

CURRICULUM VITAE

DANIEL MAX RABEN

DEMOGRAPHIC INFORMATION

CURRENT APPOINTMENTS

2007 Professor, Department of Biological Chemistry
The Johns Hopkins University, Baltimore, Maryland

Professor, Department of Physiology
The Johns Hopkins University, Baltimore, Maryland

Professor; Department of Oncology
The Johns Hopkins University, Baltimore, Maryland

PERSONAL DATA

Laboratory Address: The Johns Hopkins University School of Medicine
Department of Biological Chemistry
725 N. Wolfe Street,
Baltimore, Maryland 21205
(410) 955-1289
(410) 614-8729 (Fax)
Email: draben@jhmi.edu

EDUCATION

	<u>Degree/Year</u>	<u>Institution</u>	<u>Discipline</u>
Undergraduate	B.S./1976	University of Michigan	Chemistry/Biology
Graduate	Ph.D./1981	Washington University	Biochemistry
Post-Doctoral Fellow	1981-1986	University of California-Irvine	Biochemistry

PROFESSIONAL EXPERIENCE

<u>Position</u>	<u>Institution</u>	<u>Dates</u>
Teaching Assistant	Washington University	1978- 1979
Postgraduate Researcher	Department of Microbiology University of California-Irvine Research Advisor: Dr. Dennis Cunningham	1981- 1986
Assistant Professor	Department of Physiology The Johns Hopkins University-School of Medicine	1986- 1992
Associate Professor	Department of Physiology The Johns Hopkins University-School of Medicine	1992- 2006
Associate Professor	Department of Oncology The Johns Hopkins University-School of Medicine	1996- 2006
Associate Professor	Department of Biological Chemistry The Johns Hopkins University-School of Medicine	2002- 2006
Professor	Department of Biological Chemistry The Johns Hopkins University-School of Medicine	2007- Present
Professor	Department of Physiology The Johns Hopkins University-School of Medicine	2007- Present
Professor	Department of Oncology The Johns Hopkins University-School of Medicine	2007- Present

PUBLICATIONS

Peer-Reviewed

1. Whittenberger, B. **Raben, D.** Lieberman, M.A., and Glaser, L. (1978) Inhibition of growth of 3T3 cells by extract of surface membranes. *Proc. Natl. Acad. Sci. U.S.A.* **75**:5457-5461.
2. Bunge, R., Glaser, L., Lieberman M.A., **Raben, D.M.**, Salzer, J., Whittenberger, B., and Woolsey, T. (1979) Growth Control By Cell To Cell Contact *J. Supramol. Struct.* **11**:175-187.

3. Whittenberger, B. **Raben, D.** Lieberman, M.A., and Glaser, L. (1979) Regulation of the cell cycle of 3T3 cells in culture by a surface membrane-enriched cell fraction. *J. Supramol. Struct.* **10**:307-327.
4. Lieberman, M.A., **Raben, D.** Whittenberger, B., and Glaser, L. (1979) Effect of plasma membranes on solute transport in 3T3 cells. *J. Biol. Chem.* **254**:6347-6361.
5. Lieberman, M.A., Whittenberger, B., **Raben, D.**, and Glaser, L. (1979) Cell density is determined by a diffusion limited process-Reply *Nature* **278**:284.
6. Lieberman, M.A., Rothenberg, P., **Raben, D.**, and Glaser, L. (1980) Effect of 3T3 plasma membranes on cells exposed to epidermal growth factor. *Biochem. Biophys. Res. Commun.* **92**:696-702.
7. Lieberman, M.A., **Raben, D.**, and Glaser, L. (1981) Cell surface-associated growth inhibitory proteins. *Exp. Cell Res.* **133**:413-419.
8. **Raben, D.**, Lieberman, M.A., and Glaser, L. (1981) Growth inhibitory protein(s) in the 3T3 cell plasma membrane. Partial purification and dissociation of growth inhibitory events from inhibition of amino acid transport. *J. Cell Physiol.* **108**:35-45.
9. **Raben DM**, Cunningham DD. (1985) Effects of EGF and thrombin on inositol-containing phospholipids of cultured fibroblasts: stimulation of phosphatidylinositol synthesis by thrombin but not EGF. *J Cell Physiol.* **125**(3):582-90.
10. **Raben, D.M.**, Yasuda, K., Cunningham, D.D. (1987) Modulation of thrombin-stimulated lipid responses in cultured fibroblasts. Evidence for two coupling mechanisms. *Biochemistry* **26**(10):2759-2765.
11. **Raben, D.M.**, Yasuda, K.M., Cunningham, D.D. (1987) Relationship of thrombin-stimulated arachidonic acid release and metabolism to mitogenesis and phosphatidylinositol synthesis. *J. Cell Physiol.* **130**(3):466-473.
12. Wright, T.M., Rangan, L.A., Shin, H.S., **Raben, D.M.** (1988) Kinetic analysis of 1,2-diacylglycerol mass levels in cultured fibroblasts. Comparison of stimulation by α -thrombin and epidermal growth factor. *J. Biol. Chem.* **263**(19):9374-9380.
13. Pessin, M.S., **Raben, D.M.** (1989) Molecular species analysis of 1,2-diglycerides stimulated by α -thrombin in cultured fibroblasts. *J. Biol. Chem.* **264**(15):8729-8738.
14. Wright, T.M., Shin, H.S., **Raben, D.M.** (1990) Sustained increase in 1,2-diacylglycerol precedes DNA synthesis in epidermal-growth-factor-stimulated fibroblasts. Evidence for stimulated phosphatidylcholine hydrolysis. *Biochem. J.* **267**(2):501-507.
15. **Raben, D.M.**, Pessin, M.S., Rangan, L.A., and Wright, T. M. (1990) Kinetic and Molecular Species Analysis of Mitogen-induced Increases in Diglycerides: Evidence for Stimulated Hydrolysis of Phosphoinositides and Phosphatidylcholine. *J. Cell. Biochem.* **44**:117-125.
16. Pessin, M.S., Baldassare, J.J., **Raben, D.M.** (1990) Molecular species analysis of mitogen-stimulated 1,2-diglycerides in fibroblasts. Comparison of α -thrombin,

