



hermes consilium



# portfolio.

clinically  
supported  
ingredients



# ZINCNOVA™

microcapsules

stable and tasteless source of zinc, with microencapsulated zinc oxide

- **supplier**  
Lipofoods
- **product grade**  
powder suitable for functional foods and dietary supplements
- **daily dose**  
Recommended Daily Allowance (RDA) for zinc in the European Union is 10 mg
- **stability**  
48 months shelf life



#### INDICATIONS

IMMUNE SUPPORT  
ANTI-OXIDATIVE SUPPORT  
EYE HEALTH  
FERTILITY  
SKIN HEALTH & BEAUTY

## advantages:

- **controlled interactions** with other components in the formulation
- **no grainy texture**
- **reduced metallic taste**
- **effective release** in the stomach



## mechanisms of action:

- **normal cognitive** function
- **normal fertility** and reproduction
- **maintenance** of normal bones, hair, nails, and skin
- **maintenance of normal testosterone levels** in the blood
- **maintenance of normal vision**
- **normal function** of the immune system
- **protection** of cells from oxidative stress
- **has a role** in the process of cell division

# LIPOCAL™

microcapsules

bioavailable and water dispersible micronized source of calcium, coated with lecithin, which increases calcium dispersibility and absorption.

- **supplier**  
Lipofoods
- **product grade**  
powder suitable for milk powder, dairy products, soy milk and wide range of dietary supplements including capsules, pills, chewables, drops, syrups, etc.
- **daily dose**  
Recommended Daily Allowance (RDA) for calcium in the European Union is 800 mg
- **stability**  
18 months shelf life
- **certificates**  
Halal, Kosher



INDICATIONS  
BONE HEALTH

## advantages:

- improved dispersibility
- high calcium concentration
- more bioavailable than milk calcium
- **non-animal source of calcium**  
suitable for vegetarians

## mechanisms of action:

- **calcium is needed for normal growth** and development of bone in children
- **maintains normal bones** and teeth
- **contributes** to normal blood clotting
- **contributes** to normal energy-yielding metabolism
- **contributes** to normal muscle function
- **contributes** to normal neurotransmission
- **contributes** to the normal function of digestive enzymes
- **has a role in the process of cell division** and specialization



## 2 internal studies:

- **Lipocal™ study, 2004: Effects on intestinal absorption of calcium and bioavailability:**
  - Calcium bioavailability of soy yoghurt enriched with Lipocal™ is similar to that of cow's milk yoghurt
- **Wettability and dispersibility studies, 2014:**
  - Lipocal™ has high wettability and high dispersibility in water







**INDICATIONS**  
ENERGY SUPPORT  
COGNITIVE HEALTH  
SPORTS NUTRITION  
STRESS MANAGEMENT

**MAGSHAPE™**  
microcapsules

highly concentrated microencapsulated magnesium source for products effective at restoring and maintaining a healthy level of this mineral in human cells and bones

- **supplier**  
Lipofoods
- **product grade**  
powder suitable for capsules, tablets, chewables and orosoluble powder products
- **daily dose**  
Recommended Daily Allowance (RDA) for magnesium in the European Union is 375 mg
- **stability**  
18 months shelf life
- **certificates**  
Halal, Kosher, Vegetarian, Vegan

## advantages:

- **highly concentrated magnesium (30%)**
- **microencapsulation technology** provides improved flowability and compressibility
- **in vitro results show relaxation effect on the nervous transmission**  
inhibits release of neurotransmitter noradrenaline
- **improves muscular function thanks to relaxation**  
the muscle relaxes more quickly

## mechanisms of action:

### magnesium contributes to:

- **reduction** of tiredness and fatigue
- **electrolyte** balance
- **normal functioning of the nervous system** and psychological function
- **normal muscle function** and normal energy-yielding metabolism
- **maintenance of normal bones and teeth**
- **has a role in the process** of cell division







next-generation folate source - the calcium salt of (6S)-5-methyltetrahydrofolate, intended for use as an alternative to folic acid

- **supplier**  
Gnosis by Lesaffre
- **product grade**  
powder
- **daily dose**  
200 mcg (100 % RDA), daily dose for pregnant women 400 mcg
- **stability**  
24 months in its closed under vacuum original packaging; storage conditions: 2 - 8 °C
- **certificates**  
lactose free, gluten free, non-GMO, Kosher, Halal

