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## **Nutritional trends & opportunities in the *New Normal***

*Nov 17-19 (US, APAC, EU)*

Presented by: Google and BASF

# Webinar Series - Presenters

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# Agenda

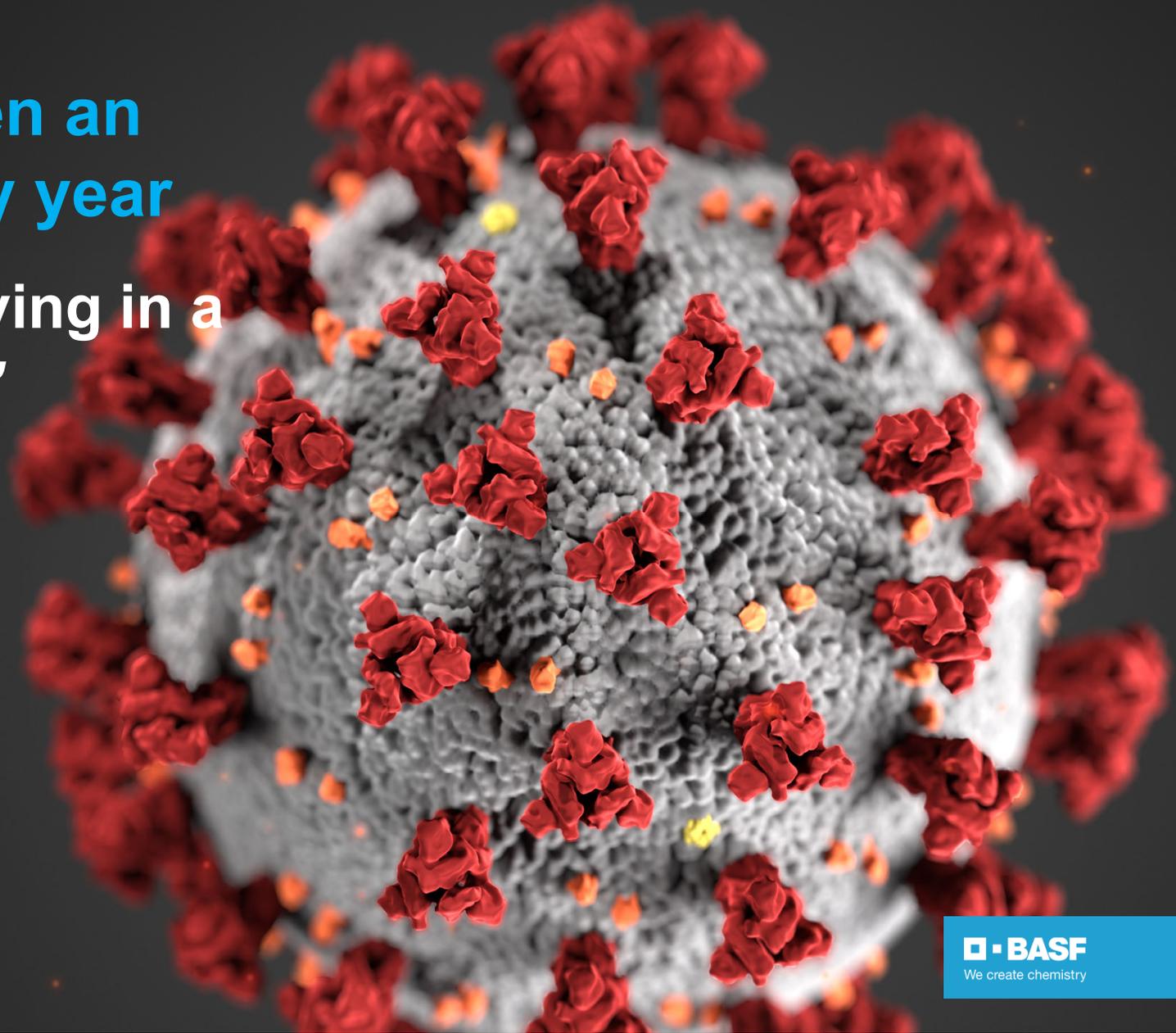
1. Google : The human side of uncertainty – Life after sweatpants
2. BASF : Honing in on nutrition & health solutions to meet the needs of consumers in the **New Normal**



