

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Orna Resnekov, PhD.		POSITION TITLE Deputy Director	
eRA COMMONS USER NAME ornar1@			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Michigan	B.S.	1981	English
University of Michigan	M.S.	1983	Biology
Weizmann Institute of Science, Rehovot, Israel	Ph.D.	1989	Biology

NOTE: The Biographical Sketch may not exceed four pages. Items A and B (together) may not exceed two of the four-page limit. Follow the formats and instructions on the attached sample.

A. Positions and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

Positions

- 1988-1991 **Karolinska Institute**, Stockholm, Sweden
Postdoctoral Fellow
- 1991-1997 **Harvard University**
Research Associate (1994- 1997)
Bunting Institute Science Scholar and postdoctoral fellow (1991-1994)
- 1998-2000 **NIH-National Institute of Child Health and Human Development**, Section on Microbial Genetics, Laboratory of Molecular Genetics.
Research Fellow (1998-2000)
Senior Staff Fellow (1998)
- 2000-present **The Molecular Sciences Institute**, Senior Research Fellow
Co-Investigator, Center for Genomic Experimentation and Computation (2002-present)
Assistant Research Director and Alpha Project Manager (2003-2006)
Deputy Director and Alpha Project Manager (2006-present)

Honors

- 1988-1990 European Molecular Biology Organization Postdoctoral Fellowship.
- 1989 The Dr. Ester Halinger Prize for Ph.D. studies.
- 1990-1991 Swedish Cancer Society.
- 1991-1992 Science Scholar, Bunting Institute of Radcliffe College.

B. Selected peer-reviewed publications (in chronological order). Do not include publications submitted or in preparation.

- Resnekov, O.**, Ben-Asher, E., Bengal, E., Choder, M., Hay, N., Kessler, M., Ragimov, N., Seiberg, M., Skolnick-David, H. and Aloni, Y. (1988). Transcription termination in animal viruses and cells. *GENE*. 72:91-104.

2. **Resnekov, O.** and Aloni, Y. (1989). RNA polymerase II is capable of pausing and prematurely terminating transcription at a precise location both *in vitro* and *in vivo*. *Proc. Natl. Acad. Sci.* 86:12-1613.
3. **Resnekov, O.**, Kessler, M. and Aloni, Y. (1989). RNA secondary structure is an integral part of the *in vitro* mechanism of attenuation in SV40. *J. Biol. Chem.* 17:9953-9959.
4. Krauskopf, A., **Resnekov, O.** and Aloni, Y. (1990). A cis downstream element participates in the regulation of *in vitro* transcription initiation from the P38 promoter of Minute Virus of Mice. *J. Virol.* 64:354-360.
5. **Resnekov, O.**, Rutberg, L. and von Gabain, A. (1990). Changes in the stability of specific mRNA species in response to growth stage in *Bacillus subtilis*. *Proc. Natl. Acad. Sci.* 87:8355-8359.
6. von Gabain, A., Georgellis, D., Lundberg, U., Melefors, O., Melin, L. and **Resnekov, O.** (1990). The role of a novel site-specific endoribonuclease in the regulated decay of *E. coli* mRNA-A model for growth-stage dependent mRNA stability in bacteria. *NATO ASI series.* 49:31-43.
7. Kessler, M., Ben-Asher, E., **Resnekov, O.**, Hatinit, V., Bengal, E. and Aloni, Y. (1991). A 21 Base-pair fragment directs transcription attenuation within the SV40 late leader. *J. Biol. Chem.* 266:13019-13027.
8. **Resnekov, O.**, Pruzan, R. and Aloni, Y. (1991). Elements involved in an *in vitro* block to transcription elongation at the end of the L1 mRNA family of adenovirus 2. *Nucleic Acids Res.* 19:1783-1790.
9. **Resnekov, O.**, Melin, L. Carlsson, P., Mannerlov, M., von Gabain, A. and Hederstedt, L. (1992). Organization and regulation of the *Bacillus subtilis odhAB* operon, which encodes two of the subenzymes of the 2-oxoglutarate dehydrongenase complex. *Mol. Gen. Genet.* 243:285-296.
10. **Resnekov, O.**, Driks, A., and Losick, R. (1995). Identification and characterization of sporulation gene *spoVS* from *Bacillus subtilis*. *J. Bact.* 177:5628-5635.
11. Dehlin, E., von Gabain, A., Alm, G., Dingelmayer, R. and **Resnekov, O.** (1996). Repression of beta interferon gene expression in virus-infected cells is correlated with a poly (A) tail elongation. *Mol Cell. Biol.* 16:468-474.
12. **Resnekov, O.** and von Gabain, A. Eds. (1996). Post-transcriptional control of gene expression. NATO-ASI series H:97 (Cell Biology), Springer-Verlag, Heidelberg.
13. **Resnekov, O.**, Alper, S. and Losick, R. (1996). Subcellular localization of proteins governing the proteolytic activation of a developmental transcription factor in *Bacillus subtilis*. *Genes to Cells.* 1:529-542.
14. **Resnekov, O.** and Losick, R. (1998). Negative regulation of the proteolytic activation of a developmental transcription factor in *Bacillus subtilis*. *Proc. Natl. Acad. Sci.* 95:3162-3167.
15. Webb, C.D. and **Resnekov, O.** (1999). Use of green fluorescent protein for visualization of cell-specific gene expression and subcellular protein localization in *Bacillus subtilis*. *Methods in Enzymology.* 302:136-153.
16. **Resnekov, O.** (1999). Role of the sporulation protein BofA in regulating activation of the *Bacillus subtilis* developmental transcription factor σ^K . *J. Bact.* 181:5384-5388.
17. Crater, D. L., Wade, K. H., **Resnekov, O.**, Ichikawa, H. T., Kroos, L., Brannigan, J. A., Moran, C. P. A mutation in GerE that affects cotC promoter activation in *Bacillus subtilis*. *Biochim Biophys Acta* 2002, 1576, 30-38.
18. Colman-Lerner, A., Gordon, A., Pesce, G., Serra, E., Chin, T., **Resnekov, O.**, Endy, D., and Brent, R. (2005) Regulated cell-to-cell variation in a cell-fate decision system. *Nature.* 437(7059): 699-706.

