

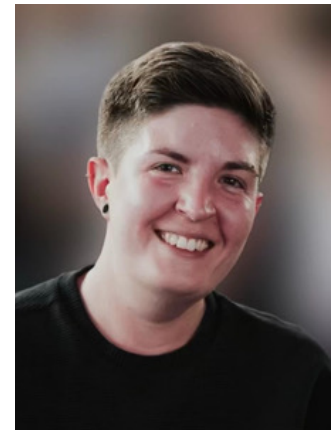
**ICB PhD public presentations****DISCOVERY OF RNA AND  
ASSOCIATED PROTEINS OUTSIDE  
CELLS: ADVANCING NON-INVASIVE  
DIAGNOSTICS****Alessandra Stürchler**

ICB / deMello group

Supervisor: Prof. Dr. Andrew deMello

Co-examiners: Dr. Bogdan Mateescu,

Prof. Dr. Magdalini Polymenidou and Prof. Dr. Paolo Arosio

**12/12/2024, 4:45 pm****ETH Hönggerberg, HCI D8 and on Zoom**<https://ethz.zoom.us/j/69148933408>

**Project Summary:** Cells communicate through RNA molecules that circulate in biofluids like blood, known as cell-free RNAs (cfRNAs). However, cfRNAs are fragile and prone to rapid degradation, raising important questions about how they remain stable outside cells. While extracellular vesicles were traditionally considered their primary protective carriers, my research reveals a new perspective: RNA-binding proteins (RBPs) play a crucial role in stabilizing cfRNAs. In this presentation, I will explore the role of RBPs in shaping the cfRNA landscape and discuss the potential of these findings to enhance liquid biopsy techniques. By uncovering new mechanisms of cfRNA stabilization, we not only deepen our understanding of cfRNA biology but also open up promising avenues for non-invasive diagnostics that could transform patient care. Join me to discover these promising developments!

**CV.** Alessandra earned a Bachelor's degree in Biology from the University of Lausanne, followed by a Master's in Molecular Biology at ETH Zurich. In 2020, she began her PhD in the group of Prof. Andrew deMello under Dr. Bogdan Mateescu, focusing on RNA-binding proteins in cfRNA biology to develop technologies for improved RNA diagnostics.