

Ashley Utz

- MD Student, expected graduation Spring 2026
- Ph.D. Student in Biophysics, admitted Autumn 2022
- MSTP Student

Publications

PUBLICATIONS

- **Engineered hematopoietic stem cells give rise to therapeutic antibody secreting B cells.** *Research square*
Porteus, M., Luna, S., Feist, W., Utz, A., Afaghani, J., Miyauchi, M., Ghanim, H., Ekman, F., Amaya, A., Selvaraj, S., Russkamp, N., Schmiderer, L. 2026
- **Development of ACE2-tropic-betacoronavirus therapeutics for future pandemic preparedness.** *Nature communications*
Utz, A., Armbrust, M., Nguyen, T. T., Morris, M. K., Matthews, C. O., Kompella, P., Cao, Z., Ha, J. W., Violette, A., Brewer, R. C., Lanz, T. V., Robinson, W. H., Xu, et al
2025
- **Ultrahigh-concentration biologic therapeutics enabled by spray drying with a glassy surfactant excipient.** *Science translational medicine*
Jons, C. K., Prossnitz, A. N., Eckman, N., Dong, C., Utz, A., Appel, E. A.
2025; 17 (812): eadv6427
- **Engineered Hematopoietic Stem Cells Give Rise to Therapeutic Antibody Secreting B Cells**
Luna, S., Feist, W., Utz, A., Ghanim, H., Miyauchi, M., Selvaraj, S., Amaya, A., Ekman, F., Russkamp, N., Schmiderer, L., Porteus, M.
CELL PRESS.2025
- **Generation of an inflammatory niche in a hydrogel depot through recruitment of key immune cells improves efficacy of mRNA vaccines.** *Science advances*
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2025; 11 (15): eadr2631
- **Sustained exposure to multivalent antigen-decorated nanoparticles generates broad anti-coronavirus responses** *MATTER*
Baillet, J., Klich, J. H., Ou, B. S., Meany, E. L., Yan, J., Bruun, T. U. J., Utz, A., Jons, C. K., Lecommandoux, S., Appel, E. A.
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- **Sustained exposure to multivalent antigen-decorated nanoparticles generates broad anti-coronavirus responses.** *Matter*
Baillet, J., Klich, J. H., Ou, B. S., Meany, E. L., Yan, J., Bruun, T. U., Utz, A., Jons, C. K., Lecommandoux, S., Appel, E. A.
2025; 8 (4)
- **Multilayered HIV-1 resistance in HSPCs through CCR5 Knockout and B cell secretion of HIV-inhibiting antibodies.** *Nature communications*
Feist, W. N., Luna, S. E., Ben-Efraim, K., Filsinger Interrante, M. V., Amarin, A., Johnston, N. M., Bruun, T. U., Utz, A., Ghanim, H. Y., Lesch, B. J., McLaughlin, T. M., Dudek, A. M., Porteus, et al
2025; 16 (1): 3103
- **Development of Pan-Betacoronavirus Therapeutics for Future Pandemic Preparedness**
Utz, A., Thi Thuy Tien Nguyen, Weidenbacher, P. A. B., Kim, P. S.
WILEY.2024: 96-97
- **Engineering a SARS-CoV-2 Vaccine Targeting the Receptor-Binding Domain Cryptic-Face via Immunofocusing.** *ACS central science*
Bruun, T. U., Do, J., Weidenbacher, P. A., Utz, A., Kim, P. S.
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- **Engineering a SARS-CoV-2 Vaccine Targeting the Receptor-Binding Domain Cryptic-Face via Immunofocusing** *ACS CENTRAL SCIENCE*
Bruun, T. U. J., Do, J., Weidenbacher, P., Utz, A., Kim, P. S.
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- **Design of universal Ebola virus vaccine candidates via immunofocusing.** *Proceedings of the National Academy of Sciences of the United States of America*
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- **Vaccine design via antigen reorientation.** *Nature chemical biology*
Xu, D., Carter, J. J., Li, C., Utz, A., Weidenbacher, P. A., Tang, S., Sanyal, M., Pulendran, B., Barnes, C. O., Kim, P. S.
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- **Design of universal Ebola virus vaccine candidates via immunofocusing.** *bioRxiv : the preprint server for biology*
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2023
- **Designing epitope-focused vaccines via antigen reorientation.** *bioRxiv : the preprint server for biology*
Xu, D., Li, C., Utz, A., Weidenbacher, P. A., Tang, S., Sanyal, M., Pulendran, B., Kim, P. S.
2022
- **Toward Point-of-Care Detection of Mycobacterium tuberculosis: A Brighter Solvatochromic Probe Detects Mycobacteria within Minutes.** *JACS Au*
Kamariza, M., Keyser, S. G., Utz, A., Knapp, B. D., Ealand, C., Ahn, G., Cambier, C. J., Chen, T., Kana, B., Huang, K. C., Bertozzi, C. R.
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- **Computation-Guided Rational Design of a Peptide Motif That Reacts with Cyanobenzothiazoles via Internal Cysteine-Lysine Relay** *JOURNAL OF ORGANIC CHEMISTRY*
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- **Synthesis of solvatochromic probes to label the mycobacterial cell wall and their use in studies of host-pathogen interactions**
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- **Synthesis of solvatochromic probes to study the effect of host microenvironment on mycobacterial cell wall dynamics during infection**
Keyser, S., Utz, A., Bertozzi, C.
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- **Synthesis of solvatochromic probes to label the mycobacterial cell wall**
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