#### INDICATIONS

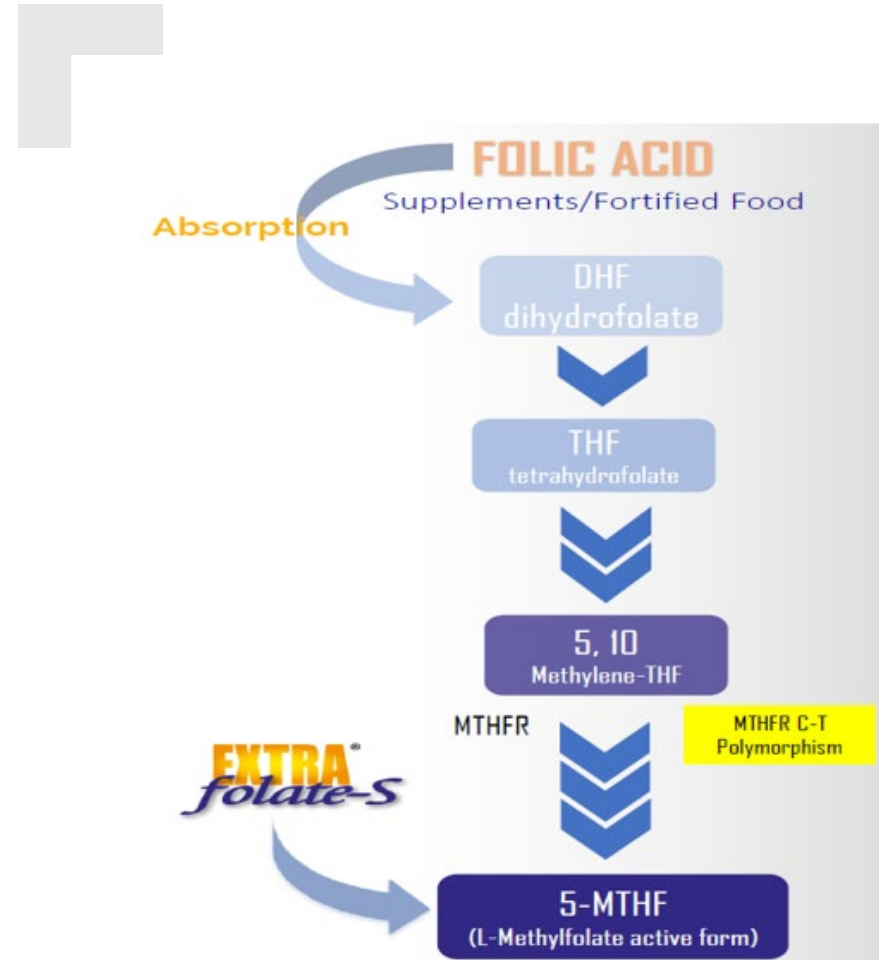
PRENATAL HEALTH  
FERTILITY  
CARDIOVASCULAR HEALTH  
MOOD & COGNITIVE HEALTH

### advantages:

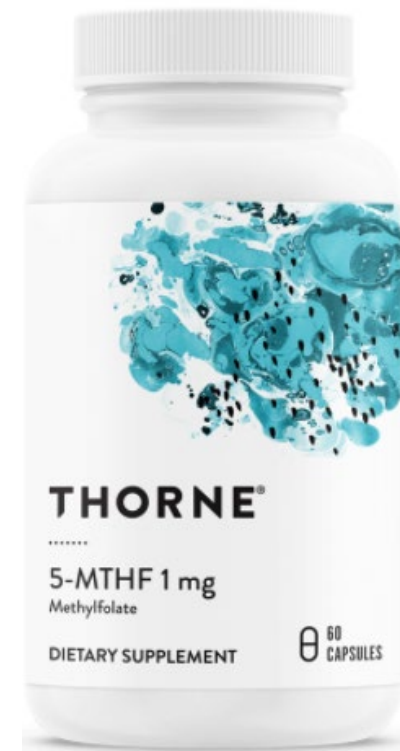
- **biologically active form**  
can enter the folate cycle directly, without further metabolism
- **does not result in unmetabolized folic acid (UMFA) which the body cannot use**
- **suitable for people with polymorphisms in MTHFR gene**  
up to 50% of the population in some countries

### mechanisms of action:

- **maternal tissue growth** during pregnancy
- **normal homocysteine metabolism**
- **normal psychological function**, amino acid synthesis and blood formation
- **normal function** of the immune system
- **reduction** of tiredness and fatigue
- **folate has a role** in the process of cell division



