

December 21, 2016

Geoffrey North
Editor
Current Biology

Dear Geoff:

We are pleased to submit our paper "Electron microscopic reconstruction of functionally identified cells in a neural integrator" for publication as a Report. Our submission has four figures. It is somewhat over the normal word count. We believe this will facilitate evaluation by reviewers, and can always shorten if the paper is accepted.

We think our work is appropriate for *Current Biology*, because of general interest in two-photon calcium imaging combined with serial electron microscopy (EM) as a powerful method for investigating the structure and function of neural circuits. As you know, this method is still in its infancy, and has previously only been applied to study neurons that encode stimulus variables (in mouse retina and primary visual cortex). Here we apply this method to a population of neurons defined by their encoding of *behavioral* variables. We focus on neurons carrying eye position signals, which are located in a hindbrain neural circuit known as the "velocity-to-position neural integrator," or "neural integrator" for short.

Our study is in the larval zebrafish, and so fits in well with a number of other papers published by your journal on circuit neuroscience in this model organism, as well as with papers on mouse retinal circuitry.

As possible referees, we suggest those who have worked on calcium imaging in larval zebrafish, such as Joe Fetcho, Florian Engert, Herwig Baier, Kevin Briggman, Misha Ahrens, and Johann Bollmann.

Sincerely,



Anthony B. Evnin '62 Professor
Neuroscience Institute and Computer Science Department