

UNIVERSITY OF MIAMI
Curriculum Vitae
Standard Format

1. Date: April 4, 2008

PERSONAL

2. Name: **Ewa P. Wojcikiewicz**

3. Home Phone:

4. Office Phone: (305) 243-3201

5. Work Address: University of Miami Miller School of Medicine
Dept. Physiology and Biophysics
1600 NW 10th Ave, RMSB 5035D
Miami, FL 33136

6. Current Academic Rank: Research Assistant Professor

7. Primary Department: Physiology and Biophysics

8. Secondary or Joint Appointment: None

9. Citizenship: USA

10. Visa Type: -----

HIGHER EDUCATION

11. Institutional:

Post-doctoral Associate, 2004-2005, University of Miami Miller School of Medicine at the Dept. of Physiology and Biophysics. Research Advisor: Vincent T. Moy, Ph.D.

Ph.D. in Physiology and Biophysics, 1999-2004, University of Miami School of Medicine at the Dept. of Physiology and Biophysics. Research Advisor: Vincent T. Moy, Ph.D.

B.S. in Biochemistry and Molecular Biology, 1993-1997. State University of New York at Albany.

12. Non-Institutional: None

13. Certification, licensure: None

EXPERIENCE

14. Academic:

Research Assistant Professor, 2006, University of Miami School of Medicine at the Dept. of Physiology and Biophysics.

Assistant Scientist, 2006, University of Miami School of Medicine at the Dept. of Physiology and Biophysics.

Post-doctoral Associate, 2004-2005, University of Miami School of Medicine at the Dept. of Physiology and Biophysics. Research Advisor: Vincent T. Moy, Ph.D.

Graduate Student 1999-2004, Department of Physiology and Biophysics at the University of Miami School of Medicine. Dissertation work completed in Dr. Vincent T. Moy's laboratory.

Undergraduate Research 1996-1997, Department of Biochemistry and Cell Biology, SUNY Albany. Assistant for Dr. Robert Ossuna.

Undergraduate Research 1994-1995, Department of Cell Biology at the Albert Einstein College of Medicine. Assistant for Dr. Carl Schildkraut.

Undergraduate Research Consultant 1993, Department of Cell and Molecular Biology at the Rockefeller University. Assistant for Dr. James Darnell, Jr.

15. Non-Academic:

Research Assistant 1998, American Diagnostica (Greenwich, CT) through Lab Support Staffing.

16. Military: None

PUBLICATIONS

17. Book chapters and monographs published:

Rico, F., **Wojcikiewicz, E.P.**, Moy V.T. (2008): Atomic Force Microscopy Studies of the Mechanical Properties of Living Cells. (p.89-109). *Applied Scanning Probe Methods, Vol. IX*, Springer-Verlag, Heidelberg.

Wojcikiewicz, E.P., Moy V.T. (2006): Mechanisms of Avidity Modulation in Leukocyte Adhesion Studied by AFM. (p.169-180). *Force Microscopy: Applications in Biology and Medicine*, John Wiley & Sons, Inc.

Wojcikiewicz, E.P., Kwak, K.J., Moy, V.T. (2006): Microscopy, Scanning Force. (p. 503-516). *The Wiley Encyclopedia of Medical Devices and Instrumentation, 2nd Edition*, John Wiley & Sons, Inc.

Zhang, X., Chen, A., **Wojcikiewicz, E.,** Abdulreda, M.H., Banerjee, S., Moy, V.T. (2005): Probing ligand-receptor interactions with Atomic Force Microscopy. (p. 399-413). *Protein-Protein Interactions: A Molecular Cloning Manual*, Cold Spring Harbor Laboratory Press.

Zhang, X, Chen A., **Wojcikiewicz, E.,** and Moy, V.T. (2001): Probing ligand-receptor interactions with Atomic Force Microscopy. (p. 241-254). *Protein-Protein Interactions: A Molecular Cloning Manual*, Cold Spring Harbor Laboratory Press.

18. Refereed journal articles and exhibitions:

Wojcikiewicz, E.P., Koenen, R.R., Fraemohs, L., Minkiewicz, J., Azad, H., Weber, C., Moy, V.T. (2008) LFA-1 binding destabilizes the JAM-A homophilic interaction during leukocyte transendothelial migration (*submitted*).

Ziebarth, N.M., **Wojcikiewicz, E.P.,** Manns, F., Moy, V.T., Parel, J-M. (2007) Atomic Force Microscopy (AFM) for measurement of lens elasticity in primates. *Molecular Vision*, 13:504-510.

Wojcikiewicz, E.P., Abdulreda, M.H., Zhang, X., Moy, V.T. (2006) Force Spectroscopy of LFA-1 and its ligands, ICAM-1 and ICAM-2. *Biomacromolecules*, 7(11):3188-3195.

Zhang, X., **Wojcikiewicz, E.P.,** Moy, V.T. (2006) Dynamic adhesion of T- lymphocytes to endothelial cells revealed by Atomic Force Microscopy. *Experimental Biology and Medicine*, 231(8):1306-1312.

Wojcikiewicz, E.P., Zhang, X.H., Moy V.T. (2004) Force and compliance measurements on living cells using atomic force microscopy (AFM). *Biol Proced Online.*, 6:1-9. Epub 2004 Jan 15.

Wojcikiewicz, E.P., Zhang, X.H., Chen, A., Moy V.T. (2003) Contributions of molecular binding events and cellular compliance to the modulation of leukocyte adhesion. *J.Cell Sci.*, 116:2531-2539.

Zhang, X, **Wojcikiewicz, E,** Moy V.T. (2002) Force spectroscopy of the leukocyte function-associated antigen-1/intercellular adhesion molecule-1 interaction. *Biophys J.*, 83:2270-2279.

