

THE KURPIOS LAB



CORNELL UNIVERSITY :: COLLEGE OF VETERINARY MEDICINE :: DEPARTMENT OF MOLECULAR MEDICINE

Come join us!

The **Kurpios Lab** at **Cornell University**, NY is currently recruiting outstanding postdoctoral fellows and graduate students with backgrounds and interests in all areas of biology including *developmental biology, vascular biology, stem cells, and genomics*.

We use a combination of classical chicken embryology and modern mouse genetics to elucidate how basic cellular processes define the shape and function of organs.

The lab is most fascinated by *evolutionarily conserved left-right (LR) organ asymmetry*. Errors of organ laterality are fundamentally linked to life-threatening birth defects and cancer, highlighting an urgent need to define the molecular basis of organ asymmetry.

We are also very interested in the *morphogenesis of the lymphatic network* within the digestive system. Gut lymphatics are among the most extensive in the body and serve as the sole channels for absorption and transport of dietary fats. Lymphatic vessels are the primary conduits for metastatic spread of colorectal tumor cells and lymphatic defects cause a wide range of debilitating intestinal metabolic dysfunctions including inflammatory bowel disease and obesity. The molecular mechanisms governing their specialized functions remain unknown and are key interests of the Kurpios lab.

Our current research focuses on three main topics: 1) Mechanisms underlying LR asymmetric gut rotation and blood vascular remodeling; 2) Signaling pathways involving lymphatic development; and 3) Chromatin level mechanisms at the *Pitx2* locus.

We are supported by grants from the *NIH* and the *March of Dimes Foundation*.

Please visit our website for more information:

<http://kurpioslab.vet.cornell.edu/>

or apply directly to natasza.kurpios@cornell.edu

