

Curriculum Vitae

1. Personal details:

Name: Karl Lenhard Rudolph
Academic title: Prof. Dr. med.
Position: Research Group Leader, Full Professor
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2. Career progression:

1988-1995 Study of Medicine at the Georg-August University, Göttingen
1996-1997 Internship at the Department of Gastroenterology, Hepatology and Endocrinology (Prof. Dr. med. M.P. Manns), Medical School Hannover
1998 Postdoctoral studies with Prof. R.A. DePinho
2001-2006 Research group leader at the Department of Gastroenterology, Hepatology and Endocrinology, Medical School Hannover
2006 Named professorship of the DFG (Heisenberg) for Research on Stem Cell Aging, Regeneration, and Carcinogenesis
2007 Chairman of the Department of Molecular Medicine and the Max-Planck-Research-Group on Stem cell Aging at Ulm University
2012-2017 Scientific Director of the Leibniz Institute on Aging – Fritz-Lipmann-Institute (FLI)
Since 2017 Research Group Leader “Stem cell Aging” at FLI

3. Awards

2003 Research award of the German Association for the Study of Liver Disease (GASL)
2004 Research award of the Roggenbuck-foundation for Cancer Research in Northern Germany
2005 Research award of the GlaxoSmithKline foundation for “basic medical research”
2006 Research award of the Berlin-Brandenburgischen Akademie for Cancer Research
2008 René-Schubert award of the German Association for Aging Research (DGA)
2009 Gottfried Wilhelm Leibniz award of the DFG
2011 Wilhelm-Vaillant Award for Basic Research in Medicine
2012 Research Award of the Stifterverband
2015 German Cancer Award
2016 SENECA Medal of the Industry Club Düsseldorf

4. Selected publications

Rudolph KL, Chang S, Lee HW, Blasco M, Gottlieb GJ, Greider C, DePinho RA. Longevity, stress response, and cancer in aging telomerase-deficient mice. *Cell*. 1999 Mar 5;96(5):701-12.

Choudhury RA, Ju Z, Djojosebroto MW, Schienke A, Lechel A, Schaetzlein S, Jiang H, Stepczynska A, Wang C, Buer J, Lee HW, von Zglinicki T, Ganser A, Schirmacher P, Nakauchi H, Rudolph KL. Cdkn1a deletion improves stem cell function and lifespan of mice with dysfunctional telomeres without accelerating cancer formation. *Nat Genet*. 2007; 39:99-105.

Ju Z, Jiang H, Jaworski M, Rathinam C, Gompf A, Klein C, Trumpp A, Rudolph KL. Telomere dysfunction induces environmental alterations limiting hematopoietic stem cell function and engraftment. *Nat Med*. 2007; 13:742-7.

Schaetzlein S, Kodandaramireddy NR, Ju Z, Lechel A, Stepczynska A, Lilli DR, Clark AB, Rudolph C, Kuhnel F, Wei K, Schlegelberger B, Schirmacher P, Kunkel TA, Greenberg RA, Edelmann W, Rudolph KL. Exo1 deletion impairs DNA damage signalling and prolongs lifespan of telomere dysfunctional mice. *Cell* 2007, 130:863-77

Begus-Nahrman Y, Lechel A, Obenauf AC, Nalapareddy K, Peit E, Hoffmann E, Schlaudraff F, Liss B, Schirmacher P, Kestler H, Danenberg E, Barker N, Clevers H, Speicher MR, Rudolph KL. p53 deletion impairs clearance of chromosomal unstable stem cells in aging telomere dysfunctional mice. *Nature Genetics* 2009, 41: 1138-43

Sperka T, Song Z, Morita Y, Nalapareddy K, Guachalla LM, Lechel A, Begus-Nahrman Y, Burkhalter MD, Mach M, Schlaudraff F, Liss B, Ju Z, Speicher MR, Rudolph KL. Puma and p21 represent cooperating checkpoints limiting self-renewal and chromosomal instability of somatic stem cells in response to telomere dysfunction. *Nat Cell Biol*. 2011, 14:73-9.

Wang J, Sun Q, Morita Y, Jiang H, Groß A, Lechel A, Hildner K, Guachalla LM, Gompf A, Hartmann D, Schambach A, Wüstefeld T, Schrezenmeier H, Hofmann WK, Nakauchi H, Ju Z, Kestler HA, Zender L, Rudolph KL. Batf defines a differentiation checkpoint limiting hematopoietic stem cell self-renewal in response to DNA damage. *Cell* 2012, 148:1001-1014

Tang D, Tao S, Chen Z, Koliesnik IO, Gebert N, Calmes PG, Hörr V, Löffler B, Morita Y*, Rudolph KL*. * Co-Corresponding. Long-term dietary restriction improves repopulation but impairs lymphoid differentiation capacity of aging hematopoietic stem cells. *J Ex Med* 2016; 213:535-53.

Wang J, Morita Y, Han B, Niemann S, Löffler B, Rudolph KL. Per2 induction limits lymphoid-biased haematopoietic stem cells and lymphopoiesis in the context of DNA damage and ageing. *Nat Cell Biol*. 2016 May;18(5):480-90.

Schwörer S, Becker F, Feller C, Baig AH, Köber U, Henze H, Kraus JM, Xin B, Lechel A, Lipka DB, Varghese CS, Schmidt M, Rohs R, Aebersold R, Medina KL, Kestler HA, Neri F, von Maltzahn J, Tümpel S, Rudolph KL. Epigenetic stress responses induce muscle stem-cell ageing by Hoxa9 developmental signals. *Nature*. 2016 Dec 15;540(7633):428-432.