Sleep well and live better: Relissa™, Indena's Melissa phytosome®, is the melatonin-free botanical solution to promote relaxation

With its botanical balance, Relissa™ (a standardized *Melissa Officinalis* L. extract formulated with phospholipids) is scientifically proven to contribute to beneficial effects on mental and sleep health in adults facing ordinary life fatigues, e.g. bad mood, anxiety, stress, until it gets to depression.[1]

Melissa leaves are a traditional sleep aid, but today we know that – while over 50 compounds have been identified in lemon balm extracts – their biological activity is mostly due to hydroxycinnamic and rosmarinic acids and derivatives.[2]

At Indena, therefore, researchers focused on achieving the perfect quantification and formulation of these two chemicals, making Relissa™ a standardized, reliable and melatonin-free supplementation to support long-lasting and deep sleeping, for a better quality of life.

This attention to sleep comes from the importance of its role for our overall wellbeing.

The quality and quantity of our sleep may be conditioned by many factors like the perception of risk and instability due to economic, social, health and environmental issues, often amplified by mass media, the stress created by a society which is more and more demanding in terms of performance and competition and of course other personal challenges. Moreover, sleep is deeply connected to our mental and emotional wellbeing. During sleep, the body and mind go through various restorative processes, including repairing and rejuvenating cells, consolidating memories, processing emotions, and cleansing toxins from the brain. Good sleep can help us regulate our emotions better as well as improve cognitive skills like learning and attention[3].

Melissa officinalis is a member of the mint family. It has been known for centuries and used for various applications thanks to its calming and "anti-stress" action, promoting sleep and relaxation. Other investigated effects of the botanical include antioxidant and spasmolytic activity, neuroprotection, and anxiolytic action[2; 4-5].

As said, more than 50 compounds have been identified in the plant (including volatiles), but the major active compounds are considered to be hydroxycinnamic and rosmarinic acids and derivatives[2], shown to have multiple properties among which their calming and mood balancing effect with a positive outcome for sleep. The main mechanisms recognized for their effect are the modulation of the GABA-transaminase enzyme (responsible for GABA degradation, resulting in a high level of GABA), the antioxidant and radical scavenging activities and the neuroprotection function.

Indena focused on achieving an optimized delivery and formulation of the *Melissa officinalis*'s phytonutrients. The result is Relissa™, not the common Melissa extract: it stands out for its

content of hydroxycinnamic and rosmarinic acid, quantified and standardized for better and effective results. But, moreover, it is based on the formulation of *Melissa officinalis* L. with phospholipids, i.e. Melissa Phytosome®, to optimize dispersion in gastrointestinal fluids and biological performance. Relissa™ gets the distance from other traditional lemon balm extracts in the market, characterized but lacking of standardization, unclear phytochemical profile, low quality, high or unclear effective dosages: all these create an erratic scenario and hamper traditional *Mellissa officinalis* L. extracts from reaching the promised health benefits.

Phytosome® is Indena's multi-talented technology platform to improve the effectiveness and target ability of a wide range of natural compounds, creating lecithin-based solid dispersions that allows enhanced ingredient's distribution in gastrointestinal fluids and bioaccessibility profile.

The Phytosome® technology platform grants the phytonutrients contained in *Melissa officinalis* L. offer better biological performances, while still fully respecting their natural profile. Leveraging the same technology, Relissa™ (Melissa Phytosome®) can also be provided in the form of gummies, an increasingly popular solution on the supplement market.

Recent clinical evidence shows that Relissa™ offers a clear support to sleep, mood, emotional balance, mental health and quality of life with significant results based on validated self-assessed questionnaires given to 100 subjects[1].

In addition, a specific potential interaction was closely analyzed to dispel any concern within the context of recent increased interest in how the microbiome may influence our wellbeing, especially in the realm of mood and sleep.

Lactobacillus rhamnosus – a type of bacteria that is able to colonize the human gastrointestinal tract – has been proven able to improve night rest and rapid eye movement (REM) sleep[6], thanks to a positive influence over short-chain fatty acids (SCFAs) controlling the expression of genes responsible for sleep-wake rhythms[7]. Relissa™ has shown no negative interactions with *Lactobacillus rhamnosus*, thus safeguarding its beneficial effect.

Furthermore, comprehensive in vitro screening has been conducted on cellular systems and enzymes to identify key mechanisms of action. Specifically, antioxidant activity, free radical scavenging, and neuroprotective function have been explored. Particularly noteworthy is the modulation of the enzyme GABA-transaminase (responsible for the breakdown of GABA), a key enzyme for rebalancing the GABAergic system that governs anxiety states and sleep.[8]

Another value of Indena's Relissa™ is sustainability. The *Melissa officinalis* L. extracts chosen for Relissa™ not only comply with Indena's high standards but are also part of a sustainable journey that keeps a careful eye on carbon footprint, renewable energy and supply chains.

Relissa™ is the Indena solution for turning a good ingredient (Melissa officinalis L.) into a great ingredient. It is the new botanical ally, melatonin-free solution, for relaxation and peaceful sleep: proved by science and approved by Nature.

References:
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