**Anna S. Roessing-Zewe**

**Senior Standards Project Specialist**

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**Experience**

**Senior Standards Project Specialist**- UL Standards & Engagement: Evanston, IL (February 2023 – present)

* Successfully handles high-visibility, controversial, or politically sensitive projects with general supervision
* Applies superior knowledge and application of department policies and procedures to new situations
* Uses project management skills and strategies that raise awareness of project delays and proactively offers solutions rather than waiting for direction.
* Leverages established credibility with internal and external customers to drive for results.
* Performs other duties as directed that contribute to the organizations needs or directives.
* Presenter on standards activities.
* Reviewing and approving drafts of technical standards documents to ensure accuracy, clarity, and adherence to guidelines.
* Reviewing and approving applications for new technical committee members while maintaining balanced rosters.
* Facilitating meetings and the decision-making process, consensus-building among stakeholders, and driving the committee towards agreement on critical standards, recommendations, and decisions.
* Volunteers on the Evanston Activities Committee and Environmental Health and Safety Team.

**Medical Technologist 1**- Rush University Medical Center: Chicago, IL (October 2020 – February 2023)

Cellular Flow Cytometry Lab: Department of Pathology

* Maintained compliance with CLIA and CAP safety and best-practice guidelines
* Prepared and analyzed a variety of samples (blood, bone marrow aspirate, tissue biopsy, fine needle aspirate, bronchial lavage, peritoneal fluid, and CSF) for flow cytometry tests including immunophenotyping, lymphocyte analysis, and stem cell quantification to aid physicians in diagnosing and treating disease
* Operated a Navios flow cytometer (Coulter) and analyzed .FCS files using Kaluza
* Cross-trained in Molecular Oncology to learn specimen preparation for DNA/RNA-based testing including chimerisms, BCR-ABL mutations, BCL2 translocation, and JAK2 mutations
* Trained to perform FFPE tissue-based Idylla assays to detect actionable solid organ gene mutations including BRAF, EGFR, KRAS, NRAS, and MSI
* Performed quality control on AcT Diff cell counters and TQ-Prep cell fixers (Coulter) within the laboratory using appropriate control samples and ranges
* Performed four color and ten color set-up and quality control on Navios flow cytometers

**Research Technologist 2**- Northwestern University: Chicago, IL (November 2018 – October 2020)

Robert H. Lurie Comprehensive Cancer Center: Departments of Immunology and Urology

***sMIC in prostate cancer development and metastases*** – Jennifer D. Wu, Ph.D.

* Optimized sandwich ELISA protocols with coworkers for high-sensitivity electrochemiluminescent assays (MSD) of human sera samples
* Authored and generated figures for an in-progress manuscript addressing controversies in the field
* Wrote and edited numerous animal use protocols
* Developed methods for PCR-based genotyping of a mouse strain expressing a human transgene
* Performed multi-color flow cytometry on mouse blood to study the efficacy of antibody depletion on a BD Fortessa
* Analyzed .FCS files using FloJo version 10
* Maintained numerous mammalian cell lines simultaneously and prepared them for *in vitro* assays and *in vivo* injections in a BSL2 facility
* Spearheaded the cataloging and digitization of the laboratory’s cellular cryostores
* Produced lentiviral vectors and successfully transduced a mouse prostate cancer cell line with a stably-integrated sMICB-dTomato transgene
* Presented novel data in weekly group meetings
* Successfully characterized LCMV infection in pilot oncogenic study by plaque assay

Feinberg School of Medicine: Department of Psychiatry and Behavioral Sciences

***Vesicular trafficking in learning and memory*** – Jelena Radulovic, M.D., Ph.D.

* Performed end-to-end preparation and analysis of mouse tissues using immuno-based assays; fixation, dissection, slicing, staining, and imaging
* Independently managed husbandry and PCR genotyping of two mouse lines, including a transgenic strain
* Trained personnel from graduate students to incoming post-doctoral scholars in trans-cardial perfusion
* Conducted primary cell culture of hippocampal neurons for use in downstream immunofluorescence microscopy experiments
* Operated a stereotaxic apparatus and performed intracranial injections
* Completed Pavlovian fear-conditioning of mice in the context of pharmaceutically-induced DNA breaks
* Managed ordering and delivery of animal housing and husbandry supplies

**Graduate Student Researcher** - University of Pittsburgh School of Medicine: Pittsburgh, PA (August 2015 – August 2018)

***Dendritic cell modulation of T helper cell polarization*** – Heth Turnquist, Ph.D.

* Completed a study of iron-modulating proteins and discovered a novel nitric oxide sequestration pathway in immune cells, important in the context of Graft-vs-Host-Disease (GvHD)
* Conducted multi-color flow cytometry on dendritic cells using a BD LSR II flow cytometer
* Analyzed .FCS files using FloJo version 10
* Performed colorimetric sandwich ELISAs for samples from mixed lymphocyte reactions (MLR) for Th1 and Th2 cytokines, namely IFN-γ and IL-5
* Optimized methods for immunoblotting nitric oxide-related proteins
* Analyzed microarray data for changes in gene expression following dendritic cell stimulation
* Presented my data at numerous intercampus and professional conferences

