

HOLDEN T. MAECKER, Ph.D.

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EDUCATION

- 1984 B.S., Microbiology, with honors and highest distinction, Purdue University, West Lafayette, IN.
- 1988 Ph.D., Cancer Biology, Stanford University, Stanford, CA. Graduate research advisor: Ronald Levy, M.D. Thesis: Clonal variation of antigen receptors in human T cell tumors and cell lines.

EMPLOYMENT AND EXPERIENCE

- 1988-1989 Adjunct Lecturer, Santa Clara University, Santa Clara, CA
- 1989-1994 Assistant Professor of Biology, Loyola University Chicago, Chicago, IL
- 1991-1994 Adjunct Professor, Microbiology and Immunology, Loyola University Medical Center, Maywood, IL
- 1994-1997 School of Medicine Fellow, Stanford University, Stanford, CA
- 1997-1998 Research Associate in Oncology, Stanford University, Stanford, CA
- 1998-2002 Senior Scientist, BD Biosciences, San Jose, CA
- 2002-2007 Group Manager, Immunology, BD Biosciences, San Jose, CA
- 2007-2007 Associate Director, Immune System Applications, BD Biosciences, San Jose, CA
- 2008- Investigator, Baylor Institute of Immunology Research, Dallas, TX (20% time)

AWARDS AND PROFESSIONAL SERVICE

- Recipient, National Science Foundation Graduate Fellowship
- Recipient, NIH National Research Service Award
- Member, Who's Who in Science and Engineering
- Member, Who's Who in American Universities
- Symposium Co-chair, Experimental Biology Conference
- Adjunct Member, Vaccine Study Section, NIH
- Editorial Board Member, Journal of Infectious Diseases
- Faculty, International Flow Cytometry School
- Investigator, Immune Monitoring Consortium (NCI)
- Developer, Maeckerlab Weblog for Flow Cytometry (<http://maeckerlab.typepad.com>)
- Faculty, First African Workshop on Detection of Antigen-Specific T Cells by ICS
- Scientific Advisory Board, Intracellular Cytokine Staining Quality Assurance Program (NIAID)
- Consultant, Comprehensive T Cell Vaccine Immune Monitoring Consortium (Gates Foundation)
- Faculty, Infectious Diseases Section, Faculty of 1000
- Workshop Member, iSBTc-FDA Collaborative on Immunotherapy Biomarkers
- Participant, Cancer Vaccine Consortium Initiative on Minimal Information About T Cell Assays

