

1) General information

HAENDELER, Judith, Dr. rer. nat.

*07.07.1969, female

Heisenberg-group - Environmentally-induced cardiovascular degeneration
Institute of Clinical Chemistry, University of Düsseldorf and
IUF - Leibniz Research Institute for Environmental Medicine
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Current position:
Heisenberg Professor

2) University training and degree

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.

3) Advanced academic qualifications

1995 – 1997 PhD Thesis at the Molecular Cardiology Frankfurt and at the University of
Cologne
1997 Doctorate: Dr. rer. nat., University of Cologne, Germany

4) Postgraduate professional career

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, Düsseldorf
2008 Umhabilitation and Venia Legendi in Experimental Medicine at the Medical
Faculty of the Heinrich-Heine-University Düsseldorf
2014 - present Heisenberg Professor/Univ.-Professor "Heisenberg-group - Environmentally-
induced cardiovascular degeneration", Institute for Clinical Chemistry, University
of Düsseldorf

5) Other

Membership and professional functions

1995 - present Deutsche Gesellschaft für Kardiologie, Herz- und Kreislaufforschung
2000 - present American Heart Association
2008 - present German Society for Gerontology and Geriatric Medicine
2013 - present German Genetics Society

Honors and awards

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
2006 Signal Transduction Society (STS) Award for most innovative Research

- 2010 – present Steering Committee of Biologisch Medizinisches Forschungszentrums (BMFZ) at the University of Düsseldorf
- 2010 – present Steering Committee of the German Society of Gerontology and Geriatric Medicine

6) Publications

1. Jakobs P*, Serbulea V*, Leitinger N, Eckers A, **Haendeler J**. Nuclear factor (erythroid-derived 2)-like 2 and Thioredoxin-1 in atherosclerosis and ischemia/reperfusion injury in the heart. *Antioxid Redox Signal*. 2017;PMID: 27923281 *equal contribution
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*, **Haendeler J***. The anti-apoptotic properties of apex1 in the endothelium require the first twenty amino acids and converge on thioredoxin-1. *Antioxid Redox Signal*. 2016;PMID: 27835927T *equal contribution
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, **Haendeler J**. The aryl hydrocarbon receptor promotes aging phenotypes across species. *Sci Rep*. 2016;6:19618 *equal contribution
4. Zschauer TC, Matsushima S, Altschmied J, Shao D, Sadoshima J, **Haendeler J**. Interacting with thioredoxin-1-disease or no disease? *Antioxid Redox Signal*. 2013;18:1053-1062
5. Zschauer TC, Kunze K, Jakob S, **Haendeler J***, Altschmied J*. Oxidative stress induced degradation of Thioredoxin-1 and apoptosis is inhibited by Thioredoxin-1/actin interaction in endothelial cells. *Arterioscler Thromb Vasc Biol*. 2011;31:650-656 #corresponding author; *equal contribution
6. **Haendeler J***, Drose S, Buchner 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 #corresponding author
7. Spyridopoulos I, Fichtlscherer S, Popp R, Toennes SW, Fisslthaler B, Trepels T, Zerneck 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
8. 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
9. **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
10. **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