

Mark M. Davis, PhD Publications 1987 - 2010

- Lillemeier, B. F., M.A. Mörtelmaier, M.B. Forstner, J.B. Huppa, J.T. Groves, and M.M. Davis: TCR and LAT are expressed on separate protein islands on T cell membranes and concatenate during activation. *Nat. Imm.*, 11(1):90-96, 2010. PMID: 20010844
- Huppa, J.B., M. Axmann, M.A. Mörtelmaier, B.F. Lillemeier, E.W. Newell, M. Brameshuber, L.O. Klein, G. J. Schütz, and M.M. Davis: "TCR-peptide-MHC interactions in situ show accelerated kinetics and increased affinity." *Nature*, 463:963-7, 2010. PMID: 20164930
- Kuhns, M.S., A.T. Girvin, L.O. Klein, R. Chen, K.D.C. Jensen, E.W. Newell, J.B. Huppa, B.F. Lillemeier, M. Huse, Y-h. Chien, K.C. Garcia, and M.M. Davis: "Evidence for a functional sidedness to the alpha beta TCR." *PNAS*, 107(11):5094-9, 2010. PMCID: PMC2841884.
- Shen-Orr, S.S., R. Tibshirani, P. Khatri, D.L. Bodian, F. Staedtler, N.M. Perry, T. Hastie, M.M. Sarwal, M.M. Davis, and A.J. Butte: "Cell-Type Specific Gene Expression Differences in Complex Tissues." *Nature Methods*, 7(4):287-9, 2010. PMID: 20208531.
- Juang, J., P.J.R. Ebert, D. Feng, K.C. Garcia, M. Krogsaard, and M.M. Davis: "Peptide-MHC Heterodimers show a differential contribution of endogenous peptides to positive and negative selection." *J. Exp. Med.* 207(6):1223-34, 2010. PMCID: PMC2882826.
- Artyomov, M.N., M. Lis, S. Devadas, M.M. Davis, and A.K. Chakraborty: "CD4 and CD8 binding to MHC molecules primarily acts to enhance Lck delivery." *PNAS* 107(39):16916-21, 2010. PMID: 20837541.
- Shen-Orr SS, Goldberger O, Garten Y, Rosenberg-Hasson Y, Lovelace PA, Hirschberg DL, Altman RB, Davis MM, Butte AJ. 2009. "Towards a cytokine-cell interaction knowledgebase of the adaptive immune system". Pacific Symposium on Biocomputing. Pacific Symposium on Biocomputing
- Talasaz, A.A.H., A.A. Powell, D.E. Huber, J.G. Berbee, K.H. Roh, W. Yu, W. Xiao, M.M. Davis, R.F. Pease, M.N. Mindrinos, S.S. Jeffrey, R.W. Davis: Isolating highly enriched populations of circulating epithelial cells and other rare cells from blood using a magnetic sweeper device. *PNAS*, 106(10):3970-5, 2009. PMCID: PMC2645911
- Newell EW, Klein LO, Yu W, Davis MM. 2009. Simultaneous detection of many T-cell specificities using combinatorial tetramer staining. *Nature methods*. 6. (7.). :. 497-9
- Ebert PJ, Jiang S, Xie J, Li QJ, Davis MM. 2009. An endogenous positively selecting peptide enhances mature T cell responses and becomes an autoantigen in the absence of microRNA miR-181a. *Nature immunology*. 10. (11.). :. 1162-9
- Janetzki S, Britten CM, Kalos M, Levitsky HI, Maecker HT, Melief CJ, Old LJ, Romero P, Hoos A, Davis MM. 2009. "MIATA"-Minimal Information about T Cell Assays. *Immunity*. 31. (4.). : 527-8
- Ebert PJ, Ehrlich LI, Davis MM. 2008. "Low ligand requirement for deletion and lack of synapses in positive selection enforce the gauntlet of thymic T cell maturation". *Immunity*
- Kuhns MS, Davis MM. 2008. "The Safety on the TCR Trigger". *Cell*

