

## **Univ.-Prof. Dr. rer. nat. Judith Haendeler**

born on July 7<sup>th</sup> 1969      in Bergisch Gladbach, Germany  
Position                      Professor  
Contact                        Environmentally-induced cardiovascular degeneration  
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## **Academic studies and degrees**

1988 - 1993                  Study of Chemistry at the University of Cologne  
1994                            Diploma Thesis at Max-Planck Institute for Plant Breeding  
                                      Research, Cologne, degree Dipl. Chem.  
1997                            Dr. rer. nat., University of Cologne, Germany

## **Professional Career**

1995 - 1997                  PhD Thesis at the Molecular Cardiology Frankfurt and at the  
                                      University of Cologne Degree: Dr.rer.nat.  
1998 - 2000                  Postdoctoral Fellow (Fellowship Deutsche  
                                      Forschungsgemeinschaft), University of Seattle, WA, USA and  
                                      University Rochester, NY, USA  
2001 - 2003                  Senior Postdoc (Habilitation) at the Molecular Cardiology Frankfurt  
2004                            Habilitation and Venia legendi in Experimental Medicine at the  
                                      Medical  
                                      Faculty of the Johann-Wolfgang-Goethe-University, Frankfurt  
2004 - 2006                  Independent group leader at the Molecular Molecular Cardiology  
                                      Frankfurt  
2007 - 2014                  Independent group leader of Molecular Aging Research at the  
                                      IUF - Leibniz Research Institute for Environmental Medicine  
2008                            Umhabilitation and Venia Legendi in Experimental Medicine at the  
                                      Medical Faculty of the Heinrich-Heine-University Duesseldorf  
2014 -                         Heisenberg Professor/Univ.-Professor, Institute for Clinical  
                                      Chemistry, University of Düsseldorf and Leibniz Research  
                                      Institute for Environmental Medicine

## **Academic distinctions, honors and other activities**

2000                            Louis N. and Arnold M. Katz Finalist for the Young Investigator  
                                      Award, American Heart Association

2002	Poster-Research Price of the Physiology-/Cardiology-Workshop
2005	August Wilhelm und Lieselotte Becht-Research price of the German Foundation for Cardiovascular Research
2005	Research Price of the Physiology-/Cardiology-Workshop
2006	Signal Transduction Society (STS) Award for most innovative Research
2007	Signal Transduction Society (STS) Award for most innovative Research
2010 -	Steering Committee of Biologisch Medizinisches Forschungszentrums (BMFZ) at the University of Duesseldorf
2010 -	Steering Committee of the German Society of Gerontology and Geriatric Medicine

### Most important publications

1. Ale-Agha N\*, Goy C\*, Jakobs P\*, Spyridopoulos I, Gonnissen S, Dyballa-Rukes N, Aufenvenne K, von Ameln F, Zurek M, Spannbrucker T, Eckermann O, Jakob S, Gorressen S, Abrams M, Grandoch M, Fischer JW, Köhrer K, Deenen R, Unfried K, Altschmied J<sup>¶</sup>, **Haendeler J<sup>¶</sup>**. CDKN1B/p27 is localized in mitochondria and improves respiration-dependent processes in the cardiovascular system-New mode of action for caffeine. *PLoS Biol.* 2018;16: e2004408  
\*equal contribution, <sup>¶</sup>shared senior authorship
2. Dyballa-Rukes N\*, Jakobs P\*, Eckers A\*, Ale-Agha N, Serbulea V, Aufenvenne K, Zschauer TC, Rabanter LL, Jakob S, von Ameln F, Eckermann O, Leitinger N, Goy C, Altschmied J<sup>¶</sup>, and **Haendeler J<sup>¶</sup>**. The Anti-Apoptotic Properties of APEX1 in the Endothelium Require the First 20 Amino Acids and Converge on Thioredoxin-1. *Antioxid Redox Signal.* 2017;26:616-629  
\*equal contribution, <sup>¶</sup>shared senior authorship
3. Eckers A\*, Jakob S\*, Heiss C\*, Haarmann-Stemmann T, Goy C, Brinkmann V, Cortese-Krott MM, Sansone R, Esser C, Ale-Agha N, Altschmied J, Ventura N<sup>¶</sup> **Haendeler, J<sup>¶</sup>**. The aryl hydrocarbon receptor promotes aging phenotypes across species. *Sci Rep.* 2016;6:19618
4. **Haendeler J<sup>#</sup>**, Dröse S, Büchner N, Jakob S, Altschmied J, Goy C, Spyridopoulos I, Zeiher AM, Brandt U, Dimmeler S. Mitochondrial telomerase reverse transcriptase binds to and protects mitochondrial DNA and function from damage. *Arterioscler Thromb Vasc Biol.* 2009;29:929-935  
<sup>#</sup>corresponding author
5. Spyridopoulos I, Fichtlscherer S, Popp R, Toennes SW, Fisslthaler B, Trepels T, Zernecke A, Liehn EA, Weber C, Zeiher AM, Dimmeler S **Haendeler, J.** Caffeine enhances endothelial repair by an AMPK-dependent mechanism. *Arterioscler Thromb Vasc Biol.* 2008;28:1967-1974

6. Walter DH\*, **Haendeler J\***, Reinhold J\*, Rochwalsky U, Seeger F, Honold J, Hoffmann J, Urbich C, Lehmann R, Arenzana-Seisdesdos F, Aicher A, Heeschen C, Fichtlscherer S, Zeiher AM, Dimmeler S. Impaired CXCR4 signaling contributes to the reduced neovascularization capacity of endothelial progenitor cells from patients with coronary artery disease. *Circ Res.* 2005;97:1142-1151  
\*equal contribution
7. **Haendeler J**, Hoffmann J, Zeiher AM, Dimmeler S. Antioxidant effects of statins via S-nitrosylation and activation of thioredoxin in endothelial cells: a novel vasculoprotective function of statins. *Circulation.* 2004;110:856-861
8. **Haendeler J**, Hoffmann J, Diehl JF, Vasa M, Spyridopoulos I, Zeiher AM, Dimmeler S. Antioxidants inhibit nuclear export of telomerase reverse transcriptase and delay replicative senescence of endothelial cells. *Circ Res.* 2004;94:768-775
9. **Haendeler J**, Hoffmann J, Tischler V, Berk BC, Zeiher AM, Dimmeler S. Redox regulatory and anti-apoptotic functions of thioredoxin depend on S-nitrosylation at cysteine 69. *Nat Cell Biol.* 2002;4:743-749
10. Hoffmann J\*, **Haendeler J\***, Aicher A, Rössig L, Vasa M, Zeiher AM, Dimmeler S. Aging enhances the sensitivity of endothelial cells toward apoptotic stimuli: important role of nitric oxide. *Circ Res.* 2001;89:709-715  
\*equal contribution