PUBLICATIONS

1. Maecker, H. T., K. Kitamura, M. B. Brenner, and R. Levy. 1987. Isolation of anti-idiotypic antibodies to T cells using an anti-framework determinant antibody. *J Immunol Methods* 98:219-226.
2. Maecker, H. T., and R. Levy. 1988. Spontaneous T cell antigen receptor variants of a human T leukemia cell line. *J Immunol* 141:2994-3002.
3. Maecker, H. T., and R. Levy. 1989. Prevalence of antigen receptor variants in human T cell lines and tumors. *J Immunol* 142:1395-1404.
4. Takahashi, S., H. T. Maecker, and R. Levy. 1989. DNA fragmentation and cell death mediated by T cell antigen receptor/CD3 complex on a leukemia T cell line. *Eur J Immunol* 19:1911-1919.
5. Maecker, H. T., D. M. Jokinen, and R. I. Fisher. 1992. T cell receptor expression can switch on and off at a posttranslational level. *J Immunol* 149:1619-1625.
6. Maecker, H., and S. Raychaudhuri. 1993. Modified immunoprecipitation for determining chain specificity of antibodies to disulfide linked proteins. *FOCUS* 15:116-119.
7. Le, P. T., H. T. Maecker, and J. E. Cook. 1995. In situ detection and characterization of apoptotic thymocytes in human thymus. Expression of bcl-2 in vivo does not prevent apoptosis. *J Immunol* 154:4371-4378.
8. Maecker, H., J. T. Thomas, R. L. Consorti, and T. M. Ellis. 1996. A reversible defect in alpha-beta T cell receptor assembly. *Exp Cell Res* 223:149-154.
9. Maecker, H. T., S. Hedjbeli, M. Alzona, and P. T. Le. 1996. Comparison of apoptosis signaling through T cell receptor, fas, and calcium ionophore. *Exp Cell Res* 222:95-102.
10. Kim, T. S., R. H. DeKruyff, R. Rupper, H. T. Maecker, S. Levy, and D. T. Umetsu. 1997. An ovalbumin-IL-12 fusion protein is more effective than ovalbumin plus free recombinant IL-12 in inducing a T helper cell type 1-dominated immune response and inhibiting antigen-specific IgE production. *J Immunol* 158:4137-4144.
11. Maecker, H. T., and S. Levy. 1997. Normal lymphocyte development but delayed humoral immune response in CD81-null mice. *J Exp Med* 185:1505-1510.
12. Maecker, H. T., S. C. Todd, and S. Levy. 1997. The tetraspanin superfamily: molecular facilitators. *FASEB J* 11:428-442.
13. Maecker, H. T., D. T. Umetsu, R. H. DeKruyff, and S. Levy. 1997. DNA vaccination with cytokine fusion constructs biases the immune response to ovalbumin. *Vaccine* 15:1687-1696.
14. Blankenberg, F. G., P. D. Katsikis, J. F. Tait, R. E. Davis, L. Naumovski, K. Ohtsuki, S. Kapiwoda, M. J. Abrams, M. Darkes, R. C. Robbins, H. T. Maecker, and H. W. Strauss. 1998. In vivo detection and imaging of phosphatidylserine expression during programmed cell death. *Proc Natl Acad Sci U S A* 95:6349-6354.
15. Levy, S., S. C. Todd, and H. T. Maecker. 1998. CD81 (TAPA-1): a molecule involved in signal transduction and cell adhesion in the immune system. *Annu Rev Immunol* 16:89-109.
16. Maecker, H. T., M. S. Do, and S. Levy. 1998. CD81 on B cells promotes interleukin 4 secretion and antibody production during T helper type 2 immune responses. *Proc Natl Acad Sci U S A* 95:2458-2462.
17. Maecker, H. T., D. T. Umetsu, R. H. DeKruyff, and S. Levy. 1998. Cytotoxic T cell responses to DNA vaccination: dependence on antigen presentation via class II MHC. *J Immunol* 161:6532-6536.
18. Maecker, H. T., A. Syrengelas, and R. Levy. 1999. Cytokine fusion constructs as DNA vaccines against tumors. In *DNA Vaccines: Methods and Protocols*. 221-239.
19. Asanuma, H., M. Sharp, H. T. Maecker, V. C. Maino, and A. M. Arvin. 2000. Frequencies of memory T cells specific for varicella-zoster virus, herpes simplex virus, and cytomegalovirus by intracellular detection of cytokine expression. *J Infect Dis* 181:859-866.
20. Maecker, H. T., V. C. Maino, and L. J. Picker. 2000. Immunofluorescence analysis of T-cell responses in health and disease. *J Clin Immunol* 20:391-399.
21. Maecker, H. T., S. C. Todd, E. C. Kim, and S. Levy. 2000. Differential expression of murine CD81 highlighted by new anti-mouse CD81 monoclonal antibodies. *Hybridoma* 19:15-22.
22. Nomura, L. E., J. M. Walker, and H. T. Maecker. 2000. Optimization of whole blood antigen-specific cytokine assays for CD4(+) T cells. *Cytometry* 40:60-68.
23. Ghanekar, S. A., L. E. Nomura, M. A. Suni, L. J. Picker, H. T. Maecker, and V. C. Maino. 2001. Gamma interferon expression in CD8(+) T cells is a marker for circulating cytotoxic T lymphocytes that recognize an HLA A2-restricted epitope of human cytomegalovirus phosphoprotein pp65. *Clin Diagn Lab Immunol* 8:628-631.
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- Maino, M. M. Davis, and H. B. Greenberg. 2001. Direct functional analysis of epitope-specific CD8+ T cells in peripheral blood. *Viral Immunol* 14:59-69.
25. Maecker, H. T., S. Auffermann-Gretzinger, L. E. Nomura, A. Liso, D. K. Czerwinski, and R. Levy. 2001. Detection of CD4 T-cell responses to a tumor vaccine by cytokine flow cytometry. *Clin Cancer Res* 7:902s-908s.
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 30. Dunn, H. S., D. J. Haney, S. A. Ghanekar, P. Stepick-Biek, D. B. Lewis, and H. T. Maecker. 2002. Dynamics of CD4 and CD8 T cell responses to cytomegalovirus in healthy human donors. *J Infect Dis* 186:15-22.
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 41. Nomura, L. E., E. D. DeHaro, L. N. Martin, and H. T. Maecker. 2003. Optimal preparation of rhesus macaque blood for cytokine flow cytometric analysis. *Cytometry* 53A:28-38.
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 43. Smith, J. W., 2nd, E. B. Walker, B. A. Fox, D. Haley, K. P. Wisner, T. Doran, B. Fisher, L. Justice, W. Wood, J. Vetto, H. Maecker, A. Dols, S. Meijer, H. M. Hu, P. Romero, W. G. Alvord, and W. J. Urba. 2003. Adjuvant immunization of HLA-A2-positive melanoma patients with a modified gp100 peptide induces peptide-specific CD8+ T-cell responses. *J Clin Oncol* 21:1562-1573.
 44. Suni, M. A., H. S. Dunn, P. L. Orr, R. deLaat, E. Sinclair, S. A. Ghanekar, B. M. Bredt, J. F. Dunne, V. C. Maino, and H. T. Maecker. 2003. Performance of plate-based cytokine flow cytometry with automated data analysis. *BMC Immunology* 4:9.

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58. Ghanekar, S. A., H. T. Maecker, and V. C. Maino. 2005. Immune monitoring using cytokine flow cytometry. In *Manual of Clinical Laboratory Immunology*, 7 ed. N. R. Rose, ed. ASM Press, Washington, DC.
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60. Maecker, H. T., J. Moon, S. Bhatia, S. A. Ghanekar, V. C. Maino, J. K. Payne, K. Kuus-Reichel, J. C. Chang, A. Summers, T. M. Clay, M. A. Morse, H. K. Lysterly, C. Delarosa, D. P. Ankerst, and M. L. Disis. 2005. Impact of cryopreservation on tetramer, cytokine flow cytometry, and ELISPOT. *BMC Immunol* 6:17.
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