Jensen KD, Su X, Shin S, Li L, Youssef S, Yamasaki S, Steinman L, Saito T, Locksley RM, Davis MM, Baumgarth N, Chien YH. 2008. "Thymic Selection Determines gammadelta T Cell Effector Fate: Antigen-Naive Cells Make Interleukin-17 and Antigen-Experienced Cells Make Interferon gamma". *Immunity*

Swijnenburg RJ, Schrepfer S, Govaert JA, Cao F, Ransohoff K, Sheikh AY, Haddad M, Connolly AJ, Davis MM, Robbins RC, Wu JC. 2008. "Immunosuppressive therapy mitigates immunological rejection of human embryonic stem cell xenografts". *Proceedings of the National Academy of Sciences of the United States of America*

Bankovich AJ, Raunser S, Juo ZS, Walz T, Davis MM, Garcia KC. 2007. "Structural insight into pre-B cell receptor function". *Science (New York, N.Y.)*

Davis MM. 2007. "Blimp-1 over Budapest". *Nature immunology*

Huse M, Klein LO, Girvin AT, Faraj JM, Li QJ, Kuhns MS, Davis MM. 2007. "Spatial and temporal dynamics of T cell receptor signaling with a photoactivatable agonist". *Immunity*

Davis MM, Krogsgaard M, Huse M, Huppa J, Lillemeier BF, Li QJ. 2007. "T cells as a self-referential, sensory organ". *Annual review of immunology*

Kuhns MS, Davis MM. 2007. "Disruption of extracellular interactions impairs T cell receptor-CD3 complex stability and signaling". *Immunity*

Li QJ, Chau J, Ebert PJ, Sylvester G, Min H, Liu G, Braich R, Manoharan M, Soutschek J, Skare P, Klein LO, Davis MM, Chen CZ. 2007. "miR-181a is an intrinsic modulator of T cell sensitivity and selection". *Cell*

Davis MM. 2007. "The alphabeta T cell repertoire comes into focus". *Immunity*

Lillemeier BF, Pfeiffer JR, Surviladze Z, Wilson BS, Davis MM. 2006. "Plasma membrane-associated proteins are clustered into islands attached to the cytoskeleton". *Proceedings of the National Academy of Sciences of the United States of America*

Huse M, Lillemeier BF, Kuhns MS, Chen DS, Davis MM. 2006. "T cells use two directionally distinct pathways for cytokine secretion". *Nature immunology*

Kuhns MS, Davis MM, Garcia KC. 2006. "Deconstructing the form and function of the TCR/CD3 complex". *Immunity*

Chen DS, Davis MM. 2006. "Molecular and functional analysis using live cell microarrays". *Current opinion in chemical biology*

Kasson PM, Huppa JB, Davis MM, Brunker AT. 2005. "A hybrid machine-learning approach for segmentation of protein localization data". *Bioinformatics (Oxford, England)*

Chen DS, Soen Y, Stuge TB, Lee PP, Weber JS, Brown PO, Davis MM. 2005. "Marked differences in human melanoma antigen-specific T cell responsiveness after vaccination using a functional microarray". *PLoS medicine*

Kasson PM, Davis MM, Brunker AT. 2005. "Deformable modeling for improved calculation of molecular velocities from single-particle tracking". *Proceedings / IEEE Computational Systems Bioinformatics Conference, CSB. IEEE Computational Systems Bioinformatics Conference*

Kasson PM, Huppa JB, Krogsgaard M, Davis MM, Brunger AT. 2005. "Quantitative imaging of lymphocyte membrane protein reorganization and signaling". *Biophysical journal*

Krogsgaard M, Davis MM. 2005. "How T cells 'see' antigen". *Nature immunology*

Chen DS, Davis MM. 2005. "Cellular immunotherapy: antigen recognition is just the beginning". *Springer seminars in immunopathology*

Krogsgaard M, Li QJ, Sumen C, Huppa JB, Huse M, Davis MM. 2005. "Agonist/endogenous peptide-MHC heterodimers drive T cell activation and sensitivity". *Nature*

Purbhoo MA, Irvine DJ, Huppa JB, Davis MM. 2004. "T cell killing does not require the formation of a stable mature immunological synapse". *Nature immunology*

Sciammas R, Davis MM. 2004. "Modular nature of Blimp-1 in the regulation of gene expression during B cell maturation". *Journal of immunology (Baltimore, Md. : 1950)*

