

# DEEP-LEARNING APPROACHES TO VALIDATE FORMAL MODELS OF BIOLOGICAL SYSTEMS



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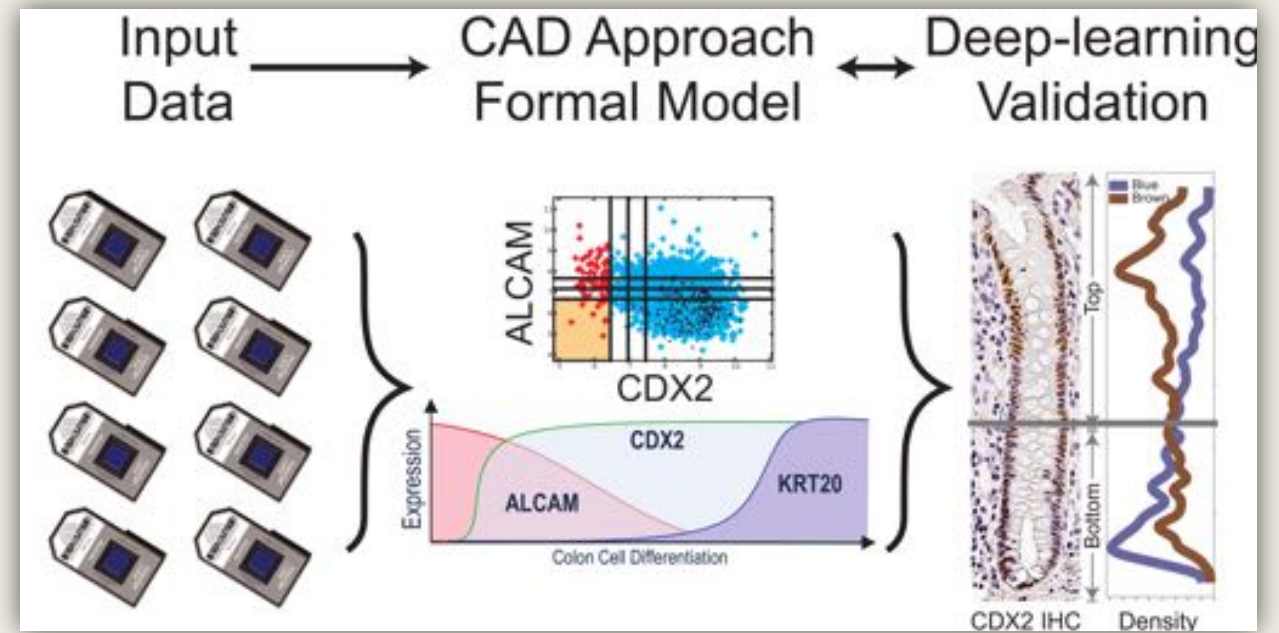
# Motivation

- It is hard to create a formal model of biological systems because the working principles are often unknown
- Availability of high-throughput sequencing, generated **massive data** in the context of biological systems
- We developed a computational framework where we can start to build abstract formal model of a biological system



# Overview

- Gathered and analyzed hundreds studies
- Introduced Boolean Model based on gene expression
- Validated in colon tissue using deep learning



Thank You