Realization of common platform technologies, facilities and equipment that create innovative knowledge and products

R&D Project Title : Development of general multimodal multiphoton microscope for integrated imaging analyses

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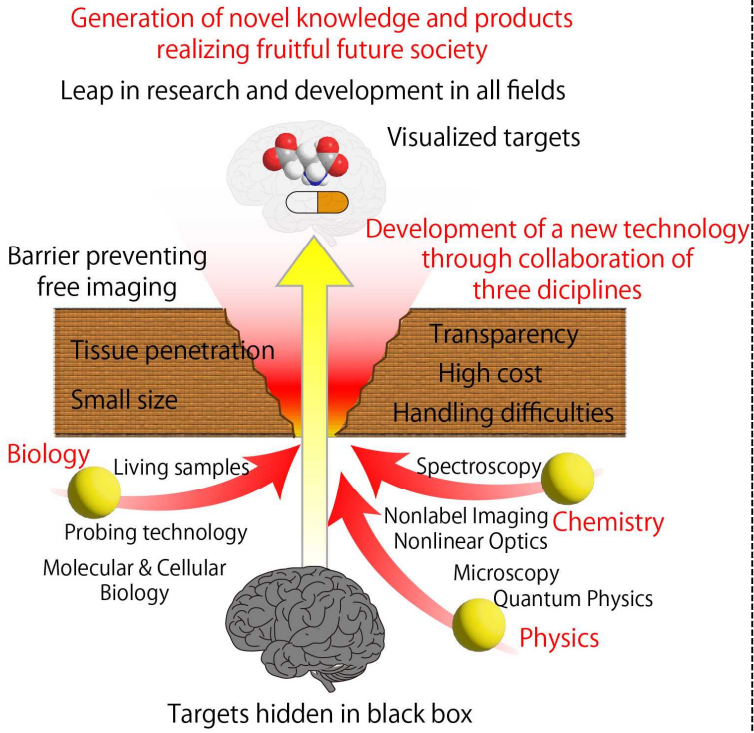
Summary :

Ability to accurately describe targets of interests is the first and most important step in research and development in any fields. For this purpose, direct visualization of targets is the most effective approach. However, many targets remain “invisible”, especially in the field of life science, which hampers developments of basic biology as well as its applications. This project aims at overcoming these limitations to facilitate research and developments in all areas. For this purpose, we will employ various nonlinear optical phenomena that had not been utilized in life science, and will develop and establish a multimodal multiphoton microscopy that allow multifaceted analysis of any targets of interests. Furthermore, we will try to overcome current limitations surrounding multiphoton microscopy including high costs and difficulties in handling, by introducing a new optical system. We aim to achieve a challenging goal of establishing a new imaging technology that depends on new methodology, application as well as optical system by performing an unprecedented collaboration of researchers from different disciplines.



Group Website: http://user.keio.ac.jp/~aa606547/homepage-e.html