STATIC NEURAL **DYNAMIC NEURAL** unperturbed cell OPTIMAL TRANSPORT OPTIMAL TRANSPORT population Chapter 4 Chapter 6 Maps Gradient Flows gradient flow $\nabla \varphi_{\theta}$ Chapter 5 – context Chapter 7 Maps with μ_0 Stochastic Context map Control μ_T w.r.t. energy J_ϕ (0) Chapter 2 Chapter 3 **Problem Formulation** Theoretical Background on perturbed cell population and Biological Background Static and Dynamic OT