Li QJ, Dinner AR, Qi S, Irvine DJ, Huppa JB, Davis MM, Chakraborty AK. 2004. "CD4 enhances T cell sensitivity to antigen by coordinating Lck accumulation at the immunological synapse". *Nature immunology*

Kim SK, Tarbell KV, Sanna M, Vadeboncoeur M, Warganich T, Lee M, Davis M, McDevitt HO. 2004. "Prevention of type I diabetes transfer by glutamic acid decarboxylase 65 peptide 206-220-specific T cells". *Proceedings of the National Academy of Sciences of the United States of America*

Sumen C, Dustin ML, Davis MM. 2004. "T cell receptor antagonism interferes with MHC clustering and integrin patterning during immunological synapse formation". *The Journal of cell biology*

Davis MM. 2004. "The evolutionary and structural 'logic' of antigen receptor diversity". *Seminars in immunology*

Soen Y, Chen DS, Kraft DL, Davis MM, Brown PO. 2003. "Detection and characterization of cellular immune responses using peptide-MHC microarrays". *PLoS biology*

Krogsgaard M, Huppa JB, Purbhoo MA, Davis MM. 2003. "Linking molecular and cellular events in T-cell activation and synapse formation". *Seminars in immunology*

Huppa JB, Gleimer M, Sumen C, Davis MM. 2003. "Continuous T cell receptor signaling required for synapse maintenance and full effector potential". *Nature immunology*

Davis MM, Krogsgaard M, Huppa JB, Sumen C, Purbhoo MA, Irvine DJ, Wu LC, Ehrlich L. 2003. "Dynamics of cell surface molecules during T cell recognition". *Annual review of biochemistry*

Huppa JB, Davis MM. 2003. "T-cell-antigen recognition and the immunological synapse". *Nature reviews. Immunology*

Krogsgaard M, Prado N, Adams EJ, He XL, Chow DC, Wilson DB, Garcia KC, Davis MM. 2003. "Evidence that structural rearrangements and/or flexibility during TCR binding can contribute to T cell activation". *Molecular cell*

Ehrlich LI, Ebert PJ, Krummel MF, Weiss A, Davis MM. 2002. "Dynamics of p56lck translocation to the T cell immunological synapse following agonist and antagonist stimulation". *Immunity*

Richie LI, Ebert PJ, Wu LC, Krummel MF, Owen JJ, Davis MM. 2002. "Imaging synapse formation during thymocyte selection: inability of CD3zeta to form a stable central accumulation during negative selection". *Immunity*

Gütgemann I, Darling JM, Greenberg HB, Davis MM, Chien YH. 2002. "A blood-borne antigen induces rapid T-B cell contact: a potential mechanism for tolerance induction". *Immunology*

Davis MM. 2002. "A new trigger for T cells". *Cell*

Tarbell KV, Lee M, Ranheim E, Chao CC, Sanna M, Kim SK, Dickie P, Teyton L, Davis M, McDevitt H. 2002. "CD4(+) T cells from glutamic acid decarboxylase (GAD)65-specific T cell receptor transgenic mice are not diabetogenic and can delay diabetes transfer". *The Journal of experimental medicine*

Falco DA, Nepomuceno RR, Krams SM, Lee PP, Davis MM, Salvatierra O, Alexander SR, Esquivel CO, Cox KL, Frankel LR, Martinez OM. 2002. "Identification of Epstein-Barr virus-specific CD8+ T lymphocytes in the circulation of pediatric transplant recipients". *Transplantation*

Moss WC, Irvine DJ, Davis MM, Krummel MF. 2002. "Quantifying signaling-induced reorientation of T cell receptors during immunological synapse formation". *Proceedings of the National Academy of Sciences of the United States of America*

Wülfing C, Sumen C, Sjaastad MD, Wu LC, Dustin ML, Davis MM. 2002. "Costimulation and endogenous MHC ligands contribute to T cell recognition". *Nature immunology*

Baker FJ, Lee M, Chien YH, Davis MM. 2002. "Restricted islet-cell reactive T cell repertoire of early pancreatic islet infiltrates in NOD mice". *Proceedings of the National Academy of Sciences of the United States of America*

