

Ontological-driven Popular Science I

- 20240424 Variabilities of Dopamine (D_p) – Prequel
(多變多巴胺——前傳)
- 20240627 The Variabilities of Dopamine (D_p) - PART I:ChEBI:18243 (多變多巴胺——第一部 : ChEBI:18243)
- 20240801 The Variabilities of Dopamine (D_p) - PART II: CL: 0000700 (多變多巴胺——第二部 : 工作細胞DAN)

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What!? Really?
The knowledge model fed to
the computer (computing),
You can actually eat it
easily for us (reading)?!



Variabilities of Dopamine (\mathcal{D}_p) – Prequel

This article introduces dopamine, often referred to as the “happy molecule,” and its discovery. It highlights the pivotal role dopamine plays in regulating mood, motivation, and reward. The prequel sets the stage by explaining the historical context of dopamine research and its initial identification as a neurotransmitter.

The Variabilities of Dopamine (\mathcal{D}_p) - PART I: ChEBI:18243

This part delves into the chemical properties of dopamine, identified by the ChEBI ID 18243. It explores dopamine’s molecular structure, its synthesis from the amino acid tyrosine, and its function in the brain. The article emphasizes dopamine’s role in various physiological processes, including motor control and emotional regulation. The main ontology used is the Chemical Entities of Biological Interest (ChEBI).

The Variabilities of Dopamine (\mathcal{D}_p) - PART II: CL: 0000700

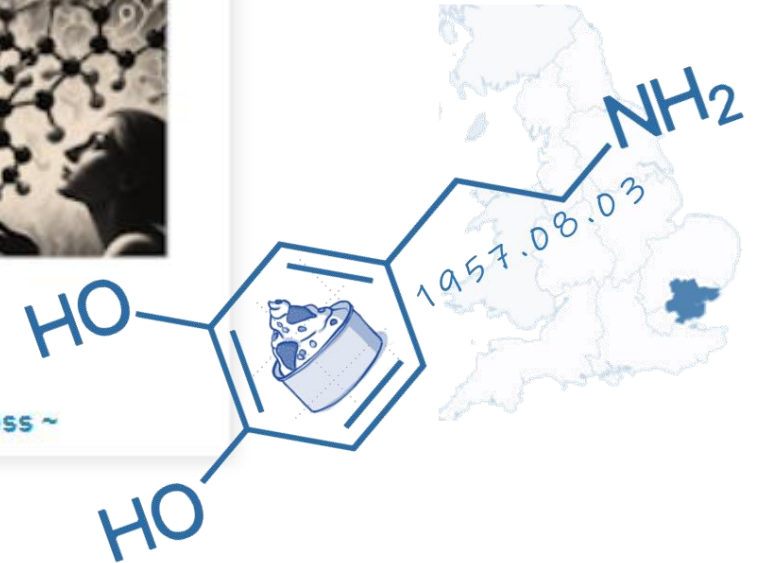
The final part focuses on dopamine’s interaction with specific cell types, particularly dopaminergic neurons (CL: 0000700). It discusses how these neurons produce and release dopamine, and their involvement in neurological pathways that influence behavior and cognition. The article also touches on the implications of dopamine dysregulation in disorders such as Parkinson’s disease and schizophrenia. The main ontologies used are the Cell Ontology (CL), the U.S. National Library of Medicine's Medical Subject Headings (MeSH) and the Gene Ontology (GO).

