

Michael Cammer

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New York State Initial Teaching Certificate in Visual Arts K-12

Education

- 1992 ♦ **Columbia University**, New York, NY, Master of Fine Arts, Painting and Printmaking
- 1989 ♦ **Rhode Island School of Design**, Providence, RI, Master of Arts in Teaching
- 1988 ♦ **Brown University**, Providence, RI, Bachelor of Arts, Honors in Studio Art and *magna cum laude*
- 1984 ♦ **Mamaroneck High School**, Mamaroneck, NY

Teaching

2009 – 2010 ♦ Art Teacher 9-12 students with emotional, mental health, and/or learning challenges
BOCES High School at LIU, Orangeburg, NY and **BOCES High School at West Nyack**, West Nyack, NY

2009 ♦ Art Teacher in Summer Program
New Rochelle Public Library, New Rochelle, NY

2008 – 2009 ♦ Art Teacher K-5 (*Leave Replacement*)
Columbus Elementary School, New Rochelle, NY

2008 ♦ Per Diem Substitute
City of New Rochelle School District, New Rochelle, NY
Middle School, High School & Alternative High School multiple subjects; Elementary classroom & multiple subjects.

1992 – 2008 ♦ Senior Associate, Senior Microscopist, Director of Light Microscopy
Albert Einstein College of Medicine, Bronx, NY
Taught imaging and cell biology to research scientists at all levels. Served as “go to guy” for all things microscopy or imaging related. Focused on imaging for experimental discovery and for graphical presentation. Built popular digital imaging facility within major medical research college. Provided outstanding pictures and custom software solutions for quantification. Recruited faculty, students and staff, served on committees and authored web pages.

1992 ♦ Teaching Assistant, Graduate Colloquium on Contemporary Art
Columbia University, New York, NY
Ran course for department chairman. Liaison between guest lecturers and students. Facilitated discussions, assigned and evaluated papers, assigned all grades.

1989 ♦ Instructor, Continuing Education
Rhode Island School of Design, Providence, RI
Taught children’s summer course in Mixed Media.

1988 – 1989 ♦ Teaching Internships
Hill Roberts Elementary School, North Attleboro, MA, **Classical High School**, Providence, RI and
Alternative Learning Project, Cranston, RI
Taught varied art curricula at high school and elementary levels.

Additional Professional Training

- 2009 ♦ **Westchester Community College**, Introduction to Art Therapy
- 2009 ♦ **Fordham University**, Teaching Science and Technology to Children
- 2009 ♦ **College of New Rochelle**, Teaching Reading Comprehension
- 2008 ♦ **Westchester Community College**, Conversational Spanish
- 2001 ♦ **University of Connecticut Health Center**, Farmington, CT, NRCAM Virtual Cell Modeling
- 1996 ♦ **Chubb Computer Services Corporate Training Division**, NYC, Professional Microsoft Access database training
- 1994 ♦ **North Carolina State University**, Raleigh, NC, Computer-Assisted Image Analysis and Measurement
- 1993 ♦ **Marine Biological Laboratory**, Woods Hole, MA, Optical Microscopy in the Biomedical Sciences
- 1991 ♦ **BioRad**, Cambridge, MA, Confocal microscopy theory and training

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Art Exhibitions (Group Shows)

- 2007 ♦ **Neointegrity**, Derek Eller Gallery, New York, NY
- 2003 ♦ "elocutio, -o-nis", Universidad de Los Andes, Bogota, Colombia
- 2001 ♦ **RISD ON THE ROAD: A Juried Exhibit of Printmaking and Photography by RISD Alumni**, New Art Center, Newtonville, MA; The Art Association's ArtWest Gallery, Jackson, WY; New Orleans Academy of Fine Arts, New Orleans, LA; Woods-Gerry Gallery, Providence, RI; Artemisia Gallery, Chicago, IL; 600 Townsend Gallery, San Francisco, CA; Westbeth Gallery, New York, NY
- 1999 ♦ **Chiaroscuro**, Smack Mellon Studios, Brooklyn, NY
- 1998 ♦ **Transport**, Alternative Space on Jay Street, New York, NY
- 1996 ♦ **12 X 12: A Juried Exhibit of Small Works by RISD Alumni**, Woods Gerry Gallery, Providence, RI; Roger Smith Gallery, New York, NY; HBO Lobby, New York, NY
- 1991 ♦ **MFA Thesis Exhibition**, Prentis Hall, Columbia University, New York, NY
- 1989 ♦ **MAT Thesis Exhibition**, North Main Street, Providence, RI
- 1988 ♦ **Juried Show**, Bell Gallery, Providence, RI

