

**Devavani Chatterjea**

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 Department of Biology  
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**Education**

2001-2004 Post-doctoral researcher; Pathology, Stanford University, Stanford, CA  
 1996-2001 Ph.D., Immunology, Stanford University, Stanford, CA  
 1992-1996 B.A., *magna cum laude*, *Phi Beta Kappa*  
 Biological Sciences, Mount Holyoke College, South Hadley, MA

**Employment**

2006-present Assistant Professor, Biology, Macalester College, Saint Paul, MN  
 2008-present Program in Community & Global Health, Macalester College, Saint Paul, MN  
 Summer 2009 Visiting Assistant Professor, Dept. of Natural Sciences, UC Merced, Merced, CA  
 Spring 2006 Visiting Professor, Biology, Santa Clara University, Santa Clara, CA  
 2004-2006 Senior Research Associate, Research Immunology, Genentech, Inc.  
 South San Francisco, CA.

**Other teaching experience**

Fall 2000 Instructor, Special Topics in Immunology, Stanford University, Stanford, CA  
 1998-2000 Teaching Associate, Immunology, Stanford University, Stanford, CA  
 1997-1999 Instructor and workshop leader, Developmental biology and immunology workshops.  
 Expanding Your Horizons, San Jose State University, San Jose, CA.  
 1996-1997 Workshop leader, Bioethics, California Homeschooling Conference, Sacramento, CA  
 Summer 1996 Assistant Instructor, Biology and Genetics, Center for Talented Youth,  
 Hamilton College, Clinton, NY  
 1995-1996 Teaching Associate and Laboratory Instructor, Biology, Mount Holyoke College,  
 South Hadley, MA  
 1993-1996 Writing tutor and science specialist, Mount Holyoke College Writing Center, South  
 Hadley, MA

**Research**

2006-present Principal Investigator, Macalester College, Saint Paul, MN. *Microenvironmental cues in murine T cell development; dissecting stromal signals in the bone marrow and thymus.*  
 2008-present Principal Investigator, Macalester College, Saint Paul, MN. *Novel cellular mechanisms of inflammatory pain*  
 2004-2006 Senior Research Associate, Immunology Research Division, Genentech, Inc.,  
 South San Francisco, CA. *T cell biology and inflammation in autoimmune diseases.*  
 2001-2004 Post-doctoral Scholar, Laboratory of Dr. Stephen J. Galli, Department of Pathology,  
 Stanford University, Stanford, CA. *Mast cell and basophil development; roles for mast cells and basophils in murine models of bacterial and parasite infection.*

- 1998-2001 Graduate Student, Laboratory of Dr. Samuel Strober, Stanford University, Stanford, CA. *Extrathymic development of bone marrow derived T cell progenitors in euthymic and athymic mice.*
- 1995-1996 Undergraduate Research Assistant, Laboratory of Dr. Craig Woodard, Mount Holyoke College, MA. *Drosophila melanogaster steroid hormone biology.*
- Summer 1995 Howard Hughes Summer Undergraduate Research Fellow, Laboratory of Drs. Robert and Lynne Angerer, University of Rochester, Rochester, NY. *Interaction of astacin proteases and bone morphogenic proteins in early embryonic pattern formation in Strongylocentrotus purpuratus.*
- Summer 1994 NECUSE Summer Research Fellow, Kent Island Biological Station, Bowdoin College, Brunswick, ME. *Male parental care and female fidelity in the Savannah sparrow Passerculus sandwichensis.*
- Summer 1993 Mount Holyoke College Summer Research Fellow, Wee Wee Cay Marine Biological Station, Belize. *Mangrove community ecology.*

### Conference presentations

### Teaching

- June 2008 National Conference on Inclusive Science, College of St. Catherine, St. Paul, MN, *Warfare or a complicated peace: alternative discourses on immunology in the classroom.*
- February 2008 American College of Preventive Medicine Annual Meeting; Undergraduate public health day, Austin, TX, *Community and Global Health at Macalester College: A liberal arts approach to undergraduate public health education*
- February 2007 Innovations in the Scholarship of Teaching and Learning at the Liberal Arts Colleges, Carleton College and Saint Olaf College, Northfield, MN. *Is there a place for civic engagement in a liberal arts biology curriculum?*

### Research

- May 2009 Levels of semaphorin 4A mRNA and protein dynamically change with developmental stage in thymus of C57BL/6 mice, Annual meeting of the American Association of Immunologists, Seattle, WA.
- April 2008 "Expression and localization of semaphorin 4A mRNA and protein in the thymus of C57BL/6 mice, Annual meeting of the American Association of Immunologists, San Diego, CA.
- May 2004 "IL-3 is required for the increase in blood basophils during nematode infection in mice, but not for basophil IgE-dependent intra-cellular IL-4 production." Devavani Chatterjea. American Association of Immunologists Annual Meeting, Washington, D.C.
- August 2001 "Early prethymic defect in bone marrow T Cell progenitors in athymic nu/nu mice." Devavani Chatterjea. International Congress in Immunology, Stockholm, Sweden.

