



The next generation of cognitive enhancers

MentarilloTM
— *EFLA*[®] 902 



General facts



- ❖ Tamarillo (*Solanum betaceum*) has a long historical use as food:
 - Eaten fresh
 - Or processed in beverages, desserts, sweets, compotes, stews, chutneys and curries
- ❖ High nutritional value:
 - Vitamins, e.g. B-complex and C
 - Minerals, e.g. Iron, Calcium, Potassium and Magnesium
 - Carotenoids
 - Fibers
- ❖ Native to South America: occurs naturally in the Andes at altitudes between 1000-3000 m
- ❖ Cultivated in large scales in South America, New Zealand, Australia, Europe, China, Indonesia and Africa

DID YOU KNOW?

Although tamarillos are from South America, the name is not Spanish: it is a New Zealand invention!

Before 1967, tamarillo was known as tree tomato. To avoid confusion with the common tomato, and increase appeal to export customers, the New Zealand Tree Tomato Promotions Council decided to rename it. Tamarillo resulted from the combination of the Spanish word "amarillo", meaning yellow, and a variation on the Maori word "tama", for "leadership".

Properties

Unique water-soluble extract prepared from tamarillo fruit (*Solanum betaceum*)

Bio-assay guided development: selection of tamarillo from other 1900 edible sources

Application as cognitive enhancer

Well characterized mode of action:
Dopamine Receptor activation

Activity

Mentarillo[™]
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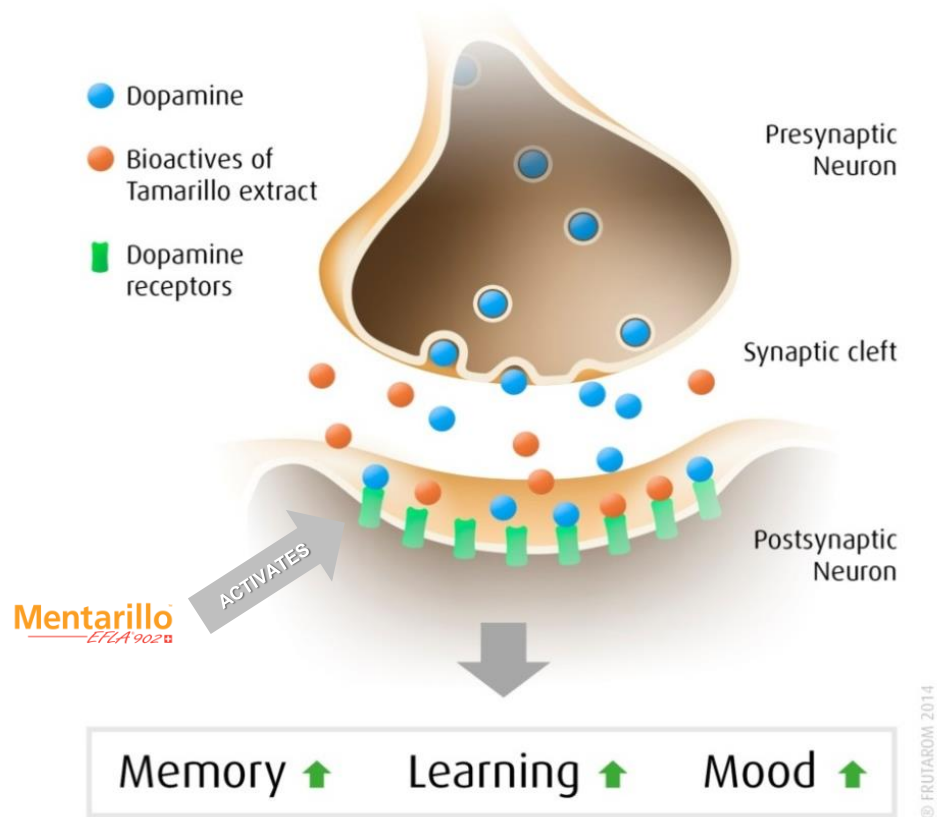
Activates human dopamine receptor 1

DOPAMINE

- ❖ One of the most important neurotransmitters to regulate brain function
- ❖ Plays a critical role in:
 - cognition
 - working memory
 - learning ability
 - sleep regulation
 - mood behavior