Wu LC, Tuot DS, Lyons DS, Garcia KC, Davis MM. 2002. "Two-step binding mechanism for T-cell receptor recognition of peptide MHC". *Nature*

Irvine DJ, Purbhoo MA, Krogsgaard M, Davis MM. 2002. "Direct observation of ligand recognition by T cells". *Nature*

Fahrer AM, Konigshofer Y, Kerr EM, Ghandour G, Mack DH, Davis MM, Chien YH. 2001. "Attributes of gammadelta intraepithelial lymphocytes as suggested by their transcriptional profile". *Proceedings of the National Academy of Sciences of the United States of America*

Savage PA, Davis MM. 2001. "A kinetic window constricts the T cell receptor repertoire in the thymus". *Immunity*

Fong L, Hou Y, Rivas A, Benike C, Yuen A, Fisher GA, Davis MM, Engleman EG. 2001. "Altered peptide ligand vaccination with Flt3 ligand expanded dendritic cells for tumor immunotherapy". *Proceedings of the National Academy of Sciences of the United States of America*

Savage PA, Davis MM. 2001. "A kinetic window constricts the T cell receptor repertoire in the thymus". *Immunity*

He XS, Rehermann B, Boisvert J, Mumm J, Maecker HT, Roederer M, Wright TL, Maino VC, Davis MM, Greenberg HB. 2001. "Direct functional analysis of epitope-specific CD8+ T cells in peripheral blood". *Viral immunology*

Davis MM, "How to ask questions (in 10 easy steps)" *Curr Biol* 2000; 10: 21: R771

Krummel MF, Sjaastad MD, Wülfing C, Davis MM. 2000. "Differential clustering of CD4 and CD3zeta during T cell recognition". *Science (New York, N.Y.)*

Kasson PM, Rabinowitz JD, Schmitt L, Davis MM, McConnell HM. 2000. "Kinetics of peptide binding to the class II MHC protein I-Ek". *Biochemistry*

Reay PA, Matsui K, Haase K, Wulfing C, Chien YH, Davis MM. 2000. "Determination of the relationship between T cell responsiveness and the number of MHC-peptide complexes using specific monoclonal antibodies". *Journal of immunology (Baltimore, Md. : 1950)*

Xu JL, Davis MM. 2000. "Diversity in the CDR3 region of V(H) is sufficient for most antibody specificities". *Immunity*

Krummel M, Wülfing C, Sumen C, Davis MM. 2000. "Thirty-six views of T-cell recognition". *Philosophical transactions of the Royal Society of London. Series B, Biological sciences*

Wülfing C, Bauch A, Crabtree GR, Davis MM. 2000. "The vav exchange factor is an essential regulator in actin-dependent receptor translocation to the lymphocyte-antigen-presenting cell interface". *Proceedings of the National Academy of Sciences of the United States of America*

Krummel MF, Sjaastad MD, Wülfing C, Davis MM. 2000. "Differential clustering of CD4 and CD3zeta during T cell recognition". *Science (New York, N.Y.)*

Davis MM, Wülfing C, Krummel MF, Savage PA, Xu J, Sumen C, Dustin ML, Chien YH. 1999. "Visualizing T-cell recognition". *Cold Spring Harbor symposia on quantitative biology*

Boniface JJ, Reich Z, Lyons DS, Davis MM. 1999. "Thermodynamics of T cell receptor binding to peptide-MHC: evidence for a general mechanism of molecular scanning". *Proceedings of the National Academy of Sciences of the United States of America*

Baldwin KK, Trenchak BP, Altman JD, Davis MM. 1999. "Negative selection of T cells occurs throughout thymic development". *Journal of immunology (Baltimore, Md. : 1950)*

Lee PP, Yee C, Savage PA, Fong L, Brockstedt D, Weber JS, Johnson D, Swetter S, Thompson J, Greenberg PD, Roederer M, Davis MM. 1999. "Characterization of circulating T cells specific for tumor-associated antigens in melanoma patients". *Nature medicine*