**Our vision:  
Providing the right nutrients  
to the right people at the right time**

**2020 has been an  
extraordinary year**

**We are now living in a  
“New Normal”**



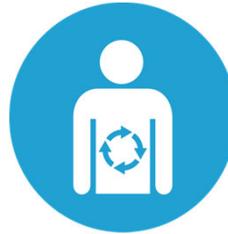
# New Normal - Key consumer concerns

## Eye health



- Increased time in front of the screen - **across the generations**
- Reduced exposure to sunlight and use of long-distance vision
- Changes in diet/nutrition intake

## Energy & Wellbeing



- Tendency towards a more **sedentary** lifestyle indoors
- Coping with indoor alternatives e.g. home gym, apps etc.
- Reduced social interactions and emotional connections, impacting mood and mental state

## Immunity



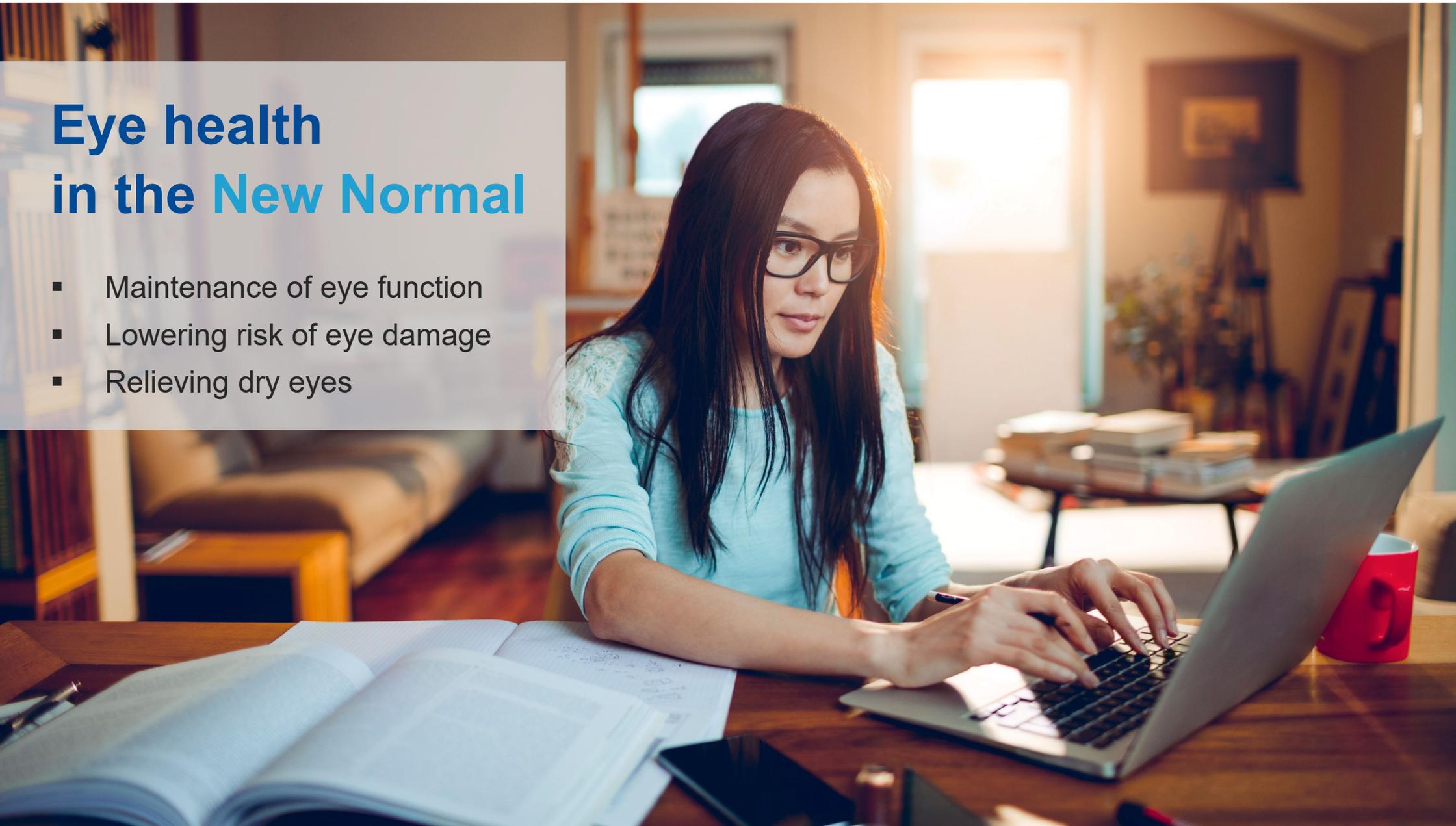
- Searching for solutions to care for/protect the entire family
- Heightened awareness for diet/nutrition intake
- **Proactive** and **holistic** approach