Selected Published Artwork

- 2010 ♦ **Family Motor Coaching**, Snowflake. 47(1) p. 120.
- 2009 ♦ **The New York Times**, Hunts Point, The Bronx, c. 1980. <http://lens.blogs.nytimes.com/2009/11/27/readers/ photo 7>
- 2006 ♦ **American Society for Cell Biology**, Celldance, Winner short video.
- 1998 ♦ Whittemore, H. (1998) **Your Future Self : A Journey to the Frontiers of Molecular Medicine**. Thames & Hudson.
- 1990s ♦ **Sigma Immunochemicals**, Winner of Fifth, Fourth and Third Annual photo contests.
- 1994-2007 ♦ Images published on the covers of scientific journals:
BioTechniques ♦ **The American Journal of Pathology** ♦ **Cell Motility and the Cytoskeleton**
The Journal of Cell Biology ♦ **The Journal of Cell Science** ♦ **Yeshiva Review** ♦ **The Einstein Quarterly**

Lectures

- 2010 ♦ **Westchester Community College**, Guest Lectured in Art Therapy Classes at White Plains and Peekskill, NY
Historical basis of art used as a systematized mechanism to intentionally tap the inner mind for therapy.
- 1991 – 2008 ♦ **Albert Einstein College of Medicine**, Bronx, NY
Lectures, seminars and labs on microscopy in graduate school courses. Presentations for private and federal grant applications funding.
- 2002 ♦ **Sylvester Comprehensive Cancer Center**, University of Miami School of Medicine, Miami, FL
"The Shared Microscope Resource: A Central Spot for Research"
- 1995 ♦ **Schneider Children's Hospital**, Long Island Jewish Medical Center, Hyde Park, NY
"Life and Light from One to Four Dimensions: An Introduction to Confocal Microscopy."
- 1994 ♦ **New York Society of Experimental Microscopists**, NYU Dental College Auditorium, NYC, NY
"Life and Light from One to Four Dimensions: An Introduction to Confocal Microscopy."
- 1993 ♦ **Brown University**, Providence, RI
"On Art and Biomedical Imaging."

Professional Organizations

American Society for Cell Biology; Americans for the Arts; College Art Association; National Center for Science Education; Union of Concerned Scientists

Selected Skills

Computer: Microsoft Office including FrontPage and Access, Photoshop CS3, ImageJ, IPLab, MetaMorph, Volocity, Voxx, VoxBlast, Bitplane, pascal, some C++, some Unix/Linux, JavaScript, HTML.

Fine Arts: Drawing, oil painting, acrylic, water-color, ink, etching, lithography, photography and mixed media including 3D and stop action animation.

Business: Juggle 100+ clients, periodic billing, prepare budgets and projections, teach at all levels, advise on grant applications, raise funds, recruit at all levels, author web pages.

Microscopy: Biological light microscopy and optics, microinjection, brightfield, phase contrast, fluorescence, TIRF, Nomarski, crossed polarization, confocal, multi-photon, deconvolution, *in vivo*, *in vitro*, Time Correlated Fluorescence Lifetime, ratio FRET, FRAP, FLIP, experimental design, analysis and presentation.

