Mission

About NUCTRIBE
The NU Collaborative for Immunobiology and Biomedical Engineering (NUCTRIBE) was created as an umbrella entity designed to galvanize energies from clinical and scientific disciplines toward a culture of common purpose and shared destiny. As a result, interdependent investigative collaboration, which encourages investigators and clinicians to leverage and combine their individual expertise, will create synergies that can advance common research domains more rapidly.

NUCTRIBE brings together researchers in transplant-related immunology and biomedical engineering who are working on immune tolerance, virus latency and reactivation, dendritic cell and Th-17 immunobiology, islet cell transplantation, tissue engineering, and many other fields. These researchers are building on successful individual research projects to build broad transdisciplinary collaborations that intend to solve the greatest challenges facing transplantation research.

Services

- Transplant Infectious disease and virology - Immunosuppression carries the risk of opportunistic infections. CMV has been an active focus of research at NU.
- Transplant immunology and tolerance - Induction of donor-specific tolerance (the ability to prevent rejection without the need for immunosuppression) would address these limitations and extend the life expectancy of transplanted organs, led by Dr. Joe Leventhal.
- Regenerative medicine and stem cell science - Tissue and organ bioengineering (Wertheim), including “organoids” for studies on drug toxicity, microbial threat reduction and eventually organ development, and nano-structured, “intelligent” biomaterials deposited via 3D printing all constitute an active domain at NU.
- Transplant biology and cellular therapeutics - Cellular therapeutics including islet cells in patients with insulin-dependent diabetes is active, researching different aspects of donor negative vaccination as a tolerance approach.
- Biomarker discovery and functional genomics - Predicting rejection and other harmful clinical phenotypes prior to tissue injury can be achieved by the use of non-invasive biomarker profile monitoring. Two NIH sponsored transplant clinical trials (CTOT-08 (kidney) and CTOT-14 (liver)).

Getting Started
To discuss ideas for programs and other large scale grant opportunities that capitalize on NU’s strength across departments, please reach out to:

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