

## Jenni Punt, VMD, PhD

Department of Biology

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### Academic Positions

2007-present *Professor*, Department of Biology, Haverford College  
2002-2007 *Associate Professor*, Department of Biology, Haverford College  
(*Chair* 2004-2007)  
1996-2002 *Assistant Professor*, Department of Biology, Haverford College  
2001-present *Adjunct Associate Professor*, Pathology, University of Pennsylvania

### Education

1992-1996 *Damon Runyon-Walter Winchell Physician-Scientist Fellowship*  
National Cancer Institute, NIH  
Dr. Alfred Singer, post-doctoral advisor  
  
1984-1991 VMD, *summa cum laude* (1988), PhD (Immunology, 1991, Dr. Y. Hashimoto)  
*Veterinary Medical Scientist Training Program (VMSTP) Scholarship*  
University of Pennsylvania, Philadelphia, PA  
  
1983 A.B., *magna cum laude*  
*High Honors in Biology* (Haverford College)  
Bryn Mawr College, Bryn Mawr, PA

### Other awards

2007 *Phi Beta Kappa Award for Excellence in Teaching* (Haverford College)  
2007 *Students' Association Award* (Haverford College)  
2005 *American Association of Immunologists (AAI) Distinguished Service Award*  
2003 *Innovation in Teaching Award* (Haverford College)  
2002 *Lindback Award for Distinguished Teaching* (Haverford College)  
1988 *James Hazlitt Jones Prize in Biochemistry* (School of Veterinary Medicine)  
*J.B. Lippincott Prize* (School of Veterinary Medicine)  
1982 *Elizabeth G. Shippen Scholarship for Achievement in Science* (Bryn Mawr)

### Current grant

NSF-RUI #MCB-0744570 April 1, 2008-March 31, 2012 \$517,177  
*The role of PP2A in TCR-mediated cell fate decisions of developing T cells*

### Past grants

NSF-RUI #MCB-0343079 April 1, 2004-March 31, 2008 \$430,000  
*Differential phosphorylation of Nur77 in immature and mature T cells*  
NIH-R01 #AI/CA47833-01 August 1, 2000 – July 31, 2005 \$106,000  
*Notch and hematopoietic cell fate* (Warren Pear, PI; J. Punt co-PI, 10%)  
NSF-RUI #MCB-0090921 April 1, 2001-March 31, 2004 \$297,879  
*Developmental differences in response to T cell receptor stimulation* (J. Punt, PI)  
NSF-RUI #DBI-0070361 July 1, 2000 – June 30, 2002 \$169,271  
*RUI: Advanced Microscopy and Manipulation Cluster for Biological and Biophysical Studies.* (Walter Smith, PI; J. Punt, co-PI)  
NSF-RUI #MCB-9728332 April 1, 1998-March 31, 2001 \$309,140  
*Why can't CD4+CD8+ thymocytes be stimulated to proliferate?* (J. Punt, PI)

### Professional activities since 2001

- Member, Executive Committee, Beckman Scholars Program 2006-present
- Beckman Scholars Program Advisory Panel 2003-04, 2005-06
- Associate Editor, *Journal of Immunology* 2005-present

- Ad hoc reviewer for *J. Immunol.*, *Immunity*, *Int. Imm.*, *Cell. Imm.*, 1997-present  
*PLOS*

*Activities associated with professional society (AAI)*

- Lecturer for the AAI Introductory Course in Immunology 2002-present
- Member, Committee for the Status of Women, AAI 2004-2007
- Mentor for AAI recipient of a High School teaching fellowship 2004

*Review panels:*

- Member, NSF Review Panel (Signal Transduction) 2004-present
- NIH Special Study Section (SBIR/STTR), Ad hoc member 1997-2003
- NIA-B Study Section (R03, K01, K08), Ad hoc member 2000-present
- Member, NIH-NIA Site Visit Teams for Program Project Grants 2000 - present
- NIH Special Emphasis Panel 2000, 2002

