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DIY: “Do Imaging Yourself” - Conventional microscopes as powerful tools for *in vivo* investigation

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Abstract

Intravital imaging has been increasingly employed in cell biology studies and it is becoming one of the most powerful tools for *in vivo* investigation. Although some protocols can be extremely complex, most intravital imaging procedures can be performed using basic surgery and animal maintenance techniques. More importantly, regular confocal microscopes – the same that are used for imaging immunofluorescence slides – can also acquire high quality intravital images and movies after minor adaptations. Here we propose minimal adaptations in stock microscopes that allow major improvements in different fields of scientific investigation.

Bullet list

- Intravital microscopy can reveal several underappreciated biological phenomenon
- Confocal microscopes can be minimally adapted to perform *in vivo* imaging
- Several different organs can be imaged under intravital microscopy using similar procedures and devices

Keywords: intravital imaging; confocal microscope; imaging protocols; immune system; *in vivo* imaging

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