



Scott D. Boyd, MD PhD

Stanford Professor of Food Allergy and Immunology and Professor of Pathology

CLINICAL OFFICE (PRIMARY)

- **Pathology**

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Bio

BIO

Dr. Boyd is a physician scientist, Stanford Professor in Food Allergy and Immunology and Professor of Pathology. The Boyd laboratory uses high-throughput DNA sequencing and single-cell experiments to analyze human immune responses to infection and vaccination, as well as immunological disorders such as food allergy and immunodeficiency. Many of the laboratory's projects analyze the responses of B cells and the genetics and functional roles of antibodies in health and disease.

He received bachelor's degrees in Biochemistry at the University of Manitoba, and English Literature at Oxford University, where he was a Rhodes Scholar. He obtained his M.D. from Harvard Medical School and Ph.D. from MIT, followed by pathology residency, hematopathology fellowship, and postdoctoral research work at Stanford University. He is a recipient of the Presidential Early Career Award for Scientists and Engineers, among other honors.

Dr. Boyd has consulted as an expert witness in patent disputes related to antibody technologies and antibody drugs.

CLINICAL FOCUS

- Clinical Chemistry
- Anatomic and Clinical Pathology
- Hematopathology

ACADEMIC APPOINTMENTS

- Professor, Pathology
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Cancer Institute

HONORS AND AWARDS

- Presidential Early Career Award for Scientists and Engineers, White House Office of Science and Technology Policy/NIH (2019)

- Postdoctoral Fellow Mentor Award, Department of Immunology, Stanford University (2017)
- Rhodes Scholarship, University of Oxford (1992-4)
- University Gold Medal, highest standing in honors science, University of Manitoba (1992)
- Governor General Medal, highest undergraduate standing, University of Manitoba (1992)
- Thomas Jefferson Award, St. Catherine's College, Oxford (1994)
- Frank Knox Fellowship, Harvard University (1994)
- Pre-doctoral fellowship, Howard Hughes Medical Institutes (1997)
- Neurofibromatosis (NF) Foundation, 1st Prize, Neurofibromatosis Foundation (2002)
- Young Investigator Award, Society of Pediatric Pathology (2007)
- Harry B. Neustein Award, Society of Pediatric Pathology (2008)
- Walter V. and Idun Berry Fellowship, Stanford University (2008)
- New Scholar Award in Aging, Ellison Medical Foundation (2011)
- Young Faculty Award, Center for HIV/AIDS Vaccine Immunology, Duke University (2013)

PROFESSIONAL EDUCATION

- Board Certification: Hematopathology, American Board of Pathology (2020)
- Residency: Stanford University Department of Pathology (2009) CA
- Fellowship: Stanford University Department of Pathology (2008) CA
- Fellowship, Stanford University , Hematopathology (2009)
- Residency, Stanford University , Clinical Pathology (2009)
- Medical Education: Harvard Medical School (2005) MA
- Ph.D., M.I.T. , Biology (2004)
- B.A., University of Oxford , English Literature (1994)
- B.Sc.(Hons), University of Manitoba , Biochemistry (1992)
- Board Certification: Clinical Pathology, American Board of Pathology (2009)

LINKS

- Boyd lab website: <http://med.stanford.edu/scottboydlab.html>
- Boyd Lab Twitter: <https://twitter.com/ScottBoydLab>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Our goal is to understand the lymphocyte genotype-phenotype relationships in healthy human immunity and in immunological diseases. We apply new technologies and data analysis approaches to this challenge, particularly high-throughput DNA sequencing and single-cell monoclonal antibody generation, in parallel with functional assays. Our main focus has been defining clonal lineages of B cells and their antigen specificity in clinical samples from healthy individuals undergoing vaccination or responding to infection, as well as in patients with immune-mediated diseases such as food allergy. Other areas of active research are the B cell responses to HIV, immune deficiencies related to human aging, and transplant immunology.