- epidermal growth factor, and platelet-derived growth factor [published erratum appears in *J Biol Chem* **265**(25): 15347]. *J. Biol. Chem.* **265**(14):7959-7966.
17. Leach, K.L., Ruff, V.A., Wright, T.M., Pessin, M.S., **Raben, D.M.** (1991) Dissociation of protein kinase C activation and sn-1,2-diacylglycerol formation. Comparison of phosphatidylinositol- and phosphatidylcholine-derived diglycerides in α -thrombin-stimulated fibroblasts. *J. Biol. Chem.* **266**(5):3215-3221.
 18. Rangan, L.A., Wright, T.M., and **Raben, D.M.** (1991) Differential dependence of early and late increases in 1,2-diacylglycerol on the presence of catalytically active α -thrombin: evidence for regulation at the level of 1,2-diacylglycerol generation. *Cell Regulation* **2**:311-316.
 19. Pessin, M.S., Altin, J.G., Jarpe, M., Tansley, F., Bradshaw, R.A., and **Raben, D.M.** (1991) Carbachol stimulates a different phospholipid metabolism than nerve growth factor and basic fibroblast growth factor in PC12 cells. *Cell Regulation* **2**:383-390.
 20. Borchardt, R.A., Bishop, W.R., Bocckino, S.B., Loomis, C.R., **Raben, D.M.**, Ramer, J.K., Van Veldhoven, P.P., and Bell, R.M. (1991) Quantification of diradylglycerols: a reply. *Biochem. J.* **280**:830-831.
 21. Wright, T.M., Willenberger, S., and **Raben, D.M.** (1992) Activation of phospholipase D by α -thrombin contributes to the formation of phosphatidic acid but not to observed increases in 1,2-diglycerides. *Biochem. J.* **285**:395-400.
 22. Leach, K.L., Ruff, V.A., Jarpe, M.B., Fabbro, D., Adams, L.D., and **Raben, D.M.** (1992) α -Thrombin stimulates nuclear diglyceride levels and differential nuclear localization of protein kinase C isozymes in IIC9 cells. *J. Biol. Chem.* **267**:21816-21822.
 23. Leach, K.L., **Raben, D.M.** (1993) Nuclear Localization of Protein Kinase C. *Biochem. Soc. Trans.* **21**(4):879-883.
 24. Doering, T.L., Pessin, M.S., Hoff, E.F., Hart, G.W., **Raben, D.M.**, and Englund, P.T. (1993) Trypanosome metabolism of myristate, the fatty acid required for the variant surface glycoprotein membrane anchor. *J. Biol. Chem.* **268**:9215-9222.
 25. Smith, B.L., Baumgarten, R., Nielsen, S., **Raben, D.M.**, Zeidel, M.L., and Agre, P. (1993) Concurrent expression of erythroid and renal aquaporin CHIP and appearance of water channel activity in perinatal rats. *J. Clin. Invest.* **92**:2035-2041.
 26. Leach, K.L., **Raben, D.M.** (1993) α -Thrombin-stimulated 1,2-diacylglycerol formation: the relationship between phospholipid hydrolysis and protein kinase C activation. *Neuroprotocols* **3**: 120-132.
 27. **Raben, D.M.**, Jarpe, and Leach, K.L. (1994) Nuclear lipid metabolism in NEST: Nuclear Envelope Signal Transduction. *Memb. Biol.* **142**: 1-7.
 28. Jarpe, M.B., Leach, K.L., and **Raben, D.M.** (1994) α -Thrombin-induced nuclear sn-1,2-diacylglycerols are derived from phosphatidylcholine hydrolysis in cultured fibroblasts. *Biochemistry* **33**:526-534.