*Invited talks:*

- Invited Speaker, University of Minnesota February, 2008
- Speaker, Phi Beta Kappa, Haverford College November, 2007; May, 2006
- Invited Speaker, University of Pennsylvania January, 2006
- Invited Speaker, Villanova University December, 2005
- Invited Seminar (with students), P.H.A.N., Haverford November, 2005
- Invited Speaker, Jefferson University February, 2005
- Invited Speaker, Williams College November, 2004
- Invited speaker, Experimental Immunology Branch, NCI, NIH January, 2004 (& 2001)
- Invited Speaker, UMBC November, 2003
- Invited Speaker, NIH Immunology Retreat January, 2003
- Invited Speaker, Middlebury College April, 2002
- Invited Speaker, St. Joseph's University March, 2002

*Activities at other institutions*

- Thesis committee member, Immunology Graduate Group, U. Penn 2002-present  
(Served on five committees since 2001; serving on two at this time, Chair of one)
- Lecturer for graduate level courses in Immunology 2000-present  
U. Penn. and Thomas Jefferson University

*Co-author of the next addition of Kuby's Immunology.*

**Peer-reviewed Publications (40; undergraduate authors are underlined)**

- Cunningham, N.\*, Artim, S.\*, Sellars, M.\*, Fornadel, C.\*, Edmondson, S., Scott, G., Albino, F., Mathur, A., and **J.A. Punt**. (2006) Immature CD4+CD8+ thymocytes and mature T cells regulate Nur77 distinctly in response to TCR stimulation. *J. Immunol.* 177: 6660-6666. **\*shared first-authorship.**
- Dumortier, A., Jeannot, R., Kirstetter, P. Kleinmann, E., Sellars, M., Dos Santos, N.R., Thibault, C., Barths, J., Ghysdael, J., **Punt, J.A.**, Kastner, P., and S. Chan. (2006) Notch activation is an early and critical event during T-Cell leukemogenesis in Ikaros-deficient mice. *Mol. Cell Biol.* 26: 209-220.
- Cho, H.J.\*, Edmondson, S.G.\*, Miller, A.D.\*, Sellars, M.\*, Alexander, S.T., Somersan, S., and **J. A. Punt**. (2003) Cutting edge: identification of the targets of clonal deletion in an unmanipulated thymus. *J Immunol.* 170:10-13. **\*shared first-authorship**
- Allman D, **Punt J.A.**, Izon D.J., Aster J.C., and W.S. Pear. (2002) An invitation to T and more: Notch signaling in lymphopoiesis. *Cell* 109 Suppl: S1-11.
- Izon D.J., **Punt J.A.**, and W. S. Pear. (2002) Deciphering the role of Notch signaling in lymphopoiesis. *Curr, Opin. Immunol.* 14: 192-199.
- Myung, P. S., Derimanov, G.S., Jordan, M. S., **Punt, J.A.**, Liu, Q-H., Judd, B. A., Meyers, E.E., Sigmund, C. D., Freedman, B. D., and G. A. Koretzky. (2001) Differential requirement for SLP-76 domains in T cell development and function. *Immunity* 15:1011-1026