CLINICAL TRIALS

- Integrated Whole-Genome Analysis of Hematologic Disorders, Not Recruiting

Teaching

STANFORD ADVISEES

Med Scholar Project Advisor

Brandon Lam

Doctoral Dissertation Reader (AC)

Rebekah Costello, Erin Craig, Adonis Rubio

Postdoctoral Faculty Sponsor

Liel Cohen Lavi, Taylor Pursell, Oliver Wirz

Doctoral Dissertation Advisor (AC)

Taylor Pursell

Postdoctoral Research Mentor

Maxim Zaslavsky

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Immunology (Phd Program)

Publications

PUBLICATIONS

- **Antibody and B Cell Responses to SARS-CoV-2 Infection and Vaccination: The End of the Beginning.** *Annual review of pathology*
Roltgen, K., Boyd, S. D.
2023
- **Influenza virus infection history shapes antibody responses to influenza vaccination.** *Nature medicine*
Auladell, M., Phuong, H. V., Mai, L. T., Tseng, Y., Carolan, L., Wilks, S., Thai, P. Q., Price, D., Duong, N. T., Hang, N. L., Thanh, L. T., Thuong, N. T., Huong, et al
2022
- **Multiple early factors anticipate post-acute COVID-19 sequelae.** *Cell*
Su, Y., Yuan, D., Chen, D. G., Ng, R. H., Wang, K., Choi, J., Li, S., Hong, S., Zhang, R., Xie, J., Kornilov, S. A., Scherler, K., Pavlovitch-Bedzyk, et al
2022
- **Early non-neutralizing, afucosylated antibody responses are associated with COVID-19 severity.** *Science translational medicine*
Chakraborty, S., Gonzalez, J. C., Sievers, B. L., Mallajosyula, V., Chakraborty, S., Dubey, M., Ashraf, U., Cheng, B. Y., Kathale, N., Tran, K. Q., Scallan, C., Sinnott, A., Cassidy, et al
1800: eabm7853
- **Durability of immune responses to the BNT162b2 mRNA vaccine** *MED*
Suthar, M. S., Arunachalam, P. S., Hu, M., Reis, N., Trisal, M., Raeber, O., Chinthrajah, S., Davis-Gardner, M. E., Manning, K., Mudvari, P., Boritz, E., Godbole, S., Henry, et al
2022; 3 (1): 25-27
- **Antibodies elicited by SARS-CoV-2 infection or mRNA vaccines have reduced neutralizing activity against Beta and Omicron pseudoviruses.** *Science translational medicine*
Sievers, B. L., Chakraborty, S., Xue, Y., Gelbart, T., Gonzalez, J. C., Cassidy, A. G., Golan, Y., Prahl, M., Gaw, S. L., Arunachalam, P. S., Blish, C. A., Boyd, S. D., Davis, et al
1800: eabn7842
- **Immune imprinting, breadth of variant recognition, and germinal center response in human SARS-CoV-2 infection and vaccination.** *Cell*

