Looking Closer at the Kidney Biopsy Tissue to Treat Nephrotic Syndrome

Kidney pathologists look at the kidney biopsy tissue under the microscope to help diagnose kidney disease. Currently, to make a diagnosis that will guide treatment, kidney pathologists identify a few select features that represents damage of tissue structures and cells. NEPTUNE kidney pathologists, under the leadership of Dr. Barisoni, are asking whether a greater number of features can be used to identify these behaviors or causes. NEPTUNE pathologists are keeping a more detailed log of kidney tissue to see if it will improve kidney diagnosis and treatment.

How does the NEPTUNE study help?

The NEPTUNE study stores kidney biopsy images in one place to allow NEPTUNE researchers to study nephrotic syndrome in new ways. The NEPTUNE kidney pathologists are taking a closer look at more biopsy features in hopes that these new details will provide additional information. NEPTUNE researchers using a new computer technique called “artificial intelligence” to find features that may not be visible. Dr. Barisoni hopes that this new tool and other research on the kidney tissue will help better classify kidney disease, and select treatment plans.

Visit our website: neptune-study.org
Please address any questions/suggestions to your coordinator to give to the NEPTUNE R&R Committee

A scanning electron microscope image of podocytes from a chronically diseased kidney. Podocytes are cells in the kidney that filter waste from blood.