# product examples





next generation folate source - glucosamine salt of 6S-5-methyltetrahydrofolate (6S-5-MTHF) is an active folate the body can immediately use without conversion, avoiding the accumulation of unmetabolized folic acid (UMFA)

- **supplier**  
Gnosis by Lesaffre
- **product grade**  
powder
- **daily dose**  
200 mcg (100 % RDA)  
for pregnant women 400 mcg
- **stability**  
24 months when stored below 25°C
- **certificates**  
Kosher, Halal, Vegetarian, Vegan, approved Novel Food status in EU



#### INDICATIONS

PRENATAL HEALTH  
FERTILITY  
CARDIOVASCULAR HEALTH  
MOOD & COGNITIVE HEALTH

## advantages:

- **100 times improved solubility** due to glucosamine salt as a carrier
- **higher bioavailability**
- **biologically active form**  
can enter the folate cycle directly without prior metabolization
- **does not result in unmetabolized folic acid (umfa) which the body cannot use**
- **suitable for people with polymorphisms in MTHFR gene**  
up to 50% of the population in some countries
- **highly clinically supported**  
tested in couples with fertility problems

## awards:

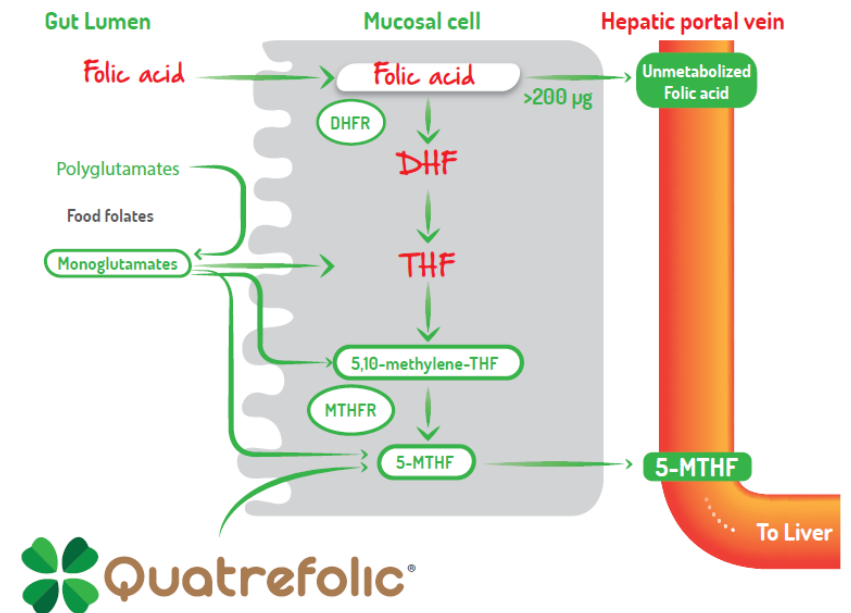
- **“Most Effective Strategic Product Development”** at Nutraceutical Business & Technology (NBT) Awards 2011 Finalist
- **“Best New Ingredient”** NaturAward 2012 Finalist
- **Finished product of the Year** in the Medical Food category - NutraIngredients Awards 2016 Winner



## mechanisms of action:

Folate is involved in many processes in the body:

- **maternal tissue growth** during pregnancy
- **normal homocysteine metabolism**
- **normal psychological function**, amino acid synthesis and blood formation
- **normal function** of the immune system
- **reduction** of tiredness and fatigue
- **has a role** in the process of cell division



Quatrefolic® passes the gastric barrier and is absorbed mainly in the small intestine by a carrier mediated mechanism. The carrier is not saturated and this enables Quatrefolic® to ensure a higher folate uptake (3,4).



## Clinical studies:

- Miraglia et al., 2016: Enhanced oral bioavailability of a novel folate salt: comparison with folic acid and a calcium folate salt in a pharmacokinetic study in rats
- Internal clinical study: Crossover comparative bioavailability study of Quatrefolic® compared with the reference Metafolin® in healthy volunteers
- Mazza et al., 2016: Nutraceutical approaches to homocysteine lowering in hypertensive subjects at low cardiovascular risk: a multicenter, randomized clinical trial (study on finished product)
- Servy et al., 2018: MTHFR isoform carriers. 5-MTHF (5-methyl tetrahydrofolate) vs folic acid: a key to pregnancy outcome: a case series (study in couples with fertility problems)
- Clément et al., 2020: 5-Methyltetrahydrofolate reduces blood homocysteine level significantly in C677T methyltetrahydrofolate reductase single-nucleotide polymorphism carriers consulting for infertility (couples with fertility problems)
- Cirillo et al., 2021: 5-methyltetrahydrofolate and vitamin B12 supplementation is associated with clinical pregnancy and live birth in women undergoing assisted reproductive technology



