


Stanford



Mark M. Davis

Director, Stanford Institute for Immunity, Transplantation and Infection and the Burt and Marion Avery Family Professor

Microbiology & Immunology

 Curriculum Vitae available Online

CONTACT INFORMATION

• Alternate Contact

Rick Cuevas - Administrative Assistant

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Tel 650-725-4755

Bio

ACADEMIC APPOINTMENTS

- Professor, Microbiology & Immunology
- Member, Bio-X
- Member, Cardiovascular Institute
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Chair, Stanford University School of Medicine - Microbiology & Immunology, (2002-2004)
- Director, Stanford Institute for Immunity, Transplantation and Infection, Stanford University School of Medicine, (2004- present)
- The Burt and Marion Avery Family Professor of Immunology, Stanford University School of Medicine, (2007- present)

HONORS AND AWARDS

- Member, Henry Kunkel Society (2018)
- Distinguished Alumni Award, Caltech (2005)
- Foreign member, The Royal Society (2017)
- Paul Ehrlich Prize, Paul Ehrlich Foundation (2004)
- Member, National Institute of Medicine (2004)
- Ernst W. Bertner Award, M.D.Anderson Cancer Center/Univ. Texas (2003)
- The Rose Payne Award, American Society for Histocompatibility and Immunogenetics (2002)
- The Burt and Marion Avery Professorship, Stanford University (2001-2006)
- Newton-Abraham Visiting Professor, University of Oxford (2000-2001)
- Pius XI Award, Pontifical Academy of Sciences (2000)

- William B. Coley Award, Cancer Research Institute (2000)
- Novartis Prize for Basic Immunology, International Union of Immunology Societies (1998)
- General Motors Cancer Prize:Sloan Award, General Motors Cancer Fdn. (1996)
- King Faisal Prize, King Faisal Foundation (1995)
- Member, National Academy of Sciences (1993)
- Gairdner Prize, Gairdner Foundation (1989)
- Howard Taylor Ricketts Award, University of Chicago (1988)
- Eli Lilly Award in Microbiology and Immunology, American Society of Microbiology (1986)
- Passano Young Scientist Award, Passano Foundation (1985)
- Milton and Francis Clauser Doctoral Prize, Caltech (1981)

PROFESSIONAL EDUCATION

- Ph. D., Caltech , Molecular Biology (1981)
- B.A., The Johns Hopkins University , Molecular Biology (1974)

LINKS

- My lab site: <http://davislab.stanford.edu>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

We are interested in the molecular basis of T and B lymphocyte recognition, as well as the control of differentiation and functional responses in these cells. These studies have ranged from analyzing the inherent diversity of these highly diverse molecules and relating it to their function and specificity (Davis and Bjorkman 1988; Xu et al 2000) to basic aspects of TCR biochemistry and cell biology (Huppa et al 2010, Lillemeier et al, 2010). We also developed peptide-MHC tetramers which are useful for staining and isolating specific T cells in both basic science and clinical applications (Altman et al 1996; Newell et al., 2012, 2013).

We have also been very much involved in trying to relate what we have learned in basic immunology using mouse models to understanding the human immune system. Here we have employed systems biology approaches to understand vaccine responses (Furman et al., 2013), twin studies to understand the relative influence of environment versus genetics (ongoing) and T cell repertoire studies to understand self vs non-self capabilities and the origin of memory T cell responses (Su et al 2013). In this last paper, what is particularly interesting is that we have found that healthy adults have abundant numbers of pathogen-specific memory T cells even for viruses that they have never been exposed to, whereas newborns do not. This suggests that there is an unexpected source of protective lymphocytes in adults that likely impact disease resistance and conversely, indicates why young children are so vulnerable to infectious diseases. In general we have found that analyzing the human immune system has presented us with many surprises and complements what we have learned in mice.

