

## Thorsten Hoppe

### Personal Data

Title	Prof. Dr.
First name	Thorsten
Name	Hoppe
Current position	Full Professor, permanent
Current institution(s)/ site(s), country	Proteostasis in Development and Aging, Institute for Genetics/CECAD Faculty of Mathematics and Natural Sciences, University of Cologne, Germany
ORCID	0000-0002-4734-9352

### Qualifications and Career

Stages	Periods and Details
Doctorate	1996–2000, Prof. Stefan Jentsch, Center for Molecular Biology Heidelberg (ZMBH), University of Heidelberg and Max Planck Institute for Biochemistry, Martinsried/Munich, Germany
Master	Molecular Biology, 1993–1996, University of Heidelberg, Germany

### Stages of Academic and Professional Career

Full Professor (W3)	2008–present, University of Cologne, Germany
Research Group Leader	2003–2008, Center for Molecular Neurobiology Hamburg (ZMNH), University of Hamburg, Germany
Research Associate (C1)	2002–2003, Gene Center, Ludwig-Maximilians-University, Munich, Germany
Postdoctoral Fellow	2001–2002, Gene Center, Ludwig-Maximilians-University, Munich, Germany

### Activities in the Research System

#### Institutional Responsibilities (selected)

2023–2024	Vice Director, Department of Biology, University of Cologne, Germany
2022–2023	Director, Department of Biology, University of Cologne, Germany
2019–present	Deputy Spokesperson, CECAD Cluster of Excellence EXC 2030 (DFG) “Cellular Stress Responses in Aging-associated Diseases”, University of Cologne, Germany
2019–2021	Managing Director, CECAD Research Center, University of Cologne, Germany
2018–2019	Inner Board Member, Faculty of Mathematics and Natural Sciences, University of Cologne, Germany
2016–2022	Member, Interdisciplinary Program Molecular Medicine (IPMM), Selection and Graduate Committee, University of Cologne, Germany

- 2014–present Executive Board Member, CECAD Cluster of Excellence EXC 229/2030 (DFG) “Cellular Stress Responses in Aging-associated Diseases”, University of Cologne, Germany
- 2014–2020 Executive Board Member, Selection and Graduate Committee, Graduate School for Biological Sciences (GSfBS), University of Cologne, Germany
- 2012–2018 Coordinator, Research Area B “Protein Homeostasis in Aging”, CECAD Cluster of Excellence EXC 229 (DFG) “Cellular Stress Responses in Aging-associated Diseases”, University of Cologne, Germany
- 2011–2013 Managing Director, Institute for Genetics, University of Cologne, Germany

#### Service to the Scientific Community (selected)

- 2022–present Spokesperson, Working Group “Cellular and Organismal Proteostasis” of the German Society for Cell Biology (DGZ), Heidelberg, Germany
- 2020–present Editorial Board Member, Mechanisms of Ageing and Development
- 2020–present SAB Member, Faculty of Medicine, University of Jena, Germany
- 2018, 2014 Panel Member, DFG Review Board, CRC 1177 on Autophagy
- 2018 SAB Member, INSERM: Programmes Transversaux, (AGEMED), France
- 2016 Review Board, LOEWE Program: Ubiquitin-Net, University of Frankfurt, Germany
- 2014–present Editorial Board Member, Frontiers in Protein Folding & Degradation
- 2010–2023 Editorial Board Member, Aging Cell
- 2006–present F1000 Editorial Board Member, Biology

### Scientific Results

#### Category A

Balaji, V., Müller, L., Lorenz, R., Kevei, E., Zhang, W.H., Santiago, U., Gebauer, J., Llamas, E., Vilchez, E., Camacho, C.J., Pokrzywa, W., and **Hoppe, T.** (2022). A dimer-monomer switch controls CHIP-dependent substrate ubiquitylation and processing. **Mol Cell** 82:3239–3254. doi: 10.1016/j.molcel.2022.08.003. (open access)

Efstathiou, S.\* , Ottens, F.\* , Schütter, L.S.\* , Ravanelli, S., Charmpilas, N., Gutschmidt, A., Le Pen, J., Gehring, N.H., Miska, E.A., Boucas, J., and **Hoppe, T.** (2022). ER-associated RNA silencing promotes ER quality control. **Nat Cell Biol** 24:1714–1725. doi: 10.1038/s41556-022-01025-4. (open access)

Finger, F., Ottens, F., Springhorn, A., Drexel, T., Proksch, L., Metz, S., Cochella, L., and **Hoppe, T.** (2019). Olfaction regulates organismal proteostasis and longevity via miRNA-dependent signaling. **Nat Metab** 1:350–359. doi: 10.1038/s42255-019-0033-z (open access)

Tawo, R.\* , Pokrzywa, W.\* , Kevei, É.\* , Akyuz, M.E., Balaji, V., Arian, S., Höhfeld, J.# , and **Hoppe, T.#** (2017). The ubiquitin ligase CHIP integrates proteostasis and aging by regulation of insulin receptor turnover. **Cell** 169:470–482. doi: 10.1016/j.cell.2017.04.003. (open access)

