

Stanford



Eamon Francis Xavier Byrne

Postdoctoral Scholar, Bioengineering

Bio

PROFESSIONAL EDUCATION

- Bachelor of Arts, University Of Melbourne (2013)
- Bachelor of Science, University Of Melbourne (2013)
- Doctor of Philosophy, University of Oxford (2018)

STANFORD ADVISORS

- Karl Deisseroth, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **Structural basis for channel conduction in the pump-like channelrhodopsin ChRmine.** *Cell*
Kishi, K. E., Kim, Y. S., Fukuda, M., Inoue, M., Kusakizako, T., Wang, P. Y., Ramakrishnan, C., Byrne, E. F., Thadhani, E., Paggi, J. M., Matsui, T. E., Yamashita, K., Nagata, et al
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- **Structural basis of Smoothened regulation by its extracellular domains.** *Nature*
Byrne, E. F., Sircar, R., Miller, P. S., Hedger, G., Luchetti, G., Nachtergaele, S., Tully, M. D., Mydock-McGrane, L., Covey, D. F., Rambo, R. P., Sansom, M. S., Newstead, S., Rohatgi, et al
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- **Structure, mechanism, and inhibition of Hedgehog acyltransferase** *MOLECULAR CELL*
Coupland, C. E., Andrei, S. A., Ansell, T., Carrique, L., Kumar, P., Sefer, L., Schwab, R. A., Byrne, E. X., Pardon, E., Steyaert, J., Magee, A., Lanyon-Hogg, T., Sansom, et al
2021; 81 (24): 5025-+
- **A serine in the first transmembrane domain of the human E3 ubiquitin ligase MARCH9 is critical for down-regulation of its protein substrates** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Tan, C., Byrne, E. X., Ah-Cann, C., Call, M. J., Call, M. E.
2019; 294 (7): 2470-85
- **Lentiviral transduction of mammalian cells for fast, scalable and high-level production of soluble and membrane proteins.** *Nature protocols*
Elegheert, J., Behiels, E., Bishop, B., Scott, S., Woolley, R. E., Griffiths, S. C., Byrne, E. F., Chang, V. T., Stuart, D. I., Jones, E. Y., Siebold, C., Aricescu, A. R.
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- **Cilia-Associated Oxysterols Activate Smoothened.** *Molecular cell*
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2018; 72 (2): 316

- **Multiple ligand binding sites regulate the Hedgehog signal transducer Smoothed in vertebrates.** *Current opinion in cell biology*
Byrne, E. F., Luchetti, G. n., Rohatgi, R. n., Siebold, C. n.
2017; 51: 81–88
- **Cholesterol activates the G-protein coupled receptor Smoothed to promote morphogenetic signaling.** *eLife*
Luchetti, G., Sircar, R., Kong, J. H., Nachtergaele, S., Sagner, A., Byrne, E. F., Covey, D. F., Siebold, C., Rohatgi, R.
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