29. Doering, T.L., Pessin, M.S., Hart, G.W., **Raben, D.M.**, and Englund, P.T. (1994) The fatty acids in unremodeled Trypanosome glycosyl phosphatidylinositols. *Biochem. J.* **299**:741-746.
30. Quest, A.F.G., **Raben, D.M.**, and Bell, R.M. (1996) Diacylglycerols: Biosynthetic Intermediates and Lipid Second Messengers In: *Handbook of Lipid Research 8*: pp1-58.
31. Baldassare, J.J., Jarpe, M.B., Alferes, L., and **Raben, D.M.** (1997) Nuclear translocation of RhoA mediates the mitogen-induced activation of PLD involved in nuclear envelope signal transduction. *J. Biol. Chem.* **272**:4911-4914.
32. Weber, J., **Raben, D.M.**, Phillips, J., and Baldassare, J.J. (1997) Sustained activation of ERK1 is required for the continued G₁ expression of cyclin D1. *Biochem. J.* **326**:61-68.
33. Cheng, J., Weber, J.D., Baldassare, J.J. and **Raben D.M.** (1997) Ablation of G_o α -subunit results in a transformed phenotype and constitutively active phosphatidylcholine-specific phospholipase C. *J. Biol. Chem.* **272**: 17312-17319.
34. Weber, J., Cheng, J., **Raben, D.M.**, and Baldassare, J.J. (1997) Ablation of G_o α overrides G₁ restriction point control through Ras/ERK/cyclin D1 activities. *J. Biol. Chem.* **272**: 17320-17326.
35. Weber, J., Hu, W., Jefcoat Jr, S.C. and **Raben, D.M.**, and Baldassare, J.J. (1997) Ras-stimulated ERK and RhoA activities coordinate PDGF-induced G₁ progression through the independent regulation of cyclin D1 and p27^{kip1} expression. *J. Biol. Chem.* **272**: 32966-32971.
36. Wattenberg, B. and **Raben, D.M.** (1998) Signaling Spaces Out, Meeting Report, *Immunol. Cell Biol.* **76**:318-322.
37. Cheng, J., Baldassare, J.J., and **Raben, D.M.** (1999) Dual Coupling of the α -Thrombin Receptor to signal transduction Pathways Involving Phosphatidylinositol and Phosphatidylcholine Metabolism. *Biochem. J.* **337**: 97-104.
38. **Raben, D.M.** and Baldassare, J.J. (2000) Phospholipid Metabolism and Nuclear Envelope Signaling, *Advances in Enzyme Regulation* **40**:97-123.
39. Phillips-Mason, P.J., **Raben D.M.**, Baldassare, J.J. (2000) Phosphatidylinositol 3-kinase activity regulates α -thrombin-stimulated G₁ progression by its effect on Cyclin D1 expression and CDK4 activity. *J. Biol. Chem.* **275**:18046-18053.
40. **Raben, D.M.** (2000) Signal Transduction. *McGraw-Hill Encyclopedia of Science and Technology 9th Edition. Volume 16.*
41. **Raben, D.M.**, and Baldassare, J.J. (2000) Nuclear Envelope Signaling-Role of Phospholipid Metabolism. *European Journal of Histochemistry* **44**: 67-80.
42. Baldassare, J.J., Klaus, J., Phillips, P.J., and **Raben, D.M.** (2001) HamPLD1b in IIC9 Fibroblasts is Selectively Activated in the Nucleus But Not Golgi. *Cell Biol. Int.* **25**: 1207-1212.

43. Bregoli, L., Baldassare, J.J., **Raben, D.M.** (2001), Nuclear DGK- θ Is Activated in Response to α -Thrombin. *J. Biol. Chem.* **276**: 23288-23295.
44. Gardner, A, Phillips-Mason, P.J., **Raben, D.M.**, and Baldassare, J.J. (2002) A Novel Role for G $_{q\alpha}$ in α -thrombin-mediated Mitogenic Signaling Pathways. *Cellular Signaling* **14**:499-507.
45. Bregoli, L, Tu-Sekine, B., and **Raben, D.M.** (2002) DGK and Nuclear Signaling: Nuclear Diacylglycerol Kinases in IIC9 Cells. *Advances in Enzyme Regulation* **42**: 213-226.
46. **Raben, D.M.** and Baldassare, J.J. (2002) *Invited Review*: Mitogen Receptors and Signaling in the Nucleus. *Trends in Endo and Metab.* **13**:93-94.
47. Goel, R. Phillips-Mason, P. J., **Raben, D.M.**, and Baldassare, J.J. (2002) α -Thrombin Induces Rapid and Sustained Akt Phosphorylation by β -Arrestin1-dependent and -independent Mechanisms, and Only the Sustained Akt Phosphorylation is Essential for G1 phase Progression. *J. Biol. Chem.* **277**: 18640-18648.
48. Tu-Sekine, B, Baldassare, J.J., and **Raben, D.M.** (2003) Nuclear Signal Transduction: Nuclear PLD and diacylglycerol kinases. In *Nuclear Lipid Metabolism and Signaling* (Research Signpost), 2003: 123-136.
49. **Raben, D. M.** (2004) Phosphofructokinase-2/Fructose Bisphosphatase-2. IN: *Encyclopedia of Biological Chemistry*, **3**: 277-280.
50. Tu-Sekine, B. and **Raben, D.M.** (2004) Nuclear production and metabolism of diacylglycerol. *Eur J Histochem.*; **48**(1):77-82.
51. Goel, R., Phillips-Mason, P.J., Gardner, A., **Raben, D.M.**, and Baldassare, J.J. (2004) α -Thrombin Mediated PI 3-kinase Activation Through Release of G $\beta\gamma$ Dimers From G α_q and G α_i2 . *J. Biol. Chem.* **279**(8):6701-6710.
52. Ostroski, M., Tu-Sekine, B., and **Raben, D. M.** (2005) Analysis of a Novel Diacylglycerol Kinase from *Dictyostelium discoideum*: DGKA. *Biochemistry*, **44**(30):10199-207.
53. **Raben, D.M.** and Baldassare, J.J. (2005) *Invited Review* A New Lipase in Regulating Lipid Mobilization-Hormone-sensitive Lipase Is Not Alone. *Trends in Endo and Metabolism* **16**(2):35-36.
54. Tu-Sekine, B., Ostroski, M. and **Raben, D.M.** (2006) Analysis of Two Diacylglycerol Kinase Activities in Mixed Micelles. *Advances in Enzyme Regulation* **46**:12-24.
55. Wattenberg, B.W., Piston, S.M., and **Raben, D.M.** (2006) The Sphingosine and Diacylglycerol Kinase Superfamily of Signaling Kinases. Localization As A Key to Signaling Function. *J Lipid Res.* **47**(6):1128-1139.
56. **Raben, D.M.** (2006) Lipid Signaling in the Nucleus. *Biochem Biophys Acta* **1761**(5-6):503-4.
57. Tu-Sekine, B., Ostroski, M, and **Raben, D.M.** (2007) Modulation of DGK θ Activity by α -Thrombin and Phospholipids. *Biochemistry*, **46**(3): 924 -932.
58. Wattenberg, B.W. and **Raben, D.M.** (2007) Diacylglycerol Kinases Put the Brakes on Immune Function. *Sci. STKE* (398) pe43.

