# Where others<br/>see vitamin D<br/>we see the<br/>opportunity<br/>to deliver it<br/>faster



Vitamin D supports a healthy immune system ampli-D<sup>®</sup> is better absorbed by the body, so it raises vitamin D to optimal levels faster.

ampli-D\* is currently approved in Australia, S and Philippines with pending approval by the publication of the EFSA positive opinion. Not

singapore, Brazil, Malaysia, New Zealand European Commission following the approved in all other markets.

# dsm-firmenich 🚥

# Vitamin D supports a healthy immune system

Although vitamin D is most known for its effects on bone and muscle health, there is emerging evidence that vitamin D plays a crucial role in immunity.

Nutrition plays a key role in maintaining a healthy immune system. Scientific studies show sufficient vitamin D levels are linked to the reduced risk of infections such as acute respiratory infections. An increasing body of evidence suggests vitamin D is linked to reduced risk, duration and severity of COVID-19 infection.

## Relative risk of respiratory tract infections with vitamin D and without vitamin D



\* Reduction seen with daily dosing of vitamin D



Vitamin D is produced when our skin is exposed to sunlight. That's how we get up to 90% of our vitamin D. In winter, especially, it can be a challenge to get enough. Other factors that limit vitamin D production in the body include age, indoor lifestyles, sun protection, and darker skin tone.

Few foods naturally provide the vitamin D we need. With fortified foods and regular dietary supplements it can take months to build up vitamin D levels and be effective.



of the world's population has sub-optimal vitamin D levels (<75 nmol/L)<sup>1, 2, 8</sup>

## Consumers associate vitamin D with immunity benefits

Consumers are increasingly understanding the connection between vitamin D and immunity. They are showing high interest in vitamin D, particularly following the endorsement by leading scientists and KOLs such as, NIAID Director Dr. Anthony Fauci.

Vitamin D supplemation could prevent and treat influenza, coronavirus, and pneumonia infections

By William B Grant, Henry Lahore, Sharon L McDonnell, Carole A Baggerly, Christine B French, Jennifer L Aliano, and Harjit P Bhattoa



**Clear link between vitamin D deficiency** and severity of coronovirus, say researchers

By Nikki Hancocks



Evidence that vitamin D supplementation could reduce risk of influenza and **COVID-19 infections and deaths** 

> By William B Grant, Henry Lahore, Sharon L McDonnell, Carole A Baggerly, Christine B French, Jennifer L Aliano, and Harjit P Bhattoa 02 April 2020 | Scholarly Article

## **Consumers have keen** interest in immunity and vitamin D\*

**Consumer understanding of the** immunity benefits of vitamin D is nearly as high as vitamin C

78%

64%

Understand the immunity benefits of vitamin C

Understand the immunity benefits of vitamin D

More than one-third of consumers say they take dietary supplements



Take them to maintain healthy immunity



Take them more frequently since COVID-19

\* DSM Global Consumer Immunity Panel Sept. 2022

# ampli-D° is a 3x faster and more effective<sup>4</sup> form of vitamin D

Vitamin D supports a healthy immune system

Normally, it can take months for the body to reach optimal vitamin D levels **↑**✓)



We get vitamin D from sunlight, food or supplements

It is processed in the liver



also known as calcidiol

Calcifediol is a natural, potent form of vitamin D



Vitamin D<sub>2</sub> from dietary supplements or fortified foods, needs to be processed by the liver and converted into calcifediol, before further use. This is a slow process, thus it can take months to reach optimal vitamin D levels.

an

## ampli-D<sup>®</sup> is the faster, more effective form of vitamin D

Our bodies can get vitamin D from food, supplements and sunlight. Before this can be used further by the body, it must be processed by the liver and converted into calcifediol. It's a slow process that can easily take several months to achieve a healthy vitamin D level in the bloodstream.

ampli-D° is already in calcifediol form. That means it's immediately available to be further activated and used by the body. ampli-D° raises vitamin D levels 3x faster than regular vitamin D\*.

## Optimal levels are reached faster

Many clinical studies have shown that ampli-D° boosts blood vitamin D levels more effectively than conventional vitamin D<sub>a</sub>. Moreover, you are more likely to achieve optimal vitamin D levels with ampli-D° than with vitamin D, in just weeks instead of months.



