

## Oliver Wirz

Research Scientist, Pathology Sponsored Projects

### Bio

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#### LINKS

- My lab site: <http://med.stanford.edu/scottboydlab.html>

### Publications

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#### PUBLICATIONS

- **High-throughput multiplexed serology via the mass-spectrometric analysis of isotopically barcoded beads.** *Nature biomedical engineering*  
Drainas, A. P., McIlwain, D. R., Dallas, A., Chu, T., Delgado-González, A., Baron, M., Angulo-Ibáñez, M., Trejo, A., Bai, Y., Hickey, J. W., Lu, G., Lu, S., Pineda-Ramirez, et al  
2025
- **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
- **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)
- **B cell immune response to human bocaviruses** *CLINICAL AND EXPERIMENTAL ALLERGY*  
Karaaslan, C., Wirz, O., Tan, G., Globinska, A., Boonpiyathad, T., Hedman, K., Vaselek, S., Venermo, M., Jartti, T., Akdis, M., Akdis, C. A.  
2024
- **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
- **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  
2022; 11 (1)
- **Immune imprinting, breadth of variant recognition, and germinal center response in human SARS-CoV-2 infection and vaccination.** *Cell*  
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2022
- **T regulatory cells from atopic asthmatic individuals show a Th2-like phenotype.** *Allergy*  
Jansen, K., Satitsuksanoa, P., Wirz, O. F., Schneider, S. R., van de Veen, W., Tan, G., Sokolowska, M., Message, S. D., Kebabze, T., Glanville, N., Mallia, P., Akdis, C. A., Moniuszko, et al  
2021

- **Guidelines for the use of flow cytometry and cell sorting in immunological studies (third edition).** *European journal of immunology*  
Cossarizza, A., Chang, H., Radbruch, A., Abrignani, S., Addo, R., Akdis, M., Andra, I., Andreato, F., Annunziato, F., Arranz, E., Bacher, P., Bari, S., Barnaba, et al  
1800; 51 (12): 2708-3145
- **Direct comparison of antibody responses to four SARS-CoV-2 vaccines in Mongolia.** *Cell host & microbe*  
Dashdorj, N. J., Wirz, O. F., Roltgen, 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
- **Characterisation of allergen-specific B cell tolerance in children with cow's milk-oral immunotherapy and natural outgrow of milk allergy**  
Satitsuksanoa, P., Van De Veen, W., Tan, G., Wirz, O., Sokolowska, M., Chang, I., Nadeau, K., Akdis, M.  
WILEY.2021: 101
- **Experimental rhinovirus infection induces an antiviral response in circulating B cells which is dysregulated in patients with asthma.** *Allergy*  
Wirz, O. F., Jansen, K., Satitsuksanoa, P., van de Veen, W., Tan, G., Sokolowska, M., Mirer, D., Stanic, B., Message, S. D., Kebabze, T., Glanville, N., Mallia, P., Gern, et al  
2021
- **Increased viral variants in children and young adults with impaired humoral immunity and persistent SARS-CoV-2 infection: A consecutive case series.** *EBioMedicine*  
Truong, T. T., Ryutov, A., Pandey, U., Yee, R., Goldberg, L., Bhojwani, D., Aguayo-Hiraldo, P., Pinsky, B. A., Pekosz, A., Shen, L., Boyd, S. D., Wirz, O. F., Roltgen, et al  
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- **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., Roltgen, 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
- **mRNA vaccination compared to infection elicits an IgG-predominant response with greater SARS-CoV-2 specificity and similar decrease in variant spike recognition.** *medRxiv : the preprint server for health sciences*  
Röltgen, K., Nielsen, S. C., Arunachalam, P. S., Yang, F., Hoh, R. A., Wirz, O. F., Lee, A. S., Gao, F., Mallajosyula, V., Li, C., Haraguchi, E., Shoura, M. J., Wilbur, et al  
2021
- **Plasma as an alternative COVID-19 diagnostic specimen in a hospitalized patient negative for SARS-CoV-2 by nasopharyngeal swab.** *Diagnostic microbiology and infectious disease*  
Lawrence, L. n., Stevens, B. A., Sahoo, M. K., Huang, C. n., Yamamoto, F. n., Röltgen, K. n., Wirz, O. n., Zehnder, J. n., Shi, R. Z., Boyd, S. D., Schoolnik, G. n., Pinsky, B. A., Hogan, et al  
2021; 100 (3): 115365
- **Loss of regulatory capacity in T regulatory cells upon rhinovirus infection.** *The Journal of allergy and clinical immunology*  
Jansen, K., Wirz, O. F., van de Veen, W., Tan, G., Mirer, D., Sokolowska, M., Satitsuksanoa, P., Message, S. D., Kebabze, T., Glanville, N., Mallia, P., Skiepk, R., Eljaszewicz, et al  
2021
- **Use of Outpatient-Derived COVID-19 Convalescent Plasma in COVID-19 Patients Before Seroconversion.** *Frontiers in immunology*  
Wirz, O. F., Röltgen, K., Stevens, B. A., Pandey, S., Sahoo, M. K., Tolentino, L., Verghese, M., Nguyen, K., Hunter, M., Snow, T. T., Singh, A. R., Blish, C. A., Cochran, et al  
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- **Efficient Identification of High-Titer Anti-Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Antibody Plasma Samples by Pooling Method.** *Archives of pathology & laboratory medicine*  
Nguyen, K. D., Wirz, O. F., Röltgen, K., Pandey, S., Tolentino, L., Boyd, S. D., Pham, T. D.  
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- **Persistent SARS-CoV-2 infection and increasing viral variants in children and young adults with impaired humoral immunity.** *medRxiv : the preprint server for health sciences*  
Truong, T. T., Ryutov, A. n., Pandey, U. n., Yee, R. n., Goldberg, L. n., Bhojwani, D. n., Aguayo-Hiraldo, P. n., Pinsky, B. A., Pekosz, A. n., Shen, L. n., Boyd, S. D., Wirz, O. F., Röltgen, et al