59. **Raben, D.M.** and Tu-Sekine (2008) Nuclear Localization Of Diacylglycerol Kinases: Regulation And Roles. *Frontiers in Bioscience* **13**: 590-597.
60. **Raben, D.M.** and Wattenberg, B.W. (2009) Signaling at the Membrane Interface by the DGK/SK Enzyme Family. *J Lipid Res 50th Anniversary Edition: J. Lipid Res.* **April Supplement**: S35-S39.
61. Tu-Sekine and **Raben D.M.** (2009) Regulation of DGK- θ J. Cell Physiol. **220**(3):548-52.
62. Link, T.M., Park, U., Vonakis, B.M., **Raben, D.M.**, Soloski M.J., Caterina, M.J. (2010) TRPV2 Plays a Pivotal Role in Macrophage Particle Binding and Phagocytosis. *Nature Immunology* Mar;**11**(3):232-9. Epub 2010 Jan 31
63. Tu-Sekine, B. and **Raben, D.M.** (2010) Characterization of Cellular DGK- θ . *Advances in Enzyme Reg.* **50**:81-94.
64. Mohan S, Tse CM, Gabelli SB, Sarker R, Cha B, Fahie K, Nadella M, Zachos NC, Tu-Sekine B, **Raben D**, Amzel LM, Donowitz M. (2010) NHE3 Activity Is Dependent on Direct Phosphoinositide Binding at the N Terminus of Its Intracellular Cytosolic Region. *J. Biol. Chem.* **285**(45): 34566-78.
65. Tu-Sekine, B. and **Raben, D.M.** (2011) Regulation and Roles of Neuronal Diacylglycerol Kinases: a Lipid Perspective. *Crit. Rev. Biochem. Mol. Biol.* Oct;**46**(5):353-64.
66. **Raben, D.M.** and Bond, J.S. (2011) Cookie-cutter Curriculum is No Recipe For Success. *Science.* 2011 Oct 28;**334**(6055):452.
67. Tu-Sekine B, and **Raben, D.M.** (2012) Dual Regulation of DGK- θ : Polybasic Proteins Promote Activation by Phospholipids and Increase Substrate Affinity. *J. Biol. Chem.* **287**(50):41619-41627.
68. Bolduc, D., Rahdar, M., Tu-Sekine, B., Sivakumaren, S.C., **Raben, D.**, Amzel, L.M., Devreotes, P, Gabelli, S.B., and Cole, P. (2013) Phosphorylation-mediated PTEN conformational closure and deactivation revealed with protein semisynthesis. *Elife* Jul 9;**2**:e00691.
69. Ueda S., Tu-Sekine, B. Yamanoue, M., **Raben, D.M.**, and Shirai, Y. (2013) The expression of diacylglycerol kinase theta during the organogenesis of mouse embryos. *BMC Developmental Biology.* **13**:35.
70. Petro, E., and **Raben, D.M.** (2013) Bacterial expression strategies for several *Sus scrofa* diacylglycerol kinase alpha constructs: solubility challenges. *Scientific Reports* 2013;**3**:160.
71. Tu-Sekine, B., Goldschmidt, H., Petro, E, and **Raben, D.M.** (2013) Diacylglycerol Kinase Theta: Regulation and Stability. *Adv. Biol. Reg.* Jan;**53**(1):118-26.
72. Tu-Sekine, B., Goldschmidt, H, **Raben, D.M.** (2015) Diacylglycerol, Phosphatidic Acid, and their Metabolizing Enzymes in Synaptic Vesicle Recycling. *Adv. Biol. Reg.* Jan;**57**:147-52.

