**Assignments and Activities - 2**

**Task 1: Test your understanding**

**Question 1:** On which side of the neuronal membrane are Na+ ions more abundant?

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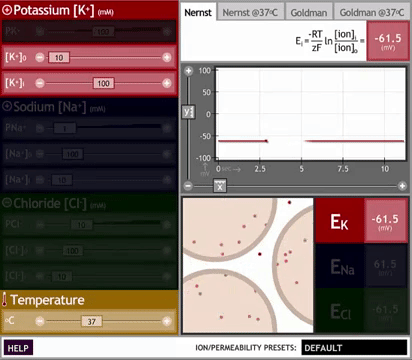
**Question 2:** When the membrane is at the potassium equilibrium potential, in which direction

(in or out) is there a net movement of potassium ions?

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**Task 2: Simulating the equation (computational neuroscience)**



Use ***The Nernst/Goldman equation simulator***

- (web flash version discontinued <http://www.nernstgoldman.physiology.arizona.edu/>)

- local (only for Windows) flash version can be downloaded from: <https://alexandria.physik3.uni-goettingen.de/downloads/lecture_basics_of_computational_neuroscience/>

- or [download from course repository](https://google.com)

a. Describe the relationship between the internal and external ion concentrations and the equilibrium potential for each ion (K+, Na+ and Cl−).

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b. Describe the relationship between the permeability of each ion (K+, Na+ and Cl−) and the membrane potential.

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c. What effect does temperature have on the simulations?

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**Task 3: Draw me a Brain Ep. 2**

Draw this ([link to editable drawing here](https://github.com/ClaudiuPapasteri/DrawMeABrain/tree/main/DMAB-2)):

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| --- |
| E:\FACULTATE - CURSURI\NeuroScience\000 Main\MyCourse\Ch3 The Neuronal Membrane at Rest\DMAB-2\DMAB-2_fin_2.png |

Your turn:

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