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## DON LEIGH ARMSTRONG II

### Education **Doctor of Philosophy**

2001-2008 **Cell, Molecular, and Developmental Biology**. University of California at Riverside.  
Dissertation: The Role of Membrane Composition in the Activity of Membrane-Associated Signal Transduction Proteins.

### **Bachelor of Science**

1997-2001 Bachelor of Science. Major in **Biology**. University of California at Riverside.

### Postdoctoral **University of Southern California**

#### Experience

2013–Present. Postdoctoral researcher under Chaim O. Jacob. Identifying genes and causal alleles associated with Systemic Lupus Erythematosus using genome-wide association, next-generation sequencing, computational and biochemical approaches.

2009–2010. Postdoctoral researcher under Florence M. Hofman. Identifying signaling pathways which are responsible for the functional alteration of endothelial cells in glioblastoma multiforme and arteriovenous malformations.

### **University of California at Riverside**

2010–2012. Postdoctoral researcher under Raphael Zidovetzki. Identifying genes which are associated with Systemic Lupus Erythematosus using prior information and targeted trio-based studies.

### Teaching **Teaching Assistant**

2004–2007. University of California at Riverside. First and second quarter introduction to biology for majors (BIO 5A and 5B). Introduction to Genetics (BIO 102), Human Embryology (CBNS 169).

### Work in Industry **Non-Profit**

2004–Present. *Debian Project*, Developer; Technical Committee Member (2010–Present)

### **Employment Experience**

2002-2003. **Socratech** in Rochester, NY. Bioinformatics researcher: developed new microarray analysis methods for a start-up biotechnology company working on developing treatments for Alzheimer's disease

### Publications **In Preparation**

1. **Don L. Armstrong**, Raphael Zidovetzki, and Chaim O Jacob. Novel lupus associated genes discovered in GWAS; two signals explain all HLA SNPs in European Americans. *In preparation*.

### Refereed Publications

1. Chaim O Jacob, Miriam Eisenstein, Mary C Dinauer, Wenyu Ming, Qiang Liu, Sutha John, Francesco P Quismorio, Andreas Reiff, Barry L Myones, Kenneth M Kaufman, Deborah McCurdy, John B Harley, Earl Silverman, Robert P Kimberly, Timothy J Vyse, Patrick M Gaffney, Kathy L Moser, Marisa Klein-Gitelman, Linda Wagner-Weiner, Carl D Langefeld, **Don L Armstrong**, and Raphael Zidovetzki. Lupus-associated causal mutation in neutrophil cytosolic factor 2 (NCF2) brings unique insights to the structure and function of NADPH oxidase. *Proc Natl Acad Sci USA*, 109(2):59–67, Jan 2012.
2. **Don L Armstrong**, Omer Markovitch, Raphael Zidovetzki, and Doron Lancet. Replication of simulated prebiotic amphiphile vesicles controlled by experimental lipid physicochemical properties. *Phys Biol*, 8(6):066001, Dec 2011.
3. Christopher J Stapleton, **Don L Armstrong**, Raphael Zidovetzki, Charles Y Liu, Steven L Giannotta, and Florence M Hofman. Thrombospondin-1 modulates the angiogenic phenotype of human cerebral arteriovenous malformation endothelial cells. *Neurosurgery*, 68(5):1342–53, May 2011.
4. **D L Armstrong**, A Reiff, B L Myones, F P Quismorio, M Klein-Gitelman, D McCurdy, L Wagner-Weiner, E Silverman, J O Ojwang, K M Kaufman, J A Kelly, J T Merrill, J B Harley, S-C Bae, T J Vyse, G S Gilkeson, P M Gaffney, K L Moser, C Putterman, J C Edberg, E E Brown, J Ziegler, C D Langefeld, R Zidovetzki, and C O Jacob. Identification of new SLE-associated genes with a two-step Bayesian study design. *Genes Immun*, 10(5):446–56, Jul 2009.
5. Chaim O Jacob, Jiankun Zhu, **Don L Armstrong**, *et al.* Identification of IRAK1 as a risk gene with critical role in the pathogenesis of systemic lupus erythematosus. *Proc Natl Acad Sci USA*, 106(15):6256–61, Apr 2009.
6. Bahram Namjou, Andrea L Sestak, **Don L Armstrong**, Raphael Zidovetzki, *et al.* High-density genotyping of STAT4 reveals multiple haplotypic associations with systemic lupus erythematosus in different racial groups. *Arthritis Rheum*, 60(4):1085–95, Apr 2009.
7. **Don Armstrong** and Raphael Zidovetzki. Amplification of diacylglycerol activation of protein kinase c by cholesterol. *Biophys J*, 94(12):4700–10, Jun 2008.
8. **Don L Armstrong**, Chaim O Jacob, and Raphael Zidovetzki. Function2gene: a gene selection tool to increase the power of genetic association studies by utilizing public databases and expert knowledge. *BMC Bioinformatics*, 9:311, 2008.
9. Chaim O Jacob, Andreas Reiff, **Don L Armstrong**, Barry L Myones, Earl Silverman, Marisa Klein-Gitelman, Deborah McCurdy, Linda Wagner-Weiner, James J Nocton, Aaron Solomon, and Raphael Zidovetzki. Identification of novel susceptibility genes in childhood-onset systemic lupus erythematosus using a uniquely designed candidate gene pathway platform. *Arthritis Rheum*, 56(12):4164–73, Dec 2007.
10. Raphael Zidovetzki, Burkhard Rost, *Don L Armstrong*, and Israel Pecht. Transmembrane domains in the functions of fc receptors. *Biophys Chem*, 100(1-3):555–75, 2003.
11. **Don L Armstrong**, Dan B Borchardt, and Raphael Zidovetzki. Synergistic perturbation of phosphatidylcholine/sphingomyelin bilayers by diacylglycerol and cholesterol. *Biochem Biophys Res Commun*, 296(4):806–12, Aug 2002.
12. Zhenhua Wu, Huang Guo, Nienwen Chow, Jan Sallstrom, Robert D Bell, Rashid Deane, Andrew I Brooks, Suhasini Kanagala, Anna Rubio, Abhay Sagare, Dong Liu, Fang Li, **Don Armstrong**, Thomas Gasiewicz, Raphael Zidovetzki, Xiaomei Song, Florence Hofman, and Berislav V Zlokovic. Role of the meox2 homeobox gene in neurovascular dysfunction in alzheimer disease. *Nat Med*, 11(9):959–65, Sep 2005.
13. Rashid Deane, Shi Du Yan, Ram Kumar Submamaryan, Barbara LaRue, Suzana Jovanovic, Elizabeth Hogg, Deborah Welch, Lawrence Manness, Chang Lin, Jin Yu, Hong Zhu, Jorge Ghiso, Blas Frangione, Alan Stern, Ann Marie Schmidt, **Don L Armstrong**, Bernd Arnold, Birgit Liliensiek, Peter Nawroth, Florence Hofman, Mark Kindy, David Stern, and Berislav Zlokovic. Rage mediates amyloid-beta peptide transport across the blood-brain barrier and accumulation in brain. *Nat Med*, 9(7):907–13, Jul 2003.

**Selected  
Presentations**

**Conference Presentations**

2007-06-07. FOCIS 2007. Uniquely designed candidate gene identification platform discovers novel genes in childhood-onset SLE.