CLINICAL TRIALS

- Comparison of Immune Responses to Influenza Vaccine In Adults of Different Ages (SLVP015 2007-2017), Not Recruiting

Teaching

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Ian Linde, Kevin Meng, Bryan Xie

Postdoctoral Faculty Sponsor

Jennifer Arthur, Liang Chen, Jing Li, Venkata Mallajosyula, Ron Saar Dover, Meng Sun, Adriana Tomic, Ben Wendel, Qian Yin, Lotta von Boehmer

Orals Evaluator

Kevin Meng

Postdoctoral Research Mentor

Jing Li, Meng Sun, Ben Wendel

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biophysics (Phd Program)
- Immunology (Phd Program)
- Microbiology and Immunology (Phd Program)

Publications

PUBLICATIONS

- **Allergen Specific CD8+ T cells in Peanut Allergic Individuals.** *The Journal of allergy and clinical immunology*
Yu, W., Zhou, X., Dunham, D., Lyu, S. C., Manohar, M., Zhang, W., Zhao, F., Davis, M. M., Nadeau, K.
2019
- **Organoid Modeling of the Tumor Immune Microenvironment.** *Cell*
Neal, J. T., Li, X., Zhu, J., Giangarra, V., Grzeskowiak, C. L., Ju, J., Liu, I. H., Chiou, S., Salahudeen, A. A., Smith, A. R., Deutsch, B. C., Liao, L., Zemek, et al
2018; 175 (7): 1972
- **Histone H3 lysine 4 methylation signature associated with human undernutrition.** *Proceedings of the National Academy of Sciences of the United States of America*
Uchiyama, R., Kupkova, K., Shetty, S. J., Linford, A. S., Pray-Grant, M. G., Wagar, L. E., Davis, M. M., Haque, R., Gaultier, A., Mayo, M. W., Grant, P. A., Petri, W. A., Bekiranov, et al
2018
- **Leveraging heterogeneity across multiple datasets increases cell-mixture deconvolution accuracy and reduces biological and technical biases.** *Nature communications*
Vallania, F., Tam, A., Lofgren, S., Schaffert, S., Azad, T. D., Bongen, E., Haynes, W., Alsup, M., Alonso, M., Davis, M., Engleman, E., Khatri, P.
2018; 9 (1): 4735
- **Author Correction: A multi-cohort study of the immune factors associated with M. tuberculosis infection outcomes.** *Nature*
Roy Chowdhury, R., Vallania, F., Yang, Q., Lopez Angel, C. J., Darboe, F., Penn-Nicholson, A., Rozot, V., Nemes, E., Malherbe, S. T., Ronacher, K., Walzl, G., Hanekom, W., Davis, et al
2018
- **Advanced model systems and tools for basic and translational human immunology.** *Genome medicine*
Wagar, L. E., DiFazio, R. M., Davis, M. M.
2018; 10 (1): 73
- **Allelic resolution NGS HLA typing of Class I and Class II loci and haplotypes in Cape Town, South Africa.** *Human immunology*
Thorstenson, Y. R., Creary, L. E., Huang, H., Rozot, V., Nguyen, T. T., Babrzadeh, F., Kancharla, S., Fukushima, M., Kuehn, R., Wang, C., Li, M., Krishnakumar, S., Mindrinos, et al
2018
- **Assessing functional and structural cardiotoxicity in cultured human iPSC-cardiomyocytes in a single plate format**
Guo, L., Furniss, M., Hamre, J., Batista, L., Bastogne, T., Yan, Z., Wu, J. C., Eldridge, S., Davis, M.
ELSEVIER SCIENCE INC.2018: 163–64
- **A multi-cohort study of the immune factors associated with M. tuberculosis infection outcomes.** *Nature*
Roy Chowdhury, R., Vallania, F., Yang, Q., Lopez Angel, C. J., Darboe, F., Penn-Nicholson, A., Rozot, V., Nemes, E., Malherbe, S. T., Ronacher, K., Walzl, G., Hanekom, W., Davis, et al
2018

