Progress Report

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Goal: Learning to write research plan

- **Literature review:**
  - Deep Learning & Flow Cytometry

- **Literature review:**
  - Different Deep Learning Algorithm Related to Image Analysis

Use of a Neural Net Computer System for Analysis of Flow Cytometric Data of Phytoplankton Populations

Using a neural network with flow cytometry histograms to recognize cell surface protein binding patterns.

Deep Learning for Imaging Flow Cytometry: Cell Cycle Analysis of Jurkat Cells

An open-source solution for advanced imaging flow cytometry data analysis using machine learning
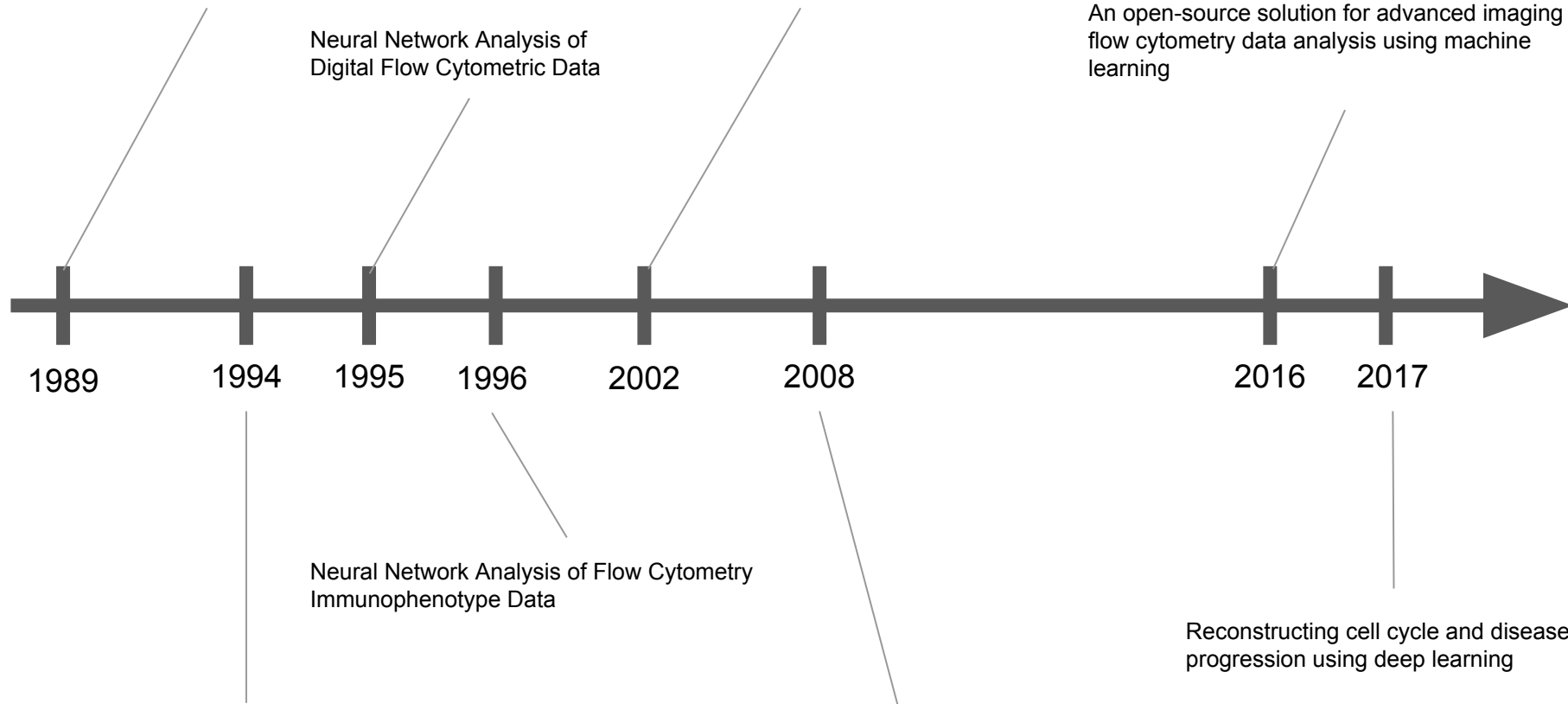
Neural Network Analysis of Digital Flow Cytometric Data

1989   1994   1995   1996   2002   2008   2016   2017

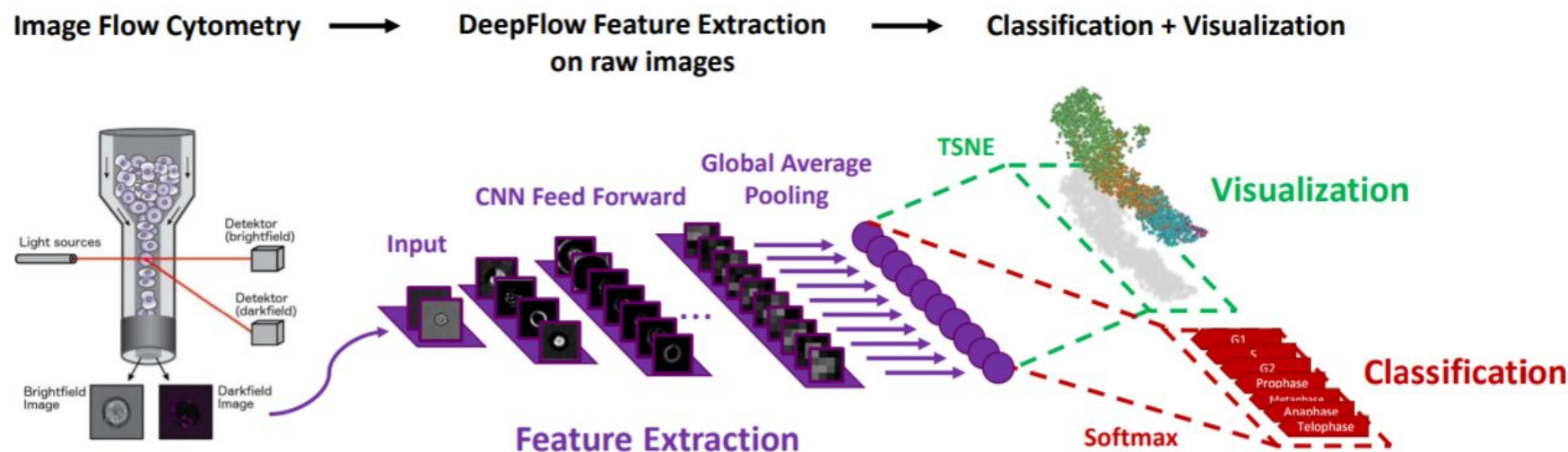Neural Network Analysis of Flow Cytometry Immunophenotype Data

Neural Network Analysis of Flow Cytometric Data for 40 Marine Phytoplankton Species

A Neural Network Model for Cell Classification Based on Single-Cell Biomechanical Properties

Reconstructing cell cycle and disease progression using deep learning

Deep Learning for Imaging Flow Cytometry: Cell Cycle Analysis of Jurkat Cells

Fig 1. Overview of DeepFlow — deep learning data analysis for imaging flow cytometry. Images from all channels of the Imaging Flow Cytometer are uniformly resized, and input directly into the neural network, which is trained on the classification task. The learned features serve for both the classification objective and the visualization task.