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Department of Microbiology-Immunology

## AREA(S) OF FOCUS:

### Uncovering the mechanisms of autoimmune diseases

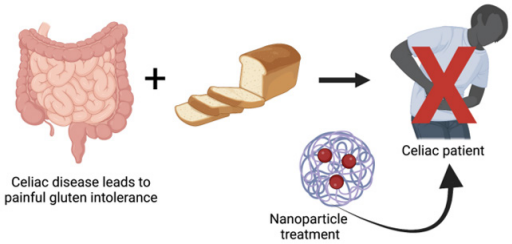
The Miller lab studies the cellular and molecular mechanisms underlying the initiation and progression of autoimmune diseases.

## KEY RESEARCH AREAS:

**Mechanisms of autoimmunity**
Investigate the key molecular factors behind autoimmune diseases.

**Tolerance regulation**
Understand how the immune system develops tolerance to improve the longevity of organ transplants.

**Novel treatments for autoimmune conditions**
Develop nanoparticles that convince the immune system not to attack molecules that otherwise would induce autoimmune reactions.




## ENTREPRENEURIAL SUCCESS:

COUR

Cour Pharmaceuticals develops nanoparticles to reprogram the immune system and induce tolerance in immune-mediated diseases.

The immune-modifying nanoparticles treat the root cause of immune-mediated diseases, in contrast to traditional treatments that reduce symptoms via immunosuppresson. Their pipeline targets celiac disease, Type 1 diabetes, and peanut allergies, among others.

In partnership with Takeda, Cour Pharmaceuticals has developed CNP-101/TAK-101, a nanoparticle for celiac disease. In a Phase 2 clinical trial, CNP-101/TAK-101 reduced small intestine inflammation in celiac patients after ingesting gluten.

Their pipeline includes other nanoparticle therapies still in early stages of development.

Over $30M of venture funding raised (2022).