### Invited research seminars

- February 2007 "Extrathymic T cell maturation in mice" Biology Department Seminar, San Jose State University, San Jose, CA.

November 2006 “Extrathymic T cell maturation in mice” Biology Department Seminar, Macalester College, St. Paul, MN.

November 2006 “Extrathymic T cell maturation in mice” Biology Department Seminar, Evergreen State College, Olympia, WA.

#### **Invited teaching seminars**

June 2009 Not *just* in time: Using a preparation/participation scaffold to transform student seminars, UC Merced School of Natural Sciences, Merced, CA

April 2009 Not *just* in time: Using a preparation/participation scaffold to transform student seminars, Serie Center for Scholarship and Teaching, Macalester College, St. Paul, MN

January 2008 *A career in teaching and research at a small liberal arts college* Careers after Stanford: A presentation to graduate students in neurobiology, Stanford University, Stanford, CA.

#### **Regional and national student presentations of collaborative research projects (\*Macalester undergraduate; presenting author)**

May 2009 “Expression of murine semaphorin 4A, 4D and 7A mRNA in developing thymocytes of C57BL/6 mice.” Grace Linder\*, Udo Obodo\*, David Matthes and Devavani Chatterjea, Annual meeting of the American Association of Immunologists, Seattle, WA.

April 2009 “Possible roles for mast cells in inflammatory pain.” Carolina Mora Solano\*, Paul Maitland-McKinley\*, Lin Aanonsen and Devavani Chatterjea, Winchell Undergraduate Symposium, Minnesota Academy of Sciences Annual Meeting, St. Paul, MN.

November 2008 “Changes in levels of Semaphorin 4A mRNA in developing thymocytes of C57BL/6 mice.” Grace Linder\*, Udo Obodo\*, David Matthes and Devavani Chatterjea, Autumn Immunology Conference, Chicago, IL.

April 2008 “Expression of murine semaphorin 4A mRNA and protein in the thymus of C57BL/6 mice.” Udo Obodo\*, Grace Linder\*, David Matthes and Devavani Chatterjea, Winchell Undergraduate Symposium, Minnesota Academy of Sciences Annual Meeting, St. Paul, MN. (*Winner of Best in Symposium award.*)

October 2007 “Expression of murine semaphorin 4A, 4D and 7A mRNA in mouse brain, spleen and thymus.” Grace Linder\*, David Matthes and Devavani Chatterjea, Poster at PEW Undergraduate Research Symposium, Washington University, St. Louis, MO

October 2007 “Expression of murine semaphorin 4A protein in medullary epithelial cells in the mouse thymus.” Udo Obodo\*, Lin Aanonsen and Devavani Chatterjea, Poster at PEW Undergraduate Research Symposium, Washington University, St. Louis, MO

April 2007 “Semaphorin and semaphorin receptor expression in the thymus of C57BL/6 and ND4 mice.” Grace Linder\*, Katelynne Gardner Toren\*, Nate Crider\*, Kai Willem\*, Udo Obodo\*, Matt Rosenbaum\* and Devavani Chatterjea. Minnesota Academy of Sciences Annual Meeting, St. Paul, MN.

#### **Professional activities**

- Member, National Education Committee, American Association of Immunologists, 2009-present.

