

Michael Lanz

Basic Life Res Scientist

Biology

Bio

ACADEMIC APPOINTMENTS

- Basic Life Research Scientist, Biology

PROFESSIONAL EDUCATION

- PhD, Cornell University , Biochemistry, Molecular, and Cell Biology (2019)

Publications

PUBLICATIONS

- **Identification and inhibition of the Cyclin D Rb-docking interface that drives cell division.** *bioRxiv : the preprint server for biology*
Topacio, B. R., Fleming, C. B., Lanz, M. C., Zhang, S., Xie, S., Tuvikene, J., Weaver, A., Sanidas, I., Sage, J., Rubin, S. M., Kõivomägi, M., Skotheim, J. M.
2026
- **Maintenance of cytoplasmic and membrane densities shapes cellular geometry in Escherichia coli.** *Nature communications*
Chure, G., de Silva, R. T., Sharma, R., Lanz, M. C., Cremer, J.
2025
- **Intracellular diffusion in the cytoplasm increases with cell size in fission yeast** *MOLECULAR BIOLOGY OF THE CELL*
Tan, C., Lanz, M. C., Swaffer, M., Skotheim, J., Chang, F.
2025; 36 (4): 1-13
- **Intracellular diffusion in the cytoplasm increases with cell size in fission yeast.** *Molecular biology of the cell*
Tan, C., Lanz, M. C., Swaffer, M., Skotheim, J., Chang, F.
2025: mbcE24110488
- **Genome concentration limits cell growth and modulates proteome composition in Escherichia coli.** *eLife*
Mäkelä, J., Papagiannakis, A., Lin, W. H., Lanz, M. C., Glenn, S., Swaffer, M., Marinov, G. K., Skotheim, J. M., Jacobs-Wagner, C.
2024; 13
- **Genome dilution by cell growth drives starvation-like proteome remodeling in mammalian and yeast cells.** *Nature structural & molecular biology*
Lanz, M. C., Zhang, S., Swaffer, M. P., Ziv, I., Gotz, L. H., Kim, J., McCarthy, F., Jarosz, D. F., Elias, J. E., Skotheim, J. M.
2024
- **Cell Size Contributes to Single-Cell Proteome Variation.** *Journal of proteome research*
Lanz, M. C., Fuentes Valenzuela, L., Elias, J. E., Skotheim, J. M.
2023
- **Increasing cell size remodels the proteome and promotes senescence.** *Molecular cell*
Lanz, M. C., Zatulovskiy, E., Swaffer, M. P., Zhang, L., Ilert, I., Zhang, S., You, D. S., Marinov, G., McAlpine, P., Elias, J. E., Skotheim, J. M.
2022

- **Whi5 is diluted and protein synthesis does not dramatically increase in pre-Start G1.** *Molecular biology of the cell*
Schmoller, K. M., Lanz, M. C., Kim, J., Koivomagi, M., Qu, Y., Tang, C., Kukhtevich, I. V., Schneider, R., Rudolf, F., Moreno, D. F., Aldea, M., Lucena, R., Skotheim, et al
2022; 33 (5): It1
- **Delineation of proteome changes driven by cell size and growth rate.** *Frontiers in cell and developmental biology*
Zatulovskiy, E., Lanz, M. C., Zhang, S., McCarthy, F., Elias, J. E., Skotheim, J. M.
2022; 10: 980721
- **In-depth and 3-dimensional exploration of the budding yeast phosphoproteome** *EMBO REPORTS*
Lanz, M. C., Yugandhar, K., Gupta, S., Sanford, E. J., Faca, V. M., Vega, S., Joiner, A. M. N., Fromme, J., Yu, H., Smolka, M. B.
2021: e51121