- Röltgen, K., Nielsen, S. C., Silva, O., Younes, S. F., Zaslavsky, M., Costales, C., Yang, F., Wirz, O. F., Solis, D., Hoh, R. A., Wang, A., Arunachalam, P. S., Colburg, et al
2022
- **Direct comparison of antibody responses to four SARS-CoV-2 vaccines in Mongolia.** *Cell host & microbe*
Dashdorj, N. J., Wirz, O. F., Röltgen, K., Haraguchi, E., Buzzanco, A. S., Sibai, M., Wang, H., Miller, J. A., Solis, D., Sahoo, M. K., Arunachalam, P. S., Lee, A. S., Shah, et al
2021
 - **Antibody and B cell responses to SARS-CoV-2 infection and vaccination.** *Cell host & microbe*
Röltgen, K., Boyd, S. D.
2021
 - **Shared B cell memory to coronaviruses and other pathogens varies in human age groups and tissues.** *Science (New York, N.Y.)*
Yang, F., Nielsen, S. C., Hoh, R. A., Röltgen, K., Wirz, O. F., Haraguchi, E., Jean, G. H., Lee, J., Pham, T. D., Jackson, K. J., Roskin, K. M., Liu, Y., Nguyen, et al
2021
 - **Local immune response to food antigens drives meal-induced abdominal pain.** *Nature*
Aguilera-Lizarraga, J., Florens, M. V., Viola, M. F., Jain, P., Decraecker, L., Appeltans, I., Cuende-Estevez, M., Fabre, N., Van Beek, K., Perna, E., Balemans, D., Stakenborg, N., Theofanous, et al
2021
 - **Modeling human adaptive immune responses with tonsil organoids.** *Nature medicine*
Wagar, L. E., Salahudeen, A. n., Constantz, C. M., Wendel, B. S., Lyons, M. M., Mallajosyula, V. n., Jatt, L. P., Adamska, J. Z., Blum, L. K., Gupta, N. n., Jackson, K. J., Yang, F. n., Röltgen, et al
2021
 - **Systems vaccinology of the BNT162b2 mRNA vaccine in humans.** *Nature*
Arunachalam, P. S., Scott, M. K., Hagan, T., Li, C., Feng, Y., Wimmers, F., Grigoryan, L., Trisal, M., Edara, V. V., Lai, L., Chang, S. E., Feng, A., Dhingra, et al
2021
 - **Aberrant B cell repertoire selection associated with HIV neutralizing antibody breadth.** *Nature immunology*
Roskin, K. M., Jackson, K. J., Lee, J., Hoh, R. A., Joshi, S. A., Hwang, K., Bonsignori, M., Pedroza-Pacheco, I., Liao, H., Moody, M. A., Fire, A. Z., Borrow, P., Haynes, et al
2020
 - **Defining the features and duration of antibody responses to SARS-CoV-2 infection associated with disease severity and outcome.** *Science immunology*
Röltgen, K. n., Powell, A. E., Wirz, O. F., Stevens, B. A., Hogan, C. A., Najeeb, J. n., Hunter, M. n., Wang, H. n., Sahoo, M. K., Huang, C. n., Yamamoto, F. n., Manohar, M. n., Manalac, et al
2020; 5 (54)
 - **Origins and clonal convergence of gastrointestinal IgE+ B cells in human peanut allergy.** *Science immunology*
Hoh, R. A., Joshi, S. A., Lee, J. Y., Martin, B. A., Varma, S. n., Kwok, S. n., Nielsen, S. C., Nejad, P. n., Haraguchi, E. n., Dixit, P. S., Shutthanandan, S. V., Roskin, K. M., Zhang, et al
2020; 5 (45)
 - **Human B Cell Clonal Expansion and Convergent Antibody Responses to SARS-CoV-2.** *Cell host & microbe*
Nielsen, S. C., Yang, F. n., Jackson, K. J., Hoh, R. A., Röltgen, K. n., Jean, G. H., Stevens, B. A., Lee, J. Y., Rustagi, A. n., Rogers, A. J., Powell, A. E., Hunter, M. n., Najeeb, et al
2020
 - **Influenza vaccine-induced human bone marrow plasma cells decline within a year after vaccination.** *Science (New York, N.Y.)*
Davis, C. W., Jackson, K. J., McCausland, M. M., Darce, J. n., Chang, C. n., Linderman, S. L., Chennareddy, C. n., Gerkin, R. n., Brown, S. J., Wrammert, J. n., Mehta, A. K., Cheung, W. C., Boyd, et al
2020
 - **Proinflammatory IgG Fc structures in patients with severe COVID-19** *Nature Immunology*
Chakraborty, S., Gonzales, J., Edwards, K., Mallajosyulla, V., Buzzanco, A. S., Sherwood, R., Buffone, C., Kathale, N., Providenza, S., Xie, M. M., Andrews, J. R., Blish, C. A., Singh, et al
2020