- **Isolation of a Structural Mechanism for Uncoupling T Cell Receptor Signaling from Peptide-MHC Binding.** *Cell*
Sibener, L. V., Fernandes, R. A., Kolawole, E. M., Carbone, C. B., Liu, F., McAfee, D., Birnbaum, M. E., Yang, X., Su, L. F., Yu, W., Dong, S., Gee, M. H., Jude, et al
2018; 174 (3): 672
- **Altered Function of Cytomegalovirus Specific T Cells in Transplant Recipients.**
Higdon, L., Trofe-Clark, J., Liu, S., Saligrama, N., Margulies, K., Davis, M., Maltzman, J.
WILEY.2018: 436
- **CyTOF analysis allows characterization of Axl-Expressing Dendritic cells in healthy human donors**
Leylek, R., Alcantara-Hernandez, M., Wagar, L. E., Engleman, E. G., Marinkovich, M. P., Davis, M. M., Nolan, G. P., Idoyaga, J.
WILEY.2018: 29
- **A high-dimensional phenotypic map of human Dendritic cells paves the way for therapeutics**
Alcantara-Hernandez, M., Leylek, R., Wagar, L. E., Engleman, E. G., Keler, T., Marinkovich, M. P., Davis, M. M., Nolan, G. P., Idoyaga, J.
WILEY.2018: 25–26
- **Rebooting Human Immunology.** *Annual review of immunology*
Davis, M. M., Brodin, P.
2018; 36: 843–64
- **Single-Cell Chromatin Modification Profiling Reveals Increased Epigenetic Variations with Aging.** *Cell*
Cheung, P., Vallania, F., Warsinske, H. C., Donato, M., Schaffert, S., Chang, S. E., Dvorak, M., Dekker, C. L., Davis, M. M., Utz, P. J., Khatri, P., Kuo, A. J.
2018
- **IMMUNE PROFILE OF HEALTHY CARDIOVASCULAR AGING: INSIGHTS FROM A POPULATION-BASED STUDY AND NETWORK MODELING**
Bouajila, S., Moneghetti, K., Kobayashi, Y., Gomari, F. A., Abbasi, F., Davis, M. M., Wu, J. C., Kuznetsova, T., Sayed, N., Haddad, F.
ELSEVIER SCIENCE INC.2018: 1657
- **Plasmablast antibody repertoires in elderly influenza vaccine responders exhibit restricted diversity but increased breadth of binding across influenza strains.** *Clinical immunology (Orlando, Fla.)*
Ju, C., Blum, L. K., Kongpachith, S., Lingampalli, N., Mao, R., Brodin, P., Dekker, C. L., Davis, M. M., Robinson, W. H.
2018
- **From T Cell Receptor to Antigen, Systems Approach to Discovering T Cell Antigen(s) in Multiple Sclerosis and Experimental Autoimmune Encephalomyelitis**
Saligrama, N., Zhao, F., Fernandes, R. A., Serratelli, W. S., Louis, D. M., Chien, Y., Garcia, C. K., Oksenberg, J., Davis, M. M.
SAGE PUBLICATIONS LTD.2018: 5
- **Comparison of CyTOF assays across sites: Results of a six-center pilot study** *JOURNAL OF IMMUNOLOGICAL METHODS*
Leipold, M. D., Obermoser, G., Fenwick, C., Kleinstuber, K., Rashidi, N., McNevin, J. P., Nau, A. N., Wagar, L. E., Rozot, V., Davis, M. M., DeRosa, S., Pantaleo, G., Scriba, et al
2018; 453: 37–43
- **From T Cell Receptor to Antigen, Systems Approach to Discovering T Cell Antigen(s) in Multiple Sclerosis and Experimental Autoimmune Encephalomyelitis**
Saligrama, N., Zhao, F., Fernandes, R. A., Serratelli, W. S., Louis, D. M., Chien, Y., Garcia, C. K., Oksenberg, J., Davis, M. M.
SAGE PUBLICATIONS LTD.2018: 85
- **Antigen Identification for Orphan T Cell Receptors Expressed on Tumor-Infiltrating Lymphocytes** *CELL*
Gee, M. H., Han, A., Lofgren, S. M., Beausang, J. F., Mendoza, J. L., Birnbaum, M. E., Bethune, M. T., Fischer, S., Yang, X., Gomez-Eerland, R., Bingham, D. B., Sibener, L. V., Fernandes, et al
2018; 172 (3): 549+
- **Bifidobacterium can mitigate intestinal immunopathology in the context of CTLA-4 blockade** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Wang, F., Yin, Q., Chen, L., Davis, M. M.
2018; 115 (1): 157–61
- **Transcript-indexed ATAC-seq for precision immune profiling.** *Nature medicine*