Zhang, X., **Wojcikiewicz, E.**, and Moy, V.T. (2002): Probing single ICAM-1/LFA-1 interactions under external force. *Scientific World Journal*, 2:41-2.

19. Abstracts:

Wojcikiewicz, E.P., Azad, H., Minkiewicz, J., Koenen, R.R., Moy, V.T., Weber, C. (2008): Atomic Force Microscopy Studies of Leukocyte Transmigration. 2008 Biophysical Society Meeting Abstracts, *Biophysical Journal*, Supplement, Abstract, 1782-Plat.

Wojcikiewicz, E.P., Azad, H., Koenen, R.R., Moy, V.T. , Weber, C. (2007): Homophilic and heterophilic interactions of JAM-A measured using Atomic Force Microscopy. *Proceedings of the 2007 Miami Beach Nature Biotechnology Symposium*, 18:52.

Wojcikiewicz, E.P., Abdulreda, M.H., Moy, V.T. (2006): Force Spectroscopy of LFA-1 and its ligands. *2006 Biophysical Society Annual Meeting Addendum and Late Abstracts*, L16-Pos.

Wojcikiewicz, E.P., Abdulreda, M.H., Moy, V.T. (2006): Force Spectroscopy of LFA-1 and its ligands. *Proceedings of the 2006 Miami Beach Nature Biotechnology Symposium*, 17:82.

Wojcikiewicz, E.P., Moy V.T. (2005): An AFM Study of the Mechanisms of Avidity Modulation of Leukocyte Adhesion. VII Annual Linz Winter Workshop: Single Molecule Techniques in Biophysics and Drug Discovery, p.34.

Wojcikiewicz, E.P., Zhang, X.H., Moy V.T. (2004): AFM (atomic force microscopy) force and compliance measurements of leukocyte adhesion to ICAM-1. EMBO/FEBS workshop on AFM Applications in Biology, Oeiras, Portugal, p.71.

Wojcikiewicz, E.P., Zhang, X.H., Chen, A, Moy V.T. (2003): Contributions of molecular binding events and cellular compliance to the modulation of leukocyte adhesion. *ESRF Short Talk*.

Wojcikiewicz, E.P., Zhang, X.H., Chen, A, Moy V.T. Contributions of molecular binding events and cellular compliance to the modulation of leukocyte adhesion. *Miami Beach Nature Biotechnology Short Reports*, 14:76.

Zhang, X., **Wojcikiewicz, E.**, and Moy, V.T. (2002): Probing single ICAM-1/LFA-1 interactions under external force. *Miami Beach Nature Biotechnology Short Reports*, 13:21.

Zhang, X., **Wojcikiewicz, E.**, and Moy, V.T. (2000): Discrete interactions in lymphocyte adhesion measured by single- molecule force spectroscopy. *The 40th ASCB Annual Meeting Late Abstract*, L25.

Studer, S., Benitez, I., Moy, V.T., Levay, A. **Wojcikiewicz, E.**, and Turner, G.J. (2000): Bacteriorhodopsin stretched to the limit: An AFM analysis of BR conformers. *Annual Gibbs Conference on Biothermodynamics*.

PROFESSIONAL

20. Funded Research Performed:

Current:

James and Esther King Award (Florida Department of Health)- 2006-2009

\$419,080 for 3 years. Approximately \$140,000/ year in direct costs.

Year One (7/2006-6/2007): \$146,149. \$139,136 in direct costs. \$6,960 in indirect costs.

Year Two (7/2007-6/2008): \$136,465. \$129,967 in direct costs. \$ 6,498 in indirect costs.

Pending:

American Cancer Society Research Scholar Grant- 2009-2012

\$ 709,208 for 4 years. Approximately \$150,000/year in direct costs and 20% in indirect costs.

21. Professional and Honorary Organizations:

1. Biophysical Society, 2005-present
2. Science Advisory Board, 2003- present
3. Presidential Honor Society, 1993-1997
4. Golden Key National Honor Society, 1993-1997

22. Honors and Awards:

Youth Travel Award, EMBO/FEBS workshop on AFM Applications in Biology, Oeiras, Portugal, Jul 2004

23. Other Professional Activities:

Invited Talks

1. Atomic Force Microscopy Conference in Barcelona, Spain, Oct 2008
2. Biophysical Society Conference in Long Beach, CA (platform session), Feb 2008
3. Bascom Palmer Eye Institute, Miami, FL, March 2007
4. Medical University of South Carolina, Charleston, SC, Apr 2005
5. VII Annual Linz Winter Workshop, Linz, Austria, Feb 2005

TEACHING

24. Teaching Specialization:

Small Group Conferences

1. Conference leader in “Respiratory Physiology” spirometry laboratory, 2006-2007

2. Conference leader in “Membrane Biophysics”, 2000-2004, 2008
3. Conference leader in “Neurophysiology”, 2002

25. Thesis and Dissertation Advising/Postdoctoral Fellow Supervision:
 - Dr. Chi Yat Yau, post-doctoral fellow, Apr 2008-present
 - Dr. Felix Rico, post-doctoral fellow, Jul 2006-Sep 2006
 - Jose Briceño, graduate student, Nov 2006- May 2007
 - Julia Minkiewicz, graduate student, Jul 2007-present (anticipated graduation date: 5/2008)

26. Undergraduate/Graduate Student Training:
 - Luis Garcia, graduate student, August 2003
 - Sirshendu Banerjee, graduate student, July 2004- 2005
 - Hashem Azad, undergraduate student, Spring and Summer 2005
 - Brian Deegan, MD/Ph.D. student, Summer 2005
 - Noel Ziebarth, graduate student, May 2005- 2007