We are recruiting a postdoctoral fellow to investigate epigenetic mechanisms in causing and preventing birth defects

Clefts of the lip and palate are among the most common human birth defects and significantly impact affected individuals, their families, and communities. These birth defects are thought to result from complex gene-environment interaction, but limited understanding of specific factors and mechanisms of interaction has stymied development of prevention strategies. We recently discovered that DNA methylation is necessary for orofacial development and that disruption of this environmentally malleable epigenetic mechanism in multipotent cranial neural crest stem cells causes orofacial clefts. Leveraging this discovery, our newly NIH-funded project integrates clinically relevant mouse models with multi-omics approaches to define how DNA methylation regulates orofacial morphogenesis and influences orofacial clefting risk. This project is directed at advancing the development of targeted birth defect prevention strategies by defining environmental- and dietary-induced methylome-transcriptome responses that modulate cleft susceptibility.

The successful candidate will have the opportunity to advance their understanding of embryology, stem cell biology, epigenetics, and cutting edge ‘omics through hands-on work in the Lipinski laboratory and close collaboration with the Alisch laboratory. They will also receive mentorship from Dr. Robert Lipinski, an expert in developmental biology and mouse birth defects models, and Dr. Reid Alisch, an expert in epigenetics and applying ‘omics approaches to disease pathogenesis.

A strong background in developmental biology, experience with mouse genetics and embryo manipulation, and managing ‘omics data are advantages, but all necessary training will be provided to help you succeed.

The University of Wisconsin-Madison is a great place to postdoc! UW-Madison is a top ten research institution, located in a beautiful and bustling capital city that consistently ranks among the top US cities for young professionals to live, work, and raise a family. The Lipinski lab is integrated in several training programs that hold active post-doctoral training grants, including the Stem Cell and Regenerative Medicine Center and the Molecular and Environmental Toxicology training program. More information on postdoctoral opportunities and support at UW-Madison can be found at: https://uwpa.wisc.edu/ and https://postdoc.wisc.edu/.

Interested candidates should send a CV and brief statement of research interests to:

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