

**EMBARGOED FOR RELEASE until March 13, 2014 – 5:00 PM (ET)**

**Contacts:** Tracy Hampton • (312) 339-9067 • [thampton@nasw.org](mailto:thampton@nasw.org)  
Adrienne Lea • (202) 503-6560 • [alea@asn-online.org](mailto:alea@asn-online.org)

## **BODY'S FATTY FOLDS MAY HELP FIGHT KIDNEY FAILURE**

*Stem cells from the body's omentum may preserve and improve kidney function*

### **Highlights**

- In rats with kidney disease, functioning of the kidney improved when the organ was fused with the omentum, a fatty fold of tissue that lies close to the kidney and is a rich source of stem cells.
- Stem cells from a chronic kidney disease patient's own omentum may help heal diseased kidneys without the need for an outside source of cells.

*60 million people globally have chronic kidney disease.*

**Washington, DC (March 13, 2014)** — A fatty fold of tissue within the abdomen that is a rich source of stem cells can help heal diseased kidneys when fused to the organs, according to a study conducted in rats. The findings, which appear in an upcoming issue of the *Journal of the American Society of Nephrology* (JASN), suggest that stem cells from within a chronic kidney disease patient's own abdomen could be used to preserve and possibly improve kidney function.

Although adult stem cells have shown promise in treating experimental acute kidney diseases, it's unknown whether they might also alleviate chronic kidney diseases. Such a treatment strategy would typically involve injecting cells frequently over a period of many months and years because stem cells do not survive in the body for more than a few days after injection.

Ashok Singh, PhD (John Stroger, Jr Hospital of Cook County) and his colleagues attempted to overcome this hurdle in rats with kidney disease by connecting the omentum, a fatty fold of tissue that lies close to the kidney and is a rich source of stem cells, to the kidney. "This maneuver allowed us to permanently lodge stem cells in contact with the diseased kidney," explained Dr. Singh.

After 12 weeks, the omentum remained fused to the kidney, which showed signs of improved function. "The progression of chronic kidney disease was slowed due to the continuous migration of stem cells from the omentum to the diseased kidney, resulting in healing of the kidney," said Dr. Singh.

The results indicate that stem cells indeed possess the power to slow or even reverse chronic kidney disease, provided the cells are allowed to remain in the diseased kidney for a prolonged period of time.

“Attaching the omentum, a supposedly useless organ lying close to the kidney, to the diseased kidney could be put into practice after some more developmental work,” said Dr. Singh. “By this technique, patients would be using their own stem cells lying in the omentum to cure their kidneys without depending on outside sources of stem cells.”

In an accompanying editorial, Christof Westenfelder, MD (University of Utah) noted that the data reported by Dr. Singh and his colleagues are “novel and scientifically interesting.” After pointing to some limitations to the applicability of this technology to clinical CKD, he stated that “further studies are needed to fully define the complex nature of the omentum’s ability to heal injured organs and to establish its potential utility in patients with renal diseases.”

Study co-authors include Ignacio Garcia-Gomez, PhD, Nishit Pancholi, MD, Jilpa Patel, MD, K P Gudehithlu, PhD, Peter Hart, MD, George Dunea, MD, and J A L Arruda, MD.

Disclosures: The authors reported no financial disclosures.

The article, entitled “Activated Omentum Slows Progression of CKD,” will appear online at <http://jasn.asnjournals.org/> on March 13, 2014.

The editorial, entitled “Does the Greater Omentum (“Policeman of the Abdomen”) Possess Therapeutic Utility in CKD?” will appear online at <http://jasn.asnjournals.org/> on March 13, 2014.

*The content of this article does not reflect the views or opinions of The American Society of Nephrology (ASN). Responsibility for the information and views expressed therein lies entirely with the author(s). ASN does not offer medical advice. All content in ASN publications is for informational purposes only, and is not intended to cover all possible uses, directions, precautions, drug interactions, or adverse effects. This content should not be used during a medical emergency or for the diagnosis or treatment of any medical condition. Please consult your doctor or other qualified health care provider if you have any questions about a medical condition, or before taking any drug, changing your diet or commencing or discontinuing any course of treatment. Do not ignore or delay obtaining professional medical advice because of information accessed through ASN. Call 911 or your doctor for all medical emergencies.*

*Founded in 1966, and with more than 14,000 members, the American Society of Nephrology (ASN) leads the fight against kidney disease by educating health professionals, sharing new knowledge, advancing research, and advocating the highest quality care for patients.*

###

The American Society of Nephrology®, ASN®, Kidney Week®, CJASN®, JASN®, NephSAP®, and ASN Kidney News® are registered trademarks of ASN

Tweet: Stem cells from a fatty fold of tissue within the abdomen can help heal diseased kidneys.  
<http://www.bit.ly/ASN-XXXX>

Facebook: A fatty fold of tissue within the abdomen that is a rich source of stem cells can help heal diseased kidneys when fused to the organs, according to a study conducted in rats. The findings, which are published in the *Journal of the American Society of Nephrology*, suggest that stem cells from within a chronic kidney disease patient's own abdomen could be used to preserve and possibly improve kidney function.

\*&\* & Annette Carney ([acarney@cookcountyhhs.org](mailto:acarney@cookcountyhhs.org))  
312-864-0932