Schmitt L, Kratz JR, Davis MM, McConnell HM. 1999. "Catalysis of peptide dissociation from class II MHC-peptide complexes". *Proceedings of the National Academy of Sciences of the United States of America*

He XS, Rehermann B, López-Labrador FX, Boisvert J, Cheung R, Mumm J, Wedemeyer H, Berenguer M, Wright TL, Davis MM, Greenberg HB. 1999. "Quantitative analysis of hepatitis C virus-specific CD8(+) T cells in peripheral blood and liver using peptide-MHC tetramers". *Proceedings of the National Academy of Sciences of the United States of America*

Wülfing C, Chien YH, Davis MM. 1999. "Visualizing lymphocyte recognition". Immunology and cell biology

Savage PA, Boniface JJ, Davis MM. 1999. "A kinetic basis for T cell receptor repertoire selection during an immune response". Immunity

Gray CM, Lawrence J, Schapiro JM, Altman JD, Winters MA, Crompton M, Loi M, Kundu SK, Davis MM, Merigan TC. 1999. "Frequency of class I HLA-restricted anti-HIV CD8+ T cells in individuals receiving highly active antiretroviral therapy (HAART)". Journal of immunology (Baltimore, Md. : 1950)

Schmitt L, Boniface JJ, Davis MM, McConnell HM. 1999. "Conformational isomers of a class II MHC-peptide complex in solution". Journal of molecular biology

Baldwin KK, Reay PA, Wu L, Farr A, Davis MM. 1999. "A T cell receptor-specific blockade of positive selection". The Journal of experimental medicine

Wülfing C, Davis MM. 1998. "A receptor/cytoskeletal movement triggered by costimulation during T cell activation". Science (New York, N.Y.)

Rabinowitz JD, Vrljic M, Kasson PM, Liang MN, Busch R, Boniface JJ, Davis MM, McConnell HM. 1998. "Formation of a highly peptide-receptive state of class II MHC". Immunity

Schmitt L, Boniface JJ, Davis MM, McConnell HM. 1998. "Kinetic isomers of a class II MHC-peptide complex". Biochemistry

Boniface JJ, Rabinowitz JD, Wülfing C, Hampl J, Reich Z, Altman JD, Kantor RM, Beeson C, McConnell HM, Davis MM. 1998. "Initiation of signal transduction through the T cell receptor requires the multivalent engagement of peptide/MHC ligands [corrected]". Immunity

Messika EJ, Lu PS, Sung YJ, Yao T, Chi JT, Chien YH, Davis MM. 1998. "Differential effect of B lymphocyte-induced maturation protein (Blimp-1) expression on cell fate during B cell development". The Journal of experimental medicine

Gütgemann I, Fahrner AM, Altman JD, Davis MM, Chien YH. 1998. "Induction of rapid T cell activation and tolerance by systemic presentation of an orally administered antigen". Immunity

Wülfing C, Sjaastad MD, Davis MM. 1998. "Visualizing the dynamics of T cell activation: intracellular adhesion molecule 1 migrates rapidly to the T cell/B cell interface and acts to sustain calcium levels". Proceedings of the National Academy of Sciences of the United States of America

Davis MM, Boniface JJ, Reich Z, Lyons D, Hampl J, Arden B, Chien Y. 1998. "Ligand recognition by alpha beta T cell receptors". Annual review of immunology

Akkrāju S, Ho WY, Leong D, Canaan K, Davis MM, Goodnow CC. 1997. "A range of CD4 T cell tolerance: partial inactivation to organ-specific antigen allows nondestructive thyroiditis or insulinitis". Immunity

Hampl J, Chien YH, Davis MM. 1997. "CD4 augments the response of a T cell to agonist but not to antagonist ligands". Immunity

Reich Z, Boniface JJ, Lyons DS, Borochoy N, Wachtel EJ, Davis MM. 1997. "Ligand-specific oligomerization of T-cell receptor molecules". Nature

Davis MM, Lyons DS, Altman JD, McHeyzer-Williams M, Hampl J, Boniface JJ, Chien Y. 1997. "T cell receptor biochemistry, repertoire selection and general features of TCR and Ig structure". Ciba Foundation symposium