- Allman, D. M., Karnell, F. G., **Punt, J. A.**, Bakkour, S., Xu, L., Myung, P., Koretzky, G. A., Pui, J.C. Aster, J. C. and W.S. Pear. (2001) Separation of Notch1 promoted lineage commitment and expansion/transformation in developing T cells. *J. Exp. Med.* 194: 99-106.
- Izon, D\*., **Punt, J.\***, Karnell, F., Xu, L-W, and W. Pear. Notch1 regulates maturation of CD4+ and CD8+ thymocytes by modulating TCR signal strength. (2001). *Immunity* 14: 253-264. **\*shared first authorship**
- Ebert, P.J.R., Baker, J. F. and **J. A. Punt.** (2000). Immature CD4+CD8+ do not polarize lipid rafts in response to TCR-mediated costimulation. *J. Immunol* 165:5435-5442.
- Freedman B.D., Liu Q.-H., Somersan S., Kotlikoff, M.I., and **J.A. Punt.** (1999). Receptor avidity and costimulation specify the intracellular Ca<sup>2+</sup> signaling pattern in CD4+CD8+ thymocytes. *J. Exp. Med.* 190: 943-952.
- Tomayko, M.M., Bolcavage, J., **Punt, J.**, Allman, D., Levy, S. L., and M.P. Cancro. (1999). Expression of the Bcl-2 family member A1 is developmentally regulated in T cells. *Int. Immunol.* 11: 1753-1761.
- Bishop, C.D.V.A., Jost, A., Crane, E., and **J. A. Punt.** (1999). Assessing apoptosis of developing T cells by flow cytometry Ch.10, pp117-131 in *Methods in Molecular Biology: T cell protocols* (Kearse, K. ed.)
- Bhandoola, A., Cibotti, R., **Punt, J.A.**, Granger, L., Adams, A.J., Sharrow, S.O., and A. Singer. (1999). Positive selection as a developmental progression initiated by alpha beta TCR signals that fix TCR specificity prior to lineage commitment. *Immunity* 10:301-311.
- Dave, VP., Keefe, R., Berger, MA, Krbal, K, **Punt, J.A.**, Wiest, D. L., Alarcon, B., and D. J. Kappes. (1998) Altered functional responsiveness of thymocyte subsets from CD3 $\delta$ -deficient mice to TCR-CD3 engagement. *Int. Immunol.* 10: 1481-1490.
- Mackall, C. L., **Punt, J. A.**, Morgan, P., Farr, A. G., and R. E. Gress. (1998). Thymic function in young/old chimeras: substantial thymic T cell regenerative capacity despite irreversible age-associated thymic involution. *Eur. J. Immunol.* 28: 1886-1893.
- Punt, J. A.**, W. Havran, R. Abe, A. Sarin, and A. Singer. (1997). T cell receptor (TCR)-induced death of immature CD4+CD8+ thymocytes by two distinct mechanisms differing in their requirement for CD28 costimulation: implications for negative selection in the thymus. *J. Exp. Med.* 186: 1911-1922.
- Cibotti, R., **J. A. Punt**, K. S. Dash, S. O. Sharrow, and A. Singer. (1997). Surface molecules that drive T cell differentiation in vitro in the absence of thymic epithelium and in the absence of lineage specific signals. *Immunity* 6: 245-255.
- Wu, W., **J. A. Punt**, L. Granger, S. O. Sharrow, and K. P. Kearse (1997). Developmentally regulated expression of peanut agglutinin (PNA)-specific glycans on murine thymocytes. *Glycobiology* 7: 349-356.
- Wiest, D. L., A. Bhandoola, **J. Punt**, G. Kreibich, D. McKean, and A. Singer. (1997). Incomplete endoplasmic reticulum (ER) retention in immature thymocytes as revealed by surface expression of "ER-resident" molecular chaperones. *Proc. Natl. Acad. Sci. U.S.A.* 94: 1884-1889.
- Punt, J. A.**, H. Suzuki, L. C. Granger, S.O. Sharrow, and A. Singer. (1996). Lineage commitment in the thymus: Only the most differentiated (TCR<sup>hi</sup>bcl-2<sup>hi</sup>) subset of CD4<sup>+</sup>CD8<sup>+</sup> thymocytes has selectively terminated CD4 or CD8 synthesis. *J. Exp. Med.*, 184: 2091-2099.
- Wu, W., P. H. Harley, **J. A. Punt**, S. O. Sharrow, and K. P. Kearse. (1996). Identification of CD8 as peanut agglutinin (PNA) receptor molecule on immature thymocytes. *J. Exp. Med.* 184:759-764.
- Suzuki, H., **J. Punt**, L.C. Granger, and A. Singer. (1995). Markedly asymmetric requirements for commitment to the CD4<sup>+</sup> vs. CD8<sup>+</sup> T cell lineage. *Immunity*, 2:413-425.
- Punt, J. A.** and A. Singer. (1995). "T cell development" Chapter 10, In R.R. Rich, T. A. Fleischer, B.D. Schwartz, B.T. Shearer, and W. Strober (eds.): Clinical Immunology: Principles and Practice.
- Kearse, K. P., Y. Takahama, **J. A. Punt**, S.O. Sharrow, and A. Singer. (1995). Early molecular events induced by TCR signaling in immature CD4<sup>+</sup>CD8<sup>+</sup> thymocytes. *J. Exp. Med.* 181: 193-202.
- Freedman B. D., B. K. Fleischmann, **J. A. Punt**, G. Gaulton, Y. Hashimoto, and M. I. Kotlikoff. (1995). Identification of Kv1.1 expression by murine CD4-CD8- thymocytes. A role for voltage-dependent K<sup>+</sup> channels in murine thymocyte development. *J. Biol. Chem.* 270:22406-22411.
- Punt, J. A.**, B.A. Osborne, Y. Takahama, S.O. Sharrow, and A. Singer. (1994). Negative selection of CD4<sup>+</sup>CD8<sup>+</sup> thymocytes by T cell receptor-induced apoptosis requires a costimulatory signal that can be provided by CD28. *J. Exp. Med.* 179: 709-713.