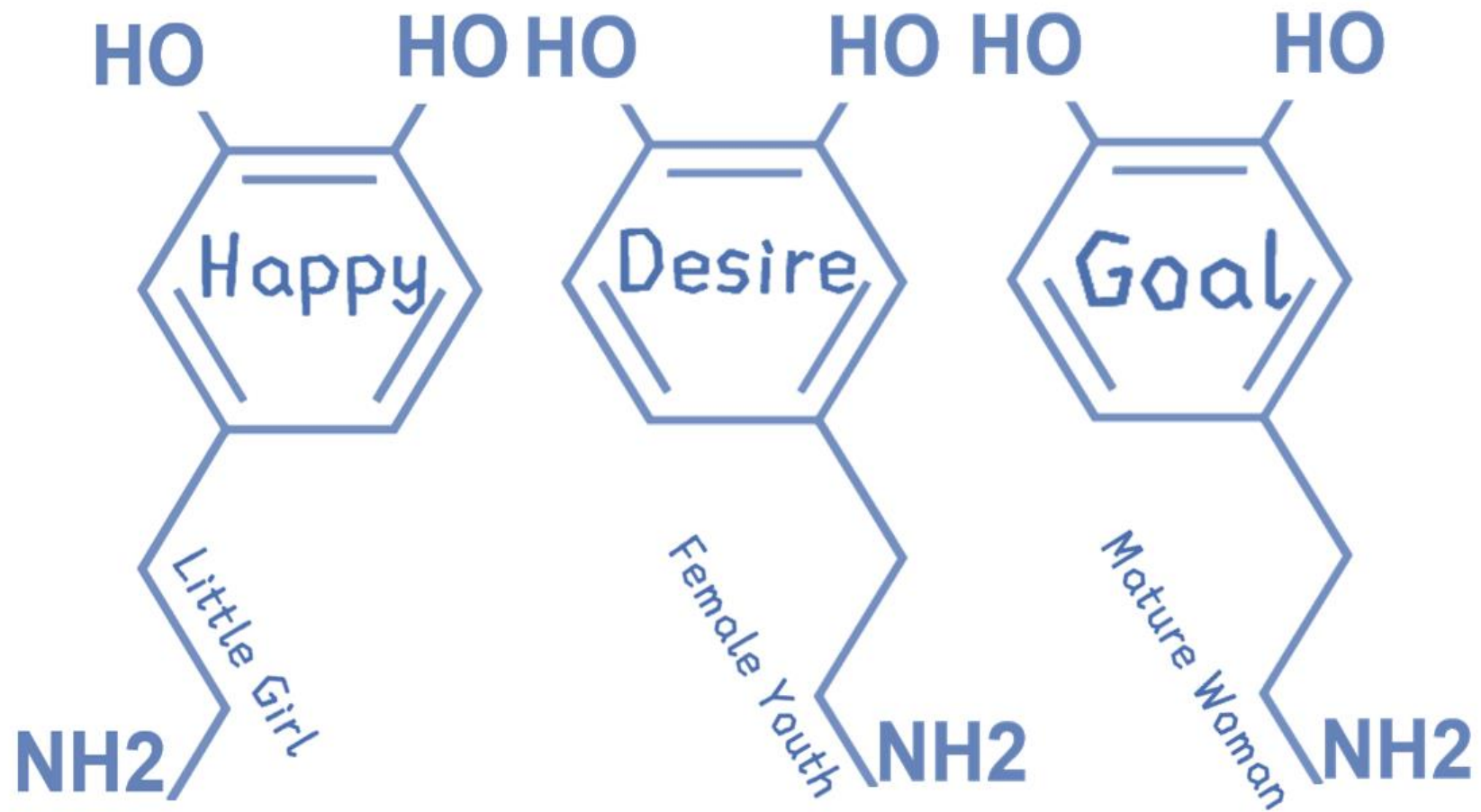
Variabilities of Dopamine (D_p) - Prequel

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Dopamine Girl D_p : First time we met, appreciate your kindness ~