73. Goldschmidt, H.L., Tu-Sekine, B, Volk, L, Anggono, V, Hujanir, R.L., and **Raben, D.M.** (2016) DGK- θ Activity is Required for Efficient Recycling of Presynaptic Vesicles at Excitatory Synapses. *Cell Reports*. **14**(2): 200-207.
74. Sangster-Guity, N, Tu-Sekine, B, **Raben, D.M.**, Denmeade, S.R., Williams, S.A. (2016) Mutational Analysis of Prostate-Specific Antigen Defines the Intrinsic Proteolytic Activity of the proPSA Zymogen. *Prostate*: **76**(13): 1203-1217.
75. Tu-Sekine, B, Goldschmidt, H.L., **Raben, D.M.** (2016) DGK- θ : Structure, Enzymology, and Physiological Roles *Frontiers in Cell and Dev. Biol.* Invited Review. *Published online: <http://journal.frontiersin.org/article/10.3389/fcell.2016.00101/full>* .
76. Tu-Sekine, B, **Raben, D.M.** (2017) Measuring Diacylglycerol Kinase- θ Activity and Binding. *Methods Enzymol*. **583**:231-253.
77. Barber C, Raben, D.M. (2017) Phosphatidic Acid and Neurotransmission. *Adv. Biol. Reg.* Jan **63**:15-21.

Editorial Activities

2013-2018	Editor-in-Chief, <i>Journal of Bioenergetics and Biomembranes</i>
2013	Editorial Board, <i>Current Cancer Drug Targets</i>
2011	Editorial Board, <i>Advances in Biological Regulation</i> (formerly <i>Advances in Enzyme Regulation</i>)
2010	Editorial Advisory Board, <i>Progress in Lipid Research</i>
2010-2015	Editorial Board, <i>The Journal of Biological Chemistry</i>
2006	Editor of Special Edition of <i>Biochem Biophys Acta</i> on Nuclear Signaling
2003-Present	Editorial Board, <i>The Journal of Biological Chemistry</i> (end 6/30/08) Editorial Advisor, <i>The Biochemical Journal</i>
2002-Present	Review Panel for the FIRB Italian Ministry of Education and Research
1992-2007	Editorial Advisor, <i>The Biochemical Journal</i>
1995-2000	Editorial Board, <i>The Journal of Biological Chemistry</i>

Journal Peer Review Activities (Alphabetical)

Ad Hoc Reviewer for:

Analytical Biochemistry
Biochemistry
Biochimica Biophysica Acta-Lipids
Cancer Research
Cell Biology International
Circulation Research
Current Biology
Current Cancer Drug Targets
FASEB Journal
Journal of Lipid Research
Journal of Cellular Biochemistry
Journal of Cellular Physiology
Oncogene
Organic Letters
Molecular Biology of the Cell
Molecular and Cellular Biology
Molecular and Cellular Proteomics
Nature
Neurochemistry
Proceedings of the National Academy of Science
Proteomics
Trends in Biochemical Science

ORGANIZATIONAL ACTIVITIES:

Institutional Administrative Appointments

2013- Chair-Instructor and Assistant Professor Reappointment Review Committee
Present

BCMB Policy Committee

CMM Policy Committee

2006- Associate Director MSTProgram
Present

2005- Instructor and Assistant Professor Reappointment Review Committee
Present

Scientific Foundations of Medicine Committee (for new curriculum)
Endocrinology Committee (for new curriculum)

- MSTP (Medical Scientist Training Program)- Screening Committee
- 2004- Present Co-Director of Metabolism Section (until 2012)
- MSTP (Medical Scientist Training Program) Admissions Committee (1992-present)
- IRG (Institutional Research Grants) Review Committee 1998-present
- 2003- Present Co-Director-Pathways and Regulation (BCMB Course)(to 2005)
- Biological Chemistry Graduate Program Admissions Committee
- MSTP (Medical Scientist Training Program) Admissions Committee (1992-present)
- IRG (Institutional Research Grants) Review Committee 1998-present
- 2008-2014 Associate Professor Promotion Committee
- 2002 Co-Director of Graduate Biochemistry and Cell Biology (BCMB Course-last year of course)
- BCMB Admissions Committee (2002-2011)
- MSTP (Medical Scientist Training Program) Admissions Committee (1992-present)
- IRG (Institutional Research Grants) Review Committee 1998-present
- 1992-2001 Director of Admissions, BCMB (Biochemistry, Cellular and Molecular Biology Graduate Program) (1992-2000)
- Director of Endocrinology Section of Organ Systems Course (1993-2001)
- BCMB Policy Committee (2000-2002)
- BCMB Steering Committee (1987-2000)
- MSTP (Medical Scientist Training Program) Admissions Committee (1992-present)
- IRG (Institutional Research Grants) Review Committee 1998-present
- 1986-1994 Director, Physiology Graduate Program (1988-1994)
- BCMB Admissions Committee (1986-1992)
- BCMB Steering Committee (1987-2000)
- MA/PhD Programs Committee (1988-1994)
- Co-Chairman of BCMB 1990 Retreat Committee

