

## **NON-HUMAN PRIMATE IMMUNE TOLERANCE COOPERATIVE STUDY GROUP**

### **Description of Project**

- The Non-Human Primate Cooperative Study Group (NHPCSG) was launched in Fiscal Year (FY) 1999 and renewed and expanded in FY2002. The goal of this program is the development and pre-clinical evaluation of novel donor-specific tolerance induction regimens for allogeneic kidney and islet transplantation. Using these animal models, tolerogenic regimens are rigorously evaluated in transplantation settings, and the safety and efficacy are assessed before human clinical trials.
- Transplantation is now routine therapy for many end-stage organ diseases, with one-year graft survival often approaching 90% with standard immunosuppressive therapies. While new immunosuppressive drugs and improved techniques have reduced acute rejection in the first year post-transplant, they have only marginally improved long-term graft survival. Therefore, recent attention has focused on the potential for donor-specific immune tolerance to achieve long-term graft survival without non-specific, life-long immunosuppressive therapies that have deleterious and often life-threatening side effects.

### **Accomplishments**

- Types of therapeutic strategies tested with Type1 Diabetes funding:
  - A wide variety of novel T cell co-stimulatory blockade agents in various combinations;
  - Novel agents designed to kill activated T cells in combination with cell signaling inhibitors;
  - Infusion of donor splenocytes in combination with co-stimulatory blockade;
  - Establishment of hematopoietic cell chimerism in combination with a variety of co-stimulatory blockade agents.
- These strategies are combined with efforts to define the underlying mechanisms of action of these novel therapies.

### **Future directions**

- Continue pre-clinical trials and mechanistic studies;
- Evaluate the safety and efficacy of potentially promising new therapies as they are discovered.

## **Participants**

Sponsors: National Institute of Allergy and Infectious Diseases  
National Institute of Diabetes and Digestive and Kidney Diseases

### Participating Institutions

Beth Israel Deaconess Medical Center  
Emory University  
LABS of Virginia in North Carolina  
Massachusetts General Hospital  
Osiris, Baltimore, MD  
University of Alabama  
University of Alabama Birmingham  
University of Chicago

University of Illinois at Chicago  
University of Miami  
University of Minnesota  
University of Pittsburgh  
University of Western Ontario  
University of Wisconsin  
University of Wisconsin Madison