
BIOGRAPHICAL SKETCH

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NAME Hollenbach, Andrew Durrell	POSITION TITLE Assistant Professor of Genetics		
eRA COMMONS USER NAME aholle			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Delaware, Newark, DE	B.S. (cum laude)	1985 – 1989	Chemistry
Johns Hopkins University, Baltimore, MD	Ph.D.	1989 – 1995	Biochemistry
St. Jude Children's Research Hospital, Memphis, TN	Post-doctoral Researcher	1995 – 2001	Genetics

PERSONAL STATEMENT:

Dr. Hollenbach, a National Cancer Institute funded researcher, will be the Principal Investigator of this project. He has worked in the field of transcriptional regulation for fifteen years. During this time he has investigate how the altered biological properties of the oncogenic fusion transcription factor Pax3-FOXO1 contribute to the development of the childhood solid muscle tumor Alveolar Rhabdomyosarcoma. The present proposal, where we examine the regulation of gene expression by the wild-type transcription factor FOXO1, stems directly from these earlier investigations. Of particular importance to the feasibility of this proposal is his extensive experience in the techniques and theories required to analyze gene expression and transcriptional activity, including DNA binding, transcriptional reporter assays, real time RT-PCR, and mutational analysis. Dr. Hollenbach has published many peer-reviewed articles in this field. His administrative experience as the PI of an NIH-funded (R01CA138656), Louisiana state-funded (Board of Regents #067A-04), and institutional-funded grants, in addition to his nearly seven years of experience managing projects within his lab, attest to his ability to meet the administrative needs of the propose project.

POSTITIONS AND HONORS:

Positions and Employment

1989 – 1995 Graduate Researcher, Johns Hopkins University, Baltimore, MD
1995 – 2001 Postdoctoral Researcher, St. Jude Children's Research Hospital, Memphis, TN
2001 – 2003 Research Associate in Genetics, St. Jude Children's Research Hospital, Memphis, TN
2003 – present Assistant Professor of Genetics, Louisiana State University Health Sciences Center, New Orleans, LA

Other Experience and Professional Memberships:

1998 – 1999 Member, St. Jude Children's Research Hospital Postdoctoral Review Committee
1998 – 2001 Member, Executive Council for the St. Jude Children's Research Hospital Council of Postdoctoral Fellows
2001 – 2003 Member, St. Jude Children's Research Hospital Institutional Animal Care and Usage Committee
2006 – present The American Society for Human Genetics
2009 – present The American Society for Biochemistry and Molecular Biology
2008 *Ad hoc* Reviewer, Protein Expression and Purification
2009 *Ad hoc* Reviewer, Nucleic Acids Research
2009 *Ad hoc* Reviewer, International Journal of Biochemistry and Cell Biology

Honors:

- 1993 The Harry D. Kruse Award in Nutrition and Public Health, The Johns Hopkins University School of Hygiene and Public Health, Baltimore, MD
- 2006 Louisiana Cancer Research Consortium Immediate Response Award, Louisiana State University Health Sciences Center, New Orleans, LA
- 2008 Louisiana Cancer Research Consortium Travel Award, Louisiana State University Health Sciences Center, New Orleans, LA

SELECTED PEER-REVIEWED PUBLICATIONS:

(References in bold are most relevant to the feasibility of the present proposal.)

1. Lam, P. Y.-P., Sublett, J. E., Hollenbach, A. D. and Roussel, M. F. (1999) "The oncogenic potential of the Pax3-FKHR fusion protein requires the Pax3 homeodomain recognition helix but not the Pax3 paired-box DNA binding domain." *Mol. Cell. Biol.* 19, 594-601.
2. **Hollenbach, A. D., Sublett, J. E., McPherson, C. J. and Grosveld, G. (1999) "The Pax3-FKHR oncoprotein is unresponsive to the Pax3-associated repressor hDaxx." *EMBO Journal* 18, 3702-3711.**
3. Hollenbach, A. D., McPherson, C. J., Lagutina, I., and Grosveld, G. (2002) "The EF-hand calcium-binding protein calmyrin inhibits the DNA-binding and transcriptional activity of Pax3." *Biochim. Biophys. Acta* 1574(3), 321-328.
4. Hollenbach, A. D., McPherson, C. J., Mientjes, E. J., Iyengar, R. and Grosveld, G. (2002) "Daxx and histone deacetylase II associate with chromatin through an interaction with core histones and the chromatin-associated protein Dek" *J. Cell Sci.* 115, 3319-3330.
5. Pritchard, C., Grosveld G. and Hollenbach, A. D. (2003) "Alternative splicing of *Pax3* produces a transcriptionally inactive protein." *Gene* 305, 61-69.
6. Miller, P. J. and Hollenbach, A. D. (2007) "The oncogenic fusion protein Pax3-FKHR has a greater post-translational stability relative to Pax3 during early myogenesis" *Biochim. Biophys. Acta* 1770(10), 1450 – 1458.
7. Bakkar, N., Wang, J., Ledner, K. J., Wang, H., Dahlman, J., Carathers, M., Acharyya, S., Rudnicki, M. A., Hollenbach, A. D., and Guttridge, D. C. (2008) "IKK/NF- κ B Regulates Skeletal Myogenesis Via a Signaling Switch to Inhibit Differentiation and Promote Mitochondrial Biogenesis" *J. Cell Biol.* 180(4), 787 – 802.
8. **Sidhu, A., Miller, P. J., Johanson, K. E., and Hollenbach, A. D. (2008) Novel flanking DNA sequences enhance FOXO1a DNA binding affinity but do not alter DNA bending. *Biochemistry* 47:6809-18.**
9. Miller, P. J., Dietz, K. N., and Hollenbach, A. D. (2008) Identification of serine 205 as a site of phosphorylation on Pax3 in proliferating but not differentiating primary myoblasts. *Protein Sci* 17:1979-86.
10. Dietz, K. N., Miller P. J., and Hollenbach, A. D. (2009) "Phosphorylation of Ser205 by Casein kinase II persists on Pax3-FOXO1a, but not Pax3, throughout myogenic differentiation" *Biochemistry* (revision submitted)
11. **Sidhu, A. and Hollenbach A. D. (2009) "Isolation of putative FOXO1 genomic elements using an improved in vitro technique to isolate genomic regulatory sequences", *Gene* (manuscript in revision)**
12. **Sidhu, A., Miller, P. J., and Hollenbach, A. D. (2009) "Transcriptional regulation of the anti-oxidant ceruloplasmin promoter by FOXO1" *Free Rad. Biol. and Med.* (manuscript submitted)**
13. Dietz, K. N., Miller, P. J., and Hollenbach A. D. (2009) "Identification of Ser201 as a site of phosphorylation by GSK3 β in proliferating but not differentiating primary myoblasts" *Biochemistry* (manuscript submitted)

RESEARCH SUPPORT:

Ongoing Research Support:

R01CA138656

Hollenbach (PI)

6/01/09 – 3/31/14

NCI

"Mechanism of regulation for the oncogenic Pax3-FOXO1 in Alveolar Rhabdomyosarcoma"