- Satpathy, A. T., Saligrama, N., Buenrostro, J. D., Wei, Y., Wu, B., Rubin, A. J., Granja, J. M., Lareau, C. A., Li, R., Qi, Y., Parker, K. R., Mumbach, M. R., Serratelli, et al
2018
- **B cell lymphomas present immunoglobulin neoantigens.** *Blood*
Khodadoust, M. S., Olsson, N., Chen, B., Sworder, B., Shree, T., Liu, C. L., Zhang, L., Czerwinski, D. K., Davis, M. M., Levy, R., Elias, J. E., Alizadeh, A. A.
2018
 - **A Macrophage Colony-Stimulating-Factor-Producing ## T Cell Subset Prevents Malarial Parasitemic Recurrence.** *Immunity*
Mamedov, M. R., Scholzen, A., Nair, R. V., Cumnock, K., Kenkel, J. A., Oliveira, J. H., Trujillo, D. L., Saligrama, N., Zhang, Y., Rubelt, F., Schneider, D. S., Chien, Y. H., Sauerwein, et al
2018; 48 (2): 350–63.e7
 - **Autologous iPSC-Based Vaccines Elicit Anti-tumor Responses In Vivo.** *Cell stem cell*
Kooreman, N. G., Kim, Y., de Almeida, P. E., Termglinchan, V., Diecke, S., Shao, N. Y., Wei, T. T., Yi, H., Dey, D., Nelakanti, R., Brouwer, T. P., Paik, D. T., Sagiv-Barfi, et al
2018
 - **Value of Circulating Cytokine Profiling During Submaximal Exercise Testing in Myalgic Encephalomyelitis/Chronic Fatigue Syndrome.** *Scientific reports*
Moneghetti, K. J., Skhiri, M., Contrepois, K., Kobayashi, Y., Maecker, H., Davis, M., Snyder, M., Haddad, F., Montoya, J. G.
2018; 8 (1): 2779
 - **Mapping and quantification of over 2,000 O-linked glycopeptides in activated human T cells with isotope-targeted glycoproteomics (IsoTaG).** *Molecular & cellular proteomics : MCP*
Woo, C. M., Lund, P. J., Huang, A. C., Davis, M. M., Bertozzi, C. R., Pitteri, S.
2018
 - **REPLY TO ROERINK ET AL: Methods for recruitment, serum separation, and storage were the same for patients and controls** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Montoya, J. G., Maecker, H. T., Rosenberg-Hasson, Y., Davis, M. M.
2017; 114 (45): E9436
 - **Will Systems Biology Deliver Its Promise and Contribute to the Development of New or Improved Vaccines? Seeing the Forest Rather than a Few Trees.** *Cold Spring Harbor perspectives in biology*
Davis, M. M., Tato, C. M.
2017
 - **Concerted T cell response in experimental autoimmune encephalomyelitis and multiple sclerosis**
Saligrama, N., Zhao, F., Fernandes, R., Serratelli, W. S., Louis, D. M., Chien, Y. C., Garcia, C. K., Oksenberg, J., Davis, M. M.
SAGE PUBLICATIONS LTD.2017: 201
 - **Dynamics of the human antibody repertoire after B cell depletion in systemic sclerosis** *SCIENCE IMMUNOLOGY*
de Bourcy, C. A., Dekker, C. L., Davis, M. M., Nicolls, M. R., Quake, S. R.
2017; 2 (15)
 - **Multicohort analysis reveals baseline transcriptional predictors of influenza vaccination responses** *SCIENCE IMMUNOLOGY*
Avey, S., Cheung, F., Fermin, D., Frelinger, J., Gaujoux, R., Gottardo, R., Khatri, P., Kleinstein, S. H., Kotliarov, Y., Meng, H., Sauteraud, R., Shen-Orr, S. S., Tsang, et al
2017; 2 (14)
 - **Mass cytometry identifies a distinct monocyte cytokine signature shared by clinically heterogeneous pediatric SLE patients.** *Journal of autoimmunity*
O'Gorman, W. E., Kong, D. S., Balboni, I. M., Rudra, P., Bolen, C. R., Ghosh, D., DAVIS, M. M., Nolan, G. P., Hsieh, E. W.
2017
 - **Antigen presentation profiling reveals recognition of lymphoma immunoglobulin neoantigens** *NATURE*
Khodadoust, M. S., Olsson, N., Wagar, L. E., Haabeth, O. A., Chen, B., Swaminathan, K., Rawson, K., Liu, C. L., Steiner, D., Lund, P., Rao, S., Zhang, L., Marceau, et al
2017; 543 (7647): 723-?
 - **Multicenter Systems Analysis of Human Blood Reveals Immature Neutrophils in Males and During Pregnancy.** *Journal of immunology*