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Professional Authorships

1. Cammer, W., Zhang, H. and **Cammer, M.** Glial Cell Abnormalities in the CNS of the Carbonic Anhydrase II Deficient Mouse. *J Neurolog. Sci.* 1993;118:1-9.
2. Staecker, H., **Cammer, M.**, Rubinstein, R. and Van De Water, T.R. A procedure for RT-PCR amplification of mRNAs on histological specimens. *BioTechniques*, 1994;16:76-80.
3. Novikoff, P.M., **Cammer, M.**, Tao, L., Oda, H., Stockert, R.J., Wolkoff, A.W. and Satir, P. Three-dimensional organization of rat hepatocyte cytoskeleton: relation to the asialoglycoprotein endocytosis pathway. *J. Cell Science*, 1996;109:21-32.
4. **Cammer, M.**, Wyckoff, J. and Segall, J.E. Computer-assisted analysis of single-cell behavior in *Methods in Molecular Biology, Vol. 75: Basic Cell Culture Protocols, second edition*, 1997 (Pollard, J.W. and Walker, J.M., eds.) Humana Press, NJ, pp. 459-470.
5. Satir, P., Novikoff, P.M., **Cammer, M.** and Wolkoff, A. Regulation of vesicular transport during receptor-mediated endocytosis in hepatocytes by cytoplasmic dynein. In *Recent Advances in Microscopy of Cells, Tissues and Organs*. 1997;pp. 381-388.
6. Rivera, J., Feldmesser, M., **Cammer, M.** and Casadevall, A. Organ-dependent variation of capsule thickness in *Cryptococcal neoformans* during experimental murine infection. *Infection and Immunity*. 1998;66(10):5027-5030.
7. Wadler, S., Zhang, H., **Cammer, M.** and Hu, X.P. Quantification of Ribonucleotide Reductase Expression in Wild-Type and Hydroxyurea-Resistant Cell Lines Employing in Situ Reverse Transcriptase Polymerase Chain Reaction and a Computerized Image Analysis System. *Anal Biochem* 1999;267(1):24-29.
8. Bailly, M., Macaluso, F., **Cammer, M.**, Chan, A., Segall, J.E. and Condeelis, J.S. Relationships between Arp2/3 complex and the barbed ends of actin filaments at the leading edge of carcinoma cells after EGF-stimulation. *J. Cell Biol.*, 1999;145(2):331-345.
9. Teitelbaum, R., M. **Cammer, M.**, Maitland, M.L., Freitag, N.E., Condeelis, J., and Bloom, B.R. Mycobacterial infection of macrophages results in membrane-permeable phagosomes. *Proc Natl Acad Sci U S A*, 1999;96(26):15190-15195.
10. Bailly, M., Wyckoff, J., Bouzahzah, B., Hammerman, R., Sylvestre, V., **Cammer, M.**, Pestell, R., and Segall, J.E. EGF receptor distributions during chemotactic responses. *Mol Biol Cell* 2000;11(11):3873-3883.
11. Rodriguez-Gabin, A.G., **Cammer, M.**, Almazan, G., Charron, M., and Larocca, J.N. Role of rRAB22b, an oligodendrocyte protein, in regulation of transport of vesicles from trans Golgi to endocytic compartments. *J Neuro Res* 2001;66:1149-1160.
12. **Cammer, M.** Some uses of fluorescent Plexiglas in fluorescent microscopy. *Microscopy Today*, Sep-Oct 2002, p.36.
13. Yeh, R.H., Yan, X., **Cammer, M.**, Bresnick, A.R. and Lawrence DS. Real time visualization of protein kinase activity in living cells. *J Biol Chem* 2002;277(13):11527-32.
14. Cox, D., Berg, J. S., **Cammer, M.**, Chingewundoh, J. O., Cheney, R. E., and S. Greenberg. Myosin-X as a downstream effector of PI 3-kinase during phagocytosis. *Nature Cell Biology* 2002;4(7):469-477.
15. Shankar SL, O'Guin K, **Cammer M**, McMorris FA, Stitt TN, Basch RS, Varnum B and Shafit-Zagardo B. The Growth Arrest Specific Gene product Gas6 Promotes the Survival of Human Oligodendrocytes through a PI 3-Kinase-Dependent Pathway. *J Neurosci* 2003;23(10):4208-18.
16. Neumeister, P, Pixley, F., Xie, H., Wu1, K., Ashton, A., **Cammer, M.**, Chan, A., Symons, M., Stanley, E.R. and Pestell, R.G. Cyclin D1 governs adhesion and motility of macrophages. *Mol Biol Cell* 2003;14(5):2005-15.
