

# **Neer Asherie**

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## GRANTS RECEIVED

### NATIONAL SCIENCE FOUNDATION

*RUI: Chirality and the Phase Behavior of Globular Proteins:*  
September 2012 – August 2015

Principal Investigator  
\$275,000  
(direct plus indirect costs)

### NATIONAL SCIENCE FOUNDATION

*RUI: Understanding the Self-Assembly of Globular Proteins:  
Phase Behavior, Interactions, and Chirality*  
September 2009 – August 2012

Principal Investigator  
\$300,000  
(direct plus indirect costs)

### ANONYMOUS DONOR/YESHIVA UNIVERSITY

*Commercial Synthesis of R- and S-2-methyl-2,4-pentanediol*  
July 2008 – June 2009

Principal Investigator  
\$12,000  
(direct costs)

### KRESSEL SCHOLARS PROGRAM

*Chirality and Protein Crystallization*  
June 2008 – May 2009

Principal Investigator  
\$14,000  
(direct costs)

### MILTON AND MIRIAM HANDLER FOUNDATION

*Thaumatin: A Protein Sweetener*  
March 2006 – February 2009

Principal Investigator  
\$15,000  
(direct costs)

## PUBLICATIONS

1. N. Asherie, "A dialogue about protein crystallization and phase diagrams," *Protein Pept. Lett.* **19**, 708-713 (2012).
2. C.H. Wales, J. Berger, S. Blass, R.M. Crooks, and N. Asherie, "Quasielastic light scattering of platinum dendrimer-encapsulated nanoparticles," *Langmuir* **27**, 4104-4109 (2011).
3. N. Asherie, "Blind attraction: The mechanism of an inherited congenital cataract," *Proc. Natl. Acad. Sci. USA* **108**, 437-438 (2011).
4. N. Asherie, J. Jakoncic, C. Ginsberg, A. Greenbaum, V. Stojanoff, B.J. Hrnjez, S. Blass and J. Berger, "Tartrate chirality determines thaumatin crystal habit," *Cryst. Growth Des.* , 4189-4198 (2009).
5. N. Asherie, C. Ginsberg, A. Greenbaum, S. Blass and S. Knafo, "Effects of protein purity and precipitant stereochemistry on the crystallization of thaumatin," *Cryst. Growth Des.* **8**, 4200-4207 (2008).
6. B.J. Hrnjez, A. Kabarriti, B.I. Dach, S.V. Buldyrev, N. Asherie, G.R. Natanov and J. Balderman, "Pyrazine in supercritical xenon: local density defined by experiment and calculation," *J. Phys. Chem. B* **112**, 15341-15441 (2008).
7. N. Asherie, C. Ginsberg, S. Blass, A. Greenbaum and S. Knafo, "Solubility of thaumatin," *Cryst. Growth Des.* **8**, 1815-1817 (2008).
8. L. Chincarini and N. Asherie, "An analytical model for the formation of economic clusters," *Reg. Sci. Urban Econ.* **38**, 252-270 (2008).
9. A. Pande, O. Annunziata, N. Asherie, O. Ogun, G.B. Benedek and J. Pande, "Decrease in protein solubility and cataract formation caused by the Pro23 to Thr mutation in human  $\gamma$ D crystallin," *Biochemistry* **44**, 2491-2500 (2005).
10. N. Asherie, "Protein crystallization and phase diagrams," *Methods* **34**, 266-272 (2004).
11. A. Lomakin, N. Asherie

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## PUBLICATIONS (cont.)

12. A. Basak, O. Baumann, U. Shinde, A. Pande, N.P. Asherie, J. Pande, O. Ogun, G. Benedek, and J. Lomakin, "Resolution x-ray crystal structures of human  $\gamma$ D crystallin and the R58H mutant associated with aculeiform cataract," *J. Mol. Biol.* **328**, 1137-1147 (2003).
13. O. Annunziata, N. Asherie, A. Lomakin, J. Pande, O. Ogun and G.B. Benedek, "Effect of polyethylene glycol on the liquid-liquid phase transition in aqueous protein solutions," *Proc. Natl. Acad. Sci. USA* **99**, 14165-14170 (2002).
14. N. Asherie, J. Pande, <>BDC /TT5n(eri)-6(e)]TJ /TT1 1 Tf 0 TD1/74(nde)4(,)2(. O)-8-6(e) 1

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## **INVITED TALKS**

- “An Adventure at X6A: Precipitant chirality and protein crystallization,”