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- **Reinfection with SARS-CoV-2 and Failure of Humoral Immunity: a case report.** *medRxiv : the preprint server for health sciences*  
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

2020

- **SARS-CoV-2 Antibody Responses Correlate with Resolution of RNAemia But Are Short-Lived in Patients with Mild Illness.** *medRxiv : the preprint server for health sciences*  
Röltgen, K., Wirz, O. F., Stevens, B. A., Powell, A. E., Hogan, C. A., Najeeb, J., Hunter, M., Sahoo, M. K., Huang, C., Yamamoto, F., Manalac, J., Otrelo-Cardoso, A. R., Pham, et al

2020

- **Increased antiviral response in circulating lymphocytes from hypogammaglobulinemia patients.** *Allergy*  
Wirz, O. F., Uzulmez, O., Jansen, K., van, W., de Veen, Lammela, A., Kainulainen, L., Vuorinen, T., Breiteneder, H., Akdis, C. A., Jartti, T., Akdis, M.

2020

- **A novel proangiogenic B cell subset is increased in cancer and chronic inflammation** *SCIENCE ADVANCES*  
van de Veen, W., Globinska, A., Jansen, K., Straumann, A., Kubo, T., Verschoor, D., Wirz, O. F., Castro-Giner, F., Tan, G., Ruckert, B., Ochsner, U., Herrmann, M., Stanic, et al

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- **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)

- **SARS-CoV-2 RNAemia in a Healthy Blood Donor 40 Days After Respiratory Illness Resolution.** *Annals of internal medicine*  
Pham, T. D., Huang, C. n., Wirz, O. F., Röltgen, K. n., Sahoo, M. K., Layon, A. n., Pandey, S. n., Fong, S. K., Boyd, S. D., Pinsky, B. A.