**Internship: Microbiology Technician** – Microbac Laboratories: Merrillville, IN (May 2014 – July 2015)

***Commercial environmental microbiology testing*** – Troy Goehl

* Assayed potable and non-potable water for total coliforms and *E. coli* contamination using the IDEXX Colilert assay to maintain public safety of Northwest Indiana and Chicagoland-area beaches
* Assisted in food safety testing sample preparation and diagnostics for several regional grocery stores
* Produced specialty agars for microbial assays and maintained shared laboratory equipment
* Entered sample data for chain-of-custody information into LIMS

**Undergraduate Researcher** – Purdue University Northwest: Hammond, IN (August 2011 – December 2014)

***Interrogation of the unknown effector functions of granulysin*** – Michael I. Zimmer, Ph.D.

* Administered an exhaustive ELISA-based study of the 15kDa precursor form of granulysin, discovering a previously unknown lipid-binding capability important in its action against Gram-negative bacteria
* Conducted statistical analysis and generated figures of pooled experimental data

**Education**

* M.S. Microbiology and Immunology, Program in Microbiology and Immunology Graduate Program, University of Pittsburgh School of Medicine: Pittsburgh, PA (August 2015 – August 2018)
* Coursework and thesis laboratory research experience
* B.S. Microbiology, Purdue University Northwest: Hammond, IN (August 2011 – December 2014)

**Publications**

* **Roessing, A. S.** Controlling dendritic cell function by targeting iron-modulating proteins identified through transcriptional analysis. Master’s thesis. August 2018.
* Li, T., Zhang, Z., Bartolacci, J. G., Dwyer, G. K., Liu, Q., Mathews, L. R., Velayutham, M., **Roessing, A. S.**, Lee, Y. C., et al, Graft IL-33 regulates myeloid cells to protect against chronic rejection. [published online ahead of print, 2020 Jul 9]. J Clin Invest. 2020;133008. doi:10.1172/JCI133008

**Presentations**

**Graduate Presentations**

* 2017 Great Lakes Transplantation Immunology Forum annual meeting, Madison, Wisconsin. **Roessing, A. S.,** Lott, J. M., Hahn, S. A., Velayutham, M., Straub, A. C., and Turnquist, H. R.*Identification of dendritic cell iron-modulating genes as novel regulators of CD4+ T cell polarization through transcriptional analysis* (Abstract and poster presentation)
* 2017 Tumor, Transplant, and Tolerance Retreat, Pittsburgh, Pennsylvania. **Roessing, A. S.,** Cherukuri, A., Rothstein, D. M., and Turnquist, H. R. *Foxp3+ regulatory T cell expression of IL-10 supports the expansion and function of regulatory B cells in response to IL-33. Abstract for a poster presentation* (Abstract and poster presentation)
* 2017 Tumor, Transplant, and Tolerance Retreat, Pittsburgh, Pennsylvania. **Roessing, A. S.,** Lott, J. M., Hahn, S. A., Velayutham, M., Straub, A. C., and Turnquist, H. R**.** *Identification of dendritic cell iron-modulating proteins as novel regulators of nitric oxide production and T cell polarization* (Abstract and poster presentation)
* AAI Immunology 2017 annual meeting, Washington, D.C. **Roessing, A. S.,** Cherukuri, A., Rothstein, D. M., and Turnquist, H. R. *Foxp3+ regulatory T cell expression of IL-10 is required for IL-33-mediated expansion of regulatory B cells.* (Abstract and poster presentation)
* 2016 AST/ESOT BeST Joint Conference, Ft. Lauderdale, Florida. **Roessing, A. S.,** Cherukuri, A., Rothstein, D. M., and Turnquist, H. R. *IL-33 administration highlights a directional relationship between Bregs and Tregs.* (Abstract and poster presentation)

**Undergraduate Presentations**

* 2013 Autumn Immunology Conference annual meeting, Chicago, Illinois. **Roessing, A. S.** and Zimmer, M. I.*15 kDa granulysin binds lipids, but is not cytotoxic* (Abstract and poster presentation)
* 2012 Autumn Immunology Conference annual meeting, Chicago, Illinois. **Roessing, A. S.** and Zimmer, M. I.*Granulysin as a lipid binding protein* (Abstract and poster presentation)

**Academic and Professional Honors**

* AAI Young Investigator Award for Poster Presentation, Great Lakes Transplantation Immunology Forum, 2017
* AAI Young Investigator Travel Award, AST/ESOT BeST Joint Conference, 2016
* Best Undergraduate Oral Presentation, Purdue University Northwest, 2013
* Top Cell Biology Student, Purdue University Northwest, 2013
* Undergraduate Research Grant, Purdue University Northwest, 2012 and 2013
* Purdue University Northwest Chancellor’s Scholarship, 2011-2014
* Jim and Betty Dye Foundation Scholarship, 2011-2014