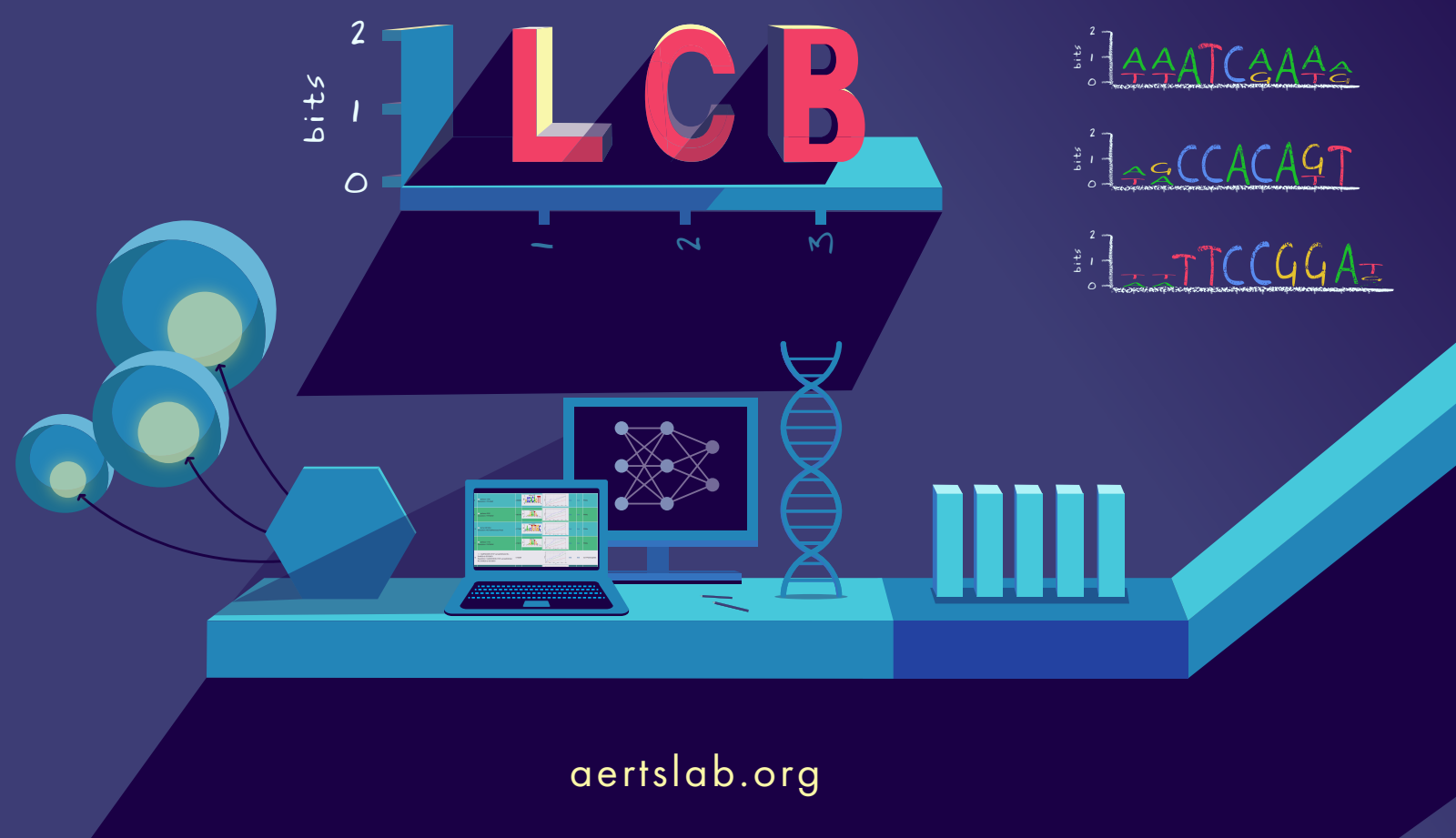# ERC funded Postdoc position @ Aerts lab

(Deep) learning the genomic regulatory code

aertslab.org

Deciphering the genomic regulatory code underlying cell type identity using **single-cell technology** and **artificial intelligence.**

- You will develop new AI strategies to learn the genome syntax using large-scale single-cell multi-ome atlases as training data.

- You will unravel the diversity of neuronal cell types in the brain of various species (octopus, birds, mammals) through comparative genomics.

- You will work very closely together with our wet-lab for data generation and experimental validations.

- You will use your AI models to generate synthetic enhancers with new functions, and to functionally interpret non-coding genome variation (health and disease).

Recent scientific contributions from the lab:

SCENIC & cisTopic
HyDrop
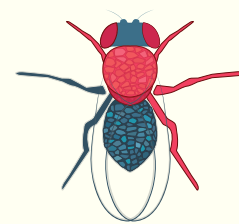DeepMEL & DeepFlyBrain
Ageing fly brain & fly cell atlas

Janssens, Aibar & Taskiran, Nature 2022
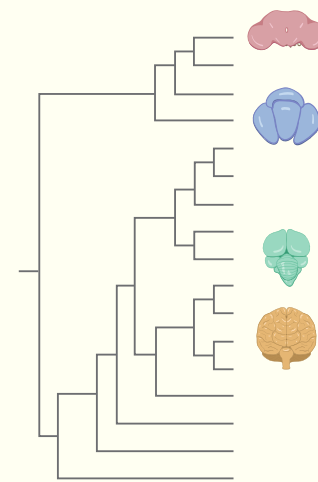Li & Janssens, Science 2022
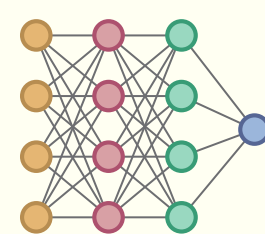Davie & Janssens, Cell 2018
Aibar et al., Nat Methods 2017
Bravo et al., Nat Methods 2019

Apply deep learning to study all cell types of the fruit fly in the context of the multi-omics Fly Cell Atlas *flycellatlas.org*

Unravel the diversity of neuronal cell types in the brain of various species (octopus, birds, mammals) through comparative genomics

Engineer new deep learning strategies to learn genomic syntax

PROFILE

PhD (or MSc with research experience) in AI, CS, Bio-eng, or Bioinformatics with strong interest in genomics.

INTERESTED?

Send your CV and motivation letter to stein.aerts@kuleuven.be

https://aertslab.org/#join-us

erc

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