# PhD STUDENT POSITION AVAILABLE

**(65% German TV-L E13, m/f)**
**Hoppe Laboratory**
***Protein Homeostasis Mechanisms in Aging & Disease***
**CECAD-Cluster of Excellence in Aging Research, University of Cologne**

**Institution information:** Institute for Genetics and CECAD Research Center, University of Cologne, Joseph-Stelzmann-Str. 26, D-50931 Cologne, Germany
**Location:** Cologne is a vibrant city with a highly international academic research environment. CECAD forms a world-leading Center for aging research in Europe, bringing together scientists and clinicians at the University of Cologne and the Max Planck Institutes for Biology of Aging and Metabolism Research in a unique research venture.

**Background:** Protein homeostasis (proteostasis) is achieved via conserved quality control pathways that support correct protein folding and activity. Unfortunately, the proteostasis network has a limited capacity and its impairment triggers aggregation of damaged proteins that deteriorate organismal viability. Protein aggregation in the human brain is central to neurodegeneration causing intelectual and motor deficits. By manipulating the proteostasis machinery, our team was able to delay the aging process and extend the lifespan in the nematode model *C. elegans*. The long-term objective of this project is to define proteostasis networks essential for stress resistance and tissue functionality. A combination of state-of-the-art techniques including (opto)-genetics, biochemical, and *in vivo* imaging allows us to examine stress-induced changes of protein folding and degradation pathways. The conserved regulation of proteostasis networks will be studied in *C. elegans*, mammalian cell culture, and samples of disease-patients. The proposed project will have broad implications for the understanding of tissue regeneration mechanisms and age-associated neurodegeneration mechanisms. Novel findings may be relevant for future therapeutic interventions against degenerative aging-associated diseases, such as Alzheimer's, Huntington's, and Parkinson's disease.

**Qualifications:** We are seeking a highly motivated PhD student to join our enthusiastic and collaborative group. Candidates should have demonstrated outstanding performance through their undergraduate studies. Besides creativity, a strong ability for problem solving through analytical thinking combined with an enthusiasm for scientific research is highly desirable. Additionally, we expect very good communication skills, fluent English and the ability for teamwork. The successful applicant will join an enthusiastic and collaborative group where a multidisciplinary approach is pursued.

For more information: http://www.hoppelab.uni-koeln.de

**How to Apply:** Please send your CV, letter of intent, names and addresses of three references to Prof. Thorsten Hoppe, E-mail: thorsten.hoppe@uni-koeln.de
*Application deadline: 31 May 2019*