Chart (right) Graeff-Armas J Nutr 2020

Optimal levels vitamin D reached faster with calcifediol compared to regular vitamin D,

\* Clinical studies show that sufficient vitamin D status is achieved on average 3 times faster and more effectively using ampli-D<sup>®</sup> compared to vitamin D<sub>3</sub> on an equal dose basis'



It is processed in the kidneys



Optimal vitamin D levels support healthy immunity

## How ampli-D° works 3x faster than vitamin D

bioavailable vitamin D form, hence better absorbed by the body. This helps in reaching optimal vitamin D levels faster. ampli-D\* is dsm-firmenich's calcifediol



# ampli-D<sup>®</sup> differentiates your supplements in a crowded vitamin D market\*

#### **Comparative Claims\***

- Faster and more reliable form of vitamin D
- Fast-acting form of vitamin D
- (3x) More effective/efficient at raising vitamin D levels<sup>4</sup>
- (3x) Faster form of vitamin D
- (3X) Faster and more effective form of vitamin D<sup>4</sup>
- Raises vitamin D levels faster
- · Achieves optimal vitamin D levels faster
- More bioavailable form of vitamin D
- More metabolically available form of vitamin D
- · More effective form of vitamin D
- More effectively raises vitamin D Levels
- More reliably raises vitamin D levels
- More effectively/efficiently raises vitamin D levels

#### Mechanistic Claims

- · Directly raises your vitamin D levels/vitamin D status
- · Immediately available for your body to begin using
- Naturally produced in the body
- · The form of vitamin D that circulates in the body
- · Does not need to be metabolized by the liver

#### **Consumer friendly**



#### **Product details & benefits**

- · Produced in US and Switzerland to the highest of
- quality standards
- 2-year shelf life
- Strong patent portfolio
- Strong evidence from over 15 human studies
- Product and samples available upon request

Clinical studies show that sufficient vitamin D status is achieved on average 3 times faster and more
effectively using ampli-D<sup>®</sup> compared to vitamin D<sub>3</sub> on an equal dose basis'

Potential claims are for informational purposes only and are not intended to take the place of independent advice and counsel by the customer's own and/or locally hired experts in the fields of Regulatory Affairs, Nutrition Science, and Legal Affairs. Customer shall rely solely on its own experts for advice and recommendation in these fields. For further assistance, please contact your dsm-firmenich account manager.

## YOUR END-TO-END PARTNER

PRODUCTS CUSTOMIZED SOLUTIONS EXPERT SERVICES

# It takes more than ingredients to launch innovative products. It takes an end-to-end partner to support you at every stage of your product development process.

From consumer insights to market ready solutions, dsm-firmenich can co-innovate with you to bring new and innovative products, getting you to market faster. Learn how we can deliver ampli-D<sup>\*</sup> as a market-ready solution today partnerwithdsm-firmenich.com

# Market-ready solutions backed by science

dsm-firmenich is already spearheading purpose-led innovation in the field of immunity. EFSA gave a positive opinion on the novel food dossier recognising calcidiol is safe and a source of the biologically active form of vitamin D. ampli-D<sup>\*</sup> brings all the benefits of vitamin D, but is three times faster and more effective at raising vitamin D levels than traditional supplements.<sup>4</sup>

This latest development is yet another example of dsm-firmenich's evolved strategic direction in human nutrition and health as an end-to-end partner. By delivering as a market-ready solution, dsm-firmenich has been able to accelerate speed to market. Martín dos Ramos Farías, Vice President, Global Marketing and Business Development – Dietary Supplements Health, Nutrition & Care says: "Through our Products with Purpose strategy we are identifying real global health concerns and are working to develop industry-leading nutritional solutions, to support specific health areas – including immunity.

I'm proud to see how quickly we can bring innovative, purpose-led market-ready solutions to our customers that will support the health of individuals globally."

By championing the purpose behind the products, dsm-firmenich and its partners are helping to solve the world's greatest nutritional challenges and keep the growing global population healthy. As a reliable, end-to-end, innovation partner, dsmfirmenich offers a broad portfolio of science-backed products and customized solutions, powered by expert services, so that it can support customers across the entire product life cycle, from concept to consumer.

See how purpose drives everything at partnerwithdsm-firmenich.com

# Partner with dsm-firmenich to develop next-generation vitamin D products with ampli-D°



**PRODUCTS** CUSTOMIZED SOLUTIONS EXPERT SERVICES

At dsm-firmenich, we pride ourselves on collaborating with customers who want to develop the best products on the market, because where others see products, we see purpose.

## Get started at partnerwithdsm-firmenich.com

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