CURRICULUM VITAE

KRISTEN HOLBROOK, PH.D. CANDIDATE

Biochemistry, Cellular & Molecular Biology Department
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Knoxville, TN 37996

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EDUCATION AND DEGREES

Ph.D.	Ongoing	Biochemistry/Cell Biology, University of Tennessee, Dr. Barry Bruce
M.S.	2012	Biochemistry/Cell Biology, University of Tennessee, Dr. Rose Goodchild
B.S.	2007	Biochemistry wHonors, Molecular and Cellular Biology; University of Tennessee

APPOINTMENTS

2014-present	Teaching Assistantship, Biochemistry, Molecular & Cellular Biology Department
2012-2013	Research Assistantship, Biochemistry, Molecular & Cellular Biology Department
2008-2011	Teaching Assistantship, Biochemistry, Molecular & Cellular Biology Department
2006-2008	Research Technician, Laboratory of Dr. Nitin Jain

PUBLICATIONS

Holbrook, K.,* Subramanian, C.*, Wright, S., Zhang, H., and Bruce, B.D. 2013. Functional analysis of the semi-conserved FGLK motif in plastid transit peptides of flowering plants. *These authors contributed equally to this work. *In preparation.*

Holbrook, K.,* Vander Heyden, A.*, Naismith, T., Goodchild, R.E., Hanson, P. 2013. ER-localized oligomerization of LULL1 promotes relocalization of ΔE torsinA. *These authors contributed equally to this work. *In preparation.*

Jungwirth, M., Dear, M.L., Brown, P.B., **Holbrook, K.,** Goodchild, R.E. 2010. Relative tissue expression of homologous torsins can explain the neuronal specific importance of DYT1-dystonia associated torsinA. *Human Molecular Genetics*. (5) 888-900.

Albright, S., Chen, B., **Holbrook, K.**, Jain, N. 2008. Solution NMR studies provide structural basis for endotoxin pattern recognition by the innate immune receptor CD14. *Biochemical and Biophysical Research Communications.* 368(2): 231-237.

HONORS

2014	ASPB Travel Grant, Portland, OR
2013	Chancellor's Award for Extraordinary Professional Promise, University of Tennessee
2013	ASPB Travel Grant, Providence RI
2013	Wright Graduate Research Award, University of Tennessee
2013	SARIF Summer Graduate Research Assistantship, University of Tennessee
2013	Chancellor's Award for Extraordinary Professional Promise, University of Tennessee
2013	Beverley Green Young Investigator Award for Best Presentation, 22nd Western Photosynthesis Conference, Pacific Grove CA

2013 Plant Research Center Travel Award, University of Tennessee
2012 Best Presentation Award, 38th Midwest/Southeast Photosynthesis Conference, Marshall, IN
2012 Plant Research Center Travel Award, University of Tennessee
2012 Graduate Student Senate Travel Award, University of Tennessee
2012 ASPB Travel Grant, Austin TX
2012-2013 Gibson Fellow, University of Tennessee, Knoxville
2010 Grant Writing Institute Fellow, University of Tennessee, Knoxville
2004-2007 EdScholar Scholarship
2003-2007 Member of Chancellor's Honor Society
2003-2007 Bicentennial Scholarship, University of Tennessee, Knoxville

PRESENTATIONS AND POSTERS

2014 Speaker, 23rd Western Photosynthesis Conference, Pacific Grove CA
2013 Poster, ASPB National Conference, Providence, RI ASPB Travel Award
2013 Invited Speaker, Departmental Retreat, University of Tennessee, Knoxville TN
2013 Speaker, 22nd Western Photosynthesis Conference, Pacific Grove CA
Beverley Green Young Investigator Award for Best Presentation
2012 Speaker, 38th Midwest/Southeast Photosynthesis Conference, Marshall IN
Best Presentation Award
2012 Poster, ASPB National Conference, Austin, TX ASPB Travel Award
2012 Speaker, 2012 Southern Section ASPB Meeting, Myrtle Beach, SC

TEACHING EXPERIENCE

2014 Guest Lecturer and Teaching Assistant in Advanced Cell Biology (BCMB 311)
2013 Guest Lecturer and Teaching Assistant in Advanced Cell Biology (BCMB 311)
2013 Supervisor for NSF "Research Experience for Undergraduates (REU)" program
2011 Teaching Assistant in Introductory Physiology BSc course (BCMB 230)
2011 Science Fair Judge, Tate's School of Discovery, Knoxville TN
2010 Teaching Assistant in Introductory Genetics BSc course (BCMB 240)
2010 Teaching Assistant in Advanced Biochemistry BSc course (BCMB 401)
2009 Guest Lecturer, Advanced Cell Biology (BCMB 311)
2009 Teaching Assistant in Advanced Biochemistry BSc course (BCMB 401)
2009 Teaching Assistant in Introductory Biology BSc course (Biology 140)
2009 Math and Science Center Summer Mentoring Program
2009 Bio-Processing Module, Tennessee Science Olympiad
2009 Pre-Collegiate Research Scholars Program

RECOGNITION FOR EDUCATIONAL MENTORING

2014 Supervisor, Amber Bassett, Best Undergraduate Poster, 23rd Western Photosynthesis Conference
2013 Supervisor, Amber Bassett, ASPB travel grant, Providence RI
2013 Supervisor, Amber Bassett, Undergraduate Research Scholarship
2013 Supervisor, Amber Bassett, Poster at 22nd Western Photosynthesis Conference

2012 Supervisor, Amber Bassett, Gibson Fellowship, University of Tennessee
2011 Supervisor, Ryne Black, NSF REU Fellow, University of Alabama
2010 Supervisor, Daniel Xu, Regional Poster Contest Winner, Pre-Collegiate Research Scholars Program
2010 Supervisor, Elizabeth Wunschel, Poster at Pre-Collegiate Research Scholars Program
2009 Supervisor, Zac Horner, Poster at Math and Science Center Mentoring Program

EXPERIENCE

Computer Skills: Microsoft Office Suite, ImageJ, NIS-elements, OpenLab, MOE, GraphPad Prism

Biochemistry: Recombinant protein expression (*P.pastoris, S.frugiperda* (SF9), *E.coli);* isotopic labeling; protein purification (column chromatography); protein characterization (SDS-PAGE, BN-PAGE, Western Blotting, crosslinking, Co-IP); enzyme kinetics (radioactive GTPase experiments: $Y^{32}P$-labeled GTP), protein import kinetics (radioactive protein chloroplast import assays)

Molecular Biology: Site-directed mutagenesis techniques; DNA manipulation techniques including ligations, subcloning, PCR

Microscopy: Cell imaging: epi-fluorescence microscopy, Labeling techniques

Tissue Culture: Mammalian cell lines (CHO, TREX CHO, HEK293, HeLa, BHK21); Transfections and dual transfections with DNA and siRNA; Transient and stably transfected; biolistic transformations

REFERENCES

Barry D. Bruce, Professor
Sustainable Energy & Education Research Center
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Cynthia Peterson, Professor
Associate Dean, College of Arts and Sciences
Biochemistry, Cellular & Molecular Biology Department
Program in Genome Science and Technology
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