



# BACTERIA

## from Sugar Factory Waste Can Produce a High-Value Enzyme

Amylase enzyme is an enzyme that catalyzes the hydrolysis reaction to break down starch into sugar. It is essential for digestion. It is also an important enzyme for production in many industries such as food industry, production of liquid sugar, ethanol fermentation, beer production as well as detergent, textile, paper and pharmaceutical industries. Amylase enzymes can be obtained from many sources such as plants, animals, and microorganisms. However, microbial amylase enzymes are more popular because they can be produced in larger quantities, and that reduces the production cost.

In 2023, a team of chemists and biotechnologists at Universitas Negeri Malang, Indonesia was able to successfully isolate three strains of amylase-producing bacteria from the liquid waste derived from local sugar factories. The three strains are *Bacillus infantis*, *Bacillus flexus* and *Pseudomonas nitroreducens* that have shown great potential to produce amylase enzymes. The method to produce amylase enzyme consists of 7 steps as follows:




The use of amylase enzyme in the food processing industries such as brewing beer, digesting meat, producing cakes and syrups, especially in the bakery industry, often adds this enzyme to bread flour to break down starch into dextrin and reduce the viscosity of the flour, resulting in a better bread texture and also creating additional sugars in the flour, which helps improve the taste, color and quality when toasting the bread. In addition, it can prevent hardening when baking the bread and helps maintain the softness of the bread and extend the shelf life.


# Exaggerated Advertisement for Plant Stem Cells in Cosmetics Products



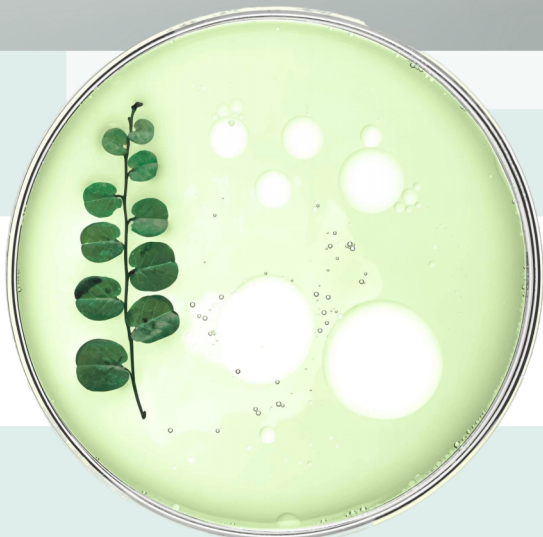
Regulation



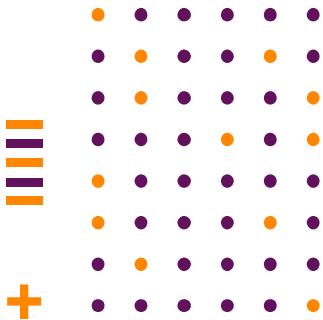
As it has been found that currently there are advertisements of cosmetics products containing plant stem cells as an ingredient with the label “stem cells from plants”. And, the products claim for the properties such as the ability to improve or alter the structure and function of the user's stem cells. Such claims are misleading. The term “Stem cell” in academics is used for cells of animal or human tissues, which are of significant interest and study worldwide. These stem cells have been used in treating certain blood diseases. And, the products containing these stem cells are classified as drugs according to the Drug Act B.E. 2510 (1967) by the Thai Food and Drug Administration.



In the case of cosmetic advertisements that claim for containing plant stem cells, it has been found that they are actually plant extracts obtained from plant tissue culture. Therefore, cosmetics products claiming to have plant stem cells might be misleading to possess the same properties as animal or human stem cells. This could lead to misunderstandings about the nature and effects of the cosmetics products as per the Drug Act B.E. 2510 (1967) and potentially causing misconceptions about the essential nature of the cosmetics. Such advertising is a violation of the law. Advertisers who make such claims are liable under Section 41, Paragraph 2(1) of the Cosmetic Act B.E. 2558 (2015) and are subject to a penalty of imprisonment for no more than one year or a fine not exceeding one hundred thousand baht or both.