- Punt, J. A.**, J.R. Roberts, K. P. Kearse, and A. Singer. (1994). Stoichiometry of the T cell antigen receptor complex: Each TCR/CD3 complex contains one TCR $\alpha$ , one TCR $\beta$ , and two CD3 $\epsilon$  chains. *J. Exp. Med.* 180: 587-593.
- Kuwabara, I., H. Ohno, **J. A. Punt**, Y. Hashimoto, and T. Saito. (1994). Transition from TCR- $\beta$  dimer to TCR- $\alpha\beta$  expressing cells by introduction of an  $\alpha$ -chain in an immature thymocyte cell line. *J. Immunol.* 152:2148-2156.
- Punt, J. A.**, M. Hosono, and Y. Hashimoto. (1993). CD4<sup>+</sup>/CD8<sup>-</sup> thymocytes dominate the fetal thymus treated with a combination of anti-TCR $\beta$  and anti-CD4 antibodies. *J.Immunol.* 151: 1290.-1302.
- Punt, J. A.**, R. T. Kubo, T. Saito, T. H. Finkel, S. Kathiresan, K. J. Blank, and Y. Hashimoto. (1991). Surface expression of a T cell receptor  $\beta$  (TCR- $\beta$ ) chain in the absence of TCR- $\alpha$ , - $\delta$ , and - $\gamma$  proteins. *J. Exp. Med.* 174: 775-783.
- Kipps, T. K., P. Parham, **J. Punt**, L. A. Herzenberg. (1985). Importance of immunoglobulin isotype in human antibody-dependent, cell-mediated cytotoxicity directed by murine monoclonal antibodies. *J. Exp. Med.*161:1-17.

#### **Trends in Immunology Commentaries:**

- Punt, J.A. and Owen, J.A. (2002) Choose your partner and aggregate *Trends in Immunology* 23: 520.
- Punt, J.A. and Owen, J.A. (2001) T-cell SLAPstick *Trends in Immunology* 22: 596.
- Punt, J. A. and Owen, J. A. (2001) A Tale of T cell Tubulin. *Trends in Immunology* 22: 418-419.
- Owen, J. A. and J. A. Punt (2001) The flip side of Fas. *Trends in Immunology.* 22: 241.
- Owen, J. A., and J. A. Punt. (2001) Double break-point in the match for the mutator. *Trends in Immunology.* 22: 69.
- Punt, J. A. (2000) Life rafts for thymocytes. *Immunology Today.* 21: 530.

#### **Outreach activities since 2004:**

- Haverford Summer Science Institute (2006-present)
- Cascade program (HHMI sponsored mentorship of high school student in summer lab (2006))
- Workshop for Philadelphia High School teachers - "HIV and the Black Plague" (2004, 2005)
- Middle School Girls Science Workshop (Swarthmore, Spring, 2006)

#### **College-wide committees and responsibilities (major):**

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| Chair, Middle States Reaccreditation Working Group (Faculty and Curriculum)  | 2008-present         |
| Member, Faculty Committee on Academic Enrichment                             | 2006-2007            |
| Chair, Biology Department  | 2004-2007            |
| Member, Academic Council (Faculty Representative to the Board)               | 2005-2007            |
| Member, College Planning Committee   | 2006-2007            |
| Beckman Scholar Program coordinator  | 2001-2004            |
| Member, Educational Policy Committee   | 2002-2003            |
| Chair, Radiation Safety Committee  | 2000-2006            |
| Member, Distinguished Visitors Committee                                     | 2001-2002            |
| Member, IACUC  | 2000-2001, 2006-2007 |
| Member, Ad Hoc Search Committees   |                      |
| 1997-98 (Chemistry), 1998-99 (Biology), 2001-02 (Biology), 2004-05 (Biology) |                      |
| Member, Biochemistry/Biophysics Concentration Committee                      | 1997-present         |
| Pre-vet advisor  | 1996-present         |