Segref, A., Kevei, É., Pokrzywa, W., Schmeisser, K., Mansfeld, J., Livnat-Levanon, N., Ensenauer, R., Glickman, M.H., Ristow, M., and **Hoppe, T.** (2014). Pathogenesis of human mitochondrial diseases is modulated by reduced activity of the ubiquitin/proteasome system. **Cell Metab** 19:642–652. doi: 10.1016/j.cmet.2014.01.016. (open access)

Gazda, L.\* , Pokrzywa, W.\* , Hellerschmied, D.\* , Löwe, T., Forné, I., Mueller-Planitz, F., **Hoppe, T.#**, and Clausen, T.# (2013). The myosin chaperone UNC-45 is organized in tandem modules to support myofilament formation in *C. elegans*. **Cell** 152:183–195. doi: 10.1016/j.cell.2012.12.025. (open access)

Kuhlbrodt, K.\* , Janiesch, P.C.\* , Kevei, É.\* , Segref, A., Barikbin, R., and **Hoppe, T.** (2011). The Machado-Joseph disease deubiquitylase ATX-3 couples longevity and proteostasis. **Nat Cell Biol** 13:273–281. doi: 10.1038/ncb2200. (open access)

Janiesch, P.C.\*, Kim, J.\*, Mouysset, J., Barikbin, R., Lochmüller, H., Cassata, G., Krause, S., and **Hoppe, T.** (2007). The ubiquitin-selective chaperone CDC-48/p97 links myosin assembly to human myopathy. **Nat Cell Biol** 9:379–390. doi: 10.1038/ncb1554. (open access)

**Hoppe, T.**, Cassata, G., Barral, J.M., Springer, W., Hutagalung, A.H., Epstein, H.F., and Baumeister, R. (2004). Regulation of the myosin-directed chaperone UNC-45 by a novel E3/ E4-multiubiquitylation complex in *C. elegans*. **Cell** 118:337–349. doi: 10.1016/j.cell.2004.07.014. (open access)

**Hoppe, T.**, Matuschewski, K., Rape, M., Schlenker, S., Ulrich, H.D., and Jentsch, S. (2000). Activation of a membrane-bound transcription factor by regulated ubiquitin proteasome-dependent processing. **Cell** 102:577–586. doi: 10.1016/s0092-8674(00)00080-5. (open access)

\* shared first authorship, # shared corresponding authorship

## Category B

### *Preprints, Reviews, and Commentaries (Non-peer-reviewed, selected)*

Bakula, D., Ablasser, A., Aguzzi, A., Antebi, A., Barzilai, N., Bittner, M.I., Jensen, M.B., Calkhoven, C.F., Chen, D., Grey, A.D.N.J., Feige, J.N., Georgievskaya, A., Gladyshev, V.N., Golato, T., Gudkov, A.V., **Hoppe, T.**, Kaeberlein, M., Katajisto, P., Kennedy, B.K., Lal, U., Martin-Villalba, A., Moskalev, A.A., Ozerov, I., Petr, M.A., Reason, Rubinsztein, D.C., Tyshkovskiy, A., Vanhaelen, Q., Zhavoronkov, A., and Scheibye-Knudsen, M. (2019). Latest advances in aging research and drug discovery. **Aging** 11:9971–9981. doi: 10.18632/aging.102487. (open access)

Ottens, F., Finger, F., and **Hoppe, T.** (2019). Wie der Geruch von Nahrung Stoffwechsel und Altern beeinflusst. **Nutrition News** 3, 3–5.

Kim, J., and **Hoppe, T.** (2006). The ubiquitin/proteasome system and muscle development. *Protein Degradation* 3, WILEY-VCH, 21–39.

### *Patents*

Inventors: Baumeister, R., **Hoppe, T.**, and Spanier, B (Ludwig-Maximilians-University, Munich, Germany)

No.: WO 2006/010634 (2006)

Title: Chn-1/Chip-antagonists for the treatment of muscular diseases

### *Public Outreach Activities (selected)*

2021 Vortrag, Symposium “Zeitverschiebungen: Das Alter(n) und die Gesellschaft”: “Warum wir altern. Und wie lange noch”, (TAIFUN Projekt), Düsseldorf, Germany

### Academic Distinctions

2024	ERC Advanced Grant
2020	Elected Member, European Molecular Biology Organization (EMBO)
2016	Max Delbrück Award for Life Sciences, University of Cologne, Germany
2013	ERC Consolidator Grant
2008–2011	EMBO Young Investigator Award
2008	Felix Jerusalem Award, German Society of Muscular Diseases (DGM)
2008	Walther Flemming Medal, German Society of Cell Biology (DGZ)
2007	Werner Otto Award for Biomedical Research, Germany
2001	Junior Research Award, Max Planck Institute for Biochemistry, Germany