Single Compartment Neuronal Model

**Eran Shorer 2020**

# Model Overview

Herein I describe a computational model of a single neuron for the purposes of studying chloride dynamics.

# Model components

## Initial Cell Parameters

Cell length: 25um

Cell width: 10um

Surface Area:

Volume:

## Cell Volume

## Na-K ATPase

## KCC2

## Ion Fluxes

### Sodium Flux

### Potassium Flux

### Chloride Flux

# Perturbations to the model

## Altering Intracellular Chloride Concentrations

## Altering ATPase activity

## Altering ion permeabilities

# References