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German Stem Cell Network (GSCN) announces scientific awards

All eyes on stem cells

Stem cells play a crucial role in the development of organs and different body processes such as hematopoiesis. This year's awards of the German Stem Cell Network (GSCN) focus on both developmental biology and regenerative medicine. One award supports promising young scientists while another puts the contribution of female scientists in the spotlight. The third award goes to the best publication of the year in the research field.

A top-class commission supported the GSCN in choosing the awardees:

- The "GSCN 2016 Young Investigator Award" goes to **Dr. Leo Kurian** of the Center for Molecular Medicine Cologne (CMMC) at the University of Cologne.

- The "GSCN 2016 Female Scientist Award" goes to **Prof. Dr. Claudia Waskow** of the TU Dresden.

- The "GSCN 2016 Publication of the Year Award" goes to **Dr. Guangqi Song**, **Dr. Martin Pacher**, **Prof. Michael Ott** and **Dr. Amar Deep Sharma** of the REBIRTH Center and TWINCORE Center at Hannover Medical School for the publication "Direct Reprogramming of Hepatic Myofibroblasts into Hepatocytes In Vivo Attenuates Liver Fibrosis" in the journal *Cell Stem Cell* (Song, G. *et al.*, 2016, *Cell Stem Cell*, 18, 797 – 808, doi: 10.1016/j.stem.2016.01.010.)

About the awardees:

Leo Kurian is interested in understanding how a single cell embryo develops into an adult organism. Specifically, the Kurian lab is interested in the development of the heart. They employ a holistic approach combining stem cell-based developmental models with state-of-the-art systems biology approaches to investigate the molecular basis of cell-fate decisions during cardiogenesis. They have been instrumental in developing novel stem cell-based models to study embryogenesis as well as in identifying hidden regulatory layers programming cardiac development. The Kurian lab aims to extend their findings to devise novel therapeutic strategies for cardiac regeneration.

Leo Kurian completed his basic education in chemistry followed by a Master's degree in biotechnology in India. He obtained his PhD in genetics from the University of Cologne. He spent his post-doctoral years in the Belmonte lab at the Salk Institute and in the Yeo lab at UCSD (both in San Diego, California), where he established stem cell-based models to study programming and reprogramming of cell-fate decisions. In 2014, he established an independent group to study the regulatory basis of cardiac development aging and regeneration at the University of Cologne.

➤ Kurian Lab

Claudia Waskow receives the "GSCN Female Scientist Award" for her outstanding research in the field hematopoiesis. Her research aims at understanding the regulation of hematopoietic stem cells (HSC) in order to improve therapeutic approaches in the future. This includes the identification of cell-autonomous and -extrinsic factors governing the maintenance of HSCs and the differentiation of immune cells. She further searches for potential modifier genes in



these processes by pursuing genome wide screens. Her focus is on uncovering basic mechanisms that regulate HSC biology and allow novel translational approaches.

Claudia Waskow studied biology at the Johannes Gutenberg Universität Mainz and at the University of Glasgow. After completing her diploma at the Basel Institute for Immunology at Hoffmann-La Roche, she stayed in Switzerland for her PhD thesis in the laboratory of Hans-Reimer Rodewald, University of Basel. Postdoc stations followed at Ulm University and at the Rockefeller University, New York in the lab of Michel Nussenzweig. After starting 2008 as group leader at the Center for Regenerative Therapies Dresden (CRTD), in 2014 Claudia Waskow became 2014 professor for regeneration in hematopoieses and animal models at the TU Dresden.

➤ Labor C. Waskow

Guanqgi Song and **Martin Pacher** succeeded as a team in the laboratories of **Amar Deep Sharma** and **Michael Ott** in establishing a mouse model in which scar tissue in the liver could be transformed to healthy liver cells (Song, G. et al., 2016, Cell Stem Cell, 18, 797 - 808). The research was carried out at the Cluster of Excellence REBIRTH and the TWINCORE Center at the Hannover Medical School (MHH). The mice had a chronic liver disease with scars from connective tissue that impaired the liver function. The researcher transformed the disease causing cells of the connective tissue into healthy new liver cells. "We could show for the first time that only four factors are sufficient to transdifferentiate somatic cells in the organism to functional liver cells", explains Amar Deep Sharma. "The exceptional benefit of this method is that we can not only reduce the scarring of the organ but additionally regenerate important liver functions", adds Michael Ott. This approach presented by the researchers opens novel avenues to treat the scarring process followed by chronic inflammation of the liver as well as many other organs. The publication has been selected for the "GSCN 2016 Publication of the Year Award".

→ <u>Press release REBIRTH</u> (in German); → <u>Labor A. Sharma</u>; → <u>Labor M. Ott</u>

The three GSCN awards are accompanied by a prize of 1,500 €. The awardees will deliver a presentation in the presidential symposium at the 4th Annual Conference of the GSCN from 12 - 14 Sept. 2016 in Hannover.

The German Stem Cell Network (GSCN) was founded in 2013. Its central task is to pool expertise in stem cell research in Germany and develop synergies between basic research, regenerative medicine and pharmacology. The initiative promotes innovative research activities on a national and international level. In addition, targeted information and events are developed to stimulate public discourse on stem cell research. The promotion of young emerging scientists as well as female scientists is a distinct goal of the GSCN.

More information can be obtained on our website: <u>www.gscn.org</u>. For further questions, please contact:

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