

2023-02-24 A deeper look into living tissue

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https://biocenterat-my.sharepoint.com/:v:/g/personal/chiera_cerioti_vbc_ac_at/EQNHXSGeXx1JsUBVSCHaagcBXuXaOFKIU2ETj6D-JgyCXA?e=67h1oZ

Abstract

Standard microscopy techniques have a very limited penetration depth due to tissue absorption. We have all been there, while looking at our fluorescent sample, we could only see its upper layers. To overcome this, we generally slice the tissue and plate it on a cover slide or delipidate it until transparent with a clearing method. These approaches are tedious, have a lot of limitations and most importantly cannot be employed in live specimens. So how can we image deep into live animals or organoids? Multi-photon microscopy offers this ability by employing the limited axial spread of the low energy excitation light. In this seminar we'll cover the basics of this technique and dive deep into an axolotl brain in a hands-on session.