

and aberration correction [26,27]. This anticipated improvement will allow the larger tissue volume ($>3 \text{ mm}^3$) to be imaged at a single needle insertion site.

The optical probe may be used in optogenetic studies [28] for simultaneous modulation and monitoring of deep brain functions. Furthermore, this technique may be applicable to other organs, permitting the real-time examination of pathologies at the cellular level in deep tissue in quick procedures.

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