# *Banafsheh Mirnikjoo*

**Current Position:** Postdoctoral research associate in the Department of Biochemistry and Cell Biology at Rice University in Houston, Texas

**Education:** Ph.D. in Biomedical Sciences/Cancer Biology (2009) from University of Texas

**Non-scientific Interests:** Radio and TV talk show host, acting, travel

My interests in biochemistry and biology began during my undergraduate studies at Stockholm University. I completed my master's degree in biochemistry at Uppsala University where I focused on the identification of glutathione transferase isoforms under the guidance of Dr. Bengt Mannervik. I then moved to the United States and was drawn to the fields of cancer biology and tumor cell apoptosis. After joining the laboratory of Dr. Schroit at the University of Texas, M. D. Anderson Cancer Center, I became intrigued with the regulatory mechanisms that control phosphatidylserine (PS) externalization triggered by drug-induced apoptosis in the hope that these studies will lead to new therapeutic modalities. After completing some promising preliminary studies, I was able to secure a Department of Defense Breast Cancer grant in support of my work. My studies focused on the role vesicular transport and vesicular $Ca^{2+}$ stores play in the regulation of PS asymmetry during apoptosis. I showed that PS externalization was dependent on the release of luminal lysosomal $Ca^{2+}$ to the cytosol that triggered the migration and fusion of lysosomes with the plasma membrane. This resulted in PS externalization and membrane expansion that led to the formation of membrane blebs. Currently, my research focuses on the mechanisms that regulate organelle to plasma membrane fusion and their role in the externalization of PS.

***Read Dr. Mirnikjoo's article entitled***: Suicidal Membrane Repair Regulates PS Externalization during Apoptosis

http://www.jbc.org/cgi/content/full/284/34/22512