2020

- **Guidelines for the use of flow cytometry and cell sorting in immunological studies (second edition).** *European journal of immunology*  
Cossarizza, A., Chang, H., Radbruch, A., Acs, A., Adam, D., Adam-Klages, S., Agace, W. W., Aghaepour, N., Akdis, M., Allez, M., Almeida, L. N., Alvisi, G., Anderson, et al

2019; 49 (10): 1457–1973

- **Impaired memory B-cell development and antibody maturation with a skewing toward IgE in patients with STAT3 hyper-IgE syndrome.** *Allergy*  
van de Veen, W., Krätz, C. E., McKenzie, C. I., Aui, P. M., Neumann, J., van Noesel, C. J., Wirz, O. F., Hagl, B., Kröner, C., Spielberger, B. D., Akdis, C. A., van Zelm, M. C., Akdis, et al

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- **Comparison of regulatory B cells in asthma and allergic rhinitis.** *Allergy*  
Wirz, O. F., Głobińska, A., Ochsner, U., van de Veen, W., Eller, E., Christiansen, E. S., Halcken, S., Nielsen, C., Bindslev-Jensen, C., Antó, J. M., Bousquet, J., Akdis, C. A., Akdis, et al

2019; 74 (4): 815-818

- **Role of Der p 1-specific B cells in immune tolerance during 2 years of house dust mite-specific immunotherapy.** *The Journal of allergy and clinical immunology*

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- **Two Distinct Pathways in Mice Generate Antinuclear Antigen-Reactive B Cell Repertoires.** *Frontiers in immunology*  
Faderl, M., Klein, F., Wirz, O. F., Heiler, S., Albertí-Servera, L., Engdahl, C., Andersson, J., Rolink, A.

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- **Exposure to nonmicrobial N-glycolylneuraminic acid protects farmers' children against airway inflammation and colitis.** *The Journal of allergy and clinical immunology*

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van de Veen, W., Wirz, O. F., Globinska, A., Akdis, M.  
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- **High-dose bee venom exposure induces similar tolerogenic B-cell responses in allergic patients and healthy beekeepers.** *Allergy*  
Boonpiyathad, T., Meyer, N., Moniuszko, M., Sokolowska, M., Eljaszewicz, A., Wirz, O. F., Tomasiak-Lozowska, M. M., Bodzenta-Lukaszyk, A., Ruxrungtham, K., van de Veen, W.  
2017; 72 (3): 407-415
- **Human rhinoviruses enter and induce proliferation of B lymphocytes.** *Allergy*  
Aab, A., Wirz, O., van de Veen, W., Söllner, S., Stanic, B., Rückert, B., Aniscenko, J., Edwards, M. R., Johnston, S. L., Papadopoulos, N. G., Rebane, A., Akdis, C. A., Akdis, et al  
2017; 72 (2): 232-243
- **Interleukins (from IL-1 to IL-38), interferons, transforming growth factor  $\beta$ , and TNF- $\alpha$ : Receptors, functions, and roles in diseases.** *The Journal of allergy and clinical immunology*  
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2016; 138 (4): 984-1010
- **Role of regulatory B cells in immune tolerance to allergens and beyond.** *The Journal of allergy and clinical immunology*  
van de Veen, W., Stanic, B., Wirz, O. F., Jansen, K., Globinska, A., Akdis, M.  
2016; 138 (3): 654-665
- **A novel, dual cytokine-secretion assay for the purification of human Th22 cells that do not co-produce IL-17A.** *Allergy*  
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- **Pollen-derived nonallergenic substances enhance Th2-induced IgE production in B cells.** *Allergy*  
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- **IL-10-overexpressing B cells regulate innate and adaptive immune responses.** *The Journal of allergy and clinical immunology*  
Stanic, B., van de Veen, W., Wirz, O. F., Rückert, B., Morita, H., Söllner, S., Akdis, C. A., Akdis, M.  
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- **The development of autoimmune features in aging mice is closely associated with alterations of the peripheral CD4<sup>+</sup> T-cell compartment.** *European journal of immunology*  
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2014; 44 (10): 2893-902