

William P. Ranahan II

Education:

8/07 – 7/13

PhD in Biochemistry and Molecular Biology

Dissertation Title “The Oncogenic Properties of Amot80 in Mammary Epithelia”

Indiana University School of Medicine

Research Focus: Tumor initiating events in mammary epithelial cancer. Specifically, the role of epithelial polarity proteins coordinating loss of polarity with pro-growth signaling events such as the MAPK and Hippo pathways.

Pertinent coursework: Developmental Genetics, Advanced Topics in Molecular Biology, Advanced Biochemistry, Stem Cell Biology, Gene Transfer Approaches, Molecular Cancer Genetics, Cancer Signaling,

1/01 – 4/05

B.S., Magna Cum Laude, 3.64, Biology

Oral Roberts University

Pertinent coursework: Molecular Cell Biology, Microbiology, Genetics, Immunology, Organic Chemistry, Recombinant DNA Technology, Biochemistry, Biostatistics.

Mastered Techniques

- Lentiviral/Retroviral stable gene expression
- siRNA/shRNA transient/stable silencing
- Mammalian tissue culture (primary & stable cell lines)
- 3D matrix cultures (matrigel)
- Immunofluorescence and confocal microscopy
- Quantitative PCR of DNA and cDNA
- Nucleic acid extraction (DNA & RNA)
- Forward/Reverse DNA transfection
- Design and execution of cloning strategies
- Immunohistochemistry
- SDS/PAGE resolution of proteins
- Immunoprecipitation of proteins
- Membrane and sucrose gradient fractionation

Teaching/Research Experience:

08/13

Assistant Professor

Department of Biology and Chemistry

Lecture and Lab Responsibilities: Genetics, Molecular Cell Biology, Methods in Biotechnology, and Bio111

Oral Roberts University

- 10/12** **Guest Lecture, Anderson University, Anderson, IN.**
Course, Human Health and Sexuality, Topic, “Neurobiology of Addiction.”
Instructor: Prof. Lisa Pay
- 10/05 – 4/06** **Research Associate, ZymoGenetics, Seattle, WA**
Department of Molecular and Cell Based Discovery
Supervisors: Betty Haldeman and Joe Kuijper, Scientists
Responsibilities: RNA protocols including RNA preparation, quantization, and quality control via the Agilent Bioanalyzer. Numerous PCR and DNA methods. Also responsible for upkeep of large DNA and RNA archives.
- 8/04 – 4/05** **Senior Research Project, “Identification of Differentially Expressed Genes of Murine Inner Cell Mass and Embryonic Stem Cells.” ORU, Tulsa, OK**
Advisor: Dr. Sarah Myer
Responsibilities: Identified research issue, collected and reviewed current articles, prepared and defended research to senior biology class and biology faculty as well as to the BBB Honors Society Annual Regional Meeting.
- 1/04 – 4/05** **Laboratory Assistant for Genetics, Molecular Cell Biology and Immunology courses, Department of Biology, ORU, Tulsa, OK**
Responsibilities: Coordinated and supervised the following - PCR, gel electrophoresis, western/southern/northern blots, and column chromatography. Lab equipment maintenance and use; agar and protein mix preparations; live organism preparation (*Drosophila*, *E. coli*); solution preparations. Helped students understand and perform molecular techniques and lab safety protocol.
- 8/04 – 4/05** **President of Mu Kappa chapter of Tri-Beta National Biological Honor Society, ORU, Tulsa, OK**
Responsibilities: Organized weekly meetings to plan outreaches, research opportunities, guest speakers, and graduate research preparedness.
- 8/04 – 4/05** **Student Government Association President of Graduate and Commuter Affairs, ORU, Tulsa, OK**
Responsibilities: Organization of events, budget revisions, team dynamics training and execution, interpersonal communications with hundreds of students, personal accountability to upper administration.

8/04 – 4/05

Student Association President of Student Council, ORU, Tulsa, OK

Responsibilities: Prepared weekly reports for legislative committees, coordinated weekly diplomacy between student representatives and upper administration, achieved final approval of all legislation.

Awards:

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| 10/14 | Recognition of Accomplishment for Advances in Breast Cancer Research, ORU Presidential Summit, Dana Point CA |
| 11/13 | Recipient of the Donald A. Milligan Memorial Endowed Cancer Research Fund |
| 5/10 | David M. Gibson Award for Outstanding Graduate Research 1 st Place, Sigma Xi Research Competition |
| 5/10 | First Place Award, Basic Science Category, IU Simon Cancer Center, Annual Cancer Research Day |
| 4/10 | Outstanding Oral and Poster Presentation, 2010 Biochemistry Research Day IUPUI |

Publications:

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| 10/13 | Adler JJ, Johnson DE, Heller BL, Bringman LR, Ranahan WP, Conwell MD, Sun Y, Hudmon A, Wells CD. (2013) "Serum Deprivation Inhibits the transcriptional co-activator YAP and Cell Growth via phosphorylation of the 130-kDa isoform of Angiomotin by the LATS1/2 protein kinases" <u>Proceedings of the National Academy of Science</u> 2013 Oct 22;110(43):17368-73. |
| 2/13 | Adler, JJ., Heller, B.L., Bringman, L. R., Ranahan, W.P., Cocklin, R.R., Goebel, M.G. Oh, M., Lim, H., Ingham, R.J., and Wells, C.D. (2013) "Amot130 adapts Atrophin-1 Interacting Protein 4 to inhibit Yes-associated Protein signaling and cell growth" <u>Journal of Biological Chemistry</u> 2013 May 24;288(21):15181-93. |
| 1/11 | Ranahan, W. P., Z. Han, W. Smith-Kinnaman, S. C. Nabinger, B. Heller, B.-S. Herbert, R. Chan and C. D. Wells (2011). "The Adaptor Protein AMOT Promotes the Proliferation of Mammary Epithelial Cells via the Prolonged Activation of the Extracellular Signal-Regulated Kinases." <u>Cancer Research</u> 71(6): 2203-2211. |
| 4/08 | Sanford, J. R., P. Coutinho, J. A. Hackett, X. Wang, W. Ranahan and J. F. Caceres (2008). "Identification of Nuclear and Cytoplasmic mRNA Targets for the Shuttling Protein SF2/ASF." <u>PLoS ONE</u> 3(10): e3369. |

References:

- Hal Reed, Professor of Biology, Department of Biology and Chemistry, Oral Roberts University, Phone (918-495-6945), hreed@oru.edu
- Lisa Pay, Professor of Social Work, Department of Sociology, Social Work, Criminal Justice, and Family Science, Anderson University, Phone (765) 641-4515, Email: ldpay@anderson.edu
- Dr. Ronald C. Wek, Showalter Professor, Biochemistry and Molecular Biology Department, Indiana University School of Medicine, Phone (317) 274-0549, Email: rwek@iupui.edu