Medical School Council (1990-1992)
BCMB Rotations Committee (1990-1992)
BCMB Curriculum Review Committee (1987-1992)
BCMB Examination Committee (1987-1990)
BCMB 1989 Retreat Committee

CONFERENCE ORGANIZER, SESSION CHAIR

- 2021 Chair, Gordon Research Conference on “Molecular & Cellular Biology of Lipids”, Waterville Valley, NH
- 2019 Co-Chair, Gordon Research Conference on “Molecular & Cellular Biology of Lipids”, Waterville Valley, NH
- 2015 Gordon Research Conference on “Molecular & Cellular Biology of Lipids”
Session Chair, Waterville Valley, NH
- 2013 Gordon Research Conference on “Molecular & Cellular Biology of Lipids”
Session Chair, Waterville Valley, NH
- 2011 Program co-Chair for 2011 Annual ASBMB Meeting
- 2010 Lipid Theme Organizer and Session Chair for 2010 Annual ASBMB Meeting,
April 24-28, 2010, Anaheim California.
- 2009 Fiftieth International Symposium on Regulation of Enzyme Activity And
Synthesis in Normal and Neoplastic Tissues, Bologna Italy, September 2009-
Session Chair
- 2005 Gordon Research Conference on “Signal Transduction Within the Nucleus”,
Buellton CA, 2005-Chairman
- Forty Sixth International Symposium on Regulation of Enzyme Activity And
Synthesis in Normal and Neoplastic Tissues, Bologna Italy, October 2005-
Session Chair
- 1998 Co-Organizer, International Symposium on Compartmentation of
Intracellular Signaling, Victor Harbour, Australia, March 1998

ADVISORY COMMITTEES, REVIEW GROUPS

- 2017 NIH Mail Review for BMCT ZRG1 BMCT-C

2016 NIH Chair ZRG Teleconference Study Section
2016 NIH Chair ZRG Study Section ZRG1 OTC-C(55)
2012- NIH Ad Hoc Reviewer, BMCT, OTC (SBIR)
Present
2003- Scientific Advisory Board for University of Louisville NIH COBRE Grant
Present
2013- FASEB Subcommittee on Training and Career Opportunities
Present
2012- Chair, ASBMB Meetings Committee
Present
2012- Board Member of Experimental Biology
Present
2011- KERN Lipid Conference Board of Directors
2016
2010 Lipid Theme Organizer and Session Chair for 2010 Annual ASBMB Meeting,
April 24-28, 2010, Anaheim California.
2009- ASBMB Meetings Committee
2012
2009- Founder and Director of the ASBMB Lipid Research Division
2013
2008 NIH Site Visit for the Hollings Cancer Center, MUSC, Sept 2008
NIH Site Visit for the Salk Cancer Center, May 2008
NIH Ad Hoc Reviewer for Arthritis, Connective Tissue and Skin Sciences,
Dermatology and Rheumatology, Sept 2008
NIH Ad Hoc Reviewer for Arthritis, Connective Tissue and Skin Sciences,
Small Business Grants, Nov. 2008
2007- NIH National Study Group Member-Basic Mechanisms of Cancer
2011 Therapeutics (BMCT-ONC-Q)-Chartered Member
2005- NIH National Study Group Member-Basic Mechanisms of Cancer
2006 Therapeutics (BMCT-ONC-Q)-Ad Hoc
2006 NIH National Study Group Drug Discovery and Molecular Pharmacology
(DMP)-Ad Hoc
NIH National Study Group Member-Basic Mechanisms of Cancer
Therapeutics (ONC-Q)-Ad Hoc
2003- AHA National Study Group: Cell Function and Metabolism –Chairman
2005
NIH National Study Group Member-Basic Mechanisms of Cancer
Therapeutics (ONC-Q)-Ad Hoc
2003- Scientific Advisory Board for University of Louisville NIH COBRE Grant
2007

- 2001-2003 AHA National Study Group: Cell Function and Metabolism -Co-Chairman
- 1998-2003 NIH Special Review Committee Member-NIAMS
- 1993-1998 American Cancer Society Personnel B Study Section
- 1990 External Reviewer of the Graduate Physiology Program-Howard University, August, 1990

PROFESSIONAL SOCIETIES

American Chemical Society
American Society for Biochemistry and Molecular Biology
American Society for Cell Biology
The Biochemical Society

RECOGNITION

- 2009 Corresponding Member, Class of Physical Sciences, Academy of Sciences of the Università di Bologna (Institute of Bologna Academy of Sciences)
- 2008 Recipient of the Medical School Alumni Excellence in Teaching Award

INVITED SEMINARS at National and International Conferences (selected)

