My research explores how biological patterns emerge, using a mix of experiments, computational models, and theoretical work. At the core, I am looking at lab-grown structures that mimic early embryonic development. Generating experimental data, analyzing how their patterns form, while also developing artificial intelligence models – neural cellular automata – to simulate these processes. Our goal is to find interesting connections between how the biological and artificial patterns emerge, hopefully offering some insights into both natural development and computational self-organization.