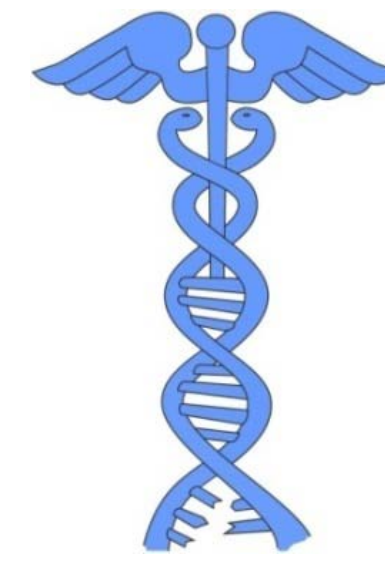


# The University of North Carolina's Program in Translational Medicine

Virginia Miller, PhD, Director; James Anderson, MD, PhD, Co-Director;  
William Coleman, PhD, Co-Director; Patrick Brandt, PhD, Program Manager



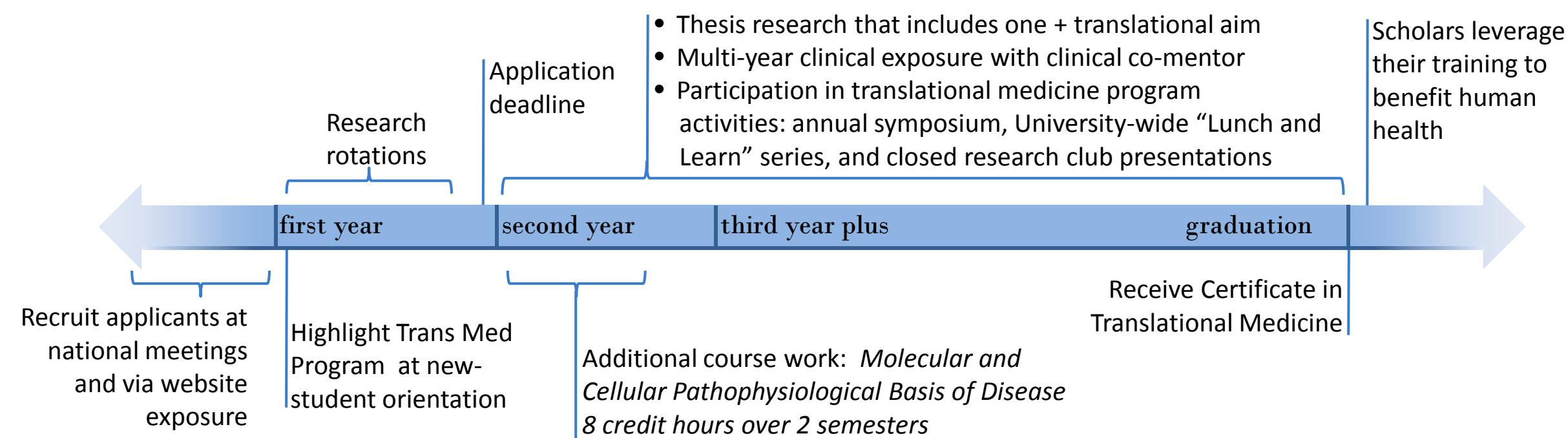
Our 28 Translational Medicine trainees and other visiting MIG trainees at UNC's annual Translational Medicine Symposium, April 2010

## Program Vision

UNC's Graduate Training Program in Translational Medicine aims to:

- 1. Provide biomedical PhD candidates with a clinical perspective** of human health and disease through involvement in translational thesis projects, clinical mentorship, experiential learning, and didactic instruction.
- 2. Promote interdisciplinary research collaborations** between basic science investigators and clinical scientists at UNC-Chapel Hill.
- 3. Increase the number of PhD-trained translational researchers** who graduate from UNC prepared to make an enduring contribution to human disease prevention and treatment throughout the world.

