# DFG supports a new Clinical Research Unit (CRU 329) focusing on disease pathways in podocyte injury

*More than 200 million people worldwide suffer from chronic kidney diseases (CKD). Glomerular disorders account for the majority of cases of CKD.*

Podocyte injury is central to the development of many different glomerular diseases. Even in normal ageing podocyte loss contributes to age-related decline in renal function. Landmark genetic studies identified hereditary mutations in genes expressed by glomerular podocytes as cause of proteinuria, progressive glomerulosclerosis and end-stage renal disease. Alterations of various independent signaling pathways cause podocyte dysfunction and loss leading to the development of focal and segmental glomerulosclerosis (FSGS) in experimental animals.

In order to develop novel targeted therapeutic strategies Professor Thomas Benzing (Director of the Dept. II for Internal Medicine and chair of the Center for Molecular Medicine Cologne) initiated an interdisciplinary collaborative clinical research unit at the University of Cologne. The research of participating clinicians and basic scientists will help to distinguish different pathophysiological entities and their specific molecular and cell biological disease-causing mechanisms and thereby bridging the translational gap.

**The Deutsche Forschungsgemeinschaft (DFG) is acknowledging this translational research setting positively.** From 2018 onwards the DFG will provide funding for the Clinical Research Unit (CRU 329) „Disease pathways in podocyte injury - from molecular mechanisms to individualized treatment options“ for three years with an overall budget of approximately 4 Million Euro.

**Professor Dr. Thomas Benzing, speaker of the new CRU 329, comments:** “We will combine forces to translate pathophysiological principles studied in mice and newly identified genomic alterations in men to develop new diagnostic and therapeutic tools in patients. This will allow us to provide a better understanding of individual disease pathomechanisms in podocyte disease and to identify markers of these alterations for diagnostics. Finally based on the pathophysiologic understanding of podocyte disorders in individual patients potential tailored therapeutic interventions will be developed”.

**Professor Dr. Paul Brinkkötter, the research coordinator of the CRU 329, states:** “The ultimate aim of the Clinical Research Unit is to diagnose and treat distinctly deregulated pathways in podocyte disease with tailored new treatment options and individualized treatment approaches”.

**The Clinical Research Unit (CRU 329) consists of eight research projects supported by three core facilities headed by principal investigators affiliated with the CMMC, CECAD, SyBACol, Dept. II of Internal Medicine, Institute for Genome Stability in Ageing and Disease, Cologne Center for Genomics, Institute of Human Genetics, Center for Clinical Trials, Children's and Adolescents' Hospital, Institute of Pathology.**

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