# product examples





**INDICATIONS**  
BONE HEALTH  
CARDIOVASCULAR HEALTH

natural vitamin K2 (menaquinone-7 or MK-7)  
from a patented bio-fermentation process, using  
a specific strain of *Bacillus subtilis natto*

- **supplier**  
Gnosis by Lesaffre
- **product grade**  
powder or oil form available in different concentrations; suitable for tablets, capsules, softgels, liquids, fortified food
- **daily dose**  
from 45 mcg of vitamin K2
- **stability**  
48 months shelf life, oil grade 36 months
- **certificates**  
Vegetarian, Vegan, Kosher and Halal, non-GMO

## advantages:

- **natural source** of vitamin K2
- **high purity with >99% of biologically active all trans isomers**
- **comes in several forms and concentrations**  
oil and powder, 2.500 – 20.000 ppm
- **backed by clinical** and pre-clinical studies
- **gluten-free, lactose-free**, toxins & pesticides-free, soy-free, animal material-free

## mechanisms of action:

- **supports the function of vitamin D (synergistic action)**  
helps to transfer calcium into the bones instead of blood vessels
- **activates vitamin K-dependent proteins** and improves the ratio of carboxylated and undercarboxylated osteocalcin (cOC/ucOC))



### clinical studies:

- **Internal study: VitaMK7® bioavailability single dose oral administration in healthy volunteers**
- **Bruge et al., 2011: Olive oil supplemented with menaquinone-7 significantly affects osteocalcin carboxylation** (increased carboxylated osteocalcin and decreased undercarboxylated osteocalcin plasma levels)
- **Cirilli et al, 2019: Bioavailability of menaquinone-7 in milk formulation. Comparison of different solubilization techniques**

### pre-clinical studies:

- **Internal study: Effect of VitaMK7® on PGE-2 synthesis in bone forming osteoblasts** (effective in inhibiting pro-inflammatory mediator PGE-2 production and thus blocking bone resorption)
- **Gigante et al., 2012: Vitamin MK-7 enhances vitamin D3-induced osteogenesis in hMSCs: modulation of key effectors in mineralization and vascularization**

### purity/stability study:

- **Orlando et al., 2019: Menaquinone 7 stability of formulations and its relationship with purity profile**



# product examples





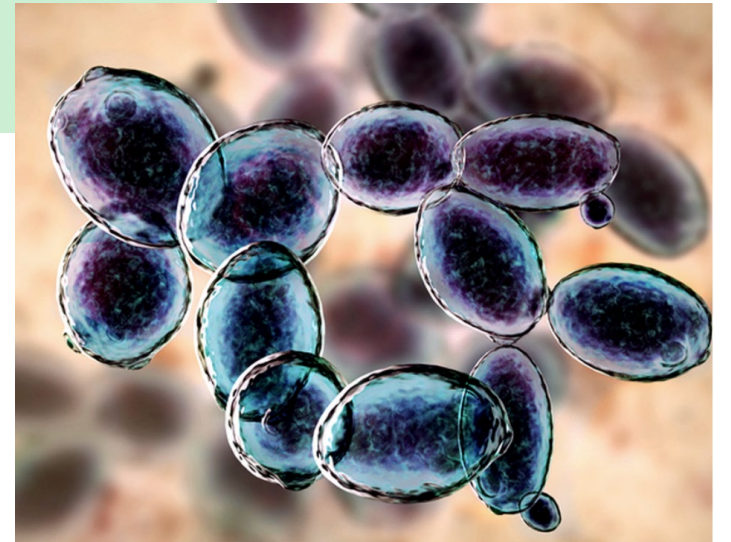
# Lynside® Forte

---

a range of inactive dried yeast (*Saccharomyces cerevisiae*), enriched with vitamins (B complex) or minerals like selenium, zinc, chromium

## Lynside® Forte Se+ 2000

- organically bound selenium (Se) – Se is incorporated during fermentation process directly into the yeast to be transformed into its organic form: selenomethionine
- 2-times higher bioavailability than inorganic selenium
- provides 2,000-2,400 µg/g selenium
- **indications: beauty, immunity, thyroid support, anti-aging, fertility, women's health**