- Blazkova, J., Gupta, S., Liu, Y., Gaudilliere, B., Ganio, E. A., Bolen, C. R., Saar-Dover, R., Fragiadakis, G. K., Angst, M. S., Hasni, S., Aghaeepour, N., Stevenson, D., Baldwin, et al
2017; 198 (6): 2479-2488
- **The Repertoire Dissimilarity Index as a method to compare lymphocyte receptor repertoires.** *BMC bioinformatics*
Bolen, C. R., Rubelt, F., Vander Heiden, J. A., Davis, M. M.
2017; 18 (1): 155-?
 - **T-Cell Receptor (TCR) Clonotype-Specific Differences in Inhibitory Activity of HIV-1 Cytotoxic T-Cell Clones Is Not Mediated by TCR Alone** *JOURNAL OF VIROLOGY*
Flerin, N. C., Chen, H., Glover, T. D., Lamothe, P. A., Zheng, J., Fang, J. W., Ndhlovu, Z. M., Newell, E. W., Davis, M. M., Walker, B. D., Goldstein, H.
2017; 91 (6)
 - **Expression of specific inflammasome gene modules stratifies older individuals into two extreme clinical and immunological states** *NATURE MEDICINE*
Furman, D., Chang, J., Lartigue, L., Bolen, C. R., Haddad, F., Gaudilliere, B., Ganio, E. A., Fragiadakis, G. K., Spitzer, M. H., Douchet, I., Daburon, S., Moreau, J., Nolan, et al
2017; 23 (2): 174-184
 - **Phylogenetic analysis of the human antibody repertoire reveals quantitative signatures of immune senescence and aging** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
de Bourcy, C. F., Angel, C. J., Vollmers, C., Dekker, C. L., Davis, M. M., Quake, S. R.
2017; 114 (5): 1105-1110
 - **High-Dimensional Phenotypic Mapping of Human Dendritic Cells Reveals Interindividual Variation and Tissue Specialization.** *Immunity*
Alcántara-Hernández, M., Leylek, R., Wagar, L. E., Engleman, E. G., Keler, T., Marinkovich, M. P., Davis, M. M., Nolan, G. P., Idoyaga, J.
2017
 - **Dynamics of the human antibody repertoire after B cell depletion in systemic sclerosis** *Dynamics of the human antibody repertoire after B cell depletion in systemic sclerosis*
de Bourcy, C. F., Dekker, C. L., Davis, M. M., Nicolls, M. R., Quake, S. R.
2017; 2 (15)
 - **Adaptive Immune Receptor Repertoire Community recommendations for sharing immune-repertoire sequencing data.** *Nature immunology*
Rubelt, F., Busse, C. E., Bukhari, S. A., Bürckert, J. P., Mariotti-Ferrandiz, E., Cowell, L. G., Watson, C. T., Marthandan, N., Faison, W. J., Hershberg, U., Laserson, U., Corrie, B. D., Davis, et al
2017; 18 (12): 1274-78
 - **Increased Proinflammatory Responses of Monocytes and Plasmacytoid Dendritic Cells to Influenza A Virus Infection During Pregnancy** *JOURNAL OF INFECTIOUS DISEASES*
Le Gars, M., Kay, A. W., Bayless, N. L., Aziz, N., Dekker, C. L., Swan, G. E., Davis, M. M., Blish, C. A.
2016; 214 (11): 1666-1671
 - **Defective Signaling in the JAK-STAT Pathway Tracks with Chronic Inflammation and Cardiovascular Risk in Aging Humans.** *Cell systems*
Shen-Orr, S. S., Furman, D., Kidd, B. A., Hadad, F., Lovelace, P., Huang, Y., Rosenberg-Hasson, Y., Mackey, S., Grisar, F. A., Pickman, Y., Maecker, H. T., Chien, Y., Dekker, et al
2016; 3 (4): 374-384 e4
 - **Global Analysis of O-GlcNAc Glycoproteins in Activated Human T Cells.** *Journal of immunology*
Lund, P. J., Elias, J. E., Davis, M. M.
2016; 197 (8): 3086-3098
 - **Antigen exposure shapes the ratio between antigen-specific Tregs and conventional T cells in human peripheral blood** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Su, L. F., del Alcazar, D., Stelekati, E., Wherry, E. J., Davis, M. M.
2016; 113 (41): E6192-E6198
 - **Defective T Memory Cell Differentiation after Varicella Zoster Vaccination in Older Individuals.** *PLoS pathogens*
Qi, Q., Cavanagh, M. M., Le Saux, S., Wagar, L. E., Mackey, S., Hu, J., Maecker, H., Swan, G. E., Davis, M. M., Dekker, C. L., Tian, L., Weyand, C. M., Goronzy, et al
2016; 12 (10)

