

Past Group Members – Gursky Lab

Anna Rull, PhD – International Senior Research Associate, April-October 2014.

Current position: Institut de Recerca, Hospital de la Santa Creu i Sant Pau, Barcelona Spain

Mengxiao Lu – PhD student 2009-2014.

Current position: Bristol Myers Squibb.

Awards: Russek Students' Achievement Day Award, BUSM 2012, 2013

Publications from the lab:

1. Lu M, Gursky O. Aggregation and fusion of low-density lipoproteins *in vivo* and *in vitro*.

Biomol Concepts. 2013 Oct;4(5):501-518.

2. Lu M, Gantz DL, Herscovitz H, Gursky O. Kinetic analysis of thermal stability of human low density lipoproteins: a model for LDL fusion in atherogenesis. J Lipid Res. 2012 53(10):2175-85

3. Gao X, Jayaraman S, Guha M, Wally J, Lu M, Atkinson D, Gursky O. 2012. Application of Circular Dichroism to Lipoproteins: Structure, Stability and Remodeling of Good and Bad Cholesterol. Chapter 4. In: *Circular Dichroism: Theory and Spectroscopy*, D.S. Rogers, Edt. Nova Publishers pp. 175-215 (open access).



Madhumita Guha – PhD Student 2004-2009; Postdoc 2009-2010.

Current position: Shire Pharmaceuticals.

Awards: Young Protein Scientist Award, The Protein Society, 2005.
Russek Students' Achievement Day Award, BUSM 2011.

Publications from the lab:

1. Gao X, Jayaraman S, Guha M, Wally J, Lu M, Atkinson D, Gursky O. 2012. Application of Circular Dichroism to Lipoproteins: Structure, Stability and Remodeling of Good and Bad Cholesterol. Chapter 4. In: *Circular Dichroism: Theory and Spectroscopy*, D.S. Rogers, Edt. Nova Publishers pp. 175-215 (open access).

2. Guha M, Gursky O. Human Plasma Very Low-Density Lipoproteins Are Stabilized by Electrostatic Interactions and Destabilized by Acidic pH. J Lipids. 2011;2011:493720.

3. Guha M, Gursky O. Effects of oxidation on structural stability and remodeling of human very low density lipoprotein. Biochemistry. 2010 49(44):9584-93.

4. Guha M, Gao X, Jayaraman S, Gursky O. Correlation of structural stability with functional remodeling of high-density lipoproteins: the importance of being disordered. Biochemistry. 2008 47(44):11393-7.

5. Guha M, Gantz DL, Gursky O. Effects of acyl chain length, unsaturation, and pH on thermal stability of model discoidal HDLs. J Lipid Res. 2008 49(8):1752-61.

6. Guha M, England C, Herscovitz H, Gursky O. Thermal transitions in human very-low-density lipoprotein: fusion, rupture, and dissociation of HDL-like particles. Biochemistry. 2007 46(20):6043-9.



Xuan Gao – PhD Student, 2005-2009; Postdoc 2009-2011.

Current position: Genentech; Sutro Pharm.

Awards: Protein Society Young Investigator Research Award, 2009.

Early Career Investigator Travel Award, Kern Aspen Lipid Conference, 2009.

Russek Students' Achievement Day Award, BUSM 2010.



Publications from the lab:

1. Gao X, Yuan S, Jayaraman S, Gursky O. Role of apolipoprotein A-II in the structure and remodeling of human high-density lipoprotein (HDL): protein conformational ensemble on HDL. *Biochemistry*. 2012 Jun 12; 51(23): 4633-41.
2. Gao X, Jayaraman S, Guha M, Wally J, Lu M, Atkinson D, Gursky O. 2012. Application of Circular Dichroism to Lipoproteins: Structure, Stability and Remodeling of Good and Bad Cholesterol. Chapter 4. *In: Circular Dichroism: Theory and Spectroscopy*, D.S. Rogers, Edt. Nova Publishers pp. 175-215 (open access).
3. Gao X, Yuan S. High density lipoproteins-based therapies for cardiovascular disease. *J Cardiovasc Dis Res*. 2010 Jul;1(3):99-103.
4. Gao X, Yuan S, Jayaraman S, Gursky O. Differential stability of high-density lipoprotein subclasses: effects of particle size and protein composition. *J Mol Biol*. 2009 Apr 3;387(3):628-38.
5. Guha M, Gao X, Jayaraman S, Gursky O. Correlation of structural stability with functional remodeling of high-density lipoproteins: the importance of being disordered. *Biochemistry*. 2008 Nov 4;47(44):11393-7.
6. Gao X, Jayaraman S, Gursky O. Mild oxidation promotes and advanced oxidation impairs remodeling of human high-density lipoprotein in vitro. *J Mol Biol*. 2008 Feb 29;376(4):997-1007.

Sangeeta Benjwal – PhD student, 2003-2007; Postdoc 2007-2008.

Current position: Genzyme

Awards: Russek Students' Achievement Day Award, BUSM 2007.



Publications from the lab:

1. Benjwal S, Gursky O. Pressure perturbation calorimetry of apolipoproteins in solution and in model lipoproteins. *Proteins*. 2010 Apr;78(5):1175-85.
2. Jayaraman S, Benjwal S, Gantz DL, Gursky O. Effects of cholesterol on thermal stability of discoidal high density lipoproteins. *J Lipid Res*. 2010 Feb;51(2):324-33.
3. Benjwal S, Jayaraman S, Gursky O. Role of secondary structure in protein-phospholipid surface interactions: reconstitution and denaturation of apolipoprotein C-I:DMPC complexes. *Biochemistry*. 2007 3;46(13):4184-94.
4. Benjwal S, Verma S, Röhm KH, Gursky O. Monitoring protein aggregation during thermal unfolding in circular dichroism experiments. *Protein Sci*. 2006 Mar;15(3):635-9.
5. Benjwal S, Jayaraman S, Gursky O. Electrostatic effects on the stability of discoidal high-density lipoproteins. *Biochemistry*. 2005 Aug 2;44(30):10218-26.

Shikha Verma – International Exchange PhD Student, 2003-2004
University of Marburg, Germany

Current position: Scientist, Enzon Pharmaceuticals.

Publications from the lab:

- Benjwal S, Verma S, Röhm KH, Gursky O. Monitoring protein aggregation during thermal unfolding in circular dichroism experiments. *Protein Sci*. 2006 Mar;15(3):635-9.

Ranjana Mehta – Postdoctoral Research Associate, 2001-2002.

Current position: Research faculty, University of Seattle, Washington.

Publications from the lab:

1. Mehta R, Gantz DL, Gursky O. Effects of mutations in apolipoprotein C-1 on the reconstitution and kinetic stability of discoidal lipoproteins. *Biochemistry*. 2003 Apr 29;42(16):4751-8.
2. Mehta R, Gantz DL, Gursky O. Human plasma high-density lipoproteins are stabilized by kinetic factors. *J Mol Biol*. 2003 Apr 18;328(1):183-92.
3. Gursky O, Ranjana, Gantz DL. Complex of human apolipoprotein C-1 with phospholipid: thermodynamic or kinetic stability? *Biochemistry*. 2002 Jun 11;41(23):7373-84.