## Program Overview, Timeline, and Certificate Requirements



## Selected Trainee Projects



**Joe Burgents, Micro and Immuno**  
**First Graduate of the Program, 3/2010**  
Role of Treg Migration in T Cell Medicated Melanoma Clearance.  
Mentor: Jon Serody, MD, Departments of Medicine and Immunology



**Rachael Turner, Biomedical Engineering**  
Engineering of Human Liver Tissue for Bioartificial Livers and for Grafts.  
Mentors: Lola Reid, PhD, Depts of Physiology and Biomedical Engineering; and David Gerber, MD, Director of UNC Liver Transplant Program



**Shannon Jones, Toxicology**  
The Application of Novel Antibody Microarrays to Study the Effects of HSP90 Inhibitors on Lupus.  
Mentors: Barbara Vilen, PhD, Dept of Microbiology and Immunology; and Robert Roubey, MD, Carolina Cardiovascular Biology Center



**Lauren Parker, Pharmacology**  
Exploring the Divergent Roles of Rac1 and Rac1b in Oncogenesis.  
Mentors: Adrienne Cox, PhD, Depts of Radiation Oncology and Pharmacology; and JenJen Yeh, MD, Dept of Surgery



**Roger Arce, Oral Biology**  
Understanding the role of oral infection on the etiology of obstetric complications that lead to prematurity and growth restrictions.  
Mentors: Steven Offenbacher, DDS, PhD, Center for Oral and Systemic Diseases; and Kim Boggess, MD, Dept of Obstetrics & Gynecology



**Jessica Rodriguez, Pathology**  
The Role of Ring Finger 1 (MuRF1) in Protein Quality Control in the Heart.  
Mentors: Monte S. Willis, MD, PhD, Dept of Pathology and Laboratory Medicine; and Frederique Bailliard, MD, Dept of Pediatric Cardiology



**Kimberly Carpenter, Neurobiology**  
Functional Neuroimaging to Investigate the Role of the Amygdala in Autistic Social Processing.  
Mentors: Aysenil Belger, PhD, Depts of Psychiatry and Psychology; and Joseph Piven, MD, Dept of Psychiatry

## Highlighting Program Successes

### Bench to Bedside Lunch and Learn Series

The Lunch and Learn series is open to anyone on campus. Students, faculty and staff from many departments and schools regularly attend.

Past topics include:

- How collaborators at UNC are addressing unmet needs in cystic fibrosis care. **Presentations by a PhD, MD, and a CF patient**
- How collaborators at UNC are addressing unmet needs in breast cancer treatment. **Presentations by a PhD, MD, and a breast cancer survivor.**
- Funding opportunities for translational researchers
- Academic drug discovery and clinical trials

### Trainee Research Club & Patient Case Study

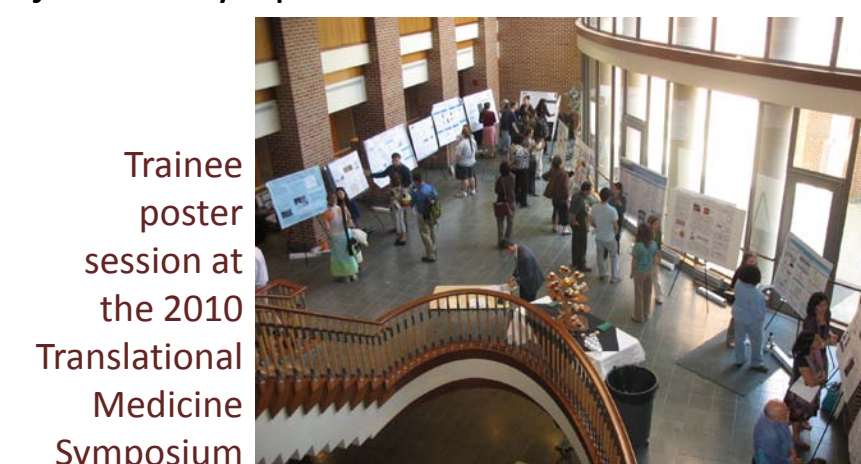
Once a month, 2 trainees present a research-in-progress talk to the group. Each trainee who is presenting also enlists a clinical researcher to present a patient case study on the condition they are researching.