## Lynside® Forte Zn

- nutritional yeast fortified with zinc (Zn)
- high bioavailability compared to other common zinc sources
- in addition to zinc, this fortified yeast also provides vitamins, proteins, minerals, fibers,  $\beta$ -glucans, and more nutrients that contribute to overall wellness
- provides 100,000-120,000  $\mu\text{g/g}$  zinc
- **indications: immunity, beauty, fertility, eye health, antioxidative support**

## Lynside® Forte Cr 2000

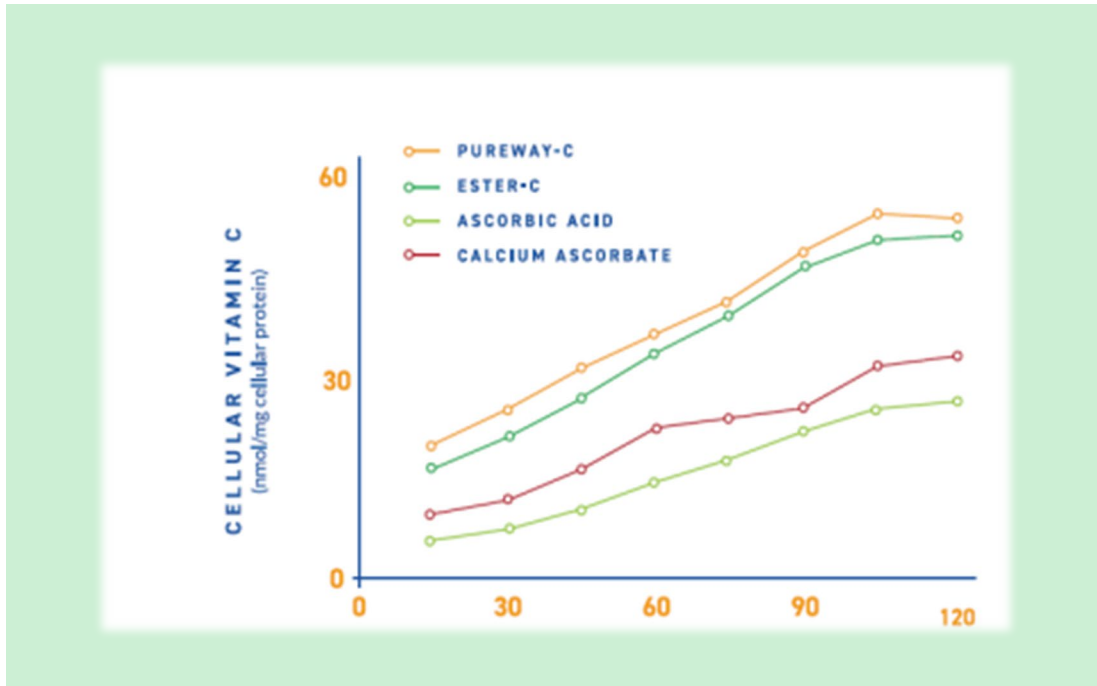
- fortified yeast with bioavailable chromium (Cr)
- the product provides nutritional yeast content (high quality proteins, vitamins and minerals, dietary fibres) and 2,000-2,400  $\mu\text{g/g}$  chromium
- **indications: blood sugar management, metabolic support**

proprietary vitamin C with lipid metabolite delivery technology and the highest bioavailability on the market

- **supplier**  
One Innovation Labs
- **product grade**  
powder suitable for many applications
- **daily dose**  
Recommended Daily Allowance (RDA) for vitamin C in the European Union is 80 mg; 1000 mg dose tested in clinical study
- **stability**  
36 months shelf life
- **certificates**  
Vegan, non-GMO, Kosher, Halal, GRAS-affirmed