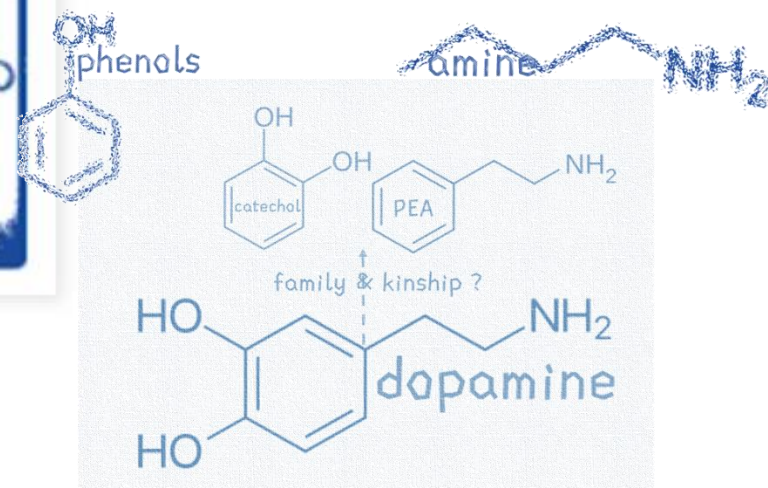
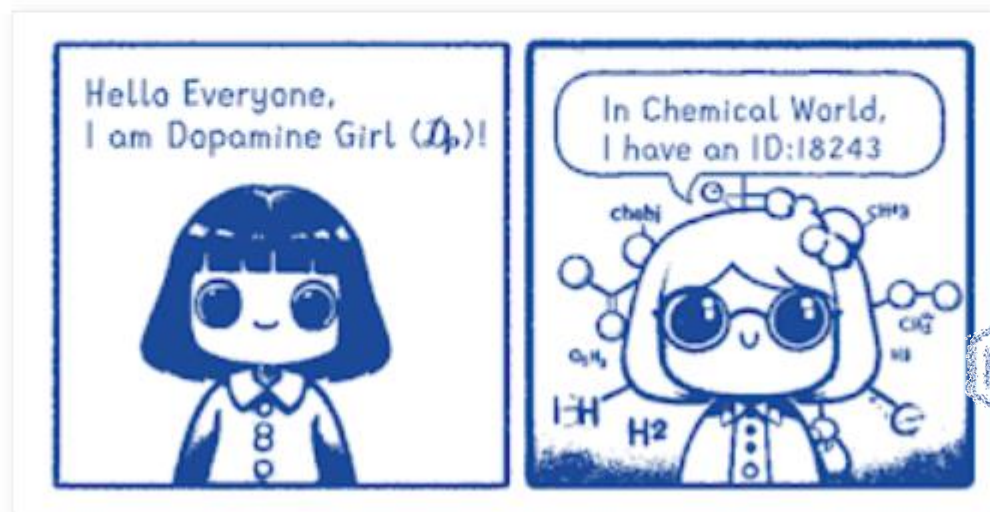