Reich Z, Altman JD, Boniface JJ, Lyons DS, Kozono H, Ogg G, Morgan C, Davis MM. 1997. "Stability of empty and peptide-loaded class II major histocompatibility complex molecules at neutral and endosomal pH: comparison to class I proteins". Proceedings of the National Academy of Sciences of the United States of America

Wülfing C, Rabinowitz JD, Beeson C, Sjaastad MD, McConnell HM, Davis MM. 1997. "Kinetics and extent of T cell activation as measured with the calcium signal". The Journal of experimental medicine

Altman JD, Moss PA, Goulder PJ, Barouch DH, McHeyzer-Williams MG, Bell JI, McMichael AJ, Davis MM. 1996. "Phenotypic analysis of antigen-specific T lymphocytes". Science (New York, N.Y.)

Rabinowitz JD, Beeson C, Wülfing C, Tate K, Allen PM, Davis MM, McConnell HM. 1996. "Altered T cell receptor ligands trigger a subset of early T cell signals". Immunity

Beeson C, Rabinowitz J, Tate K, Gütgemann I, Chien YH, Jones PP, Davis MM, McConnell HM. 1996. "Early biochemical signals arise from low affinity TCR-ligand reactions at the cell-cell interface". The Journal of experimental medicine

Lyons DS, Lieberman SA, Hampl J, Boniface JJ, Chien Y, Berg LJ, Davis MM. 1996. "A TCR binds to antagonist ligands with lower affinities and faster dissociation rates than to agonists". Immunity

Rabinowitz JD, Beeson C, Lyons DS, Davis MM, McConnell HM. 1996. "Kinetic discrimination in T-cell activation". Proceedings of the National Academy of Sciences of the United States of America

Davis MM. 1996. "Evolving catalysts in real time". Science (New York, N.Y.)

Davis MM, Technophilia. Curr Opin Immunol 1996; 8: 2: 255-6

Boniface JJ, Lyons DS, Wettstein DA, Allbritton NL, Davis MM. 1996. "Evidence for a conformational change in a class II major histocompatibility complex molecule occurring in the same pH range where antigen binding is enhanced". The Journal of experimental medicine

Davis MM, McHeyzer-Williams M, Chien YH. 1995. "T-cell receptor V-region usage and antigen specificity. The cytochrome c model system". Annals of the New York Academy of Sciences

Rathmell JC, Cooke MP, Ho WY, Grein J, Townsend SE, Davis MM, Goodnow CC. 1995. "CD95 (Fas)-dependent elimination of self-reactive B cells upon interaction with CD4+ T cells". Nature

Boniface JJ, Davis MM. 1995. "T-cell recognition of antigen. A process controlled by transient intermolecular interactions". Annals of the New York Academy of Sciences

Davis MM, Chien Y. 1995. "Issues concerning the nature of antigen recognition by alpha beta and gamma delta T-cell receptors". Immunology today

McHeyzer-Williams MG, Davis MM. 1995. "Antigen-specific development of primary and memory T cells in vivo". Science (New York, N.Y.)

Rock EP, Sibbald PR, Davis MM, Chien YH. 1994. "CDR3 length in antigen-specific immune receptors". *The Journal of experimental medicine*

Schild H, Mavaddat N, Litzenberger C, Ehrich EW, Davis MM, Bluestone JA, Matis L, Draper RK, Chien YH. 1994. "The nature of major histocompatibility complex recognition by gamma delta T cells". *Cell*

Reay PA, Kantor RM, Davis MM. 1994. "Use of global amino acid replacements to define the requirements for MHC binding and T cell recognition of moth cytochrome c (93-103)". *Journal of immunology (Baltimore, Md. : 1950)*

Turner CA, Mack DH, Davis MM. 1994. "Blimp-1, a novel zinc finger-containing protein that can drive the maturation of B lymphocytes into immunoglobulin-secreting cells". *Cell*

Ho WY, Cooke MP, Goodnow CC, Davis MM. 1994. "Resting and anergic B cells are defective in CD28-dependent costimulation of naive CD4+ T cells". *The Journal of experimental medicine*

Matsui K, Boniface JJ, Steffner P, Reay PA, Davis MM. 1994. "Kinetics of T-cell receptor binding to peptide/I-Ek complexes: correlation of the dissociation rate with T-cell responsiveness". *Proceedings of the National Academy of Sciences of the United States of America*