- **Shaping of infant B cell receptor repertoires by environmental factors and infectious disease.** *Science translational medicine*
Nielsen, S. C., Roskin, K. M., Jackson, K. J., Joshi, S. A., Nejad, P., Lee, J., Wagar, L. E., Pham, T. D., Hoh, R. A., Nguyen, K. D., Tsunemoto, H. Y., Patel, S. B., Tibshirani, et al
2019; 11 (481)
- **Shaping of infant B cell receptor repertoires by environmental factors and infectious disease** *SCIENCE TRANSLATIONAL MEDICINE*
Nielsen, S. A., Roskin, K. M., Jackson, K. L., Joshi, S. A., Nejad, P., Lee, J., Wagar, L. E., Pham, T. D., Hoh, R. A., Nguyen, K. D., Tsunemoto, H. Y., Patel, S. B., Tibshirani, et al
2019; 11 (481)
- **Longitudinal Analysis of the Human B Cell Response to Ebola Virus Infection.** *Cell*
Davis, C. W., Jackson, K. J., McElroy, A. K., Halfmann, P. n., Huang, J. n., Chennareddy, C. n., Piper, A. E., Leung, Y. n., Albariño, C. G., Crozier, I. n., Ellebedy, A. H., Sidney, J. n., Sette, et al
2019
- **High-fat diet induces systemic B-cell repertoire changes associated with insulin resistance.** *Mucosal immunology*
Pham, T. D., Chng, M. H., Roskin, K. M., Jackson, K. J., Nguyen, K. D., Glanville, J., Lee, J., Engleman, E. G., Boyd, S. D.
2017
- **Identifying specificity groups in the T cell receptor repertoire.** *Nature*
Glanville, J. n., Huang, H. n., Nau, A. n., Hatton, O. n., Wagar, L. E., Rubelt, F. n., Ji, X. n., Han, A. n., Krams, S. M., Pettus, C. n., Haas, N. n., Arlehamn, C. S., Sette, et al
2017
- **Defining antigen-specific plasmablast and memory B cell subsets in human blood after viral infection or vaccination** *NATURE IMMUNOLOGY*
Ellebedy, A. H., Jackson, K. J., Kissick, H. T., Nakaya, H. I., Davis, C. W., Roskin, K. M., McElroy, A. K., Oshansky, C. M., Elbein, R., Thomas, S., Lyon, G. M., Spiropoulou, C. F., Mehta, et al
2016; 17 (10): 1226-?
- **Broadening Horizons: New Antibodies Against Influenza.** *Cell*
Jackson, K. J., Boyd, S. D.
2016; 166 (3): 532-533
- **Maturation Pathway from Germline to Broad HIV-1 Neutralizer of a CD4-Mimic Antibody.** *Cell*
Bonsignori, M., Zhou, T., Sheng, Z., Chen, L., Gao, F., Joyce, M. G., Ozorowski, G., Chuang, G., Schramm, C. A., Wiehe, K., Alam, S. M., Bradley, T., Gladden, et al
2016; 165 (2): 449-463
- **Diversification of the antigen-specific T cell receptor repertoire after varicella zoster vaccination.** *Science translational medicine*
Qi, Q., Cavanagh, M. M., Le Saux, S., Namkoong, H., Kim, C., Turgano, E., Liu, Y., Wang, C., Mackey, S., Swan, G. E., Dekker, C. L., Olshen, R. A., Boyd, et al
2016; 8 (332): 332ra46-?
- **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-?
- **Single B-cell deconvolution of peanut-specific antibody responses in allergic patients.** *The Journal of allergy and clinical immunology*
Hoh, R. A., Joshi, S. A., Liu, Y., Wang, C., Roskin, K. M., Lee, J. Y., Pham, T., Looney, T. J., Jackson, K. J., Dixit, V. P., King, J., Lyu, S. C., Jenks, et al
2015
- **Predicting vaccine responsiveness.** *Cell host & microbe*
Boyd, S. D., Jackson, K. J.
2015; 17 (3): 301-307
- **B-cell repertoire responses to varicella-zoster vaccination in human identical twins.** *Proceedings of the National Academy of Sciences of the United States of America*
Wang, C., Liu, Y., Cavanagh, M. M., Le Saux, S., Qi, Q., Roskin, K. M., Looney, T. J., Lee, J., Dixit, V., Dekker, C. L., Swan, G. E., Goronzy, J. J., Boyd, et al
2015; 112 (2): 500-505
- **Immunoglobulin gene insertions and deletions in the affinity maturation of HIV-1 broadly reactive neutralizing antibodies.** *Cell host & microbe*

