

gustav / February 18, 2010 11:45PM

[\[Bio-Chemistry\] Researchers from Academia Sinica's Institute of Biological Chemistry Detail Enzyme Involved in the Production of the Scent of Mint](#)

[Bio-Chemistry] Researchers from Academia Sinica's Institute of Biological Chemistry Detail Enzyme Involved in the Production of the Scent of Mint ([Chinese Version](#))

Academia Sinica Newsletter (2010/02/12) Academia Sinica Vice President Andrew H.-J. WANG and his research team from the Institute of Biological Chemistry (IBC), Academia Sinica, have detailed the structure of an enzyme involved in the production of the scent given off by the mint plant. Their research was published in the journal *The Plant Cell* on February 5, 2010.

In an effort to better understand the process by which the mint plant produces scent, Academician WANG and his team used x-ray crystallography, biochemistry, and genetics to solve the structure of an enzyme that catalyzes the first critical step in the biosynthesis pathway of the mint scent formation. The group discovered that the enzyme is composed of two different proteins: a catalytic protein and a regulatory protein. Through protein-protein interactions, the regulatory protein can remodel the active-site cavity of the catalytic protein for synthesizing the precursor of menthol which is released from the plant as mint scent.

The research was conducted and financed by Academia Sinica and the provision of the protein crystallography synchrotron facility was supported by the National Genomic Medicine Research Program, a project funded by the National Science Council.

The full-text article entitled "Structure of a Heterotetrameric Geranyl Pyrophosphate Synthase from Mint (*Mentha piperita*) Reveals Intersubunit Regulation" is available online at *The Plant Cell* website:
<http://www.plantcell.org/cgi/content/abstract/tpc.109.071738v1>

Media contacts:

Fang-Hsun YEH, Public Relations Office, Central Office of Administration, Academia Sinica (Tel) +886-2-2789-8824, (Fax) +886-2-2782-1551, (M) 0922-036-691

hongsum@gate.sinica.edu.tw

Mei-Hui LIN, Public Relations Office, Central Office of Administration, Academia Sinica (Tel) +886-2-2789-8821, (Fax) +886-2-2782-1551, (M) 0921-845-234

mhlin313@gate.sinica.edu.tw

Reference:

[Academia Sinica Newsletter 2010/02/12](#)

Edited 1 time(s). Last edit at 02/18/2010 11:58PM by gustav.
