

CURRICULUM VITAE

Khameeka N. Kitt-Hopper, Ph.D.

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EDUCATION

- 2008-2014 Stanford University, Stanford, CA
Postdoctoral Fellow and Research Associate in Biology Department
- 2002-2008 University of Arizona, Tucson, AZ
Ph.D. in Cell Biology and Anatomy
Dissertation Title: The Small GTPase Rab14 Regulates Arf1 Activation and Apical Targeting at the Trans-Golgi Network
- 1998-2002 Saint Mary's College of California, Moraga, CA
B.S. in Health Science

TEACHING EXPERIENCE

- 2017-present Assistant Professor of Biology, Biology Department, Saint Mary's College of California, Moraga, CA
- 2015-2017 Assistant Professor of Biology, Natural Science Department, Notre Dame De Namur University, Belmont, CA
- 2014-2015 Core Biology Faculty Lecturer - Natural Science Department, Notre Dame De Namur University, Belmont, CA
- 2014 Teaching fellow for "Cancer Problem" course in the Thinking Matters program with Joe Lipsick, M.D., Ph.D., Stanford University, Stanford, CA. Course discussed the social, political and scientific aspects of cancer on society – lectured and taught small discussion sections based off main lecture (Spring 2014 Quarter)
- 2014 Co-taught Bio129A Cellular Dynamics I course with postdoctoral mentor, W. James Nelson, Ph.D. Biology Department, Stanford University, Stanford, CA. Administered a block of lectures on cell adhesion and moderated literature discussion sections and generated problem sets (Winter 2014 Quarter)
- 2012 SIMR Cancer Biology Program, Stanford University, Stanford, CA – introduction to cancer lecture (undergraduate students)
- 2012 African American Breast Cancer Conference, Oakland, CA – lecture on the basics of cell biology and cancer formation
- 2010-2014 Volunteer, Stanford Genetic Scientist at the San Jose Tech Museum, San Jose, CA
Taught adults and children about the life sciences; used hands-on demonstrations; wrote answers to genetic-based questions for the general public
- 2004-2008 Mentoring of undergraduate and graduate students on various projects in the laboratory of Jean M. Wilson, University of Arizona, Tucson, AZ
- 2000 Teaching Assistant- Medical School Gross Anatomy Lab (College of Medicine), University of Arizona, Tucson, AZ (under the direction of Dr. Maria H. Czuzak)

MENTORING EXPERIENCE

- 2009-2015 Mentor for the Stanford Association for Women in Science (AWIS) Mentoring Program –served as a mentor for female graduate students in science and engineering departments
- 2013 Mentored rotating graduate student on project pertaining to initial cell-cell adhesion – laboratory of W. James Nelson (Winter 2013 Quarter)

- 2012 NSF EFRI Grant Mentor (bioengineering students), Stanford, CA
Developed and organized science project for visiting summer community college student; worked with student to collect, analyze, and present data in poster and oral presentation formats
- 2010 Stanford Summer Research Program in Biomedical Sciences (SSRP)/Amgen Scholars
Program Mentor, Stanford, CA
Developed and organized science project for visiting summer student; worked with student to collect, analyze, and present data in poster and oral presentation formats

TEACHING INTERESTS

Teaching interests include human anatomy and physiology, cell and molecular biology, cancer biology, general biology, kinesiology, science/medical ethics, science research techniques

COURSES TAUGHT

Human biology (lower division anatomy and physiology course), General biology I and II laboratory, Introductory Biology laboratory, Cell/Molecular Biology lecture and laboratory, Human Anatomy lecture and lab, Human Physiology lecture and laboratory, Writing for the Sciences, Cancer Biology, and Independent study/research (career planning)

EDUCATION COURSES

- 2015-2016 College Teaching and Learning Certificate, Escala Educational Services, LLC, San Mateo, CA
- 2012 Future Faculty Seminar Series CTL 231/INDE 231 School of Medicine, Stanford University, Stanford, CA
- 2009 Science and Engineering Course Design CTL312, Stanford University, Stanford, CA

