Jimmy Blair, Ph.D.
Assistant Professor of Chemistry

Williams College
47 Lab Campus Drive
Williamstown, MA 01267

T: (413) 597–4417 · F: (413) 597–4150
Jimmy.A.Blair@williams.edu

Education

2002 – 2008 University of California, Berkeley · Ph.D. in Chemistry
Dissertation: *Chemical genetic tools to measure and regulate cellular kinase activity*
Advisor: Dr. Kevan Shokat

1998 – 2002 Carleton College · Northfield, MN · B.A. in Chemistry *magna cum laude*
Advisor: Dr. David Alberg

Appointments

2012 – Present Williams College · Williamstown, MA
Assistant Professor · Department of Chemistry

2008 – 2012 Stanford University · Stanford, CA
NIH Postdoctoral Fellow · Department of Developmental Biology
Advisor: Dr. Lucy Shapiro

2007 Carleton College · Northfield, MN
Visiting Instructor · Department of Chemistry

Teaching experience

Williams College · Williamstown, MA
2013 & 2014 Chemistry 326: Chemical Biology: Discoveries at the Interface
2013 & 2014 Chemistry 156: Introductory Organic Chemistry Laboratory
2014 Chemistry 11: Science for Kids (Winter Study Period course)
2012 & 2013 Chemistry 251: Intermediate Organic Chemistry Lecture
2012 Chemistry 251: Intermediate Organic Chemistry Laboratory

Carleton College · Northfield, MN
2007 Visiting Instructor · Chemistry 233L: Organic Chemistry I Laboratory
2002 Undergraduate Teaching Assistant · Chemistry 234: Organic Chemistry II

University of California, Berkeley
2003 – 2005 Graduate Student Instructor · Chemistry 3A: Chemical Structure and Reactivity

Undergraduate trainees

Williams College · Williamstown, MA
2013 – Present Chau Vo ’14: Honors thesis research
2013 – Present Anna Zhou ’14: Honors thesis research
2013 – Present Rebecca Dryer ’15: Summer & Work study research assistant
2013 – Present Shannon Zikovich ’15: Summer & Work study research assistant

2013 – Present Ronald Govin '17: Work study research assistant
2013 Elizabeth Berggren '15: Work study research assistant
2012 – 2013 Bryn Falahee '13: Honors thesis research
2012 – 2013 Peter Young '13: Honors thesis research
2012 – Present Undergraduate research trainees to date: 8

Publications

2013 **Blair, J. A.**; Xu, Q.; Childers, W. S.; Mathews, I. I.; Kern, J. W.; Eckart, M.; Deacon, A. M.; Shapiro, L. Branched signal wiring of an essential bacterial cell-cycle phosphotransfer protein. *Structure* **2013**, *21*, 1590–1601.

2012 Barkovich, K. J.; Hariono, S.; Garske, A. L.; Zhang, J.; **Blair, J. A.**; Fan, Q. W.; Shokat, K. M.; Nicolaides, T.; Weiss, W. A. Kinetics of Inhibitor Cycling Underlie Therapeutic Disparities between EGFR-Driven Lung and Brain Cancers. *Cancer Discov* **2012**, *2*, 450–457.

2010 Amin, D. N.; Sergina, N. V.; Ahuja, D.; McMahon, M.; **Blair, J. A.**; Wang, D.; Hann, B.; Koch, K. M.; Shokat, K. M.; Moasser, M. M. Resiliency and vulnerability in the HER2-HER3 tumorigenic driver. *Sci Transl Med* **2010**, *2*, 16ra7.

2009 Wong, C. H.; Baehner, F. L.; Spassov, D. S.; Ahuja, D.; Wang, D.; Hann, B.; **Blair, J.**; Shokat, K. M.; Welm, A. L.; Moasser, M. M. Phosphorylation of the SRC epithelial substrate Trask is tightly regulated in normal epithelia but widespread in many human epithelial cancers. *Clin Cancer Res* **2009**, *15*, 2311–2322.

2008 Apsel, B.; **Blair, J. A.**; Gonzalez, B.; Nazif, T. M.; Feldman, M. E.; Aizenstein, B.; Hoffman, R.; Williams, R. L.; Shokat, K. M.; Knight, Z. A. Targeted polypharmacology: discovery of dual inhibitors of tyrosine and phosphoinositide kinases. *Nat Chem Biol* **2008**, *4*, 691–699.

2007 **Blair, J. A.**; Rauh, D.; Kung, C.; Yun, C.-H.; Fan, Q.-W.; Rode, H.; Zhang, C.; Eck, M. J.; Weiss, W. A.; Shokat, K. M. Structure-guided development of affinity probes for tyrosine kinases using chemical genetics. *Nat Chem Biol* **2007**, *3*, 229–238.

2007 Sergina, N. V.; Rausch, M.; Wang, D.; **Blair, J.**; Hann, B.; Shokat, K. M.; Moasser, M. M. Escape from HER-family tyrosine kinase inhibitor therapy by the kinase-inactive HER3. *Nature* **2007**, *445*, 437–441.

Funding

2009 – 2011 NIH Kirschstein–NRSA Postdoctoral Fellowship
Dissection of Phospho-signaling that Controls the Caulobacter Cell Cycle
$97,684 · Grant #5F32AI082915-02

Professional activities and committee work

2012 – Present BiMO (Biochemistry and Molecular Biology) Program, Williams College
2013 – Present Committee on Undergraduate Life, Williams College
2013 – Present Science Executive Committee, Williams College Science Center
2013 External reviewer for South Carolina EPSCoR/IDeA GEAR:RE program
2008 – 2009 Reviewed scientific articles for *Cancer Research*

Presentations

2013 Bronfman Science Center Lunch Speaker Series, Williams College:
Building a key from scratch

2012 4th *Caulobacter* Meeting, McGill University, Montreal, Canada, presentation:
The ChpT crystal structure reveals key features for recognition of its three cognate proteins

2012 JCSG 10th Annual Meeting, The Scripps Research Institute, presentation:
Structural clue to understanding the Caulobacter crescents *cell cycle*

2010 3D Club, Department of Developmental Biology, Stanford University, presentation:
The hunt for regulators of an essential histidine kinase in Caulobacter

2008 Chemical Biology in the Bay Area Meeting, presentation:
Designed to report: A kinase affinity probe quantifies EGFR inhibition in cells

2007 Carleton College Department of Chemistry Research Seminar, presentation:
Harnessing the power of chemical genetics: Rationally-designed affinity probes for tyrosine kinases report EGFR inhibition in cells

2002 223rd ACS National Meeting, poster:
Trypanothione reductase inhibition: Synthesis of mechanism-based inhibitors

Honors and awards

2002 Carleton College Distinction in the Major

2002 Carleton College Distinction in the Integrative Exercise

2002 American Institute of Chemists Outstanding Achievement in Chemistry

2002 Sigma Xi Honor Society

1993 Eagle Scout, Boy Scouts of America

Interests

2003 – 2004 President, Cal Cycling, University of California, Berkeley cycling team

1998 – 2002 NCAA Division III athlete, Carleton College: cross-country, track & field

Landscape & travel photography · Alpine skiing · Home coffee roasting