- 2017 58th International Symposium on Biological Regulation, University of Bologna, Bologna Italy, October 2017
- 2016 57th International Symposium on Biological Regulation, University of Bologna, Bologna Italy, October 2016
- 2014 55th International Symposium on Biological Regulation, University of Bologna, Bologna Italy, September 2014
- 2013 Argentine Society for Biochemistry and Molecular Biology (SAIB) Lipid Symposium, November 5-7, 2013, Buenos Aries Argentina
- Gordon Research Conference, Molecular and Cellular Biology of Lipids, Waterville Valley NH, July 2013 (asked to fill in for absent speaker)
- 2012 Fifty Third International Symposium on Regulation of Enzyme Activity And Synthesis in Normal and Neoplastic Tissues, *Enzymology and Physiological Role of Diacylglycerol Kinase-Theta in the Central Nervous System*,

University of Bologna, Bologna Italy, September 2012

Department of Biochemistry, Medical University of South Carolina, August 2013

2010 FASEB Summer Conference on "*Phospholipid Metabolism in Disease, Cell Signaling, and Membrane Dynamics*" Vermont Academy, Snow Mass CO, July 18-23, 2010

2009 Gordon Research Conference on Molecular and Cellular Biology of Lipids, Waterville Valley Resort, July 2009

Fiftieth International Symposium on Regulation of Enzyme Activity And Synthesis in Normal and Neoplastic Tissues, University of Bologna, Bologna Italy, September 2009

Department of Biochemistry and Biomedical Sciences, McMaster University, Hamilton ON, Canada, October 2009

2008 Conference on "*Phospholipid-Mediated Signaling*", Pohang University of Science and Technology (POSTECH), Pohang, Korea Feb 2008.

2007 Gordon Research Conference on "*Signal Transduction Within the Nucleus*", Crowne Plaza, Ventura, CA

2006 FASEB Summer Conference on *Phospholipases*, Vermont Academy, Saxtons River VT

2005 *Enzymology of Diacylglycerol Kinases*, Forty Sixth International Symposium on Regulation of Enzyme Activity And Synthesis in Normal and Neoplastic Tissues, University of Bologna, Bologna Italy, October 2005

2004 *Nuclear Diacylglycerol Kinases*, 58th Congress of the Italian Society for Anatomy and Cell Biology, Symposium, Chieti Italy

2001 *Reciprocal Regulation of Nuclear PLD and DGK- θ* , Forty Second International Symposium on Regulation of Enzyme Activity And Synthesis in Normal and Neoplastic Tissues, September, 2001

Role of G α o in Cellular Transformation, First Annual Opinion Leaders

Roundtable on "Targeted Therapies in the Treatment of Lung Cancer, Aspen CO, January, 2001

1999 *Reciprocal Regulation of Nuclear PLD and DGK- θ* , Italian Society for Histochemistry and Cell Biology, Symposium on Nuclear Signals, Camerino, Italy, June 1999

Regulation of Nuclear PLD, Fortieth International Symposium on Regulation of Enzyme Activity And Synthesis in Normal and Neoplastic Tissues, October 1999

1998 *Regulation of Nuclear PLD by RhoA*, 1998 FASEB Conference on Phospholipases, Vermont Academy, June

1997 *Thrombin-stimulated PC Metabolism in Fibroblasts*, 1997 Gordon Research Conference on Lipid Metabolism:

1994 *Thrombin-stimulated Nuclear PKC*, Keystone Symposium, Protein Kinase C: Regulation, Structure, Function and Role in Human Disease, February 1994

1992 *Thrombin-stimulated Nuclear PKC*, International Conference on Second Messengers and Phosphoproteins, August 1992 (presented by K. Leach)

Thrombin-stimulated Nuclear PC Metabolism, ASBMB/Biophysical Society Symposium: Lipid-Mediated Signal Transduction, February 1992 (presented by Mathew B. Jarpe)

1991 *Molecular Species Analysis of Mitogen-induced Diacylglycerols*, Second International Conference on Nerve Growth Factor and Related Substances, Australia, July 1991

1990 *Molecular Species Analysis of Mitogen-induced Diacylglycerols*, UCLA Symposium on Molecular and Cellular Neurobiology: Neurotrophic Factors, April 1990

Molecular Species Analysis of Induced Diacylglycerols, ASBMB/AAI Symposium: Phosphatidylcholine and Cell Signalling, June 1990

Molecular Species Analysis of Induced Diacylglycerols, Sixth International Symposium on Cellular Endocrinology: Receptor-Mediated Stimulation of

Phosphoinositide Metabolism and Protein Kinase C August 1990

Thrombin-stimulated Lipid Metabolism, ASN Meeting; Receptors, Post-receptor Events and Signalling,, November 1990

INVITED SEMINARS at Universities and Institutes (selected)

External:

Virginia Commonwealth University, Department of Biological Chemistry, March 2017
Stony Brook University, Department of Biochemistry and Cell Biology, Stony Brook, NY 2016
University of Virginia, Department of Pharmacology, Charlottesville VA 2014
Medical College of South Carolina, Charleston SC, 2013
University of Maryland, Department of Chemistry, College Park MD, 2013
Georgia Health Sciences University, Augusta Georgia, 2011
St. Louis University, Department of Biochemistry-2009
Medical College of South Carolina, Department of Biochemistry and Molecular Biology- 2007
St. Louis University, Department of Pharmacological and Physiological Sciences- 2007
The Netherlands Cancer Institute, Division of Cellular Biochemistry, Amsterdam, The Netherlands-2005
The University of Louisville, Department of Biochemistry-2005
National Centre of Biotechnology, Department of Immunology and Oncology, Madrid Spain-2004
University of Arkansas, Department of Physiology- 2002
University of Pennsylvania Medical Center- Institute for Environmental Medicine-1999
Cleveland Clinic, Department of Molecular Cardiology- 1999
Kansas State University, Department of Biochemistry- 1999
Hanson Cancer Research Center, Department of Biochemistry, Adelaide Australia- 1998
Children's Medical Research Center-Sydney, Department of Biochemistry- 1998
The UpJohn Company, Department of Cell Biology- 1996
St. Louis University, Department of Pharmacological and Physiological Sciences- 1995
UpJohn Company, Department of Cell Biology- 1994
University of Pennsylvania School of Medicine-Hershey, Department of Biochemistry- 1994
NIH-Gordon Guroff- 1993
Washington University, Department of Biochemistry- 1993
NIH- Aging Institute- 1992
Kansas State University, Department of Biochemistry- 1986
Kansas State University, Department of Biology- 1986
University of Mississippi, Department of Biochemistry- 1986
University of Mississippi, Department of Pharmacology- 1986
University of Tennessee-Memphis, Department of Biochemistry- 1986

East Tennessee State University, Department of Biochemistry- 1986

Internal-Johns Hopkins University

Johns Hopkins University, Department of Oncology 2013.

Johns Hopkins University, Department of Biological Chemistry- 2006

Johns Hopkins University, Department of Biological Chemistry- 2004

Johns Hopkins University, Department of Biological Chemistry- 2002

Johns Hopkins University, Department of Internal Medicine- 1994

Johns Hopkins University, Department of Oncology- 1992

Johns Hopkins University, Department of Physiology- 1986

Teaching

Graduate Courses

Pathways and Regulation

Macromolecular Structures

The Nucleus

Graduate Biochemistry and Cell Biology

Surface Receptors and Sensory Transduction

Selected Topics in Membrane Biochemistry

Enzymes, Receptors, and Cellular Regulation

Method and Logic (BCMB Curriculum)

Biological Principles for Physical Scientist (IPMB Program)

Medical School Courses

Medical Biochemistry Course-Metabolism (Director)

Intersession on Cachexia

Intersession Lecture on Red Blood Cell Metabolism

Medical Macromolecules-Lecturer (Membranes)

Endocrinology Section of Organ Systems Course

GI Section of Organ Systems Course and Laboratories

Mentorship

Current Graduate Students

Ms. Casey Barber (Biological Chemistry)

Graduate Students Trained

Dr. Melissa Pessin (Medical Scientist Training Program)

Ph.D. 1991 Professor, Chair, Department of Laboratory Medicine, Mem. Sloan Kettering
Dr. Leela Rangan (Biochemistry Cellular and Molecular Biology)

Ph.D. 1994 Science writer

Dr. Matt Jarpe (Biochemistry Cellular and Molecular Biology)

Ph.D. 1995 Director of Biology, Acetylon Pharmaceuticals

Dr. Jie Cheng (Cellular and Molecular Physiology)

Ph.D. 1997 Research Associate JHMI

Dr.. Becky Tu-Sekine (Biochemistry Cellular and Molecular Biology)

Ph.D. 2006. Research Associate JHMI

Dr. Hana Goldschmidt (Biochemistry Cellular and Molecular Biology)-Just graduated

Post-Graduate Students

Dr. Timothy M. Wright (Physician Scientist)

Director of Immunology and Transplant Science, Novartis Chemical Company

Dr. Lisa Bregoli (Postdoctoral Fellow, PhD from the University of Bologna)

Senior Researcher, Veneto Nanotech

Dr.. Becky Tu-Sekine (PhD from Biochemistry Cellular and Molecular Biology)

Research Associate

Dr. Hana Goldschmidt (Biochemistry Cellular and Molecular Biology)-Just graduated

Thesis Committees (Alphabetical)

David Bolduc

Pui Butkinaree

Rebecca Cassidy

Suchismita Chandran

Lingfeng Chen

Win Cheung

Brian Collins

Tamara Doering

Mon-Chou Fann

Tiffany Frey

Zachary Gerhart

Michael Housley

Chuan-Hsiang Huang

Zhiyuan Hu

Adam Hughes

Basil Hussain

Rahki Jattani

Elizabeth Kolar

Janett LeBron

Jieun Lee
Soo Hee Lee
Hannah Little
Yangjian Liu
Fred Lo
Ya-Wen Lu
Jennifer McKee-Johnson
Niraj Mehta
Sachin Mohan
Marcel Estévez Montero
Michael Myceka
Jillian Prendergast
Meenakshi Rao
Adam Resnick
Kaoru Sakabe
Sara Sanders
Thomas Schaffer
Roberta Scherr
Beiyi Shen
Dale Schumaker
Marcus Seldin
Kyoung Sook
Ji Sun
Stephanie Tan (Ying-Lin Stephanie Tan)
Michelle Tang
Ming Tang
Zihao Wang
David Wasserman
Brice Wilson
Ye Ching Wu
Tzu-Lan Yeh
Jr-Ming Yang
Shan Zha