WORKSHOPS

- 2016 SEPAL Scientific Teaching Summer Institute and Fall Workshops Program, August 1-3rd, San Francisco State University, San Francisco, CA
- 2016 Process Oriented Guided Inquiry Learning (POGIL) Workshop, June 28-20th, Santa Clara University, Santa Clara, CA
- 2016 iPad Technology Institute, Lynn University, May 23-25th, Boca Raton, FL
- 2015 Minorities Affairs Committee (MAC) 10th Annual Junior Faculty and Postdoctoral Fellows Career Development Workshop, University of Houston-Downtown, July 16-18th, Houston, TX

DISSERTATION

Title: The Small GTPase Rab14 Regulates Arf1 Activation and Apical Targeting at the Trans-Golgi Network

Advisor: Jean M. Wilson, Ph.D.

Description: Research studies addressed two main cell biology conundrums. Discovered that the small GTPase Rab14 affects the trafficking of proteins to the apical domain of polarized cells and that Rab14 regulates Arf1 and COPI dynamics at the trans-Golgi network (TGN) during vesicle formation. These studies demonstrated a functional role for Rab14 at the TGN and apical endosomes, and identified a proteinaceous coat at the TGN involved in apical targeting. Graduate research on Rab14 provided further evidence that small GTPases (i.e. Rabs and Arfs) work together to regulate vesicle trafficking in the late secretory pathway and that Rab14 defines another pathway for efficient apical targeting.

RESEARCH EXPERIENCE

- 2013-2014 Research Associate, Stanford University, Stanford, CA – W. James Nelson Laboratory
- 2008-2013 Postdoctoral Fellow, Stanford University, Stanford, CA- W. James Nelson Laboratory
- 2006-2008 Graduate Research Associate, University of Arizona, Tucson, AZ- Jean Wilson Laboratory

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Curriculum Vitae

- 2003-2006 Graduate Research Assistant, University of Arizona, Tucson, AZ- Jean Wilson Laboratory
2002-2003 Graduate Research Assistant, University of Arizona, Tucson, AZ- Lab rotations under advisors Raymond Runyan, Jean Wilson, and Patricia Hoyer
2001 Minority Health Disparities Summer Research Opportunity (Biomedical Sciences), University of Arizona, Tucson, AZ- Jean Wilson Laboratory

PUBLICATIONS

Bianchini JM, **Kitt KN**, Gloerich M, Pokutta S, Weis WI, Nelson WJ. *Reevaluating α E-catenin monomer and homodimer functions by characterizing E-cadherin/ α E-catenin chimeras.* J Cell Biol. 2015 Sep 28;210(7):1065-74.

Kitt, K.N. and Nelson, W.J. *Rapid Suppression of Activated Rac1 by Cadherins and Nectins during De Novo Cell-Cell Adhesion.* PLoS One. 2011 Mar 11;6(3):e17841

McCarter, S.D., Johnson, D.L., **Kitt, K.N.**, Donohue, C., Adams, A. Wilson, J.M. *Regulation of tight junction assembly and epithelial polarity by a resident protein of apical endosomes.* Traffic. 2010 Jun; 11(6): 856-66

Jelinek, D., Mount Patrick, S., **Kitt, K.N.**, Chan, T., Gordon, F., Garver, W. *Physiological and coordinate downregulation of the NPC1 and NPC2 genes are associated with sequestration of LDL-derived cholesterol within endocytic compartments.* Journal of Cellular Biochemistry 2009 December 1;108(5):1102-16.

Kitt, K.N., Hernandez-Deviez, D., Ballantyne, S.B., Spiliotis, E.T., Casanova, J.E., and Wilson, J.M. *Rab14 Regulates apical targeting in polarized epithelial cells.* Traffic. 2008 July; 9(7): 1218-1231.