- Principal Investigator, *Flow cytometry across the biology curriculum*. NSF-CCLI funded program, Macalester College, St. Paul, MN. 2008-present.
- Member, Steering committee for Mellon Curricular Pathways grant, Macalester College, 2008-present.
- Co-chair, Governing board of Laura Jeffrey Academy, St. Paul, MN, July 2008-present.
- Consultant and workshop leader, Community and Youth Genomics Project, Minnesota Department of Health, 2007-present.
- Member, Institutional animal care and use committee (IACUC), Macalester College, November 2006-present.
- Member, Health Professions Advisory Committee, Macalester College, November 2006-present.
- Panelist, NSF-CCLI proposal review session, National Science Foundation, July 2009
- Curator, *Dances & Ceremonies: The inner world of cells; The artwork of Julie Newdoll*, Smail art gallery, Olin-Rice Hall, Macalester College, 2007.
- Invited participant, Public Health and Liberal Learning: AAC&U/CDC/APTR workshop on undergraduate public health education, Washington, DC. July, 2007.
- Participant, Summer Institute and Roundtable on Public Health Genomics, University of Minnesota School of Public Health, May-June, 2007.
- Co-reviewer (with Dr. Stephen Galli) of manuscripts submitted to journals including Nature, Nature Immunology, Blood and Journal of Experimental Medicine. 2001-2004.
- Executive Director, Western Conference in Immunology, Stanford University, CA. 1999-2001.

#### **Membership in professional organizations**

- American Association of Immunologists, 2007-present.
- American Association of Advancement of Science, 2008-present.
- American Society for Cell Biology, 2009-present.

#### **Publications**

##### **Peer reviewed:**

1. Chiang EY, Kolumam GA, Yu X, Francesco M, Ivelja S, Peng I, Gribling P, Shu J, Lee WP, Refino CJ, Balazs M, Paler-Martinez A, Nguyen A, Young J, Barck KH, Carano RA, Ferrando R, Diehl L, **Chatterjea D**, Grogan JL. Targeted depletion of lymphotoxin-alpha-expressing TH1 and TH17 cells inhibits autoimmune disease. *Nat Med.* 2009 Jul;15(7):766-73.
2. Lantz, C.S., **Chatterjea, D.**, Tsai, M., Dranoff, G. and Galli, SJ<sup>1</sup>. *IL-3 is required for the increase in blood basophils during nematode infection in mice, but not for basophil IgE-dependent intracellular IL-4 production*; *Lab Invest.* 2008 Nov;88(11):1134-42.
3. **Chatterjea D**, Burns SM, Sciuto TE., Dvorak A, Contag CH, and Galli SJ. *Adoptive transfer of mast cells does not enhance the impaired survival of Kitw/Kitw-v mice in a model of low dose intraperitoneal infection with bioluminescent Salmonella typhimurium.* *Immunology Letters* 2005;15; 99(1):122-9.

4. Dejbakhsh-Jones S, García-Ojeda ME, **Chatterjea-Matthes D**, Mukhopadhyay A, Bitmansour A, Brown JMY, and Strober S. *Stepwise development of committed progenitors in the bone marrow that generate functional T cells in the absence of the thymus*. Journal of Immunology 2005; 175 (7); 4363
5. Maurer M, Wedemeyer J, Metz M, Piliponsky AM, Weller K, **Chatterjea D**, Clouthier DE, Yanagisawa MM, Tsai M, Galli SJ. *Mast cells promote homeostasis by limiting endothelin-1-induced toxicity*. Nature. 2004 Nov 25; 432(7016):512-6.
6. Tam S-Y, Tsai M, Snouwaert JN, Kalesnikoff J, Scherrer D, Nakae S, **Chatterjea D**, Bouley DM, Galli SJ. *RabGEF1 is a negative regulator of mast cell activation and skin inflammation*. Nature Immunol 2004; 5:844-52.
7. **Chatterjea-Matthes D**, García-Ojeda ME., Dejbakhsh-Jones S. Jerabek L. Manz MG., Weissman IL., and Strober S.. *Early prethymic defect in bone marrow T Cell progenitors in athymic nu/nu mice*. J Immunol. 2003 Aug 1; 171(3):1207-15.
8. Dejbakhsh-Jones S. García-Ojeda ME., **Chatterjea-Matthes D**., Zeng D. and Strober S. *Clonable progenitors committed to the T lymphocyte lineage in the mouse bone marrow; use of an extrathymic pathway*. PNAS USA 2001 Jun 19; 98(13) 7455-60.
9. **Chatterjea-Matthes, D**., *Maturation of bone marrow-derived T cell progenitors in euthymic and athymic mice*. Ph.D dissertation. Stanford University, June 2001.

**Invited:**

1. Galli SJ, **Chatterjea D**. *Basophils*. In: Robertson S, ed. Encyclopedia of Life Sciences / [www.els.net](http://www.els.net). John Wiley and Sons, 2006.
2. Galli SJ, **Chatterjea D**, Tsai M. 2006 *Roles of mast cells and basophils in innate immunity*. In: Kaufman SHE, Medzhitov R, Gordon S, eds. The Innate Immune Response to Infection. Berlin, ASM Press, 2004:111-32.