

Supplementary Materials for
**Beyond the brain: Optogenetic control in the spinal cord and peripheral
nervous system**

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The PDF file includes:

Fig. S1. Increase in the number of publications since the initial development of optogenetics.

SUPPLEMENTARY MATERIALS

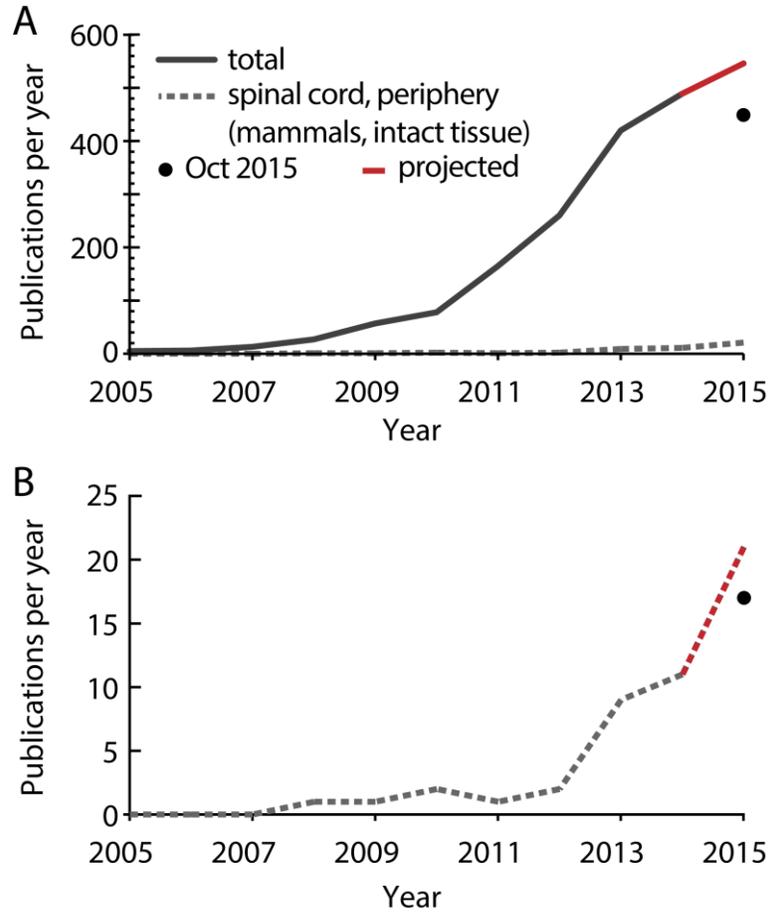


Figure S1. Increase in the number of publications since the initial development of optogenetics. (A) Use of optogenetics in primary research has dramatically increased. Total primary research articles that use optogenetics (likely an underestimate due to constrained search terms) compared to a limited subset that use optogenetics in intact tissue of the mammalian spinal cord and periphery. (B) Adjusted y-axis: Use of optogenetics in the periphery is increasing.

Search terms for Figure S1 and Figure 3

Quantification of optogenetics publications was performed by searching publication databases.

Figure 1: *Total* results (solid line) were calculated by searching Scopus with the following: TITLE-ABS-KEY (optogenetic OR optogenetics OR optogenetically OR nphr OR enphr OR enphr3.0 OR ssfo OR archt OR vchr1 OR chr2 OR channelrhodopsin-2) AND PUBYEAR > 2004 AND PUBYEAR < 2016 AND (LIMIT-TO (DOCTYPE , "ar"). Results were manually inspected for false positives for years 2005 – 2010, in which there were fewer than 100 publications.

Spinal cord, peripheral results (dashed line) as well as Figure 4 references were calculated through 2014 by searching PubMed and Web of Knowledge with paired searches of “optogenetic” key words (optogenetic, Chr2, NpHR, opsin, eNpHR, eNpHR3.0, SSFO, ReaChR, Chrimson) and “outside of the brain” key words (“spinal cord”, nerve, plexus, ganglion, pancreas, heart, cardiac, PNS, peripher*, CPG, “motor unit”, touch, pain). References from 2015 were found with the same search terms, except using Google Scholar, which tends to be more up-to-date but has fewer options for constraining searches. References were included if they involved optogenetic control of intact, mammalian tissue (not cultured cells) in which light delivery occurred outside of the brain.