

## CENTELLA ASIATICA: BEYOND THE BOUNDARIES OF A TRADITIONAL MEDICINAL PLANT'S USE

**INDENA** REALIZED A NEW MONOGRAPH WHICH ENVISAGES *CENTELLA ASIATICA*'S BROADER APPLICATIONS. AMONGST THE CONTRIBUTORS, FRANÇOIS-XAVIER MAQUART, THE WORLD'S MOST INFLUENTIAL EXPERT ON *CENTELLA ASIATICA*

Milan, 13<sup>th</sup> February 2019 – The new monograph “[\*Centella asiatica: entering a new era\*](#)”, dedicated to *Centella asiatica*, has been recently published with the aim of crossing new boundaries of this important medicinal plant, widely used both in Indian Ayurvedic medicine and as a traditional medicine.

*Centella asiatica*, also known as "gotu kola", is native to the wetlands of Southeast Asia and belongs to the *Apiaceae* family; it has been used for centuries in traditional medicine because of its anti-bacterial, anti-viral, anti-hypertensive, diuretic, antiulcer and anti-inflammatory properties (1). The most known active compounds are asiaticoside, madecassoside, asiatic acid and madecassic acid which promote the synthesis of collagen, regulate inflammation by normalizing the hyperproliferation of keratinocytes and are able to restore the natural homeostasis of the epidermis (2).

The monograph “*Centella asiatica: entering a new era*” highlights that the pre-clinical and clinical studies available, while confirming the already known properties of the plant and its traditional uses, envisages new research scenarios and broader applications, from diabetic neuropathy to cardiovascular protection, from the treatment of burns to post-partum stretch marks. These areas could open new frontiers of research and development on a plant and its properties which have been known for centuries but whose potential has still more to offer.

A first important new evidence is in the cardiovascular field, where the healing properties of *Centella asiatica* (3, 4, 5) have inspired a new concept: the extract, similarly to the modulation of keloids on skin has been proven effective on atherosclerotic plaques as well - it was shown to prevent thrombotic or embolic complications by increasing the density and stability of atherosclerotic echolucent plaques in patients with atherosclerosis (6).

Another field where *Centella asiatica* may qualify for broader applications is neurology: the plant's effectiveness for the preservation of memory and cognitive functions is already known, since it is able to prevent neuronal degeneration, especially beta-amyloid (7). In addition, *Centella asiatica* appears to have a neuroprotective effect on stroke-induced cognitive impairment and in Parkinson's disease (8-10). Moreover, *Centella asiatica* is now a potential candidate for the treatment of the reduction of neurological damage induced by diabetic hyperglycemia (11).

*“Indena is happy to achieve the fulfillment of the monograph ‘Centella asiatica: entering a new era’, which envisages new fields of application for such an important extract – comments Giada Maramaldi, Business Development Manager-Personal Care at Indena – We’ve been studying Centella asiatica for years to meet the needs of several conditions, and we’ll keep developing new products to take advantage of this medicinal plant’s amazing potential”.*

A further new evidence about *Centella asiatica*'s application is related to the treatment of stretch marks, visible linear depressions of the skin secondary to fibroblast dysfunction, very frequently appearing during or after pregnancy. They may derive from alterations in the connective tissue secondary to weight gain and hormonal imbalances due to the fact that elastin, collagen and all their components from the mother's skin and veins are conveyed to the developing fetal structures. A pilot study, aiming to assess the efficacy, safety and tolerability of a *Centella asiatica* containing cream applied in the postpartum period, shows that topical treatment with the cream may offer greater benefit in terms of improvement of the stretch marks.

A final but not inconsequential aspect is how the *Centella asiatica* supply chain is managed sustainably. Indena is sensitive to the importance of careful and accurate control of all supply



chains and to manage its business considering the environmental and social issues. As for the *Centella asiatica*, Indena is promoting social projects in one of the main harvesting areas of the plant, the Alaotra Mangoro region of Madagascar.

[Indena](#) is the leading company dedicated to the identification, development and production of high quality active principles derived from plants, for use in the pharmaceutical, health food and personal care industries. Backed up by almost a century of botanical experience, the company holds more than 120 primary patents, has published more than 700 scientific studies and co-operates with the world's most prestigious universities and private research institutions. Indena employs about 800 staff, investing around 10% of its annual turnover in research, making this activity the key to its success. Headquartered in Milan, Indena has 5 production sites and 5 international branches throughout the world and manages sales in more than 80 countries. The Company's experts communicate and interact constantly with the major international regulatory authorities such as WHO, EMA, FDA and ESCOP, and cooperate on the update of all the main pharmacopoeias.

Today, Indena supplies also capacity and expertise for custom manufacturing services and related key technologies. In particular, the company expands its offering with a new kilolab to handle semisynthetic and total synthetic APIs that require high containment (OEL of 20 ng/ m<sup>3</sup>).

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*Please note that the physiological activity of the ingredient described herein is supported by the referenced clinical trial reports. Marketers of finished products containing the ingredient described herein are responsible for determining whether the claims made for such products are lawful and in compliance with the laws of the country in which they will market the products.*

*These statements have not been evaluated by the Food and Drug Administration.*

*This product is not intended to diagnose, treat, cure, or prevent any disease.*

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