RESEARCH INTERESTS

Research interests center around the mechanisms of initial cell-cell adhesion and membrane trafficking at the molecular level in mammalian epithelial cells. My current research goals aim to determine how Rho GTPases are involved in stabilizing epithelial cell-cell adhesions and their upstream and downstream binding partners using cell imaging and biochemical techniques. Rho GTPases are molecular switches that can be turned on and off by GEFs (guanine nucleotide exchange factors) and GAPs (GTPase activating proteins), respectively to regulate various cellular processes. Determining the GEFs and GAPs involved in initiating, maturing, and maintaining cell-cell adhesion remains elusive. My current postdoctoral work focuses on the GEF Asef, which appears to have a role in the maturation and maintenance of endothelial (blood vessel) cell-cell adhesion. My current studies aim to determine whether Asef is involved in regulating endothelial adherens junctions, tight junctions, or both.

GRANTS AND ACADEMIC AWARDS/FELLOWSHIPS

- 2016 Notre Dame De Namur University (NDNU) Faculty Development Grant – Project title: Using Anatomical Models to Facilitate Student-Guided Inquiry Learning
2015 Science Undergraduate Research Grant (SURG) award from LI-COR Biosciences – for the purchase of an Odyssey Fc Imaging System
2011-2013 National Institutes of Health F32 NRSA Individual Postdoctoral Fellowship, awarded by the NIH to Khameeka N. Kitt (Stanford University, Stanford, CA) (5/1/2011-5/1/2013)
2011 The American Society for Cell Biology Minorities Affairs Committee (MAC) Travel Award
2011 American Society for Cell Biology (ASCB) Poster Award for 2nd place in Postdoctoral Poster Competition, Denver CO
2010-2011 Cancer Biology Postdoctoral Fellowship-NIH NRSA Institutional Fellowship, awarded by Stanford University, Stanford, CA (4/30/2010-4/30/2011)
2008-2010 National Institutes of Health Postdoctoral Minority Supplement Grant Study Award, Stanford University, Stanford, CA- William James Nelson Laboratory (12/1/2008-4/30/2010)

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2007-2008	Graduate College Fellowship Scholarship, Department of Cell Biology and Anatomy, University of Arizona, Tucson, AZ
2007	Marshall Foundation Fellowship, Graduate College, University of Arizona, Tucson, AZ
2006-2007	Graduate College Fellowship Scholarship, Department of Cell Biology and Anatomy, University of Arizona, Tucson, AZ
2003-2007	Graduate Registration Scholarship, Department of Cell Biology and Anatomy, University of Arizona, Tucson, AZ
2005	The American Society for Cell Biology Minorities Affairs Committee (MAC) Travel Award
2005-2006	Graduate Registration Scholarship, Department of Cell Biology and Anatomy, University of Arizona, Tucson, AZ
2004-2005	Graduate Registration Scholarship, Department of Cell Biology and Anatomy, University of Arizona, Tucson, AZ
2003-2005	National Institutes of Health Minority Supplement Grant Study Award, University of Arizona, Tucson, AZ- Jean Wilson Laboratory
2003	The American Society for Cell Biology (ASCB) Scholarship Award for attending Physiology Course, Marine Biological Laboratory, Woods Hole, MA
2003	Physiology Course, Marine Biological Laboratory, Woods Hole, MA, participant
2002-2003	National Institute of Health Initiative for Minority Student Development (IMSD) Graduate Study Award (1st year funding of graduate school)
2002	Magna Cum Laude, Saint Mary's College of California, Moraga, CA
1999	Minority Health Disparities Summer Research Fellowship (Biomedical Sciences), University of Arizona, Tucson, AZ
1998-2002	Dean's Honor List Member, Saint Mary's College of California, Moraga, CA
1999-2002	Saint Mary's Honor Society Member
1998-2002	Academic Clougherty Scholarship Award

