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Curriculum vitae

since 2016	Project leader of the SPP1623
since 2015	Project leader of the SFB740
since 2013	Group Leader at the Leibniz Institut für Molekulare Pharmakologie (FMP)
2009 - 2013	Lecturer/Instructor at Northwestern University, Chicago, IL, USA
2008 - 2013	Postdoc in the lab of Richard I. Morimoto at Northwestern University, Evanston, IL, USA
2007 - 2008	Postdoc in the lab of K. Turgay at Freie Universität Berlin
2003 - 2007	PhD in Biochemistry Advisors K. Turgay and B. Bukau at ZMBH, Heidelberg and Freie Universität Berlin
1998 - 2003	Diploma in Biology at Universität Greifswald

Research fields

Our group studies protein homeostasis and its interrelation with aging and neurodegenerative diseases with a focus on:

- *C. elegans* as model system for aging and neurodegenerative diseases
- proteostasis network maintaining a functional proteome in neuronal cells
- effect of aggregation-prone and disease-associated proteins such as Htt, A β and α -synuclein on cellular and organismal proteostasis
- biochemical characterization of human and nematode chaperones to decipher novel chaperone complexes and their role in suppression and disaggregation of amyloid proteins

Activities in the scientific community, honors, awards

2014	Schering Stiftung: Young Leaders in Science Award
2012	HHMI Mentoring Stipend
2008 – 2011	Human Frontier Science Program Post-doctoral Fellowship
2008	EMBO long-term postdoctoral Fellowship
2008	DFG post-doctoral Fellowship
2008	VAAM (Vereinigung für Allgemeine und Angewandte Mikrobiologie) National Award for PhD Thesis
2007	EMBO short-term Fellowship for Research in the lab of J. Errington, University of Newcastle upon Tyne, UK
2000 - 2003	Scholarship of the Studienstiftung des deutschen Volkes (German Merit Award)

Selected publications

Nillegoda NB, Kirstein J, Szlachcic A, Berynsky M, Stank A, Stengel F, Arnsburg K, Gao X, Scior A, Aebersold R, Guilbride DL, Wade RC, Morimoto RI, Mayer MP, Bukau B. Crucial HSP70 co-chaperone complex unlocks metazoan protein disaggregation. *Nature*. 2015;524(7564):247-51.

Kirstein J, Morito D, Kakihana T, Sugihara M, Minnen A, Hipp MS, Nussbaum-Krammer C, Kasturi P, Hartl FU, Nagata K, Morimoto RI. Proteotoxic stress and ageing triggers the loss of redox homeostasis across cellular compartments. *Embo J*. 2015;34(18):2334-49.

Kirstein-Miles J, Scior A, Deuerling E, Morimoto RI. The nascent polypeptide-associated complex is a key regulator of proteostasis. *Embo J*. 2013;32(10):1451-68.

Rampelt H, Kirstein-Miles J, Nillegoda NB, Chi K, Scholz SR, Morimoto RI, Bukau B. Metazoan Hsp70 machines use Hsp110 to power protein disaggregation. *Embo J*. 2012;31(21):4221-35.

Kirstein-Miles J, Morimoto RI. Peptides signal mitochondrial stress. *Cell Metab*. 2010;11(3):177-8.

Kirstein J, Moliere N, Dougan DA, Turgay K. Adapting the machine: adaptor proteins for Hsp100/Clp and AAA+ proteases. *Nat Rev Microbiol*. 2009;7(8):589-99.

Kirstein J, Hoffmann A, Lilie H, Schmidt R, Rubsamen-Waigmann H, Brotz-Oesterhelt H, Mogk A, Turgay K. The antibiotic ADEP reprogrammes ClpP, switching it from a regulated to an uncontrolled protease. *EMBO Mol Med*. 2009;1(1):37-49.

Haslberger T, Zdanowicz A, Brand I, Kirstein J, Turgay K, Mogk A, Bukau B. Protein disaggregation by the AAA+ chaperone ClpB involves partial threading of looped polypeptide segments. *Nat Struct Mol Biol*. 2008;15(6):641-50.

Kirstein J, Dougan DA, Gerth U, Hecker M, Turgay K. The tyrosine kinase McsB is a regulated adaptor protein for ClpCP. *Embo J*. 2007;26(8):2061-70.

Kirstein J, Schlothauer T, Dougan DA, Lilie H, Tischendorf G, Mogk A, Bukau B, Turgay K. Adaptor protein controlled oligomerization activates the AAA+ protein ClpC. *Embo J*. 2006;25(7):1481-91.

Kirstein J, Zuhlke D, Gerth U, Turgay K, Hecker M. A tyrosine kinase and its activator control the activity of the CtsR heat shock repressor in *B. subtilis*. *Embo J*. 2005;24(19):3435-45.