

International Lecture Series Disease Biology and Molecular Medicine





Prof. Katja Simon

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"Novel autophagy signalling pathway important in ageing"

Katja Simon is studying autophagy and cell fates in the hematopoietic system. After a childhood spent in Hamburg and Paris, Katja Simon studied Biology in Berlin, followed by a diploma thesis at University College London. She subsequently trained as an immunologist under Avrion Mitchison at the DRFZ (German Rheumatology Research Center) in Berlin, investigating autoimmune diseases with an emphasis on cytokines in rheumatoid arthritis. Katja thus found that TH1 cytokines are present in excess in human autoimmune diseases during her PhD research. As a postdoc at the Centre d'Immunologie Marseille Luminy, France, she investigated transcription factors regulating thymic cell death. During her second postdoc in Oxford, UK, at the Human Immunology Unit within the Sir David Weatherall Institute of Molecular Medicine, she pursued her interest in cell fate, studying cell death molecules (Trail and FasL) in thymic selection, inflammation and tumor immunity. As a principal investigator, she set up an independent line of enquiry investigating autophagy, another cellular process determining cell fate, in the haemato-immune system. Her group discovered that autophagy, the main conserved cellular bulk degradation pathway, maintains healthy red blood cells, stem cells and memory T cells and promotes differentiation while preventing ageing of the hematopoietic system. In 2016, she joined the Kennedy Institute of Rheumatology in Oxford.

Selected publications

Sanderson & Simon 2017, Aging Cell. doi: 10.1111/acel.12640.; Riffelmacher & Simon 2017, Autophagy 2017 doi: 10.1080/15548627.2017.1362525.; Galluzzi et al. 2017, EMBO J 36, 1811; Riffelmacher & Simon 2017, FEBS J 284, 1008; Zhang et al. 2016, Trends Mol Med 22, 671; Simon & Clarke 2016, Cell Death Differ 23,1267; Kabat et al. 2016, eLife 5:e12444; Simon et al. 2015, Proc Biol Sci 282: 20143085; Lindqvist et al. 2015, Cell Death Discov pii: 15036; Watson et al. 2015, Cell Death Discov pii: 15008; Puleston & Simon 2015, Microb Cell 2, 91; Lu et al. 2014, Cell 159, 1578; Salio et al. 2014, Proc Natl Acad Sci U S A 111, E5678; Puleston et al. 2014, eLife. doi: 10.7554/eLife.03706.



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Historischer Saal Stadtmuseum Halle

Christian-Wolff-Haus Große Märkerstr. 10 (ca. 100 m from market square)

Medizinische Fakultät Martin-Luther-Universität Halle-Wittenberg