

APPLICANT/FELLOW BIOGRAPHICAL SKETCH

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Janine Kirstein-Miles (Kirstein)

eRA COMMONS USER NAME (credential, e.g., agency login)

Post-doctoral fellow

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Universitaet Greifswald, Germany	Diploma	2003	Molecular Microbiology
ZMBH Heidelberg / Freie Universitaet Berlin, Germany	PhD	2007	Biochemistry
Freie Universitaet Berlin, Germany	Post-doc	2007-2008	Biochemistry
Northwestern University, Evanston, IL, USA	Post-doc	2008- current	Cell biology / Biochemistry

Please refer to the application instructions in order to complete sections A, B, and C of the Biographical Sketch.

A. Positions and Honors

ACTIVITY/OCCUPATION	BEGINNING DATE (mm/yy)	ENDING DATE (mm/yy)	FIELD	INSTITUTION/COMPANY	SUPERVISOR/ EMPLOYER
Cooperation and work: "Subcellular localization of the heat shock proteins of <i>B. subtilis</i> "	02 / 2007	05 / 2007	Cell biology / Microbiology	Institute of Cell and Molecular Biosciences, University of Newcastle upon Tyne, UK	Prof. Dr. J. Errington and Dr. L. Hamoen
Cooperation and work: "Analysis of the oligomeric state of ClpP"	12 / 2005	12 / 2005	Biochemistry and Biophysics	Universitaet Halle – Wittenberg, Germany	Prof. Dr. R. Rudolph and Dr. H. Lilie
Cooperation and work: "Generation of peptide libraries"	11 / 2005	11 / 2005	Chemistry	Max Planck Insitute Halle, Germany	Prof. Dr. G. Fischer and Dr. Malesevic
Biophysical characterization of ClpC, MecA and McsB	06 / 2005	07 / 2005	Biochemistry, Biophysics	Research Institute of Molecular Pathology Vienna, Austria	Dr. Tim Clausen
Internship: "Establishing of a protocol for studying protein-protein interactions using the λ -cl-fusion approach"	01 / 2002	04 / 2002	Microbiology	PHRI Newark, NJ, USA	Prof. Dr. D. Dubnau
Internship: "Interplay of the σ^B and <i>pho</i> Regulon in <i>B. subtilis</i> "	09 / 2001	12 / 2001	Microbiology	University of Newcastle upon Tyne, UK	Prof. Dr. C. Harwood

Academic and Professional Honors

- 05/2009 FEBS/EMBO travel fellowship to attend the EMBO conference "The Biology of Molecular Chaperones" in Dubrovnik (Croatia) May 2009
- 03 / 2008 Acceptance of the long term post-doctoral fellowship by the Human Frontier Science Program Organization (HFSP)
- 03 / 2008 Award of a post-doctoral long term fellowship by the European Molecular Biology Organization (EMBO), the Deutsche Forschungsgemeinschaft (DFG) and the Human Frontier Science Program Organization (HFSP)
- 03 / 2008 Award for PhD thesis by the VAAM (Microbiology Society of Germany)
- 08 / 2007 Boehringer Ingelheim Fonds travel allowance for participation in the 'C. elegans' course at the CSHL, Cold Spring Harbor, NY, USA
- 02-05 / 07 EMBO short-term fellowship for the project 'Subcellular localization of the heat shock proteins of B. subtilis' in the laboratory of Dr. Leendert Hamoen, Institute of Cell and Molecular Biosciences, University of Newcastle upon Tyne, UK
- 09 / 2000 - Scholarship of the Studienstiftung des deutschen Volkes (German National Merit Scholarship)
10 / 2003

B. Publications

Original articles

Kirstein-Miles J & Morimoto R I
Peptides signal mitochondrial stress
Cell Metab 2010 Mar;11(3):177

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

Kirstein J, Strahl H, Moliere N, Hamoen, L & Turgay K
Localization of general and regulatory proteolysis in *Bacillus subtilis* cells.
Mol Microbiol. 2008 Nov;70(3):682-94.

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 Jun;15(6): 641-650

Erbse AH, Wagner JN, Truscott KN, Spall SK, **Kirstein J**, Zeth K, Turgay K, Mogk A, Bukau B, Dougan DA
Conserved residues in the N-domain of the AAA⁺ chaperone ClpA regulate substrate recognition and unfolding
FEBS J 2008 Apr; 27(7): 1400-10

Kirstein J, Dougan DA, Gerth U, Hecker M & Turgay K
The tyrosine kinase McsB is a regulated adaptor protein for ClpCP
EMBO J, 2007_Apr 18; 26(8):2061-2070.

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 Apr 5; 25(7):1481-91.

Andersson FI, Blakytyn R, **Kirstein J**, Turgay K, Bukau B, Mogk A, Clarke AK.
Cyanobacterial ClpC/HSP100 protein displays intrinsic chaperone activity.
J Biol Chem. 2006 Mar 3;281(9):5468-75.

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 Oct 5; 24(19):3435-45.

Gerth U, **Kirstein J**, Mostertz J, Waldminghaus T, Miethke M, Kock H, Hecker M.
Fine-tuning in regulation of Clp protein content in *Bacillus subtilis*.
J Bacteriol. 2004 Jan; 186(1):179-91.

Rollenhagen C, Antelmann H, **Kirstein J**, Delumeau O, Hecker M, Yudkin MD.
Binding of sigma(A) and sigma(B) to core RNA polymerase after environmental stress in *Bacillus subtilis*.
J Bacteriol. 2003 Jan;185(1):35-40.

Review articles

Kirstein-Miles J & Morimoto R I
Caenorhabditis elegans as a model system to study intercompartmental proteostasis: interrelation of mitochondrial function, longevity and neurodegenerative diseases
Dev Dyn 2010 May;239(5):1529-1538

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

Kirstein J, Turgay K.

A new tyrosine phosphorylation mechanism involved in signal transduction in *Bacillus subtilis*.

J Mol Microbiol Biotechnol. 2005;9(3-4):182-8. Review.

C Teaching Experience

Northwestern School of Continuing Studies / Northwestern University:
“Concepts of Biology” BIOL SCI 170 –CN

taught in:

Summer 2009 (11 weeks course)

Fall 2009 (12 weeks course)

Spring 2010 (11 weeks course)