Variabilities of Dopamine (\mathcal{D}_p) - Prequel

2024-06-27

The Variabilities of Dopamine (D_p) - PART I: ChEBI:18243

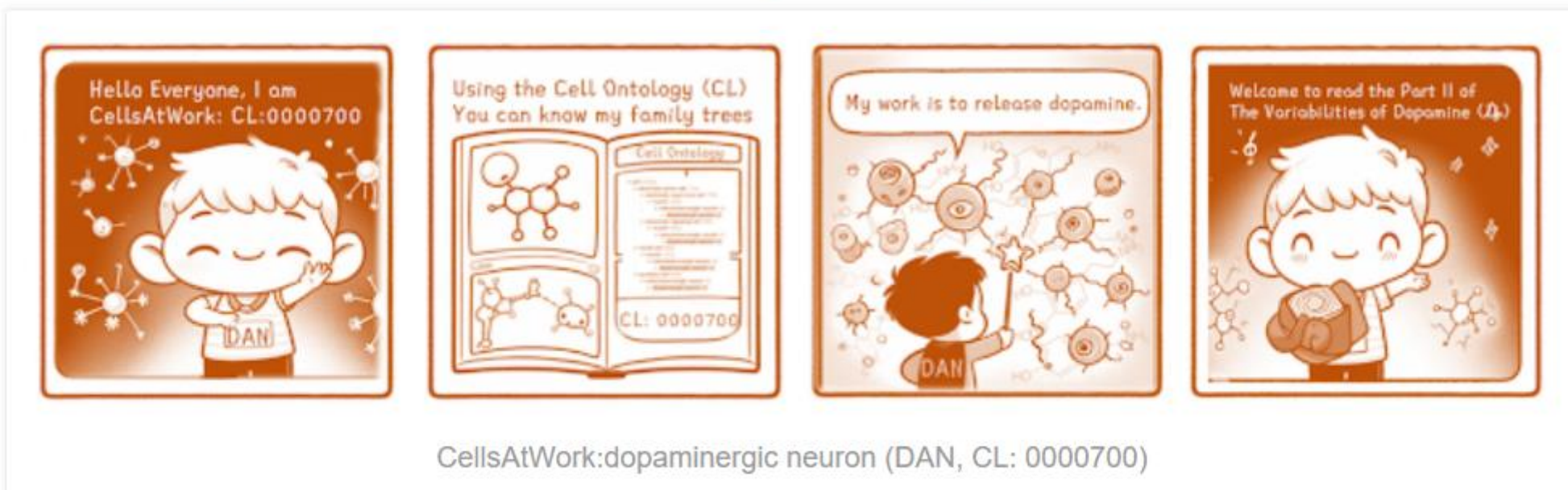
- submitted: 2024-04-09 CASE Science, Center for the Advancement of Science Education, National Taiwan University
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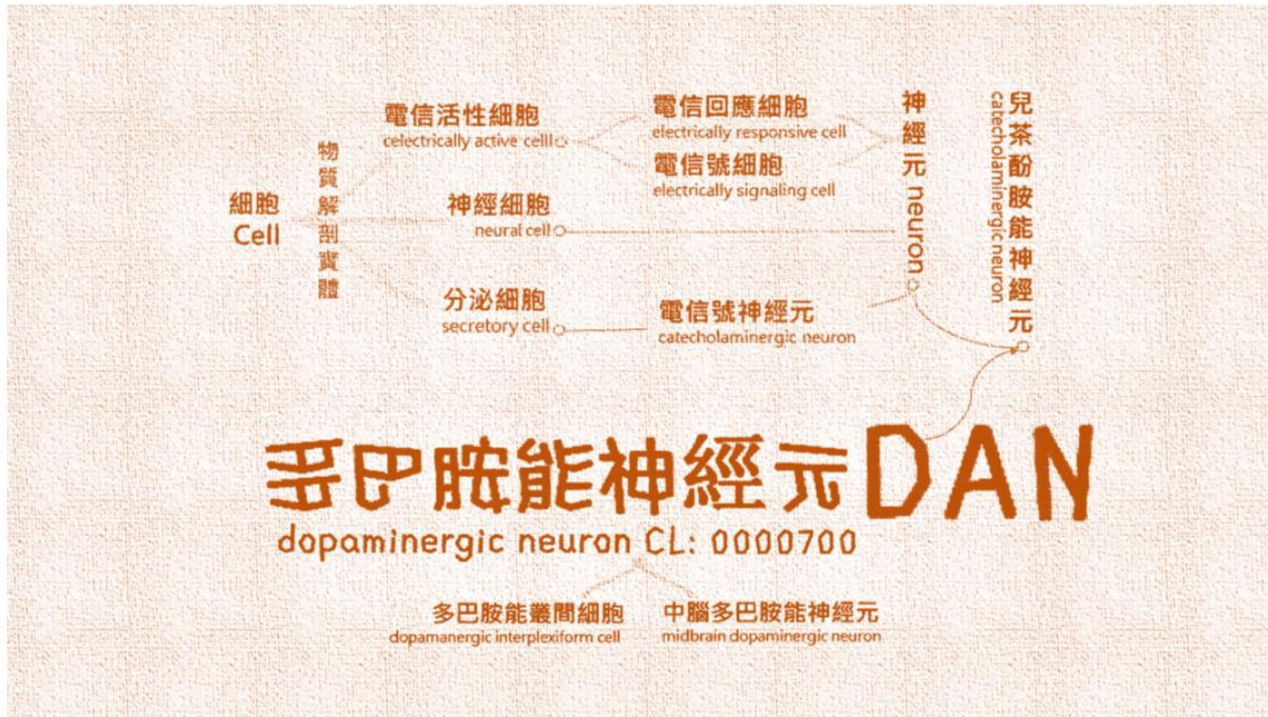