Patten PA, Rock EP, Sonoda T, Fazekas de St Groth B, Jorgensen JL, Davis MM. 1993. "Transfer of putative complementarity-determining region loops of T cell receptor V domains confers toxin reactivity but not peptide/MHC specificity". *Journal of immunology (Baltimore, Md. : 1950)*

Ehrich EW, Devaux B, Rock EP, Jorgensen JL, Davis MM, Chien YH. 1993. "T cell receptor interaction with peptide/major histocompatibility complex (MHC) and superantigen/MHC ligands is dominated by antigen". *The Journal of experimental medicine*

Sagerström CG, Kerr EM, Allison JP, Davis MM. 1993. "Activation and differentiation requirements of primary T cells in vitro". *Proceedings of the National Academy of Sciences of the United States of America*

Altman JD, Reay PA, Davis MM. 1993. "Formation of functional peptide complexes of class II major histocompatibility complex proteins from subunits produced in *Escherichia coli*". *Proceedings of the National Academy of Sciences of the United States of America*

Boniface JJ, Allbritton NL, Reay PA, Kantor RM, Stryer L, Davis MM. 1993. "pH affects both the mechanism and the specificity of peptide binding to a class II major histocompatibility complex molecule". *Biochemistry*

Chien YH, Davis MM. 1993. "How alpha beta T-cell receptors 'see' peptide/MHC complexes". *Immunology today*

Davis MM, Chien Y. 1993. "Topology and affinity of T-cell receptor mediated recognition of peptide-MHC complexes". *Current opinion in immunology*

Jorgensen JL, Esser U, Fazekas de St Groth B, Reay PA, Davis MM. 1992. "Mapping T-cell receptor-peptide contacts by variant peptide immunization of single-chain transgenics". *Nature*

Reay PA, Wettstein DA, Davis MM. 1992. "pH dependence and exchange of high and low responder peptides binding to a class II MHC molecule". *The EMBO journal*

Jorgensen JL, Reay PA, Ehrich EW, Davis MM. 1992. "Molecular components of T-cell recognition". Annual review of immunology

Devaux B, Bjorkman PJ, Stevenson C, Greif W, Elliott JF, Sagerström C, Clayberger C, Krensky AM, Davis MM. 1991. "Generation of monoclonal antibodies against soluble human T cell receptor polypeptides". European journal of immunology

Matsui K, Boniface JJ, Reay PA, Schild H, Fazekas de St Groth B, Davis MM. 1991. "Low affinity interaction of peptide-MHC complexes with T cell receptors". Science (New York, N.Y.)

Iwashima M, Davis MM, Chien YH. 1991. "A gamma/delta cell receptor heterodimer induces the expression of CD4 and CD8 in thymocytes". The Journal of experimental medicine

Iwashima M, Green A, Bonyhadi M, Davis MM, Allison JP, Chien YH. 1991. "Expression of a fetal gamma delta T-cell receptor in adult mice triggers a non-MHC-linked form of selective depletion". International immunology

Wettstein DA, Boniface JJ, Reay PA, Schild H, Davis MM. 1991. "Expression of a class II major histocompatibility complex (MHC) heterodimer in a lipid-linked form with enhanced peptide/soluble MHC complex formation at low pH". The Journal of experimental medicine

Lin AY, Devaux B, Green A, Sagerström C, Elliott JF, Davis MM. 1990. "Expression of T cell antigen receptor heterodimers in a lipid-linked form". Science (New York, N.Y.)

Krensky AM, Weiss A, Crabtree G, Davis MM, Parham P. 1990. "T-lymphocyte-antigen interactions in transplant rejection". The New England journal of medicine

Berg LJ, Frank GD, Davis MM. 1990. "The effects of MHC gene dosage and allelic variation on T cell receptor selection". Cell

Davis MM. 1990. "T cell receptor gene diversity and selection". Annual review of biochemistry

Davis MM, Bjorkman PJ. 1989. "A model for T cell receptor and MHC/peptide interaction". Advances in experimental medicine and biology

Loh EY, Elliott JF, Cwirla S, Lanier LL, Davis MM. 1989. "Polymerase chain reaction with single-sided specificity: analysis of T cell receptor delta chain". Science (New York, N.Y.)