**INDICATIONS**  
ANTI-OXIDATIVE SUPPORT  
IMMUNE SUPPORT



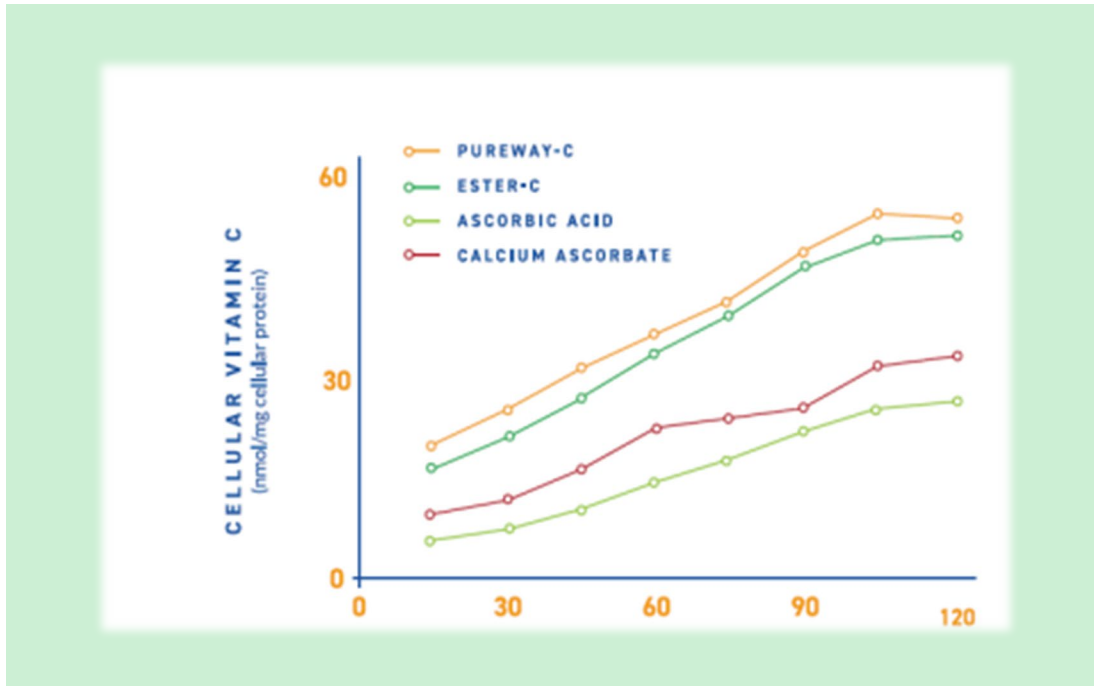
PureWay-C® showed a 233% higher increase in absorption than ascorbic acid after 30 minutes

### advantages:

- **unique delivery technology** of ascorbic acid with fatty acids and citrus bioflavonoids
- **various grades** available
- **clinically supported**
- **improved cellular absorption** and bioavailability
- **higher absorption and retention** than other forms of vitamin C

### mechanisms of action:

- **fatty acids** improve cellular absorption of vitamin C
- **citrus bioflavonoids** protect vitamin C from oxidation
- **vitamin C-lipid metabolites** provides effective antioxidative and free-radical scavenging activity
- **stimulates nerve regeneration**, promotes fibroblast wound healing and decreases xenobiotic-induced inflammatory response



PureWay-C® showed a 233% higher increase in absorption than ascorbic acid after 30 minutes

### clinical study:

- Pancorbo et al., 2008: Vitamin C-lipid metabolites: Uptake and retention and effect on plasma C-reactive protein and oxidized LDL levels in healthy volunteers

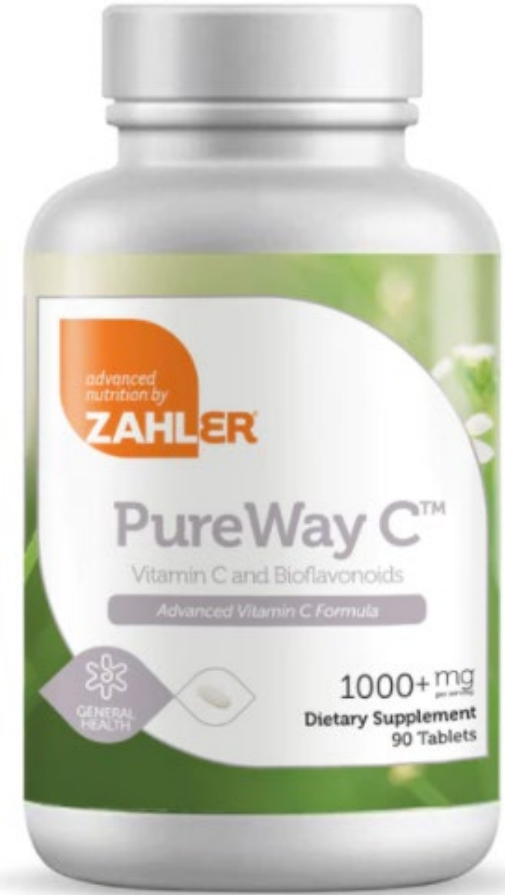
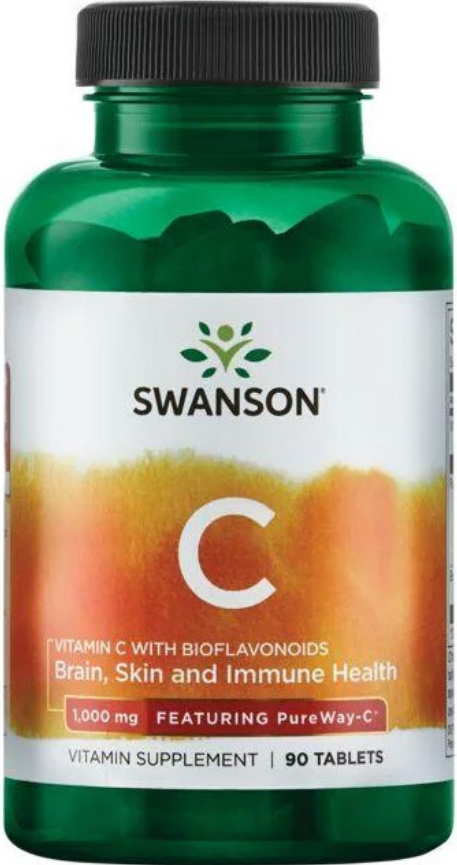
(prospective, randomized, double-blind trial studying four different vitamin C formulations: PureWay-C®, ascorbic acid, calcium ascorbate and Ester-C®)