17. Bonuccelli G, Sotgia F, Schubert W, Park DS, Frank PG, Woodman SE, Insabato L, **Cammer M**, Minetti C, Lisanti MP. Proteasome inhibitor (MG-132) treatment of mdx mice rescues the expression and membrane localization of dystrophin and dystrophin-associated proteins. *Am J Pathol.* 2003;163(4):1663-75.
18. Chen, J.-G., Huang Yang, C.P., **Cammer, M.** and Horwitz, S.B. Gene expression and mitotic exit induced by microtubule stabilizing drugs. *Cancer Res* 2003;62(7):1935-8.
19. Zhang X, Schwartz JC, Guo X, Bhatia S, Cao E, Lorenz, M, **Cammer, M**, Chen L, Zhang ZY, Edidin MA, Nathenson SG, Almo SC. Structural and functional analysis of the costimulatory receptor programmed death-1. *Immunity*. 2004;20(3):337-47.
20. Goswami, S., Sahai, E., Wyckoff, J., **Cammer, M.**, Cox, D., Pixley, F., Stanley, E.R., Segall, J. and Condeelis, J. Macrophages promote the invasion of breast carcinoma cells via a CSF-1/EGF paracrine loop. *Cancer Research*, 2005;65(12):5278-83 PMID: 15958574
21. **Cammer, M.** "Toll House" Recipe Cookies Do Not Maintain Their Morphology Under Heat Stress Conditions. *Annals of Improbable Research* 2005; 11(4):16-19.
22. Azios, NG, Krishnamoorthy, L, Harris, M., Cubano, LA, **Cammer, M**, Dharmawardhane, SF. Estrogen and Resveratrol Regulate Rac and Cdc42 Signaling to the Actin Cytoskeleton of Metastatic Breast Cancer Cells. *Neoplasia*. 2007;9(2):147-158. PMID: 17356711
23. El-Sibai M, Nalbant P, Pang H, Flinn RJ, Sarmiento C, Macaluso F, **Cammer M**, Condeelis JS, Hahn KM, Backer JM. Cdc42 is required for EGF-stimulated protrusion and motility in MTLn3 carcinoma cells. *J Cell Sci.* 2007 Oct 1;120(Pt 19):3465-74. PMID: 17855387
24. Chaskes S, Frases S, **Cammer M**, Gerfen G, Casadevall A. Growth and Pigment Production by *Cryptococcus gattii*, *Cryptococcus neoformans*, and *Candida albicans* from D-Tryptophan. *J Clin Microbiol.* 2008 Jan;46(1):255-64. PMID: 17989195
25. van Rheenen J, Song X, van Roosmalen W, **Cammer M**, Chen X, Desmarais V, Yip SC, Backer JM, Eddy RJ, Condeelis JS. EGF-induced PIP2 hydrolysis releases and activates cofilin locally in carcinoma cells. *J Cell Biol.* 2007 Dec 17;179(6):1247-59. PMID: 18086920
26. Roohi, J, **Cammer, M**, Montagna, C, Hatchwell, E. An Improved Method for Generating BAC DNA Suitable for FISH. *Cytogenet Genome Res.* 2008;121(1):7-9. Epub 2008 May 7. PMID: 18544919
27. Marmon S, **Cammer M**, Raine CS, Lisanti MP. Transcellular migration of neutrophils is a quantitatively significant pathway across dermal microvascular endothelial cells. *Exp Dermatol.* 2009 Jan;18(1):88-90. Epub 2008 Nov 19. PMID: 19040450
28. Marmon S, Hinchey J, Oh P, **Cammer M**, de Almeida CJ, Gunther L, Raine CS, Lisanti MP. Caveolin-1 expression determines the route of neutrophil extravasation through skin microvasculature. *Am J Pathol.* 2009 Feb;174(2):684-92. PMID: 19164603
29. **Cammer, M**, Gevrey, J-C, Lorenz, M, Dovas, A, Condeelis, J, Cox, D. The mechanism of CSF-1 induced WASP activation in vivo: A Role for PI 3-kinase and Cdc42. *J Biol Chem.* 2009 Aug 28;284(35):23302-11. Epub 2009 Jun 26. PMID: 19561083
30. Schneider L, **Cammer M**, Lehman J, Nielsen SK, Guerra CF, Veland IR, Stock C, Hoffmann EK, Yoder BK, Schwab A, Satir P, Christensen ST. Directional cell migration and chemotaxis in wound healing response to PDGF-AA are coordinated by the primary cilium in fibroblasts. *Cell Physiol Biochem.* 2010;25(2-3):279-92. Epub 2010 Jan 12. PMID: 20110689