## BASF solutions:

Honing in on nutrition & health solutions to meet the needs of consumers in the *New Normal*

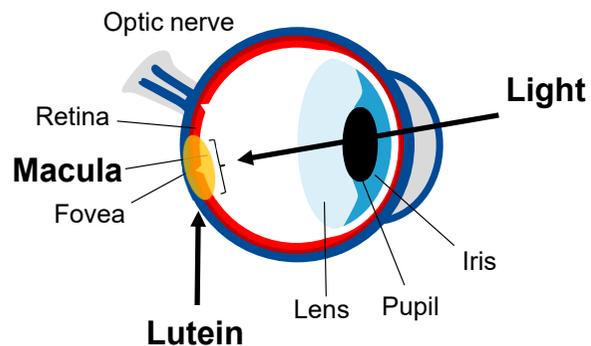
# Eye health in the New Normal

- Maintenance of eye function
- Lowering risk of eye damage
- Relieving dry eyes



# Lutein helps maintain good vision & protect the eyes from damage, especially with increased screen time in the new normal

- **Lutein is a carotenoid** naturally found in avocados & green leafy vegetables.
- It is a strong **antioxidant & filter of high-energy visible & UV light**.
- **Eyes are enriched with lutein** in the macula (“yellow spot”), where they are most vulnerable to light damage.



Low lutein levels in the macula increase risk of:

- Impaired **visual performance** (glare sensitivity, contrast vision)
- Developing **age-related macular degeneration (AMD)**, a disease that impairs central vision



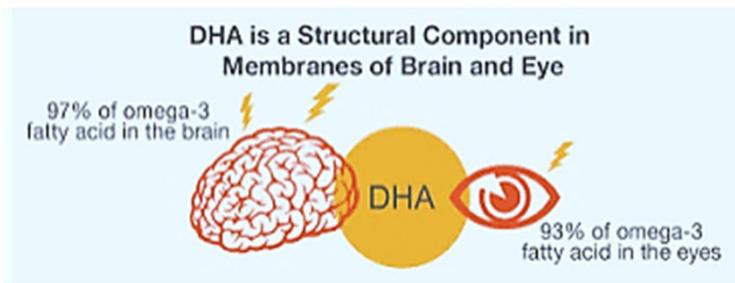
AMD vision

**Lutein**  
supports good vision  
& may slow onset /  
progression of AMD

**Lutein**  
helps protect the  
eyes, specifically the  
macula

# Omega-3 DHA is crucial for visual development & vision maintenance

- Omega-3 DHA (docosahexaenoic acid) is found in very **high concentration in the cell membranes of the retina**; up to 65%
- The high concentration of **DHA is needed for the normal function** of rhodopsin (pigment in the photoreceptor rod cells) and retinal cell membranes
- **DHA deficiency is associated with** poor night vision and other **visual problems**.



Bazan et al, 1982; Fliesler et al, 1983; SanGiovanni et al, 2005; Grossfiel et al, 2004  
<https://vitty.in/the-role-and-importance-of-dha/>

## EU Authorized DHA Eye Health Claims

DHA intake contributes to the normal visual development of **infants up to 12 months of age at 100 mg/day**.

DHA **maternal** intake contributes to the normal development of the eye of the **foetus & breastfed infants at 200 mg/day**.

DHA contributes to the maintenance of normal vision at **250 mg/day in general population**.