- **Inhibition of T cell receptor signaling by cholesterol sulfate, a naturally occurring derivative of membrane cholesterol** *NATURE IMMUNOLOGY*
Wang, F., Beck-Garcia, K., Zorzin, C., Schamel, W. W., Davis, M. M.
2016; 17 (7): 844-?
- **Detection, phenotyping, and quantification of antigen-specific T cells using a peptide-MHC dodecamer** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Huang, J., Zeng, X., Sigal, N., Lund, P. J., Su, L. F., Huang, H., Chien, Y., Davis, M. M.
2016; 113 (13): E1890-E1897
- **Individual heritable differences result in unique cell lymphocyte receptor repertoires of naive and antigen-experienced cells** *NATURE COMMUNICATIONS*
Rubelt, F., Bolen, C. R., McGuire, H. M., Vander Heiden, J. A., Gadala-Maria, D., Levin, M., Euskirchen, G. M., Mamedov, M. R., Swan, G. E., Dekker, C. L., Cowell, L. G., Kleinstein, S. H., Davis, et al
2016; 7
- **Successful immunotherapy induces previously unidentified allergen-specific CD4+ T-cell subsets.** *Proceedings of the National Academy of Sciences of the United States of America*
Ryan, J. F., Hovde, R., Glanville, J., Lyu, S., Ji, X., Gupta, S., Tibshirani, R. J., Jay, D. C., Boyd, S. D., Chinthrajah, R. S., Davis, M. M., Galli, S. J., Maecker, et al
2016; 113 (9): E1286-95
- **Human B-cell isotype switching origins of IgE** *JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY*
Looney, T. J., Lee, J., Roskin, K. M., Hoh, R. A., King, J., Glanville, J., Liu, Y., Pham, T. D., Dekker, C. L., Davis, M. M., Boyd, S. D.
2016; 137 (2): 579-?
- **High-dimensional immune profiling of total and rotavirus VP6-specific intestinal and circulating B cells by mass cytometry** *MUCOSAL IMMUNOLOGY*
Nair, N., Newell, E. W., Vollmers, C., Quake, S. R., Morton, J. M., DAVIS, M. M., He, X. S., Greenberg, H. B.
2016; 9 (1): 68-82
- **Lineage tracing of human B cells reveals the in vivo landscape of human antibody class switching.** *eLife*
Horns, F., Vollmers, C., Croote, D., Mackey, S. F., Swan, G. E., Dekker, C. L., Davis, M. M., Quake, S. R.
2016; 5
- **Single-cell systems-level analysis of human Toll-like receptor activation defines a chemokine signature in patients with systemic lupus erythematosus** *JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY*
O'Gorman, W. E., Hsieh, E. W., Savig, E. S., Gherardini, P. F., Hernandez, J. D., Hansmann, L., Balboni, I. M., Utz, P. J., Bendall, S. C., Fantl, W. J., Lewis, D. B., Nolan, G. P., Davis, et al
2015; 136 (5): 1326-1336
- **Distinct Roles of Cytoskeletal Components in Immunological Synapse Formation and Directed Secretion** *JOURNAL OF IMMUNOLOGY*
Ueda, H., Zhou, J., Xie, J., Davis, M. M.
2015; 195 (9): 4117-4125
- **New approaches to understanding the immune response to vaccination and infection.** *Vaccine*
Furman, D., Davis, M. M.
2015; 33 (40): 5271-5281
- **Pregnancy Does Not Attenuate the Antibody or Plasmablast Response to Inactivated Influenza Vaccine.** *journal of infectious diseases*
Kay, A. W., Bayless, N. L., Fukuyama, J., Aziz, N., Dekker, C. L., Mackey, S., Swan, G. E., Davis, M. M., Blish, C. A.
2015; 212 (6): 861-870
- **IgH sequences in common variable immune deficiency reveal altered B cell development and selection.** *Science translational medicine*
Roskin, K. M., Simchoni, N., Liu, Y., Lee, J., Seo, K., Hoh, R. A., Pham, T., Park, J. H., Furman, D., Dekker, C. L., Davis, M. M., James, J. A., Nadeau, et al
2015; 7 (302): 302ra135-?
- **IgH sequences in common variable immune deficiency reveal altered B cell development and selection.** *Science translational medicine*
Roskin, K. M., Simchoni, N., Liu, Y., Lee, J., Seo, K., Hoh, R. A., Pham, T., Park, J. H., Furman, D., Dekker, C. L., Davis, M. M., James, J. A., Nadeau, et al
2015; 7 (302): 302ra135-?
- **mir-181a-1/b-1 Modulates Tolerance through Opposing Activities in Selection and Peripheral T Cell Function** *JOURNAL OF IMMUNOLOGY*
Schaffert, S. A., Loh, C., Wang, S., Arnold, C. P., Axtell, R. C., Newell, E. W., Nolan, G., Ansel, K. M., Davis, M. M., Steinman, L., Chen, C.
2015; 195 (4): 1470-1479

