




Maia Kinnebrew

Postdoctoral Scholar, Biochemistry

 NIH Biosketch available Online

CONTACT INFORMATION

- **Admin**

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Bio

HONORS AND AWARDS

- Stanford.Berkeley.UCSF Next Generation Faculty Symposium Speaker, Stanford University, UC Berkeley, UCSF (2025)
- HHMI Hanna H. Gray Fellow, Howard Hughes Medical Institute (2023-present)
- NIH Director's Early Independence Award, National Institutes of Health (2023-present)
- Stanford Distinguished Fellow, Stanford University (2023-present)
- Stanford Biosciences Excellence in Service to Graduate Students Award, Stanford University (2019-2020)
- National Science Foundation Graduate Research Fellowship, Stanford University (2014-2017)
- Beckman Scholar, funded by the Arnold and Mabel Beckman Foundation, University of California, Santa Barbara (2012-2013)
- California Association for Minority Participation (CAMP) Scholar, University of California, Santa Barbara (2011-2012)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Stanford University , BIOC-PHD (2021)
- Postdoc, Stanford University , Biochemistry (2023)
- Ph.D, Stanford University , Biochemistry (2021)
- B.A, University of California, Santa Barbara , Biology (2014)

STANFORD ADVISORS

- Rajat Rohatgi, Postdoctoral Faculty Sponsor

LINKS

- Lab website: <https://www.kinnebrewlab.com/>

Publications

PUBLICATIONS

- **Multiple modes of cholesterol translocation in the human Smoothed receptor.** *eLife*

- Bansal, P. D., Kinnebrew, M., Rohatgi, R., Shukla, D.
2026; 14
- **The E3 ubiquitin ligase MGRN1 targets melanocortin receptors MC1R and MC4R via interactions with transmembrane adapters.** *Journal of cell science*
Parashara, P., Gao, L., Riglos, A., Lartey, D., Sidhu, S. B., Marks, T., Williams, C., Siau, G., Lee, K. J., Ostrem, A. I., Siebold, C., Riffle, M., Kinnebrew, et al
2025
 - **Plasma membrane accessible cholesterol is regulated by ACC1 and lipid droplets.** *bioRxiv : the preprint server for biology*
Wijesinghe, K. M., Kim, C. W., Schad, E. O., Li, S., Chen, S., Takeshima, E., Khandwala, C. B., Tillo, D., Lebensohn, A. M., Olzmann, J. A., Rohatgi, R., Kinnebrew, M.
2025
 - **Direct ionic stress sensing and mitigation by the transcription factor NFAT5.** *Science advances*
Khandwala, C. B., Sarkar, P., Schmidt, H. B., Ma, M., Pusapati, G. V., Lamoliatte, F., Kinnebrew, M., Patel, B. B., Tillo, D., Lebensohn, A. M., Rohatgi, R.
2025; 11 (8): eadu3194
 - **A cholesterol-binding bacterial toxin provides a strategy for identifying a specific Scap inhibitor that blocks lipid synthesis in animal cells.** *Proceedings of the National Academy of Sciences of the United States of America*
Xu, S., Smothers, J. C., Rye, D., Endapally, S., Chen, H., Li, S., Liang, G., Kinnebrew, M., Rohatgi, R., Posner, B. A., Radhakrishnan, A.
2024; 121 (7): e2318024121
 - **The energetics and ion coupling of cholesterol transport through Patched1.** *Science advances*
Ansell, T. B., Corey, R. A., Viti, L. V., Kinnebrew, M., Rohatgi, R., Siebold, C., Sansom, M. S.
2023; 9 (34): eadh1609
 - **Patched 1 regulates Smoothed by controlling sterol binding to its extracellular cysteine-rich domain.** *Science advances*
Kinnebrew, M., Woolley, R. E., Ansell, T. B., Byrne, E. F., Frigui, S., Luchetti, G., Sircar, R., Nachtergaele, S., Mydock-McGrane, L., Krishnan, K., Newstead, S., Sansom, M. S., Covey, et al
2022; 8 (22): eabm5563
 - **Measuring and Manipulating Membrane Cholesterol for the Study of Hedgehog Signaling.** *Methods in molecular biology (Clifton, N.J.)*
Kinnebrew, M., Johnson, K. A., Radhakrishnan, A., Rohatgi, R.
2022; 2374: 73-87
 - **Patched 1 reduces the accessibility of cholesterol in the outer leaflet of membranes.** *eLife*
Kinnebrew, M., Luchetti, G., Sircar, R., Frigui, S., Viti, L. V., Naito, T., Beckert, F., Saheki, Y., Siebold, C., Radhakrishnan, A., Rohatgi, R.
2021; 10
 - **Human-chimpanzee fused cells reveal cis-regulatory divergence underlying skeletal evolution.** *Nature genetics*
Gokhman, D. n., Agoglia, R. M., Kinnebrew, M. n., Gordon, W. n., Sun, D. n., Bajpai, V. K., Naqvi, S. n., Chen, C. n., Chan, A. n., Chen, C. n., Petrov, D. A., Ahituv, N. n., Zhang, et al
2021
 - **Publisher Correction: Human-chimpanzee fused cells reveal cis-regulatory divergence underlying skeletal evolution.** *Nature genetics*
Gokhman, D. n., Agoglia, R. M., Kinnebrew, M. n., Gordon, W. n., Sun, D. n., Bajpai, V. K., Naqvi, S. n., Chen, C. n., Chan, A. n., Chen, C. n., Petrov, D. A., Ahituv, N. n., Zhang, et al
2021
 - **Structures of vertebrate Patched and Smoothed reveal intimate links between cholesterol and Hedgehog signalling.** *Current opinion in structural biology*
Kowatsch, C. n., Woolley, R. E., Kinnebrew, M. n., Rohatgi, R. n., Siebold, C. n.
2019; 57: 204–14
 - **Cholesterol accessibility at the ciliary membrane controls Hedgehog signaling.** *eLife*
Kinnebrew, M. n., Iverson, E. J., Patel, B. B., Pusapati, G. V., Kong, J. H., Johnson, K. A., Luchetti, G. n., Eckert, K. M., McDonald, J. G., Covey, D. F., Siebold, C. n., Radhakrishnan, A. n., Rohatgi, et al
2019; 8

- **The morphogen Sonic hedgehog inhibits its receptor Patched by a pincer grasp mechanism.** *Nature chemical biology*
Rudolf, A. F., Kinnebrew, M. n., Kowatsch, C. n., Ansell, T. B., El Omari, K. n., Bishop, B. n., Pardon, E. n., Schwab, R. A., Malinauskas, T. n., Qian, M. n., Duman, R. n., Covey, D. F., Steyaert, et al
2019
- **CRISPR Screens Uncover Genes that Regulate Target Cell Sensitivity to the Morphogen Sonic Hedgehog.** *Developmental cell*
Pusapati, G. V., Kong, J. H., Patel, B. B., Krishnan, A. n., Sagner, A. n., Kinnebrew, M. n., Briscoe, J. n., Aravind, L. n., Rohatgi, R. n.
2018; 44 (1): 113–29.e8