hermes consilium

portfolio.

clinically
supported
ingredients

NEWCAFF™ microcapsules

novel caffeine delivery system which has been designed to mask the bitter taste of caffeine and provide sustained release

- **supplier**
  Lipofoods
- **product grade**
  granulated powder suitable for powder blends, bars, gels, chewables, milkshakers and different kind of dietary supplements
- **daily dose**
  up to 200 mg caffeine per day
- **stability**
  24 months shelf life
- **certifications**
  Halal

INDICATIONS
ENERGY SUPPORT
SPORT NUTRITION

advantages:

- **clean non-bitter taste**
- **controlled release**
  helps to avoid caffeine crash few hours after intake
- **high caffeine concentration**
- **cleaner formulas**

mechanisms of action:

- **caffeine is a central nervous system stimulant**
- **improves alertness, memory,** decreases fatigue, improve mental performance

Internal study:

- **Overcoming caffeine bitter taste while providing its sustained release via microencapsulation, 2017:**
  - **In vitro release profile:** microencapsulated caffeine showed a good retention and an improved in vitro sustained release profile when compared with unencapsulated caffeine
  - **Sensory analysis:** masking of the bitter taste of powdered caffeine coated with lipids

product examples

MAGSHAPE™
microcapsules

INDICATIONS
ENERGY SUPPORT
COGNITIVE HEALTH
SPORTS NUTRITION
STRESS MANAGEMENT

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

Quatrefolic®

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

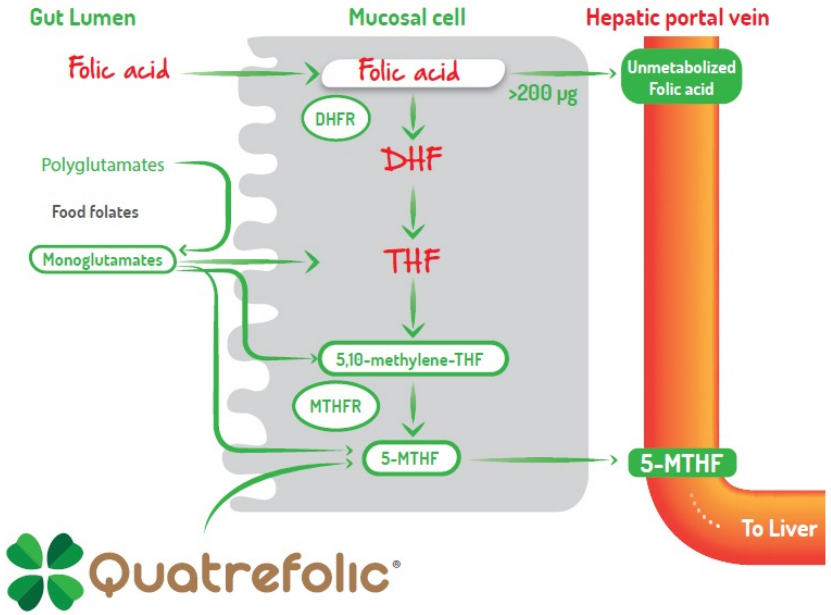
awards:

- **“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

BacoMind™

clinically proven standardized extract of *Bacopa monnieri* (Brahmi), a plant from ayuverdic medicine, supporting memory and cognitive abilities in children and adults

- **supplier**
  Natural Remedies
- **product grade**
  powder suitable for beverages, candies, bakery products
- **daily dose**
  adults: 300-450 mg
  children: 225 mg
- **stability**
  24 months shelf life
- **certificates**
  GRAS, Halal, USDA Organic, non-GMO Project verified, India Organic, Kosher, Vegan

INDICATIONS
COGNITIVE HEALTH
MEMORY SUPPORT
ADHD
HEALTHY AGEING

advantages:

- **full spectrum extract** with 9 different bioactives
- **patented composition**
- **1st Bacopa extract** to receive GRAS status
- **5 clinical studies**
  2 efficacy studies in children and 2 in elderly + safety study
- **improves memory acquisition,** retention, attention and learning in the elderly
- **improves attention,** learning, impulsivity, restlessness and self-control in children ADHD
- **improves memory in children** requiring individual education program
- **sustainable** supply chain

mechanisms of action:

- **neuroprotective**
  high antioxidant activity, protection from oxidative stress
- **neurotrophic**
  stimulating neuronal growth
- **supports neurotransmission**
- **nootropic**
  cognitive enhancement, improved learning and memory
- **increases dopamine levels** in the cortex
- **neuroprotective and antioxidant effects** on the hippocampus and the frontal cortex
- **action on specific brain regions** associated with attention, inhibition and neurotransmitters

clinical studies:

- **Pravina et al., 2007: Safety evaluation of BacoMind™ in healthy voluneers: A phase I study**
- **Barbhaiya et al., 2008: Efficacy and tolerability of BacoMind® on memory improvement in elderly participants – a double blind placebo-controlled study** (improved attention and verbal memory)
- **Usha et al., 2008: BacoMind®: A cognitive enhancer in children requiring individual education programme**
- **Morgan et al., 2010: Does *Bacopa monnieri* improve memory performance in older persons? Results of a randomized, placebo-controlled, double-blind trial** (improved memory acquisition and retention)
- **Dave et al., 2014: An open-label study to elucidate the effects of standardized *Bacopa monnieri* extract in the management of symptoms of attention-deficit hyperactivity disorder in children** (alleviates symptoms of ADHD, well-tolerated)

pre-clinical studies:

- **Allan et al., 2007: Safety evaluation of a standardized phytochemical composition extracted from *Bacopa monnieri* in Sprague–Dawley rats**
- **Kasture et al., 2007: Nootropic activity of BacoMind™, an enriched phytochemical composition from *Bacopa monnieri***
- **Dipanwita et al., 2008: In vitro safety evaluation and anticlastogenic effect of BacoMind™ on human lymphocytes** (antioxidant, inhibits damage to chromosomes)

product examples

Mnemosyss
for brain health

innovative, patented composition of low molecular weight marine peptides & omega-3 to prevent cognitive decline

- **supplier**
  Abyss Ingredients
- **product grade**
  powder suitable for capsules
- **daily dose**
  2,35 g
- **stability**
  24 months shelf life
- **awards**
  innovation Awards from Business France during the last FI Europe

advantages:

- **unique composition** from natural source (sardine hydrolysate)
- **produced from upcycled** local marine by-products
- **gentle, solvent-free,** eco-friendly proprietary process
- **scientifically supported**

mechanisms of action:

- **significant improvement** of short-term and long-term memory
- **reduction** of age-related neuroinflammation
- **significant improvement** of inflammatory response compared to DHA
- **restores stress-hormone levels** and prevents the deleterious effects of age-related stress on memory

pre-clinical studies:

- Chataigner et al., 2021: Fish hydrolysate supplementation containing n-3 long chain polyunsaturated fatty acids and peptides prevents LPS-induced neuroinflammation
- Chataigner et al., 2020: Dietary fish hydrolysate supplementation containing n-3 LC-PUFAs and peptides prevents short-term memory and stress response deficits in aged mice
- Chataigner et al., 2021: Dietary fish hydrolysate improves memory performance through microglial signature remodeling during aging

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