### pre-clinical studies:

- Weeks and Perez, 2007: Absorption rates and free radical scavenging values of vitamin C-lipid metabolites in human lymphoblastic cells
- Weeks and Perez, 2007: A novel vitamin C preparation enhances neurite formation and fibroblast adhesion and reduces xenobiotic-induced T-cell hyperactivation
- Weeks et al., 2008: Natramune and PureWay-C reduce xenobiotic-induced human T-cell  $\alpha 5 \beta 1$  integrin-mediated adhesion to fibronectin



# product examples



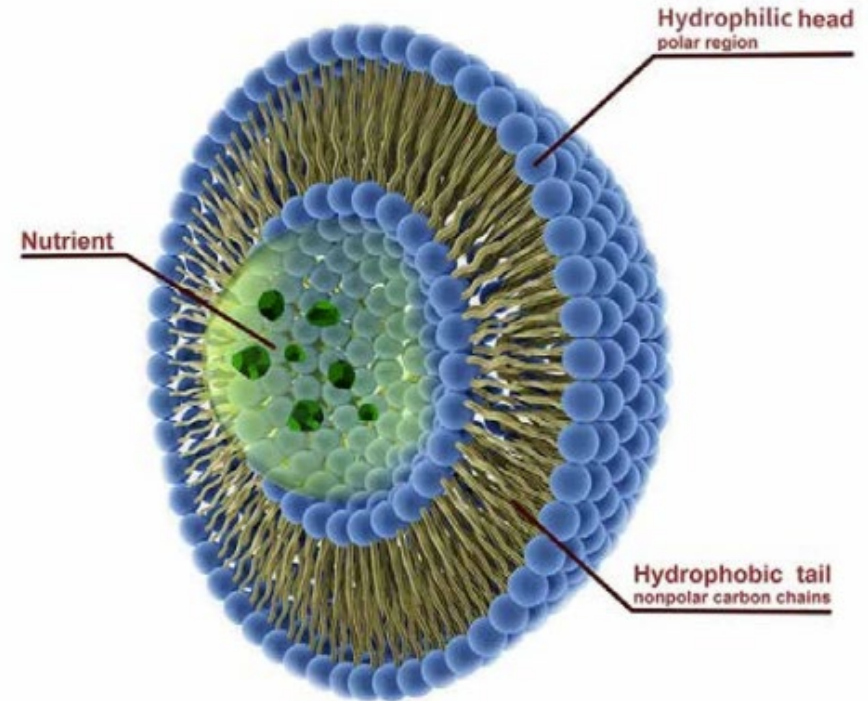




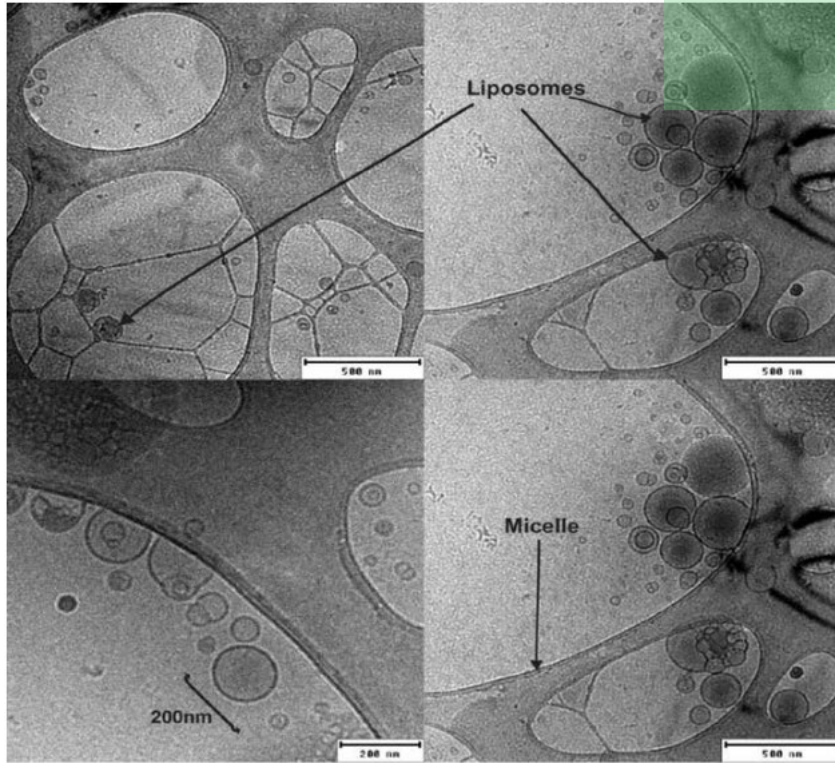
liposomal PureWay-C™ with maximized absorption, using proper liposomal technology compared to simple emulsions

- **supplier**  
One Innovation Labs
- **product grade**  
powder suitable for many application
- **daily dose**  
Recommended Daily Allowance (RDA) for vitamin C in the European Union is 80 mg
- **stability**  
36 months shelf life
- **certificates**  
Vegan, non-GMO, Kosher, Halal, GRAS -affirmed

#### STRUCTURE OF LIPOSOME



INDICATIONS  
ANTI-OXIDATIVE SUPPORT  
IMMUNE SUPPORT