- Kepler, T. B., Liao, H., Alam, S. M., Bhaskarabhatla, R., Zhang, R., Yandava, C., Stewart, S., Anasti, K., Kelsoe, G., Parks, R., Lloyd, K. E., Stolarchuk, C., Pritchett, et al
2014; 16 (3): 304-313
- **Diversity and clonal selection in the human T-cell repertoire.** *Proceedings of the National Academy of Sciences of the United States of America*
Qi, Q., Liu, Y., Cheng, Y., Glanville, J., Zhang, D., Lee, J., Olshen, R. A., Weyand, C. M., Boyd, S. D., Goronzy, J. J.
2014; 111 (36): 13139-13144
 - **HIV-1 Envelope gp41 Antibodies Can Originate from Terminal Ileum B Cells that Share Cross-Reactivity with Commensal Bacteria.** *Cell host & microbe*
Trama, A. M., Moody, M. A., Alam, S. M., Jaeger, F. H., Lockwood, B., Parks, R., Lloyd, K. E., Stolarchuk, C., Scearce, R., Foulger, A., Marshall, D. J., Whitesides, J. F., Jeffries, et al
2014; 16 (2): 215-226
 - **Human responses to influenza vaccination show seroconversion signatures and convergent antibody rearrangements.** *Cell host & microbe*
Jackson, K. J., Liu, Y., Roskin, K. M., Glanville, J., Hoh, R. A., Seo, K., Marshall, E. L., Gurley, T. C., Moody, M. A., Haynes, B. F., Walter, E. B., Liao, H., Albrecht, et al
2014; 16 (1): 105-114
 - **Effects of Aging, Cytomegalovirus Infection, and EBV Infection on Human B Cell Repertoires** *JOURNAL OF IMMUNOLOGY*
Wang, C., Liu, Y., Xu, L. T., Jackson, K. J., Roskin, K. M., Pham, T. D., Laserson, J., Marshall, E. L., Seo, K., Lee, J., Furman, D., Koller, D., Dekker, et al
2014; 192 (2): 603-611
 - **An autoreactive antibody from an SLE/HIV-1 individual broadly neutralizes HIV-1.** *The Journal of clinical investigation*
Bonsignori, M. n., Wiehe, K. n., Grimm, S. K., Lynch, R. n., Yang, G. n., Kozink, D. M., Perrin, F. n., Cooper, A. J., Hwang, K. K., Chen, X. n., Liu, M. n., McKee, K. n., Parks, et al
2014
 - **Convergent antibody signatures in human dengue.** *Cell host & microbe*
Parameswaran, P., Liu, Y., Roskin, K. M., Jackson, K. K., Dixit, V. P., Lee, J., Artilles, K. L., Zompi, S., Vargas, M. J., Simen, B. B., Hanczaruk, B., McGowan, K. R., Tariq, et al
2013; 13 (6): 691-700
 - **Diagnostic applications of high-throughput DNA sequencing.** *Annual review of pathology*
Boyd, S. D.
2013; 8: 381-410
 - **Measurement and Clinical Monitoring of Human Lymphocyte Clonality by Massively Parallel V-D-J Pyrosequencing** *Science Translational Medicine*
Boyd SD, Marshall EL, Merker JD, Maniar JM, Zhang LN, Sahaf B, Jones CD, Simen BB, Hanczaruk B, Nguyen KD, Nadeau KC, Egholm M, Miklos DB, Zehnder JL, Fire AZ
2009; 1 (12)
 - **Current status and future directions in Food Protein-Induced Enterocolitis Syndrome (FPIES): An NIAID Workshop Report.** *The Journal of allergy and clinical immunology*
Nowak-Wegrzyn, A., Sicherer, S. H., Akin, C., Anvari, S., Bartnikas, L. M., Berin, M. C., Bingemann, T. A., Boyd, S., Brown-Whitehorn, T., Bunyavanich, S., Cianferoni, A., du Toit, G., Fortunato, et al
2024
 - **Ultrasensitive allele inference from immune repertoire sequencing data with MiXCR.** *Genome research*
Mikelov, A., Nefedev, G., Tashkeev, A., Rodriguez, O. L., Ortmans, D. A., Skatova, V., Izraelson, M., Davydov, A. N., Poslavsky, S., Rahmouni, S., Watson, C. T., Chudakov, D. M., Boyd, et al
2024
 - **HLA-DR+regulatory T cells and IL-10 are associated with success or failure of desensitization outcomes.** *Allergy*
Zhou, X., Dunham, D., Sindher, S. B., Long, A., Fernandes, A., Chang, I., Assa'ad, A., Pongracic, J., Spergel, J. M., Tam, J., Tilles, S., Wang, J., Boyd, et al
2024
 - **Gestational SARS-CoV-2 Infection in a Ugandan Birth Cohort: High Incidence, Mild Maternal Disease, and Evidence of Association with Transient Infant Stunting.** *The American journal of tropical medicine and hygiene*
Jacobson, K. B., Roltgen, K., Lam, B., Nayebar, P., Kakuru, A., Kizza, J., Aguti, M., Nankya, F., Briggs, J., Takahashi, S., Greenhouse, B., Rodriguez-Barraquer, I., van der Ploeg, et al
2024

