

Curriculum Vitae

Michael R. Brzustowicz, Ph.D.
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Positions Held

2004-pres. User Organization Executive Committee,
Stanford Synchrotron Radiation Laboratory (SSRL)
2001-pres. Post Doctoral Researcher, Stanford University

Education

Ph.D. Indiana University 2001 (Medical Biophysics / Physics)
M.S. Purdue University 1998 (Physics)
B.S. Lehigh University 1996 (Physics)

Awards

2000 Outstanding Physics Graduate Student of the Year Award
1999 First Prize, Graduate Student Research Symposium
1999 Grant in Aid of Research (GIAR), Sigma Xi
1999 Research Grant, Indiana Academy of Science
1999 Honorable Mention, Sigma Xi Research Competition (Also awarded in 2000)
1997 Research Investment Fund (RIF) Fellowship, Indiana University
1997 Educational Enhancement Grant (Also awarded in 1999, 2000)

Affiliations

Biophysical Society, Sigma Xi, American Physical Society

Invited Talks

3. Membrane Lateral Organization
National Synchrotron Light Source
Brookhaven National Lab, Upton NY
June 3, 2002.

2. Molecular Architecture of Model Neural Membranes
Department of Physics
Indiana University Purdue University Indianapolis
April 12, 2001

1. NMR And Diffraction Studies of Polyunsaturated Model Membranes: Applications to
Neural Tissues
Steacie Institute of Molecular Science
Chalk River, ON
January 17, 2001

Publications (+21 abstracts)

9. **Brzustowicz, M. R.** and A. T. Brunger. X-ray scattering from unilamellar lipid vesicles. 2004. *Journal of Applied Crystallography*. in press.
8. Wassall, S. R., S. R. Shaikh, **M. R. Brzustowicz**, V. Cherezov, R. A. Siddiqui, M. Caffrey and W. Stillwell. 2004. Interaction of polyunsaturated fatty acids with cholesterol: a role in lipid raft phase separation. *ACS Biocolloids Proceedings* (in press).
7. Wassall, S. R., **M. R. Brzustowicz**, S. R. Shaikh, V. Cherezov, M. Caffrey and W. Stillwell. 2004. Order from disorder, corralling cholesterol with chaotic lipids. the role of polyunsaturated lipids in membrane raft formation. 2004. *Chemistry and Physics of Lipids* 132: 79-88.
6. Armstrong, V.T., **M. R. Brzustowicz**, S. R. Wassall, L. J. Jencki and W. Stillwell. 2003. Rapid flip-flop in polyunsaturated (docosahexaenoate) phospholipid membranes. *Archives of Biochemistry and Biophysics* 414: 74-82.
5. **Brzustowicz, M. R.**, V. Cherezov, M. Zerouga, M. Caffrey, W. Stillwell and S. R. Wassall. 2002. Controlling membrane cholesterol content. a role for polyunsaturated (docosahexaenoate) phospholipids. *Biochemistry* 41:12509-12519.
4. Shaikh, S. R., **M. R. Brzustowicz**, W. Stillwell and S. R. Wassall. 2002. Monounsaturated PE does not phase separate from lipid raft molecules sphingomyelin and cholesterol: role for polyunsaturation. *Biochemistry* 41:10593-10602.
3. **Brzustowicz, M. R.**, V. Cherezov, M. Caffrey, W. Stillwell and S. R. Wassall. 2002. Molecular organization of cholesterol in polyunsaturated membranes: microdomain formation. *Biophysical Journal* 82: 285-298.
2. Shaikh, S. R. , **M. R. Brzustowicz**, W. Stillwell and S. R. Wassall. 2001. Formation of inverted hexagonal phase in SDPE as observed by solid state ^{31}P NMR. *Biochemical and Biophysical Research Communications* 286: 758 – 763.
1. **Brzustowicz, M. R.**, W. Stillwell and S. R. Wassall. 1999. Molecular organization of cholesterol in polyunsaturated phospholipid membranes: a solid state ^2H NMR investigation. *FEBS Letters* 451: 197 – 202.