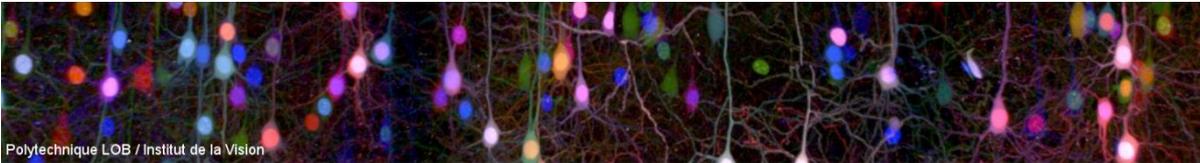


<b>Title :</b> Large-scale multiphoton microscopy of developing heart and brain tissue		
<b>First Name :</b> Willy	<b>Name :</b> Supatto	<b>Laboratory :</b> LOB
<b>First Name :</b> Emmanuel	<b>Name :</b> Beaurepaire	<b>Laboratory :</b> LOB
<b>Email :</b> <a href="mailto:willy.supatto@polytechnique.edu">willy.supatto@polytechnique.edu</a> , <a href="mailto:emmanuel.beaurepaire@polytechnique.edu">emmanuel.beaurepaire@polytechnique.edu</a>		
<b>Webpage :</b> <a href="https://portail.polytechnique.edu/lob/en/recherche/advanced-microscopies-tissue-physiology">https://portail.polytechnique.edu/lob/en/recherche/advanced-microscopies-tissue-physiology</a>		
<b>Research Area :</b> Optics, Biophysics		
<b>Methods:</b> Multiphoton microscopy, femtosecond lasers, image processing		
<p><b>PhD track subject:</b>  Understanding the structure and dynamics of complex tissues such as the brain or the heart is a fantastic scientific challenge. To address this issue, the laboratory of optics &amp; biosciences (LOB) is developing state-of-the-art microscopy approaches for large-volume, high-resolution color imaging [1]. Recent advances in pulsed infrared lasers has opened the way to novel imaging strategies, ranging from ultra-deep tissue imaging with three-photon excitation [2] to high-speed imaging with light-sheet techniques [3]. The goal of the project will be to pursue the development of high-throughput nonlinear microscopy methods for tissue imaging, with the aim to optimize both imaging speed and depth.</p>		
		
<i>Color two-photon microscopy of brainbow tissue. LOB Palaiseau / Inst Vision Paris</i>		
<p><b>References :</b>  [1] Abdeladim et al. "<a href="#">Multicolor multiscale brain imaging with chromatic multiphoton serial microscopy</a>" Nature Communications (2019)  [2] Guesmi et al, <a href="#">Dual-color deep-tissue three-photon microscopy with a multiband infrared laser</a> Light: Science &amp; Applications (2018)  [3] Mahou et al, <a href="#">Multicolor two-photon light-sheet microscopy</a> Nature Methods (2014)</p>		