RESEARCH SKILLS

- Tissue culture techniques including growing and maintaining a variety of cell lines, DNA transfection of recombinant proteins, siRNA knockdown, preparation of stable cell lines
- Molecular biology techniques including PCR, RT-PCR, subcloning, agarose and acrylamide gel electrophoresis, primer preparation
- Microscopy: light, fluorescence, and immunofluorescence
- Microbial culture techniques including preparation of competent cells, growing *E. coli*, transformation of bacteria, recombinant protein expression
- Protein expression techniques including protein expression and purification, FPLC, GST/His- pulldowns, affinity chromatography, western blotting, BCA protein assay

INVITED GUEST SEMINARS

2016	African American Breast Cancer Conference sponsored by the Stanford Cancer Institute Community Partnership Program (SCI-CPP) "The Cancer Conundrum: Genetics, Environment, or Both?" South San Francisco Conference Center, May 14 th , South San Francisco, CA (worked with Pamela Ratliff, Senior Manager)
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- 2015 UCSF Minority Training Program in Cancer Control Research (MTPCCR) Program “One Bad Apple Destroys the Crop: Investigating the Connections between Cells, Cancer, and Diagnosis.” UCSF Medical Center, June 6th, San Francisco, CA
- 2015 African American Breast Cancer Conference sponsored by the Stanford Cancer Institute Community Partnership Program (SCI-CPP) “One Bad Apple Destroys the Crop: Investigating the Connections between Cells, Cancer, and Diagnosis.” South San Francisco Conference Center, May 2nd, South San Francisco, CA
- 2013 Keck Science Department of Claremont McKenna, Pitzer, and Scripps College Joint Biology and Physics Colloquium “A Role for Asef in the Maturation and Maintenance of Endothelial Cell-Cell Adhesions.” Claremont, CA, November 7th.
- 2013 African American Breast Cancer Conference sponsored by the Stanford Cancer Institute Community Partnership Program (SCI-CPP) “Cancer Biology at Glance: The Good, the Bad, and the Ugly.” South San Francisco Conference Center, May 4th, South San Francisco, CA
- 2012 SIMR Cancer Biology Lecture Series “Cell Biology and Cancer: What’s the Connection.” Stanford University, Stanford, CA
- 2012 African American Breast Cancer Conference sponsored by the Stanford Cancer Institute Community Partnership Program (SCI-CPP) “Cancer Biology at a Glance: When Cells Behave Badly.” The Cathedral of Christ the Light, May 4th, Oakland, CA
- 2011 “Constructing the Epithelial Cell-Cell Contact.” Mills College Biology Department Faculty Seminar Series, April 26th, Oakland, CA

CONFERENCES ATTENDED

- 2017 Transforming STEM Higher Education Conference – Discovery, Innovation, and the Value of Evidence sponsored by the Association of American Colleges and Universities (AAC&U). November 2-4, San Francisco, CA
- 2017 National Center for Science and Civic Engagement (SENCER) Summer Institute Conference. August 3-6, Stony Brook University, Stony Brook NY
- 2013 The American Society for Cell Biology, 53rd Annual Meeting. December 14-18, New Orleans, LA
- 2013 Emerging Frontiers in Research and Innovation (EFRI-REM) National Science Foundation Awardees Meeting. March 8-10, Washington, D.C.
- 2012 Annual Biomedical Conference for Minority Students (ABRCMS) Annual Meeting. November 7-10, San Jose, CA – Served as a judge for posters and presentations; recruitment of postdoctoral fellows and undergraduates to Stanford University
- 2011 The American Society for Cell Biology, 51st Annual Meeting. December 3-7, Denver, CO
- 2011 Society for Advancement of Chicanos and Native Americans in Science (SACNAS) Annual Meeting. November 27-30, San Jose, CA – Presented a poster in the postdoctoral networking session and recruited future postdoctoral fellows to Stanford University
- 2011 Cell Contact and Adhesion Gordon Conference. June 19-24, Mount Snow Resort West Dove, VT
- 2010 Annual Biomedical Conference for Minority Students (ABRCMS) Annual Meeting. November 10-13, Charlotte, NC – Served as a judge for posters and presentations; recruitment of postdoctoral fellows and undergraduates to Stanford University
- 2009 Annual Biomedical Conference for Minority Students (ABRCMS) Annual Meeting. November 4-7, Phoenix, AZ – Served as a judge for posters and presentations
- 2009 The American Society for Cell Biology, 49th Annual Meeting. December 5-9, San Diego, CA
- 2008 The American Society for Cell Biology, 48th Annual Meeting. December 13-17, San Francisco, CA