2024-08-01

The Variabilities of Dopamine (D_p) - PART II: CL: 0000700

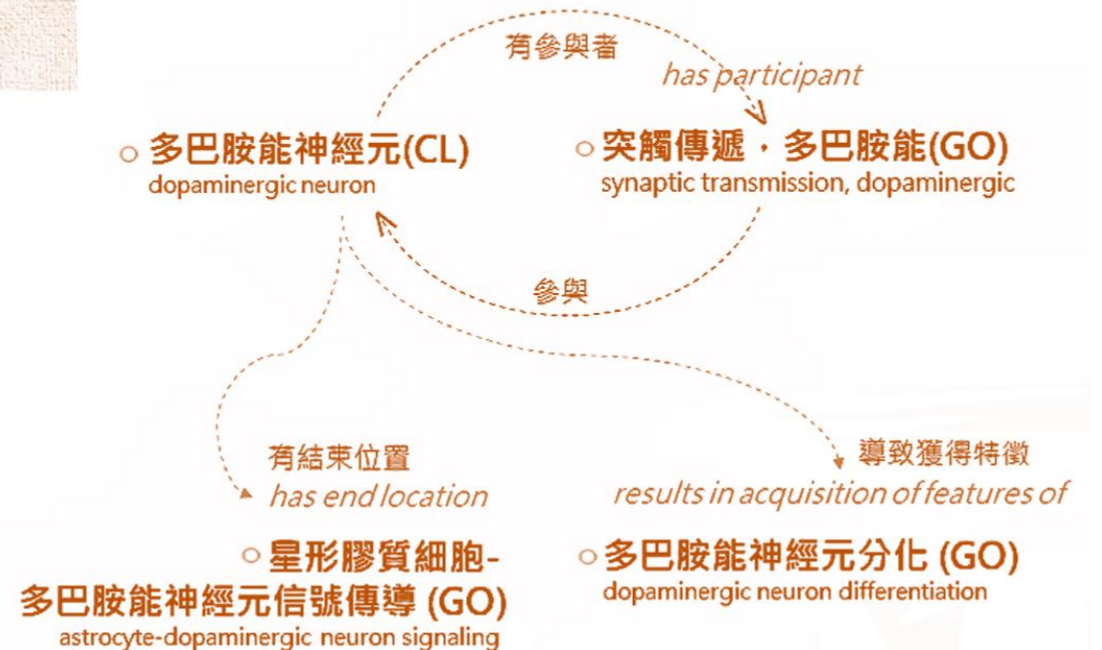
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DAN in the Cell Ontology

DAN involved in biological processes, based on CL& GO ontologies



Full text links:

- Variabilities of Dopamine (\mathcal{D}_p) – Prequel: <https://details-or-fragments.blogspot.com/2024/04/polymorphic-dopamine-prequel.html>
- 多變多巴胺——前傳: <https://case.ntu.edu.tw/blog/?p=44043>
- The Variabilities of Dopamine (\mathcal{D}_p) - PART I:ChEBI:18243: <https://details-or-fragments.blogspot.com/2024/06/ChEBI18243.html>
- 多變多巴胺——第一部: ChEBI:18243: <https://case.ntu.edu.tw/blog/?p=44277>
- The Variabilities of Dopamine (\mathcal{D}_p) - PART II: CL: 0000700: <https://details-or-fragments.blogspot.com/2024/08/CL0000700.html>
- 多變多巴胺——第二部 : 工作細胞DAN: <https://case.ntu.edu.tw/blog/?p=44411>