### Translational Medicine Symposium

We host an annual Translational Medicine Symposium open to the community. A typical agenda includes:

- Invited keynote addresses
- Trainee talks and poster session
- Catered lunch and networking reception

In 2010 we invited trainees and program directors from 6 peer MIG programs to join our symposium.

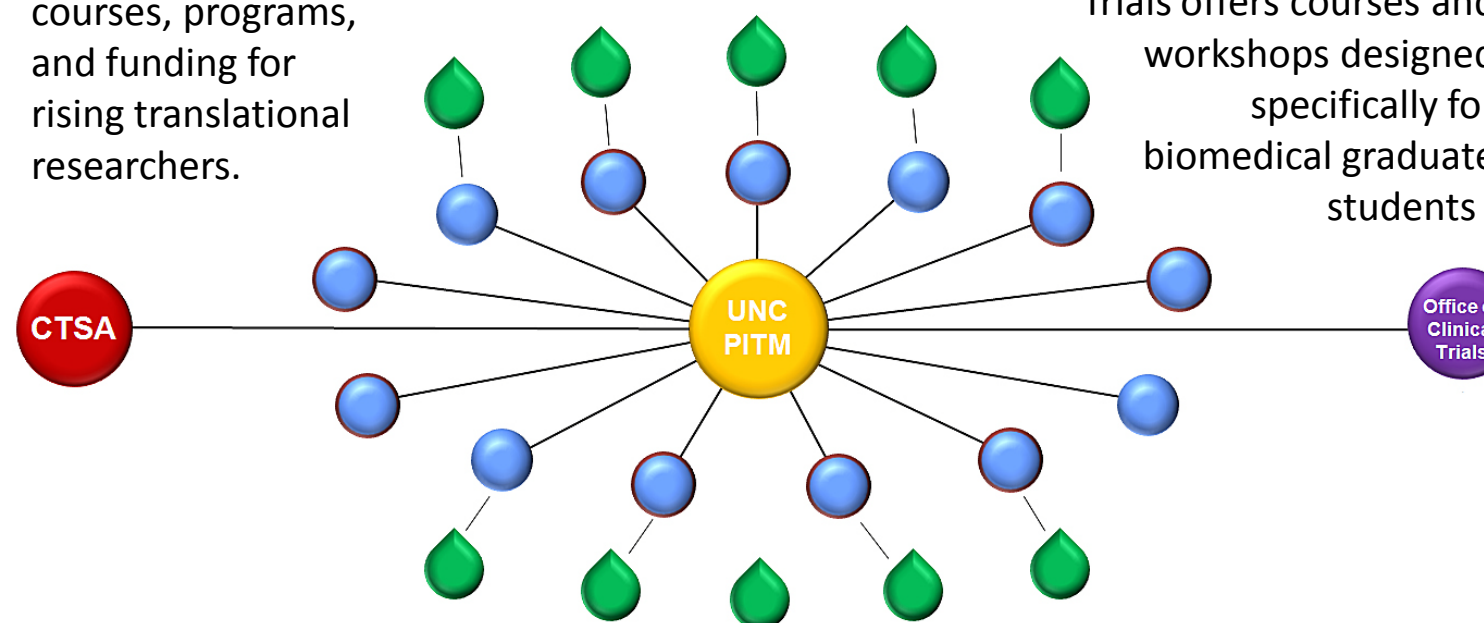


Trainee poster session at the 2010 Translational Medicine Symposium

## Toward Institutional Transformation

UNC's CTSA provides courses, programs, and funding for rising translational researchers.

UNC's Office of Clinical Trials offers courses and workshops designed specifically for biomedical graduate students.



15+ PhD granting programs 18 clinical departments and 40+ clinical centers

PhD candidates in at least 15 PhD granting programs are eligible to apply to the Program. Applicants establish a collaboration with a clinical co-mentor from one of many clinical departments and centers, and in so doing, strengthen the model of interdisciplinary translational medicine.