- **A Population Response Analysis Approach To Assign Class II HLA-Epitope Restrictions** *JOURNAL OF IMMUNOLOGY*
Paul, S., Dillon, M. B., Arlehamn, C. S., Huang, H., Davis, M. M., McKinney, D. M., Scriba, T. J., Sidney, J., Peters, B., Sette, A.
2015; 194 (12): 6164-6176
- **Mass Cytometry Analysis Shows That a Novel Memory Phenotype B Cell Is Expanded in Multiple Myeloma** *CANCER IMMUNOLOGY RESEARCH*
Hansmann, L., Blum, L., Ju, C., Liedtke, M., Robinson, W. H., Davis, M. M.
2015; 3 (6): 650-660
- **Clonal Deletion Prunes but Does Not Eliminate Self-Specific alpha beta CD8(+) T Lymphocytes** *IMMUNITY*
Yu, W., Jiang, N., Ebert, P. J., Kidd, B. A., Mueller, S., Lund, P. J., Juang, J., Adachi, K., Tse, T., Birnbaum, M. E., Newell, E. W., Wilson, D. M., Grotenbreg, et al
2015; 42 (5): 929-941
- **The Immunological Synapse: A Molecular Machine Controlling T Cell Activation** *JOURNAL OF IMMUNOLOGY*
Grakoui, A., Bromley, S. K., Sumen, C., Davis, M. M., Shaw, A. S., Allen, P. M., Dustin, M. L.
2015; 194 (9): 221-227
- **Cytomegalovirus infection enhances the immune response to influenza.** *Science translational medicine*
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