- **Association of cytotoxic effector memory CD8+ T cells with sustained unresponsiveness after peanut oral immunotherapy.** *Allergy*
Seastedt, H., Han, X., Fernandes, A., Galli, S. J., Boyd, S. D., Nadeau, K. C., Manohar, M., Chinthrajah, S.
2024
- **Elucidating allergic reaction mechanisms in response to SARS-CoV-2 mRNA vaccination in adults.** *Allergy*
Shah, M. M., Layhadi, J. A., Hourcade, D. E., Fulton, W. T., Tan, T. J., Dunham, D., Chang, I., Vel, M. S., Fernandes, A., Lee, A. S., Liu, J., Arunachalam, P. S., Galli, et al
2024
- **Allergen-specific B cell responses in oral immunotherapy-induced desensitization, remission, and natural outgrowth in cow's milk allergy.** *Allergy*
Satitsuksanoa, P., van de Veen, W., Tan, G., Lopez, J. F., Wirz, O., Jansen, K., Sokolowska, M., Mirer, D., Globinska, A., Boonpiyathad, T., Schneider, S. R., Barletta, E., Spits, et al
2024
- **Epstein-Barr virus-associated post-transplant lymphoproliferative disorders in pediatric transplantation: A prospective multicenter study in the United States.** *Pediatric transplantation*
Tajima, T., Martinez, O. M., Bernstein, D., Boyd, S. D., Gratzinger, D., Lum, G., Sasaki, K., Tan, B., Twist, C. J., Weinberg, K., Armstrong, B., Desai, D. M., Mazariegos, et al
2024; 28 (4): e14763
- **An organism-wide atlas of hormonal signaling based on the mouse lemur single-cell transcriptome.** *Nature communications*
Liu, S., Ezran, C., Wang, M. F., Li, Z., Awayan, K., Long, J. Z., De Vlaminc, I., Wang, S., Epelbaum, J., Kuo, C. S., Terrien, J., Krasnow, M. A., Ferrell, et al
2024; 15 (1): 2188
- **Impaired innate and adaptive immune responses to BNT162b2 SARS-CoV-2 vaccination in systemic lupus erythematosus.** *JCI insight*
Sarin, K. Y., Zheng, H., Chaichian, Y., Arunachalam, P. S., Swaminathan, G., Eschholz, A., Gao, F., Wirz, O. F., Lam, B., Yang, E., Lee, L. W., Feng, A., Lewis, et al
2024; 9 (5)
- **Corrigendum: Advances and potential of omics studies for understanding the development of food allergy.** *Frontiers in allergy*
Sindher, S. B., Chin, A. R., Aghaeepour, N., Prince, L., Maecker, H., Shaw, G. M., Stevenson, D., Nadeau, K. C., Snyder, M., Khatri, P., Boyd, S. D., Winn, V. D., Angst, et al
2024; 5: 1373485
- **Single cell multi-omic analysis identifies key genes differentially expressed in innate lymphoid cells from COVID-19 patients.** *Frontiers in immunology*
Kaushik, A., Chang, I., Han, X., He, Z., Komlosi, Z. I., Ji, X., Cao, S., Akdis, C. A., Boyd, S., Pulendran, B., Maecker, H. T., Davis, M. M., Chinthrajah, et al
2024; 15: 1374828
- **Acute Respiratory Illness Is Associated with Memory T Cell Differentiation and Other Immune Cell Changes in an Age-Associated Manner.** *ImmunoHorizons*
Ugale, S. S., Holmes, T. H., Maysel-Auslender, S., Boyd, S. D., Dekker, C. L., Davis, M. M., Maecker, H. T.
2023; 7 (9): 611-618
- **Germline-encoded specificities and the predictability of the B cell response.** *PLoS pathogens*
C Vieira, M., Palm, A. E., Stamper, C. T., Tepora, M. E., Nguyen, K. D., Pham, T. D., Boyd, S. D., Wilson, P. C., Cobey, S.
2023; 19 (8): e1011603
- **Genetic variation in the immunoglobulin heavy chain locus shapes the human antibody repertoire.** *Nature communications*
Rodriguez, O. L., Safonova, Y., Silver, C. A., Shields, K., Gibson, W. S., Kos, J. T., Tieri, D., Ke, H., Jackson, K. J., Boyd, S. D., Smith, M. L., Marasco, W. A., Watson, et al
2023; 14 (1): 4419
- **Detection of SARS-CoV-2 Antibodies in Immunoglobulin Products.** *The journal of allergy and clinical immunology. In practice*
Cousins, K., Sano, K., Lam, B., Roltgen, K., Bhavsar, D., Singh, G., Jeong, S., Aboelregal, N., Ho, H., Boyd, S., Krammer, F., Cunningham-Rundles, C.
2023
- **Advances and potential of omics studies for understanding the development of food allergy.** *Frontiers in allergy*
Sindher, S. B., Chin, A. R., Aghaeepour, N., Prince, L., Maecker, H., Shaw, G. M., Stevenson, D. K., Nadeau, K. C., Snyder, M., Khatri, P., Boyd, S. D., Winn, V. D., Angst, et al
2023; 4: 1149008

