Amber Majnik, Ph.D.

she/her

PATENT SCIENTIST

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About Amber

Scientifically informed patent prosecution

Amber Majnik facilitates the preparation and prosecution of patent applications related to immunology, epigenetics, genomics, and molecular and cellular biology. She brings over a decade of professional research experience covering areas that include autoimmune disease, neuroimmunology and epigenetic regulation of disease. Her skillset also includes:

- **Scientific and regulatory writing**
- **Project management and laboratory management**
- **Protocol development**
- **Oral presentations at various local, national and international conferences**

Amber has authored and co-authored numerous peer reviewed manuscripts, book chapters and grant submissions and acted as an invited peer reviewer for scientific journals and grant agencies. Her extensive research and technical writing experience enables her to effectively assist clients in patent drafting and prosecution.

Education and Honors

University of Utah (Postdoctoral Study, *with honors*, 2010)

- Neurosurgery and Hematology Departments

University of Utah (Ph.D., *with honors*, 2009)

- Ph.D. Experimental Pathology Department
- Dissertation: Role of Nicotinic Acetylcholine Receptor Alpha7 in the Modulation of Skin Inflammation

Montana State University Billings (B.S., 2003)

- Major: Biology

Capabilities

Research Institutions & Higher Education

Technology Transfer

Intellectual Property

Patent

Patent - Biotechnology and Chemistry

Patent - University Research and Technology Transfer

Professional & Civic Activities

- American Medical Writers Association, member

Publications

- Ke X., Huang Y., Fu Q., **Majnik AV.**, Sampath v., Lane RH. 2023. Adverse maternal environment alters Oprl1 variant expression in mouse hippocampus. Anatomical Record. 306(1):162-175.
- Ke X., Huang Y., Fu Q., **Majnik AV.**, Lane RH. 2022. Adverse maternal environment affects hippocampal HTR2c variant expression and epigenetic characteristics in mouse offspring. Pediatric Research. 92 (5):1299-1308.
- Fu Q, North PE, Ke X, Fritz KA, Huang Y, Lane RH, **Majnik AV**. 2021. Adverse Maternal Environment and Postweaning Western Diet Alter Hepatic CD36 Expression and Methylation Concurrent with Nonalcoholic Fatty Liver Disease in Mouse Offspring. Journal of Nutrition. 151(10):3102-3112.
- Ke X., Huang Y., Fu Q., Lane RH., **Majnik AV.** 2021. Adverse Maternal Environment Alters MicroRNA-10b-5p Expression and its Epigenetic Profile Concurrently with Impaired Hippocampal Neurogenesis in Male Mouse Hippocampus. Developmental Neuroscience. 5 (3) 1-11.
- Ke X., Fu Q., Sterrett J., Hillard C., Lane R., **Majnik A**. 2020. Adverse Maternal Environment and Western Diet Impairs Cognitive Function and Alters Hippocampal Glucocorticoid Receptor Promoter Methylation in Male Mice. Physiological Reports. 8 (8): e14407.
- Lane RH., **Majnik A**., Segar JL. 2019. Race in the Social-Epigenomic Regulation of Pre- and Perinatal Development- Chapter 9. Nutritional Epigenomics. 135-152.
- Lai PY, Jing X, Michalkiewicz T, Entringer B, Ke X, **Majnik A**, Kriegel AJ, Liu P, Lane RH, Konduri GG. 2019. Adverse Early-Life Environment Impairs Postnatal Lung Development in Mice. Physiol Genomics. 51 (9):462-470.
- Spearman AD, Ke X, Fu Q, Lane RH, **Majnik A**. 2018 Adverse Maternal Environment Leads to Cardiac Fibrosis in Adult Male Mice. Birth Defects Research. 110 (20): 1551-1555.
- Ke X, Fu Q, **Majnik A**, Cohen S, Liu Q, Lane R. 2018. Adverse Early Life Environment Induces Anxiety-like Behavior and Increases Expression of FKBP5 mRNA Splice Variants in Mouse Brain. Physiol Genomics. 50(11):973-981.
- Cohen S., Ke X., Liu Q., Fu Q., **Majnik A**., Lane R. 2016. Adverse Early Life Environment Increases Hippocampal Microglia Abundance in Conjunction with Decreased Neural Stem Cells in Juvenile Mice. International Journal of Developmental Neuroscience. 55, 56-65.

- **Majnik AV**., Lane RH. 2015. The Relationship Between Early-Life Environment, the Epigenome and the Microbiota. Epigenomics. 7(7):1173-84.
- Ke X., McKnight R., Gracey Maniar L., Sun Y., Callaway C., **Majnik A.,** Lane R., Cohen S. 2015. IUGR Increases Chromatin Remodeling Factor BRG1 Expression and Binding to GR Exon 1.7 Promoter in Newborn Rat Hippocampus. American Journal of Physiology- Regulatory, Integrative and Comparative Physiology. 309(2): 11-27.
- Fu Q., McKnight R., Callaway C., Xing Y., Lane R., **Majnik A.** 2014. Intrauterine Growth Restriction Disrupts Developmental Epigenetics around Distal Growth Hormone Response Elements on Rat Hepatic IGF-1 Gene. FASEB Journal. 4, 1176-84.
- Willis E., McManus P., Magallanes N., Johnson S. **Majnik A.** 2014. Conquering Racial Disparities in Perinatal Outcomes. Clinics in Perinatology. 41(4) 847-875.
- **Majnik A.,** Fu Q., Gunn V., Lane RH. 2014. Epigenetics: An Accessible Mechanism through which to Track and Responds to an Obesogenic Environment. Expert Review of Endocrinology & Metabolism. 9(6) 605-614.
- Majnik A., Lane RH., 2014. Epigenetics: Where Environment, Society and Genetics Meet. Epigenomics. 6 (1), 1-4
- Ke X., Xing B., Yu B., Yu X., **Majnik A.,** Cohen S., Lane R., Joss-Moore L. 2014. IUGR Disrupts the PPARγ Setd8-H4K20 and Wnt Signaling Pathway in the Juvenile Rat Hippocampus. International Journal of Developmental Neuroscience. 38, 59-67.
- **Osborne-Majnik A**, Fu Q, Lane RL. 2013. Epigenetic Mechanisms in Fetal Origins of Health and Disease. Clinical Obstetrics and Gynecology. 56(3), 622-32.
- Gahring LC, **Osborne AV**, Reed M, Rogers SW. 2010 Neuronal Nicotinic Alpha7 Receptors Modulate Early Neutrophil Infiltration to Sites of Skin Inflammation. J Neuroinflammation. 7:38.
- **Osborne AV**, Rogers SW, Gahring LC. 2008. Neuronal Nicotinic Alpha7 Receptors Modulate Inflammatory Cytokine Production in the Skin Following Ultraviolet Radiation. Journal of Neuroimmunology. 193, 130-139.
- Gahring LC, **Osborne AV**, Vasquez-Opazo GA, Rogers SW. 2008. TNFalpha Enhances Nicotinic Receptor Upregulation via a p38MAP Kinase-dependent Pathway. J. Biological Chemistry. 283 (2), 693-699.