

## Supplementary Material

## A chronically implantable bidirectional neural interface for nonhuman primates

## Misako Komatsu<sup>1\*</sup>, Eriko Sugano<sup>2</sup>, Hiroshi Tomita<sup>2</sup>, Naotaka Fujii<sup>3\*</sup>

<sup>1</sup>Ichinohe Group, Laboratory for Molecular Analysis of Higher Brain Function, RIKEN Brain Science Institute, Saitama, Japan

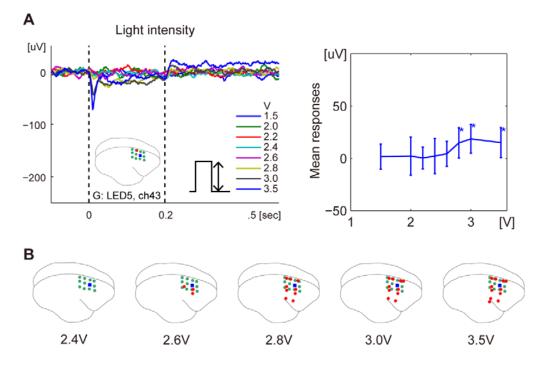
<sup>2</sup>Department of Chemistry and Biological Sciences, Iwate University, Iwate, Japan

<sup>3</sup>Laboratory for Adaptive Intelligence, RIKEN Brain Science Institute, Saitama, Japan

\* Correspondence: Misako Komatsu mkomatsu@brain.riken.jp

Naotaka Fujii na@brain.riken.jp

## **1** Supplementary Figure



**Supplementary Figure 1.** Dependency on LED power. (A) Typical responses at a distant electrode (the red dot in the brain icon) in ERPs (left) and in amplitudes of mean responses during photostimulations (right). The error bars show confidence intervals. The asterisks indicate significant responses. (B) Spatial extent of light induced activities. The red dots correspond to the electrodes showing significant changes on neural responses. The blue square and green circles indicate locations of the ON-LED (LED5) and virus injection sites, respectively.