



# nPOD

Network for Pancreatic Organ Donors with Diabetes



## nPOD Research in the Spotlight at ADA and IDS

nPOD investigators presented research findings at both the 10th International Congress of the Immunology of Diabetes Society held in Malmo, Sweden (May 2009) and at the American Diabetes Association's 69th Scientific Sessions in New Orleans, LA (June 2009). For a list of symposia, oral presentations, and abstracts, [please visit the nPOD website](#).

## Investigator Alert: Watch Your email for Your New Online Pathology Password

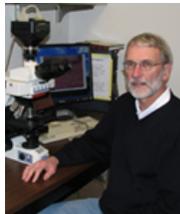
Based on the need to meet and implement new compliance regulations guarding the protection of information, all nPOD online pathology users will be issued new passwords for the Aperio  system in September 2009. We will contact all current investigators individually regarding this process. If you have any questions, please do not hesitate to contact the nPOD administrative core offices.

## Research Spotlight: Humanizing the mouse for nPOD tissue engraftment

Dr. Dale Greiner of the University of Massachusetts School of Medicine has been collaborating with Dr. Len Shultz, of the Jackson Laboratory, for over 25 years.

Drs. Greiner and Shultz have developed a mouse model for human type I diabetes (T1D). This model is significant because it allows functions of a human immune system to be studied in a mouse model with almost no immune system of its own. (This "humanized mouse" model is a severely immunodeficient mouse strain with the gene for the Interleukin-2 (IL-2) receptor common gamma-chain knocked out.) Over the past few years the humanized mouse has become the premier host for efficient engraftment of human cells and tissues.

Human cells, such as spleen cells from donors, can be engrafted into this mouse and will result in characteristics of human T1D: inflammation of the pancreatic islets, which contain the insulin-producing beta cells of the body; human antibodies raised against the mouse's beta cells; and partial destruction of these beta cells due to islet inflammation. This is a major research tool because of the relative ease in which the



## nPOD Partners with new Screening Labs

nPOD is proud to welcome two new partners to the network: the [Mendez National Institute of Transplantation](#) in Los Angeles, CA, and [LABS, Inc.](#), in Philadelphia, PA. These screening labs are facilitating screening for IA-2 and GAD autoantibodies. If you are an OPO that partners with either of these organizations and are interested in becoming more involved with nPOD's autoantibody screening efforts, [please contact us](#).

## nPOD Staff onsite at Scientific Meetings



nPOD staff have spent part of the summer at conferences to introduce the program to investigators and potential partners. nPOD was a popular booth in the exhibit halls at both the [American Diabetes Association \(ADA\), 69th Scientific Sessions](#) in June, and at the [Association of Organ Procurement Organizations \(AOPO\), Annual Meeting](#), also in June.

In August, nPOD will exhibit at the [North American Transplant Coordinators Organization \(NATCO\), 34th Annual Meeting](#), in Las Vegas, NV. nPOD will also present an abstract at the NATCO meeting. Please visit us at our booth in the exhibit hall or join us for the poster sessions on Monday, August 3, at 5:30 p.m. or Tuesday, August 4, at 5:00 p.m.

## Research Spotlight, continued:

*(continued from the left)* The humanized mouse model can also be highly specified for optimization of individualized clinical therapies and regimens. By modifying certain target sites on mouse beta cells to mimic the sites of human beta cells, a panel of humanized mice can be used to investigate methods for halting beta cell destruction following injection of peripheral blood lymphocytes from human T1D patients.



This would be minimally invasive to the patient, requiring only a blood draw.

This experimental model system and the humanized mouse model would not be possible without the development of the nPOD program, which procures and distributes human tissues to T1D investigators. Dr. Greiner has described his experience with the nPOD program as "simply outstanding." JDRF's nPOD facilitates the collaboration of many T1D investigators and emphasizes the importance of tissue and organ donation. Such a partnership helps drive research and broaden our understanding of the T1D autoimmune mechanism.

## Interested in learning more about nPOD?

Please contact the nPOD coordinator via email at

human immune system can be studied, and due to the close resemblance of this model to human T1D (*story continues to the right*). [npod@pathology.ufl.edu](mailto:npod@pathology.ufl.edu) or by phone at (352) 846-3965.

For more information, please visit [www.jdrfnpod.org](http://www.jdrfnpod.org).