

Amy Ouellette Cornell, Ph.D.

65 Hemlock Drive
Killingworth, CT 06419
860.304.7576
amyocornell@gmail.com

PROFILE Biologist with teaching and research experience in secondary school, university, corporate, and government institutions in the U.S. and in the U.K.

EDUCATION

Ph.D., University of Cambridge, UK, 2003
M.Phil., University of Cambridge, UK, 2000
B.S., Manhattanville College, NY, 1999

TEACHING INTERESTS

Biology, biochemistry, cell and molecular biology, immunology, anatomy and physiology, synthetic biology, bioengineering, microbiology, astrobiology, scientific writing, robotics, and laboratory skills/techniques

TEACHING AND RESEARCH EXPERIENCE

MIDDLESEX COMMUNITY COLLEGE, MIDDLETOWN, CT 2016-present
Biochemistry, Fall —Adjunct Professor
Introduction to Biology, Spring —Adjunct Professor

THE COUNTRY SCHOOL, MADISON, CT 2016-present
Science Teacher---Kindergarten
STEAM Teacher—Preschool, Pre-Kindergarten, Kindergarten
Robotics Coach—4th-8th Grade

IKONISYS, INC., NEW HAVEN, CT 2008-2009
Bioassay development for a prostate cancer detector- Research Scientist

YALE UNIVERSITY, YALE SCHOOL OF MEDICINE, CT 2007-2008
Discovery of small molecule inhibitors for cancer proteins – Research Fellow

QDX, INC. / ABBOTT LABORATORIES, BRANFORD, CT 2007-2008
Bioassay development for a blood cell quantification device - Consultant

STANFORD UNIVERSITY, ELECTRICAL ENGINEERING, CA 2004-2006
Developed a microfluidic assay and biosensor – Post-Doctoral Fellow
Undergraduate Immunology - Mentor

NASA AMES RESEARCH CENTER, BIOENGINEERING, CA 2003-2005
Evaluated a diagnostic platform using self-assembling molecules - Consultant
Studied interactions of Gim C and heat shock protein 60 - Post-Doctoral Fellow

UNIVERSITY OF CAMBRIDGE, VETERINARY MEDICINE, UK 1999-2003
Supervised veterinary student research - Teaching Assistant
Led journal club for undergraduates - Teaching Assistant
Tested drug analogs at Pattern Recognition Receptors - Research Assistant
Studied the regulation of inflammatory proteins - Doctoral Candidate

PRESENTATIONS

Isolation of circulating tumor cells in whole blood using a one-step filtration Technique. 12/10/08, Ikonisys, Board of Directors Meeting, New Haven, CT

Detection of Circulating Tumor Cells in whole blood: Isolation and Quantification. 05/05/08, Oxford University, Weatherall Institute of Molecular Medicine, Oxford, UK

Auotaxin regulation and the development of small molecule inhibitors. 10/05/07, Yale University School of Medicine, Pathology Department, New Haven, CT

Sandwich affinity assay on lateral flow platforms using up-converting phosphors labels. 05/08/06, SRI International, Sensor Systems Laboratory, Menlo Park, CA

Building better biosensors. 06/20/06, Lawrence Livermore National Laboratory, Bioengineering, Livermore, CA

Development of a non-invasive handheld immunosensor. 08/12/05, National Space Biomedical Research Institute Annual Retreat, Houston, TX

Development of tetramer nanostructures for photovoltaics. 04/18/05, Bioengineering, Stanford University, Palo Alto, CA

Photovoltaic devices using microbial proteins. 03/16/05, NASA Ames Research Center, Nanotechnology Branch, Moffett Field, CA.

Is Gim C a molecular co-chaperone? 01/26/05, NASA Ames Research Center, Astrobiology Branch, Moffett Field, CA.

Translocation of Gim C in *Sulfolobus solfataricus* using fluorescent microscopy. 11/10/04, NASA Ames Research Center, Astrobiology Branch, Moffett Field, CA.

Cloning and expression of Gim C from *Sulfolobus solfataricus*. 09/22/04, NASA Ames Research Center, Nanotechnology Branch, Moffett Field, CA.

The effects of lipopolysaccharide antagonist E5531 in equine bone marrow cells. 12/11/02, Department of Veterinary Medicine, Cambridge, U.K.,

Equine tissue factor localization and regulation during lipopolysaccharide challenge. 06/12/01, University of Bristol, Pharmacology, Bristol, U.K.,

Equine tissue factor cloning and expression. 04/14/00, Department of Veterinary Medicine, Cambridge, U.K.,

AWARDS AND GRANTS

Ruth L. Kirschstein National Research Service Award, Yale, 2007-2008
National Space Biomedical Research Institute Fellowship, Stanford 2006
National Research Council Fellowship, NASA Ames, 2003-2005
Morris Animal Foundation Grant, Cambridge, 1999-2003
Delivered Valedictory Address, Manhattanville, 1999
Presidential Merit Scholarship, Manhattanville, 1997-1999
Tri-Beta National Biological Honors Society Grant, Manhattanville, 1998

SELECTED PUBLICATIONS

Ouellette A.L., Cooper D.E., Ricco T.J., Kovacs G.T.A., (2009). Evolving point-of-care diagnostics using up-converting phosphor bio-analytical systems. *Anal Chem.* 81(9):3216-21

Ouellette, A.L., Saunders, L., Bandie R., Chang WC., Zhou H., Misra RN., De La Cruz EM., Braddock DT. (2008) Identification of small-molecule inhibitors of autotaxin. That inhibit melanoma cell migration and invasion. *Mol Cancer Ther.*7(10): 3352-62.

Li, J.J., **Ouellette, A.L.**, Giovangrandi, L. Cooper D.E., Ricco A.J., Kovacs, T.A.,(2008) Optical Scanner for Immunoassays with Up-Converting Phosphorescent Labels. *IEEE Trans Biomed Eng.* 55(5): 1560-71.

Bryant C.E, **Ouellette A.**, Lohmann, K., Vandenplas, M., Moore, J.N., Maskell, D.J., Farnfield B.A, (2007). The cellular Toll-like receptor 4 antagonist E5531 can act as an agonist in horse whole blood. *Vet Immunopathol.* 116 (3-4): 182-9.

Ouellette A.L., Evans R.J., Heath M.F., (2004). Platelets enhance endotoxin-induced monocyte tissue factor (TF) activity in the horse. *Research in Veterinary Science.*76:31-35.

REFERENCES UPON REQUEST