., Makhina, E.N. and Nichols, C.G. (2001) Dynamic Sensitivity of K_{ATP} Channels to ATP, *J. Biol. Chem.* 276:29098-29103.
49. Pike, L.J., Han, X., Chung, K.-N., and Gross, R.W (2002) Lipid Rafts are Enriched in Arachidonic Acid and Plasmenylethanolamine and their Composition is Independent of Caveolin-1 Expression: A Quantitative Electrospray Ionization/Mass Spectrometric Analysis. *Biochem.* 41:2075-2088.
50. Sun, J., Nanjundan, M., Pike, L.J., Wiedmer, T. and Sims, P.J. (2002) Plasma membrane Phospholipid Scramblase 1 is Enriched in Lipid Rafts and Interacts with the Epidermal Growth Factor Receptor, *Biochem.* 41:6338-6345.
51. Pike, L.J. and Casey, L.A. (2002) Cholesterol Levels Modulate EGF Receptor-Mediated Signaling by Altering Receptor Function and Trafficking, *Biochem.* 41: 10315-10322.
52. Pike, L.J. (2003) "Role of Lipid Domains in EGF Receptor Signaling" in *Handbook of Cell Signaling*, R.A. Bradshaw and E. A. Dennis, editors, Academic Press, Volume 1, page 323-326
53. Pike, L.J. (2003) Lipid Rafts: Bringing Order to Chaos. *J. Lipid Res.* 44: 655-667.
54. Westover, E.J., Covey, D.F., Brockman, H.L., Brown, R.E., and Pike, L.J. (2003) Cholesterol Depletion Results in Site-Specific Increases in EGF Receptor Phosphorylation Due to Membrane Level Effects: Studies with Cholesterol Enantiomers, *J. Biol. Chem.* 278: 51125-51133.
55. Pike, L. J. (2004) Lipid Rafts: Heterogeneity on the High Seas. *Biochem. J.* 378:281-292.
56. Macdonald, J. L. and Pike, L.J. (2005) A Simplified Method for the Preparation of Detergent-free Lipid Rafts, *J. Lipid Res.* 46:1061-1067.
57. Pike, L.J. (2005) Growth Factor Receptors, Lipid Rafts and Caveolae: An Evolving Story, *Biochim. Biophys. Acta Mol. Cell Res.*, 1746:260-273.
58. Pike, L.J., Han, X., and Gross, R.W. (2005) EGF Receptors Are Localized to Lipid Rafts That Contain a Balance of Inner and Outer Leaflet Lipids: A Shotgun Lipidomics Study, *J. Biol. Chem.* 280: 26796-26804.
59. Pike, L.J. (2006) Rafts Defined. A Report on the Keystone Symposium of Lipid Rafts and Cell Function. *J. Lipid Res.* 47: 1597-1598.
60. Macdonald, J. L., Li, Z., Su, W., and Pike, L. J. (2006) The Membrane Proximal Disulfides of the EGF Receptor Extracellular Domain are Required for High Affinity Binding and Signal Transduction but do not Play a Role in the Localization of the Receptor to Lipid Rafts, *Biochim. Biophys. Acta Mol. Cell Res.*, 1763: 870-878.

61. Saffarian, S., Li, Y., Elson, E.L. and Pike, L.J. (2007) Oligomerization of the EGF Receptor Investigated by Live Cell Fluorescence Intensity Distribution Analysis, *Biophys. J.*, 93:1021-1031.
62. Macdonald, J.L. and Pike, L. J. (2008) Heterogeneity in EGF Binding Affinities Arises From Negative Cooperativity in an Aggregating System, *Proc. Natl. Acad. Sci. U.S.A.* 105: 112-117.
63. Eiblmaier, M., Meyer, L., Watson, M. Fracasso, P., Pike, L. J. and Anderson, C. (2008) Correlating EGFR Expression with EGF Receptor Binding Properties and Internalization of ⁶⁴Cu-DOTA-C225 in Five Cervical Cancer Cell Lines, *J. Nuc. Med.*, 49:1472-1479.
64. Pike, L.J. (2008) The Challenge of Lipid Rafts. *J. Lipid Res.*, 2009:S323-S328.
65. Pike, L.J. (2009) "Role of Lipid Domains in EGF Receptor Signaling" in *Handbook of Cell Signaling*, R.A. Bradshaw and E. A. Dennis, editors, 2nd edition, Academic Press, Chapter 52, pp. 359-364.
66. Yang, K.S., Illagan, M. X. G., Piwnica-Worms, D. and Pike, L.J. (2009) Luciferase Fragment Complementation Imaging of Conformational Changes in the EGF receptor, *J. Biol. Chem.* 284:7474-7482.
67. Macdonald-Obermann, J.L. and Pike, L.J. (2009) Palmitoylation of the EGF Receptor Inhibits Signal Transduction and Abolishes High Affinity Binding, *Biochemistry*, 48: 2505-2513.
68. Macdonald-Obermann, J.L. and Pike, L.J. (2009) The Intracellular Juxtamembrane Domain of the EGF Receptor is Responsible for the Allosteric Regulation of EGF Binding, *J. Biol. Chem.*, 284:13,570-13,576.
69. Yang, R. Y.C., Yang, K.S., Pike, L.J. and Marshall, G. R. (2010) Targeting the Dimerization of the EGF Receptor with Small-Molecule Inhibitors, *Chem. Biol. Drug Des.* 76:1-9.
70. Yang, K.S., Macdonald-Obermann, J.L., Piwnica-Worms, D. and Pike, L.J. (2010) Asp-960/Glu-961 Control the Movement of the C-terminal Tail of the EGF receptor and Regulate Asymmetric Dimer Formation, *J. Biol. Chem.*, 285: 24014-24022.
71. Adak, S., DeAndrade, D. and Pike, L.J. (2011) The Tethering Arm of the EGF Receptor is Required for Negative Cooperativity and Signal Transduction, *J. Biol. Chem* 286: 1545-1555.
72. Adak, S., Yang, K.S., Macdonald-Obermann, J. and Pike, L.J. (2011) The Membrane Proximal Region of the Intracellular Domain of the EGF Receptor is Responsible for Negative Cooperativity in Ligand Binding, *J. Biol. Chem.* 286: 45146-45155.
73. Macdonald-Obermann, J., Yang, K.S., Piwnica-Worms, D. and Pike, L.J. (2012) Mechanics of EGF Receptor/ErbB2 Kinase Activation Revealed by Luciferase Fragment Complementation Imaging, *Proc. Natl. Acad. Sci. U.S.A.* 109:137-142.

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