- **Spheromers reveal robust T cell responses to the Pfizer/BioNTech vaccine and attenuated peripheral CD8+ T cell responses post SARS-CoV-2 infection.** *Immunity*
Gao, F., Mallajoyula, V., Arunachalam, P. S., van der Ploeg, K., Manohar, M., Röltgen, K., Yang, F., Wirz, O., Hoh, R., Haraguchi, E., Lee, J. Y., Willis, R., Ramachandiran, et al
2023
- **Clonal evolution and stereotyped sequences of human IgE lineages in aeroallergen-specific immunotherapy.** *The Journal of allergy and clinical immunology*
Hoh, R. A., Thörnqvist, L., Yang, F., Godzwon, M., King, J. J., Lee, J. Y., Greiff, L., Boyd, S. D., Ohlin, M.
2023
- **Mutations In Latent Membrane Protein 1 of Epstein-Barr Virus are Associated with Increased Risk for Post-Transplant Lymphoproliferative Disorder in Children.** *American journal of transplantation : official journal of the American Society of Transplantation and the American Society of Transplant Surgeons*
Martinez, O. M., Krams, S. M., Robien, M. A., Lapasaran, M. G., Arvedson, M. P., Reitsma, A., Balachandran, Y., Harris-Arnold, A., Weinberg, K., Boyd, S. D., Armstrong, B., Trickey, A., Twist, et al
2023
- **Allergy: Mechanistic insights into new methods of prevention and therapy** *SCIENCE TRANSLATIONAL MEDICINE*
Akdis, C. A., Akdis, M., Boyd, S. D., Sampath, V., Galli, S. J., Nadeau, K. C.
2023; 15 (679)
- **Reinfection with SARS-CoV-2 and Waning Humoral Immunity: A Case Report.** *Vaccines*
Goldman, J. D., Wang, K., Röltgen, K., Nielsen, S. C., Roach, J. C., Naccache, S. N., Yang, F., Wirz, O. F., Yost, K. E., Lee, J. Y., Chun, K., Wrin, T., Petropoulos, et al
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