



#### Conditions Treated:

#### Research Areas:

- *Epigenetics*
- *Genomics*
- *Histone Biology*
- *Immunobiology*

#### Programs & Services:

- *Cell Biology*

#### Research Interests

In recent years, epigenetic mechanisms, such as histone modification and DNA methylation, have been identified which, translate environmental signals into gene regulation. These molecular epigenetic processes, translate the myriad environmental signals encountered each day, into definitive regulation of our genome, and by extension, who we are at a basic biological level. Dr. O'Connor's work focuses on understanding at a molecular and organismal level, how epigenetic mechanisms regulate the decision processes governing immune cell activity in the context of disease. The immune system is comprised of multiple types of autonomous cells that must work together to influence the outcome of disease. Currently, Dr. O'Connor's lab examines the cross talk between environmental stimuli (such as diet or inflammation), the immune system, and disease (such as Asthma).

#### Education

2003 Dartmouth College, Immunology, PhD

#### Fellowship

2008 University of North Carolina at Chapel Hill, Postdoctoral Fellow

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#### Locations

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