Cosmetics Advertising Inspection Authority  
September 12, 2018



# The Challenges of Turmeric: Unlocking Its True Potential

Turmeric, the bright yellow spice derived from the root of the *Curcuma longa* plant, is celebrated for its vibrant color, distinctive aroma and extensive use in Indian and Southeast Asian cuisines. Its unique scent comes from volatile oils like turmerone and zingiberone, while its health benefits are primarily attributed to curcumin, a powerful compound in the curcuminoid family. Curcumin is renowned for its strong anti-inflammatory and antioxidant properties which help reduce inflammation, fight free radicals and protect against serious health conditions such as heart disease, cancer and cognitive decline.

Since the interest in its health benefits grows, turmeric is increasingly featured in dietary supplements as turmeric extract. However, turmeric supplements face limitations, including poor absorption, low bioavailability and quick elimination from the bloodstream which could limit their effectiveness.

To make the most of turmeric supplements, choose high-quality products designed to overcome these challenges and look for supplements with evidence-backed high bioavailability ensuring a better absorption and longer retention in the bloodstream. Selecting supplements with proven science behind their absorption-enhancing methods can help you maximize the health benefits of turmeric.

#### References:

- Prasad, Sahdeo, and Bharat B. Aggarwal. "Turmeric, the golden spice." *Herbal Medicine: Biomolecular and Clinical Aspects*. 2nd edition (2011).
- Yue GG, Cheng SW, Yu H, Xu ZS, Lee JK, Hon PM et al. The role of turmerones on curcumin transportation and P-glycoprotein activities in intestinal Caco-2 cells. *J Med Food*. 2012 Mar;15(3):242-52.

## Sep

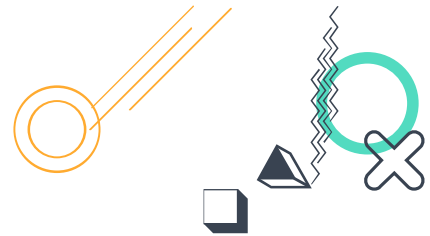
- 4-6 Fi Asia Indonesia 2024, Jakarta, Indonesia  
<https://www.figlobal.com/asia-indonesia/en/home.html>
- 5-6 Cosmetic Industrial Technology Convention Exhibition, Kuala Lumpur, Malaysia
- 11-12 China Beauty Expo (CBE), Hangzhou, China  
<https://www.chinabeautyexpo.com/shows/cbe-hangzhou/>
- 11-13 Thailand Lab International, Bangkok, Thailand  
<https://thailandlab.com/>
- 12-13 Proplan Seminar, Chemico Myanmar Co., Ltd., Myanmar
- 13 CAHB & Mini-CAHB Food Seminar, Chemico Philippines Inc., The Philippines
- 18 CAHB & Mini-CAHB Makeup Seminar, Chemico Health and Beauty India Private Limited, Delhi, India
- 18-19 MakeUp in NewYork, USA  
<https://www.makeup-in.com/newyork/>
- 18-20 Vitafoods Asia 2024, Bangkok, Thailand  
<https://www.vitafoodsasia.com/en/home.html>
- 24 CAHB & Mini CAHB Food Seminar, Chemico Philippines Inc., The Philippines
- 25-26 in-cosmetics Latin America, São Paulo, Brazil  
<https://www.in-cosmetics.com/latin-america/en-gb.html>
- 25-27 COSME Week Osaka, Japan  
<https://www.cosme-week.jp/osaka/en-gb.html>
- 30 CAHB & Mini CAHB Home Care Seminar, Chemico Myanmar Co., Ltd., Yangon, Myanmar