Garchon HJ, Davis MM. 1989. "The XLR gene product defines a novel set of proteins stabilized in the nucleus by zinc ions". The Journal of cell biology

Davis MM, Chien YH, Bjorkman PJ, Elliott JF, Iwashima M, Rock EP, Patten PA. 1989. "A possible basis for major histocompatibility complex-restricted T-cell recognition". Philosophical transactions of the Royal Society of London. Series B, Biological sciences

Garchon HJ, Loh E, Ho WY, Amar L, Avner P, Davis MM. 1989. "The XLR sequence family: dispersion on the X and Y chromosomes of a large set of closely related sequences, most of which are pseudogenes". Nucleic acids research

Berg LJ, Davis MM. 1989. "T-cell development in T cell receptor alphabeta transgenic mice". Seminars in immunology

Berg LJ, Pullen AM, Fazekas de St Groth B, Mathis D, Benoist C, Davis MM. 1989. "Antigen/MHC-specific T cells are preferentially exported from the thymus in the presence of their MHC ligand". *Cell*

Davis MM, Berg LJ, Lin AY, Fazekas de St Groth B, Devaux B, Sagerstrom CG, Bjorkman PJ, Elliott JF. 1989. "TCR recognition and selection in vivo". *Cold Spring Harbor symposia on quantitative biology*

Berg LJ, Fazekas de St Groth B, Pullen AM, Davis MM. 1989. "Phenotypic differences between alpha beta versus beta T-cell receptor transgenic mice undergoing negative selection". *Nature*

Elliott JF, Rock EP, Patten PA, Davis MM, Chien YH. 1988. "The adult T-cell receptor delta-chain is diverse and distinct from that of fetal thymocytes". *Nature*

Lee NE, Davis MM. 1988. "T cell receptor beta-chain genes in BW5147 and other AKR tumors. Deletion order of murine V beta gene segments and possible 5' regulatory regions". *Journal of immunology* (Baltimore, Md. : 1950)

Davis MM. 1988. "Molecular genetics of T-cell antigen receptors". *Hospital practice* (Office ed.)

Schall TJ, Jongstra J, Dyer BJ, Jorgensen J, Clayberger C, Davis MM, Krensky AM. 1988. "A human T cell-specific molecule is a member of a new gene family". *Journal of immunology* (Baltimore, Md. : 1950)

Jongstra J, Jongstra-Bilen J, Tidmarsh GF, Davis MM. 1988. "The in vitro translation product of the murine lambda 5 gene contains a functional signal peptide". *Molecular immunology*

Iwashima M, Green A, Davis MM, Chien YH. 1988. "Variable region (V delta) gene segment most frequently utilized in adult thymocytes is 3' of the constant (C delta) region". *Proceedings of the National Academy of Sciences of the United States of America*

Berg LJ, Fazekas de St Groth B, Ivars F, Goodnow CC, Gilfillan S, Garchon HJ, Davis MM. 1988. "Expression of T-cell receptor alpha-chain genes in transgenic mice". *Molecular and cellular biology*

Davis MM, Bjorkman PJ. 1988. "T-cell antigen receptor genes and T-cell recognition". *Nature*

Chien YH, Iwashima M, Wettstein DA, Kaplan KB, Elliott JF, Born W, Davis MM. 1987. "T-cell receptor delta gene rearrangements in early thymocytes". *Nature*

Loh EY, Lanier LL, Turck CW, Littman DR, Davis MM, Chien YH, Weiss A. 1987. "Identification and sequence of a fourth human T cell antigen receptor chain". *Nature*

Lindsten T, Lee NE, Davis MM. 1987. "Organization of the T-cell antigen-receptor beta-chain locus in mice". *Proceedings of the National Academy of Sciences of the United States of America*

Hertel-Wulff B, Lindsten T, Schwadron R, Gilbert DM, Davis MM, Strober S. 1987. "Rearrangement and expression of T cell receptor genes in cloned murine natural suppressor cell lines". *The Journal of experimental medicine*