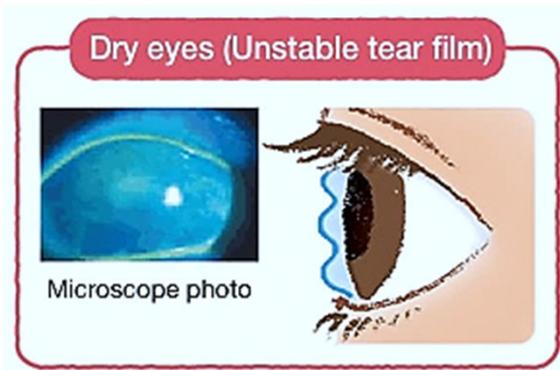
Commission Regulation (EU) No 440/2011

**DHA**  
contributes to  
visual development

**DHA**  
supports normal  
vision maintenance

# Omega-3 fatty acids are also widely used for dry eyes

- Dry eye can be defined as a **lack of tears** or an **imbalance in the composition of the tear film** in the eyes
- Lead to **blurring, a feeling of grittiness, burning, red & itchy eyes, eye fatigue**, and ironically can then cause excessive tearing



## Causes of dry eye:

- Heavy reading
  - High digital device use
  - Dry environments
  - Certain health conditions
  - Poor diets etc.
- Growing body of scientific evidence on the **effect(s) of omega-3 on dry eye that appears promising**
  - E.g. A **meta-analysis** provides evidence that *omega-3 FA supplementation significantly improves dry eye symptoms and signs in patients with dry eye disease (Giannaccare, 2019)*

Omega-3  
may alleviate  
the symptoms of  
dry eyes

<https://www.santen.com/en/therapeutic-areas/asia/dryeye/>

Rouen et al, 2018

# Maintaining Energy & Wellbeing in the New Normal

- Mental energy & strength
- Metabolic health
- Cardiovascular support



# B Vitamins are essential for providing energy & supporting mental performance in the 'new' work-from-home norm

- **B Vitamins** like **Vitamin B<sub>2</sub>** and **B<sub>5</sub>** play a central role in metabolism and energy supply. Brain areas required for **cognitive function** have a particularly strong need for these vitamins.
- Moreover, **Vitamin B<sub>5</sub>** regulates the sleep-wake-rhythm.
- **Vitamin B<sub>12</sub>** is required for cell division; including red blood cells which provide oxygen to the brain. **Only available from animal-derived foods.**



- **Robust scientific research** supporting the health benefits of B vitamins
- Many regulatory authorities allow **health claims**. Example of claims for Vitamin B<sub>5</sub>

## USA

Vitamin B<sub>5</sub> contributes to the **reduction of tiredness and fatigue**

## Europe & Turkey

Vitamin B<sub>5</sub> contributes to the **normal energy-yielding metabolism**

## China

Vitamin B<sub>5</sub> is **essential for energy metabolism** and tissue formation

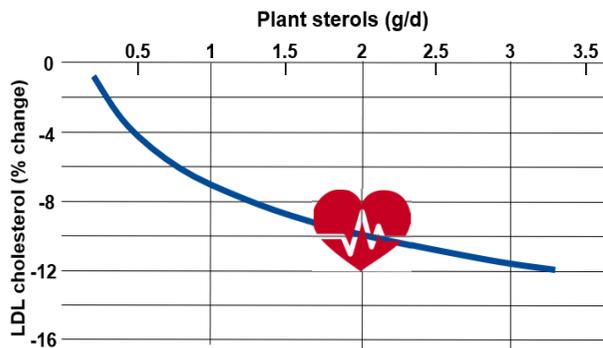
**Vitamin B<sub>2</sub>**  
provides energy to  
the brain

**Vitamin B<sub>5</sub>**  
provides energy &  
may reduce  
tiredness & fatigue

**Vitamin B<sub>12</sub>**  
supports brain  
function & overall  
well-being

# Plant sterols - the most well-established plant-based ingredient for cholesterol management & cardiovascular benefit

- **Plant sterols** are natural fat components of all plants.
- Structurally, plant sterols are similar to cholesterol but the body metabolizes them differently (**competing with cholesterol for absorption**) resulting in improved blood lipids
- Benefits extend to maintenance of healthy triglycerides & liver health etc.



Plat et al, 2019; Lye et al, 2019

24.11.2020 | BASF New Normal Webinar

- Dyslipidemia (e.g. high LDL-C) is a risk factor for cardiovascular disease (CVD)
- Extensively documented **non-drug option** proven to lower cholesterol, & in **different formats**: spreads, dairy, beverages & soft gels

**Health claims** in many countries:

Daily intake of **1.5-3 g** plant sterols:

"Plant sterols have been shown to lower/reduce blood cholesterol.