# EVENT 2024

## Oct

- 2 Lycored Webinar, Chemico Inter Corporation Co., Ltd., Thailand
- 3 AGC Seminar, Mekong Delta-Can Tho City, Chemico Vietnam Co., Ltd., Vietnam
- 5-6 Gluten-Free Expo, Melbourne, Australia  
<https://www.glutenfreeexpo.com.au/melbourne>
- 9-11 Food ingredients Vietnam, Ho Chi Minh City, Vietnam  
<https://www.figlobal.com/vietnam/en/home.html>
- 10 CAHB & Mini CAHB Makeup Seminar, Chemico Myanmar Co., Ltd., Yangon, Myanmar
- 16-18 SEPAWA 2024, Berlin, Germany  
<https://sepawa-congress.de/en/>
- 17-19 K-Beauty Expo Korea 2024, Gyeonggi, South Korea  
<https://www.k-beautyexpo.co.kr/fairDash.do>
- 21-23 Beautyworld Japan, Osaka, Japan  
<https://beautyworld-japan-west.jp.messefrankfurt.com/osaka/en.html>
- 23-24 Cosmetorium, Barcelona, Spain  
<https://www.cosmetorium.es/en/>
- 23-25 Health ingredients, Tokyo, Japan  
<https://www.figlobal.com/japan/en/home.html>
- 26-27 BEAUTY FORUM MUNICH, Munich, Germany  
<https://www.beauty-fairs.de/en/beauty-forum-munich/home.html>





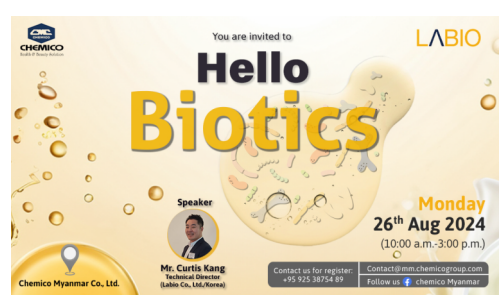
### Daito Kasei Kogyo Seminar, Vietnam

Daito Kasei Kogyo Co., Ltd. in collaboration with Chemico Vietnam Co., Ltd. held a seminar on August 2<sup>nd</sup>, 2024 under the title “BIYOU from Japan” at Chemico Vietnam Application Center in Hanoi. During the theory part, every customer was updated on the latest European & Japanese makeup trends and introduced to the innovative Daito ingredients for makeup, suncare and skincare. And, the customers could join the workshop part to prepare the formulations that developed by Chemico Vietnam application team.



### LABIO Seminar, Vietnam

LABIO Co., Ltd. in collaboration with Chemico Vietnam Co., Ltd. held an interesting seminar on August 20<sup>th</sup>, 2024 at Chemico Vietnam Application Center, Hanoi branch. The topic was “Hello Biotics”. The updated Biotic trends in skin care and hair care in Korea and the innovative ingredients: Bio-Placenta, Bio-Placenta Hair, Actobarrime, Bio-Cide ECO, GlycoButter và Shield oil were introduced. All attendees also joined the workshop part to prepare the formulations that co-developed by the supplier and Chemico Vietnam application team.



### LABIO Seminar, Myanmar

LABIO Co., Ltd. in collaboration with Chemico Myanmar Co., Ltd. organized an interesting seminar on August 26<sup>th</sup>, 2024 at Chemico Myanmar Seminar Room. The topic was “Hello Biotics”. The seminar presented about LABIO products and formulation prototypes. VDO clip for formulation preparations and workshop section were also included.



### InterFiber Seminar, Myanmar

InterFiber Ltd., Poland in collaboration with Chemico Myanmar Co., Ltd. held a 2-day seminar entitled “ Improving Costs, Yield and Quality ” on August 22<sup>nd</sup> and 23<sup>rd</sup>, 2024 at Chemico Myanmar seminar room. The first day was for bakery manufacturers, and the second day was for processed meat manufactures. The seminar content was about plant-based insoluble fiber to improve food quality and reduce cost. Product details with presentation of prototype formulations were included as well.