TEM - CRYO - EM IMAGES OF LIPOSOMAL PUREWAY-C™

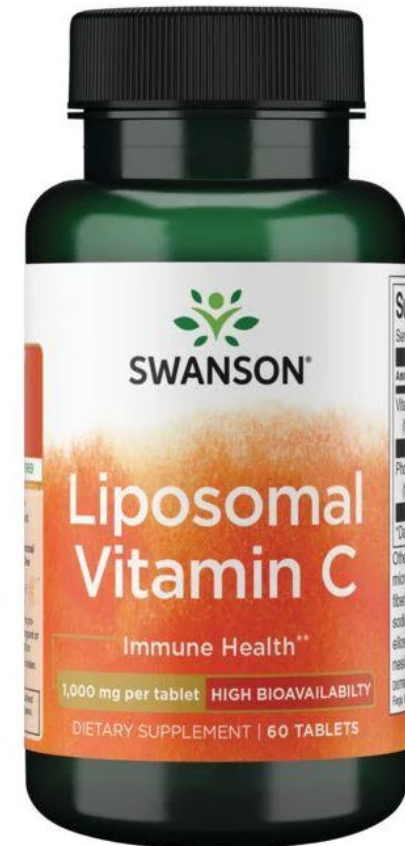
### advantages:

- **preserved advantages** of regular PureWay-C™
- **proper liposomal technology**, not simply an emulsion
- **proprietary all-natural process** without alcohols or solvents
- **liposomal delivery technology** maximizes absorption
- **various grades** available

### how it works:

“Liposomes are manufactured microscopic, hollow spherical vesicles composed of a lipid bilayer. This lipid bilayer incases essential vitamin C, which both protects it from gastrointestinal degradation and enhances absorption. When loaded with PureWay-C™, delivery of active Vitamin C is maximized. The liposome intestinal absorption override the usual pattern of an encapsulated drug. The absorption is accelerated and better absorbed by the body.”

# product examples





hermes consilium

**Hermes Consilium Ltd.**

[www.hermes-consilium.com](http://www.hermes-consilium.com) | [info@hermes-consilium.com](mailto:info@hermes-consilium.com) | +386 1 434 56 78  
Cesta v Mestni log 88a, 1000 Ljubljana, SI - European Union