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ASN KIDNEY WEEK 2016 • NOVEMBER 15–20 • CHICAGO, IL

METHOD TO CREATE KIDNEY ORGANOID FROM PATIENT CELLS PROVIDES INSIGHTS ON KIDNEY DISEASE

Highlights

- Scientists have developed a method to coax human pluripotent stem cells to mature into cells that go on to form the functional units of the kidney.
- The team has demonstrated how the method can be used to study human kidney diseases.
- The research will be presented at ASN Kidney Week 2016 November 15–20 at McCormick Place in Chicago, IL.

Chicago, IL (November 17, 2016) — A new method to create kidney organoids from patient cells may provide insights into how kidney diseases arise and how they should be treated. The research will be presented at ASN Kidney Week 2016 November 15–20 at McCormick Place in Chicago, IL.

Previously, Ryuji Morizane, MD, PhD (Brigham and Women's Hospital) and his colleagues developed a method to coax human pluripotent stem cells (hPSCs) to mature into cells that go on to form the functional units of the kidney. In their latest work, they show how their method can be used to study human kidney diseases. For example, by using hPSCs derived from patients with autosomal recessive polycystic kidney disease (ARPKD) to generate kidney organoids that possessed tubules with large cysts like those seen in patients with the disease.

“Establishment of a novel platform to model ARPKD using human kidney organoids will facilitate studies on mechanisms of cyst formation and contribute to the development of chemical screening systems to find potential therapeutic agents for polycystic kidney disease,” said Dr. Morizane. “Also, our organoid system enables *in vitro* studies of kidney pathophysiology, nephrotoxicity assays, and disease modeling, and ultimately will lead to development of bioengineered kidneys for regenerative medicine.”

Study: “Kidney organoids derived from human pluripotent stem cells contain multiple kidney compartments and model polycystic kidney disease” (Abstract 2139)

ASN Kidney Week 2016, the largest nephrology meeting of its kind, will provide a forum for more than 13,000 professionals to discuss the latest findings in kidney health research and engage in educational sessions related to advances in the care of patients with kidney and related disorders. Kidney Week 2016 will take place November 15–20, 2015 in Chicago, IL.

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Since 1966, ASN has been leading the fight to prevent, treat, and cure kidney diseases throughout the world by educating health professionals and scientists, advancing research and innovation, communicating new knowledge, and advocating for the highest quality care for patients. ASN has nearly 16,000 members representing 112 countries. For more information, please visit www.asn-online.org or contact us at (202) 640-4660.

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