High cholesterol is a risk factor in the development of coronary heart disease."



**Plant sterols**  
**1.5-3 g/day reduces**  
**total & LDL**  
**cholesterol levels**  
**by 7-12%**

**Plant sterols**  
**complement statins**  
**for better effect**

Gylling et al, 2014

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## Immunity in the New Normal

- Strengthening body defenses
- Lowering risk of infections
- A healthy gut for a stronger immune system

# Vitamin D regulates key functions of the immune system & combats viral infections – a key concern in the new normal

- Vitamin D plays a **strong regulatory role** in the immune system (innate & adaptive).
- Immune cells have Vitamin D receptor and CYP27B1 enzyme (converts Vitamin D to active hormone).

→ Special attention recently its **anti-viral functions**, e.g. it stimulates antimicrobial defense & inhibits pathogens entry into tissues.



- Many regulatory authorities allow **health claims for Vit D related to immune function/ health.**

## Vitamin D and COVID-19:

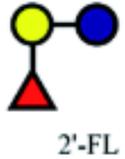


- Low status associated with risk of more severe disease
- High-dose Vitamin D upon hospitalization reduced risk of ICU need from 50% down to 2%
- Several clinical studies underway in healthy people at risk of COVID-19, & in patients

**Vitamin D<sub>3</sub>** contributes to the normal function of the immune system (for adults & children)

**Vitamin D<sub>3</sub>** has anti-viral effects helping to combat infections

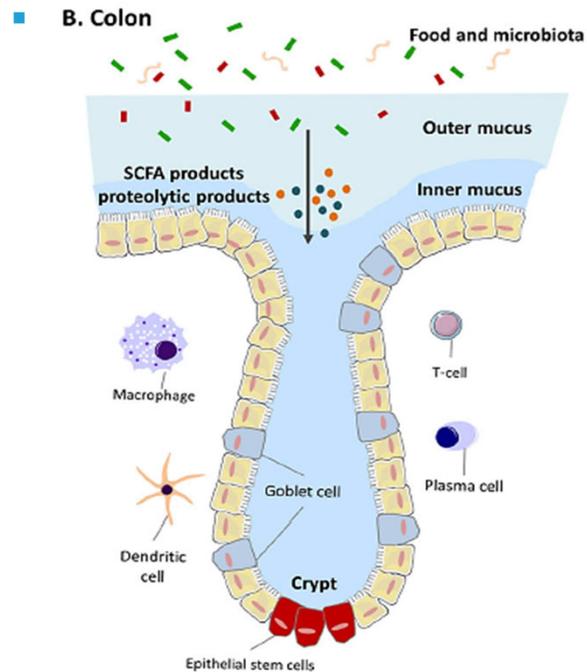
# 2'-fucosyllactose (2'-FL) provides multi-faceted benefits for digestive & immune health



- HMOs are the **3<sup>rd</sup> largest macromolecular component in human milk**; 2'-FL is the most abundant HMO
- Unique structure contributes to benefits in early life, & **beyond**
- Acts as a special **prebiotic**, 2'-FL supports the development and maintenance of a **microbiota dominated by healthy bacteria** (e.g. bifidobacteria)



- New science connects the dots between gut & immune health, via the mucous membranes & gut microbiome



**2'-FL supports a healthy gut microbiome**

**2'-FL protects against pathogens to help reduce infections**

**2'-FL enhances immunity & modulates inflammation & allergy responses**

# Why BASF? We are one of the largest & most trusted suppliers, with a broad portfolio of health ingredients for different applications



Vitamin A, Bs, D, E, K



Carotenoids



Natural Vitamin E & Antioxidants



HMOs



Omega-3s



Plant Sterols



CLA



Bioactive Peptides



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## Enabling Production Excellence

- **Expert know-how**  
in nutrition & health ingredients
- **State-of-the-art equipment**  
& production facilities
- **Customer-centric** with  
deep consumer understanding



**COMPLIANCE  
& SAFETY**



**HIGH PRODUCTION &  
QUALITY STANDARDS**



**HIGH PERFORMANCE  
IN APPLICATIONS**

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Stay healthy!**

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