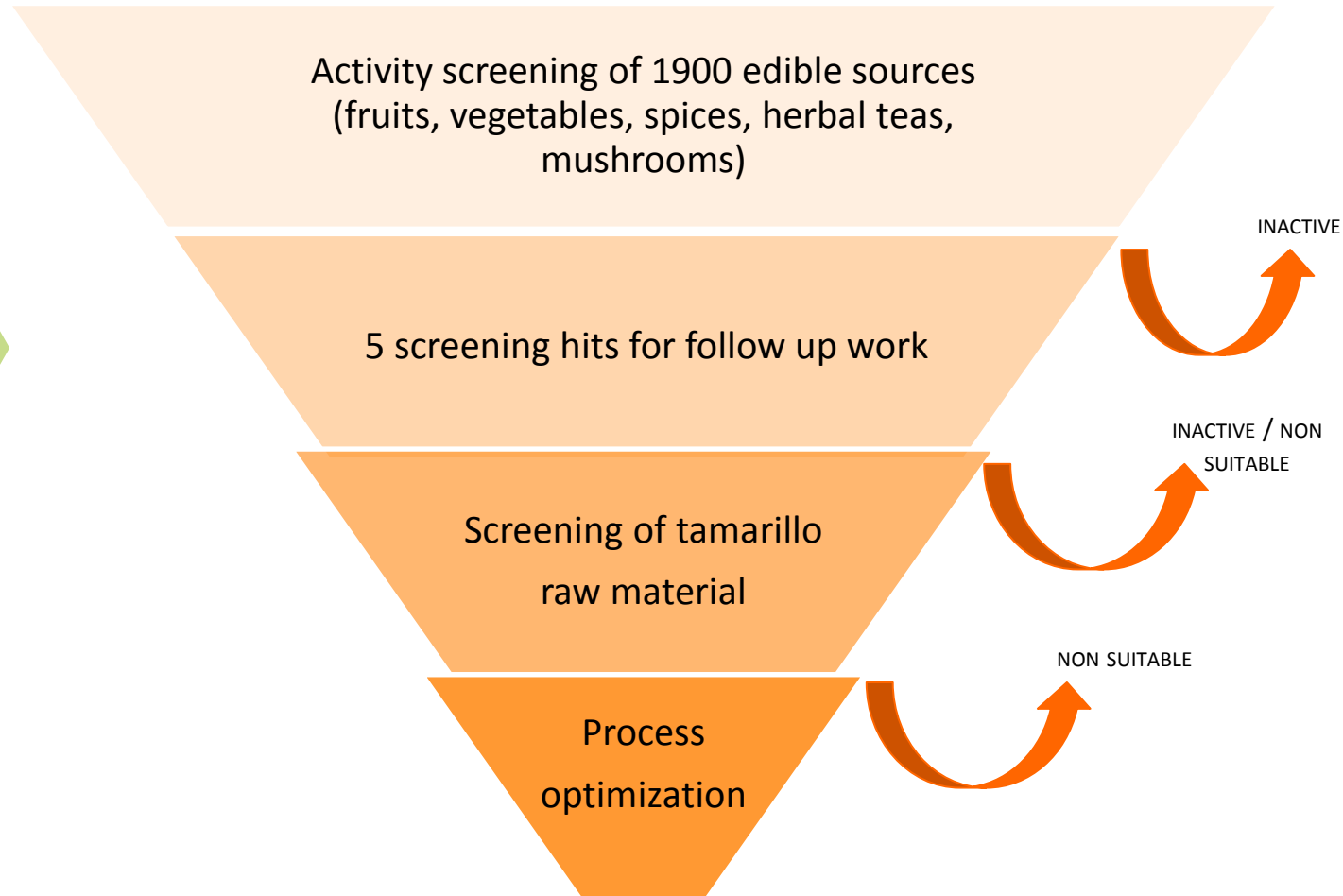
Decreased dopamine levels in the brain is a typically age-related process resulting in mild cognitive impairments which could finally end with Alzheimer or Parkinson disease

Activity



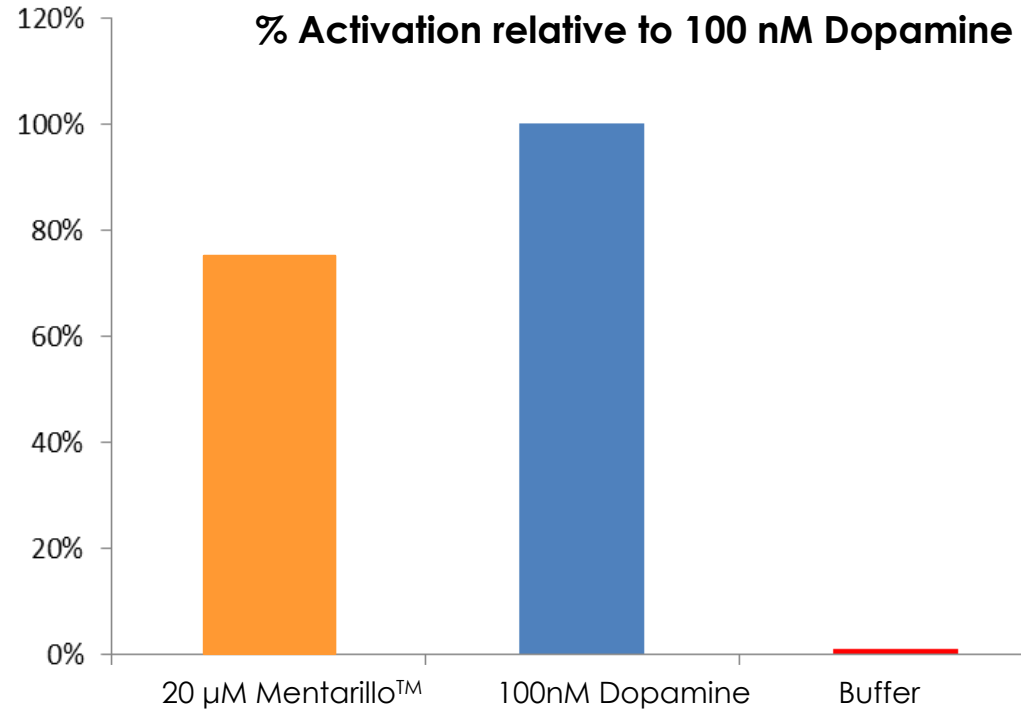
Bio-assay guided product development

Efficacy



Dopamine Receptor activation

Efficacy



In-vitro
(Frutarom 2014)

Uses

Functional food

(i.e. beverages, bakery, confectionary, dairy)

Food supplements

(i.e. capsules, tablets, powder blends)



Indication Positioning

Cognitive enhancer:

- ↑ Memory
- ↑ Learning
- ↑ Mood

Main target groups:

- ❖ 15-30: Students having learning difficulties
- ❖ 30-60: People with first memory and learning deficiencies (“Where are my keys”?)

Characteristics

Extract type

Powder, water
soluble

Recommended dosage

750 mg/day

Standardization

Organic acids > 4%

For more information, contact us:
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