

Bombing My Mind

Linda Hicke¹

¹Northwestern University, 633 Clark Street, Evanston, IL 60208-3500, USA

DOI [10.1016/j.devcel.2011.06.031](https://doi.org/10.1016/j.devcel.2011.06.031)

A paper from Itoh et al. has stuck with me since its publication date 8 years ago for many reasons, but primarily because it stretched my mind and pleased my eye.

The major conclusion of the paper—that Mind bomb-mediated ubiquitination of Delta promotes its endocytosis, thereby activating Notch signaling in an adjacent cell—was an important advance in the fields of ubiquitin-mediated regulation, Delta-Notch activated signaling, and neuronal development. For these reasons the title and abstract caught my attention. However, this manuscript was a challenging read for a life-long yeast cell biologist. I had heard talks over the years from my developmental biology colleagues, but I wasn't used to looking carefully at zebrafish embryos. I had also never rigorously thought through the experiments that would be needed to test whether a signal was acting cell autonomously in vivo. The paper therefore took time, but it was well worth it: the data are spectacular, both in clarity and aesthetics, and the conclusions are significant. A paper with a protein named Mind bomb, magenta and green fluorescent micrographs, and a description of a new ubiquitin ligase has everything it takes to make my day.

This PaperPick relates to “Mind Bomb Is a Ubiquitin Ligase that Is Essential for Efficient Activation of Notch Signaling by Delta” by M. Itoh, C.-H. Kim, G. Palardy, T. Oda, Y.-J. Jiang, D. Maust, S.-Y. Yeo, K. Lorick, G.J. Wright, L. Ariza-McNaughton, A.M. Weissman, J. Lewis, S.C. Chandrasekharappa, and A.B. Chitnis, published in January 2003.