C. Research Support. List selected ongoing or completed (during the last three years) research projects (federal and non-federal support). Begin with the projects that are most relevant to the research proposed in this application. Briefly indicate the overall goals of the projects and your role (e.g. PI, Co-Investigator, Consultant) in the research project. Do not list award amounts or percent effort in projects.

Ongoing Research Support

5 P50 HG002370-04 Brent (PI)

07/22/2002-6/30/2007

NIH/NHGRI

Title: Center for Genomic Experimentation and Computation

Role: Co-Investigator

The mission of the Center for Genomic Experimentation and Computation at the Molecular Sciences Institute is to combine genomic and computational research to make predictive models of biological systems. Its flagship activity, the "Alpha Project" aims to predict the quantitative behavior of a signal transduction pathway in the budding yeast, *S. cerevisiae*, in response to defined perturbations. The project is a comprehensive ambitious attempt to develop the experimental and computational tools needed to reach this goal. In the process of modeling this pathway, the Center aims to learn how to perform certain kinds of multidisciplinary work. We expect that researchers trained at this Center will nucleate laboratories at distinct sites that will combine experimental and computational science to understand genome function.

Canary Foundation

Title: Tadpole assays for proteomic detection of early cancer

Role: Co-Investigator

The goal of this work is to develop tadpole technology so that it can be used to quantify ovarian cancer marker proteins that may be present in small amounts in serum. We believe that if tadpole assays are developed to quantify molecules from clinical samples, their relative simplicity, low cost, great sensitivity, accuracy, and large dynamic range will make them invaluable in workhorse detection of protein marker and/or proteomic molecular signatures of cancer.

U54 A1057156 Weinstock (PI)

09/01/06-02/28/09

NIH/NIAID

Title: Development of diagnostic reagents for the detection of *Francisella* and *Francisella* infection.

Role: Co-investigator

The goal of this work is to create powerful diagnostics that will detect the presence of *Francisella tularensis* in biological and environmental samples as well as immune responses directed against *Francisella tularensis*.

Completed Research Support