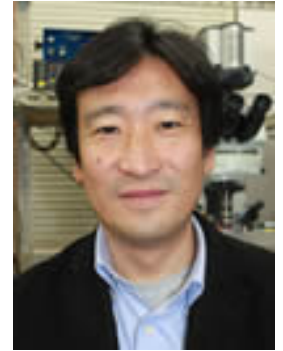


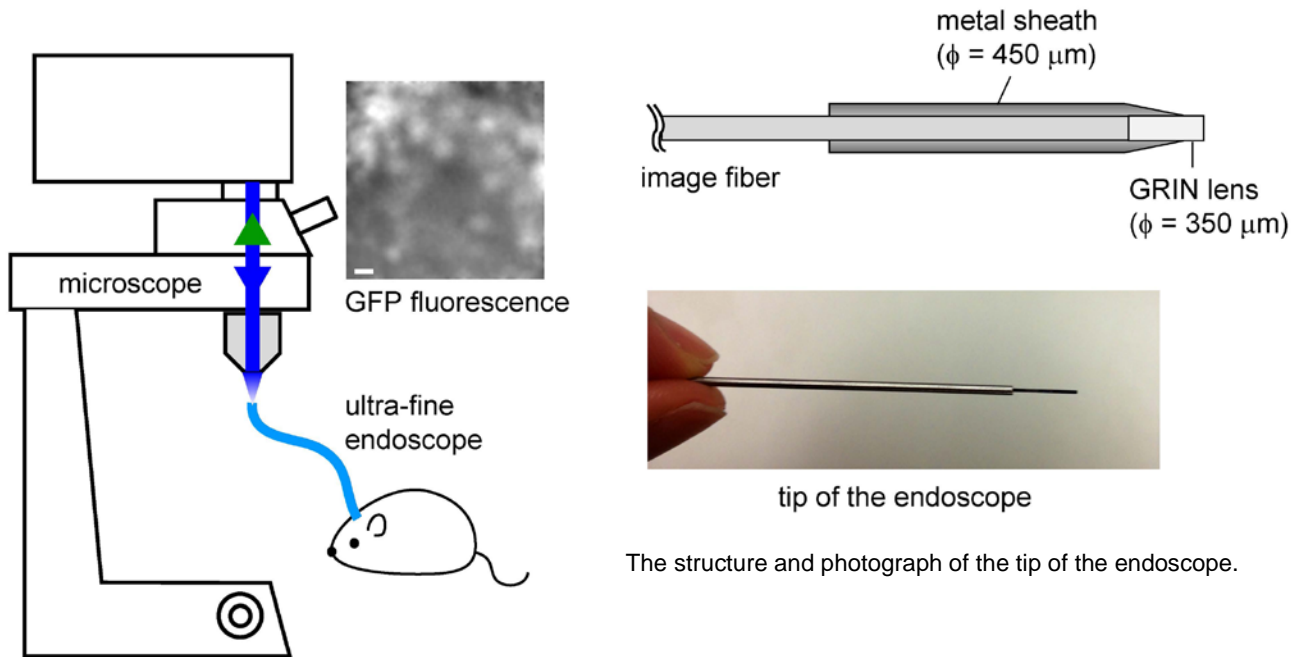
Ultra-fine endoscope has been developed for recording the neuronal activities from the deep brain region

Associate Professor Makoto Osanai

A research group led by Associate Professor Makoto Osanai of Tohoku University Graduate School of Medicine, in cooperation with Toyo Glass Co., Ltd, and Gunma University has developed an ultra-fine endoscope for a functional brain imaging. The diameter is only 450 μm including the protective metal sheath but this endoscope has 10,000 pixels, allowing the recording of neuronal activities at the cellular level. This endoscope makes it possible to observe and record the fluorescence emitted from a single cell, allowing not only functional neuroimaging, but will also aid clinical research by allowing the visualization of cancer cells. The research was published in *Neuroscience Research*, the Official Journal of the Japan Neuroscience Society. The paper's title is "Development of a micro-imaging probe for functional brain imaging."



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Schema of the proposed imaging system for the ultra-fine endoscope. The photomicrograph shows the GFP fluorescence of the cerebellar Purkinje cells (scale bar: 20 microm).

“Development of a micro-imaging probe for functional brain imaging.”

Osanai M, Suzuki T, Tamura A, Yonemura T, Mori I, Yanagawa Y, Yawo H, Mushiake H.
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