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- 2007 Institute on Teaching and Mentoring Conference, October 25-28, Arlington, VA- sponsored by SREB-State Doctoral Scholars Program
- 2006 The American Society for Cell Biology, 46th Annual Meeting. December 9-13, San Diego, CA
- 2005 Cell Polarity and Asymmetric Cell Divisions. Keystone Symposia, March 4-8, Coeur d'Alene, ID
- 2005 The American Society for Cell Biology, 45th Annual Meeting. December 10-14, San Francisco, CA
- 2004 Protein Lipidation, Signaling, and Membrane Domains. FASEB Summer Research Conference, July 24-29, Tucson, AZ

ABSTRACTS

- 2013 Kitt, K.N. and Nelson, W.J. (2013) A Role for Asef in the Maturation and Maintenance of Endothelial Cell-Cell Adhesion. (American Society for Cell Biology)
- 2011 Kitt, K.N. and Nelson, W.J. (2011) Rapid Suppression of Activated Rac1 by Cadherins and Nectins during De Novo Cell-Cell Adhesion. 1551/B294 (American Society for Cell Biology)
- 2011 Kitt, K.N. and Nelson, W.J. (2011) Rapid Suppression of Activated Rac1 by Cadherins and Nectins during De Novo Cell-Cell Adhesion. (Gordon Conference Poster Session)
- 2009 Kitt, K.N. and Nelson, W.J. (2009). Dynamics of Rac1 GTPase Activity at De Novo Cell-Cell Adhesions. 477/B424 (American Society for Cell Biology)
- 2008 Kitt, K.N., Elliott, D.E., and Wilson, J.M. (2008). Rab14 Modulates Arf1 and COPI recruitment at the TGN. 223/B166 Abstract (American Society for Cell Biology).
- 2005 Kitt, K.N. and Wilson J.M. (2005). Distinct BFA-Induced Tubulation of Apical and Basolateral Membranes at the TGN. MBC 16:723a Abstract (American Society for Cell Biology)

WORK EXPERIENCE

- 1999-2003 Student Assistant for Office of Black Student Programs and Academic Advising, Saint Mary's College of California, Moraga, CA
- 2001-2002 Resident Advisor for Freshman, Saint Mary's College of California, Moraga, CA
- 2002 Saint Mary's College Summer Athletic Camp Counselor, Saint Mary's College of California, Moraga, CA

UNIVERSITY/ACADEMIC SERVICE

- 2016 Faculty Development Chair of Technology Subcommittee, Notre Dame De Namur University, Belmont, CA
- 2015-present Faculty Development Committee member, Notre Dame De Namur University, Belmont, CA
- 2015-2016 Freshman Year Experience Task Force for Curriculum Development, Notre Dame De Namur University, Belmont, CA
- 2012-2014 Association for Women in Science (AWIS) Mentoring program, Co-Chair, Stanford University, Stanford, CA
- 2011 Academic Advisory Committee for Departmental Review of Cell Biology and Anatomy Department, University of Arizona, Tucson, AZ
- 2008-2011 Association for Women in Science (AWIS) Mentoring program, Stanford University, Stanford, CA
- 2008-2011 Association for Women in Science (AWIS) Mentoring program, Stanford University, Stanford, CA – postdoctoral mentor for graduate students in engineering and life sciences

MEMBERSHIPS

- 2005-present The American Society for Cell Biology (ASCB), member
- 2011-2015 Association for Women in Science (AWIS) – Palo Alto Chapter
- 2002-2004 Sigma Xi Scientific Research Society, member