

**BIOGRAPHICAL SKETCH**

NAME Ben-Zvi Anat		POSITION TITLE Postdoctoral fellow	
eRA COMMONS USER NAME (credential, e.g., agency login) ABENZVI			
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
The Hebrew University of Jerusalem	B.Sc.	1995-1997	Biology
The Hebrew University of Jerusalem	M.Sc.	1997-1999	Biochemistry
The Hebrew University of Jerusalem	Ph.D.	1999-2004	Biochemistry
Northwestern University		2003-	Molecular cell Biology

**A. Positions and honors****Position and Employment**

- 1996-1997 Undergraduate research project, Biochemistry department, The Hebrew University of Jerusalem, Jerusalem, Israel. Advisor: Dr. Pierre Goloubinoff.
- 1997-2002 Graduate research and teaching position, Biochemistry department, The Hebrew University of Jerusalem, Jerusalem, Israel. Advisor: Dr. Pierre Goloubinoff.
- 1999 Two weeks spent in the laboratory of Prof. B. Bukau in Freiburg, financed by the DFG.
- 2002-2003 Graduate research and teaching position, Department of Plant Molecular Biology, University of Lausanne, Lausanne, Switzerland. Advisor: Dr. Pierre Goloubinoff.
- 2003 Postdoctoral fellow research, Department of Biochemistry, Molecular Biology, and Cell Biology Northwestern University, Evanston IL. USA. Supervisor: Prof. R. I. Morimoto.

**Honors and fellowships**

- 1997 A Rector Scholarship granted for graduating in two years "ETGAR", B.Sc. program for excellent students in biology.
- 1998 Polak prize for excellence in research.
- 2003-2005 EMBO long-term postdoctoral fellowship.
- 2005-2006 American Parkinson Disease Association post-doctoral fellowship.
- 2006-2008 The Hereditary Disease Foundation Milton Wexler postdoctoral fellowship.

**B. Publication****Peer-Reviewed Publication**

- Ben-Zvi A. P., Chatellier J., Fersht A. R. and Goloubinoff P. (1998) "Minimal and optimal mechanisms for GroE-mediated protein folding" *PNAS* 95(26): 15275-15280.
- Goloubinoff P., Mogk A., Ben-Zvi A.P., Tomoyasu T. and Bukau B. (1999) "Sequential mechanism of solubilization and refolding of stable protein aggregates by a bichaperone network." *PNAS* 96(24): 13732-13737.
- Diamant S., Bukau B., Ben-Zvi A.P and Goloubinoff P. (2000) "Size-dependent disaggregation of stable protein aggregates by the DnaK chaperone machinery." *J Biol. Chem.* 275(28): 21107-21113.
- Ben-Zvi A.P. and Goloubinoff P. (2002) "Proteinaceous infectious behavior in proteins is controlled by molecular chaperones" *J Biol. Chem.* 277(51): 49422-49427.
- Diamant S., Rosenthal D., Azem, A., Eliahu N., Ben-Zvi A.P. and Goloubinoff P. (2003) "Dicarboxylic amino acids and Glycine-Betaine regulate chaperone-mediated protein-disaggregation under stress" *Mol. Microbiol.* 49(2): 401-410.

6. Ben-Zvi A., De Los Rios P., Dietler G. and Goloubinoff P. (2004) "Active solubilization and refolding of stable protein aggregates by cooperative unfolding action of individual hsp70 chaperones" **J Biol. Chem.** 279(36): 37298-37303.
  7. Gidalevitz T\*, Ben-Zvi A\*, Ho K.H., Brignull H.R. and Morimoto R.I (2006) "Progressive disruption of cellular protein folding in models of polyglutamine diseases" **Science** 311(5766):1471-4.
  8. De Los Rios P., Ben-Zvi A., Slutsky O., Azem A. and Goloubinoff P (2006) "Hsp70 chaperones accelerate protein translocation and the unfolding of stable protein aggregates by entropic pulling" **PNAS** 103(16):6166-71.
  9. Ben-Zvi A., Miller E.A and Morimoto R.I (2009) **In preparation for resubmission.**
- (\*Authors contributed equally to this work).

#### Reviews and book chapters

1. Ben-Zvi A.P. and Goloubinoff P. (2001) "Mechanisms of Disaggregation and Refolding of Stable Protein Aggregates by Molecular Chaperones" **J. Struct. Biol.** 135(2): 84–93.
2. Kim S., Morley J.F., Ben-Zvi A. and Morimoto R.I (2005) "Polyglutamine aggregates as a model for protein misfolding diseases". In Protein Folding Handbook. Eds Buchner J. and Kiefhaber T. Wiley-VCH, Weinheim, Part II (Vol 3): 1175-1200.
3. Goloubinoff P. and Ben-Zvi A., (2006). "Review. Mechanisms of Active Solubilization of Stable Protein Aggregates by Molecular Chaperones". In Protein Misfolding, Aggregation and Conformational Diseases. Eds Uversky V. and Fink A.L. Kluwer Academic / Plenum Publishers 8.2: 165-174.
4. Hinault M. P, Ben-Zvi A, Goloubinoff P (2006) "Chaperones and proteases - Cellular fold-controlling factors of proteins in Neurodegenerative diseases and aging". **J. Mol. Neurosci**, 30(3):249-265.