

# nektium

20 February 2024

## PRESS RELEASE

### **Studies deliver scientific evidence for *Rhodiola rosea* and Ashwagandha's stress-reducing properties**

*Review finds Rhodiola rosea improves stress-associated fatigue while Ashwagandha counteracts stress-related anxiety*

A review of preclinical studies and human trials on adaptogens shows that *Rhodiola rosea* and Ashwagandha are both effective in combating stress.

Herbal adaptogens – specific botanicals historically used in traditional medicine – enhance the efficiency of the body's adaptive response to physical, chemical or biological stressors. *Rhodiola rosea* (Golden root) and Ashwagandha (*Withania somnifera* or Indian ginseng) are classical plant adaptogens that promote stress resilience while counteracting stress-associated alterations such as anxiety, nervousness, irritability, insomnia and depression.

Botanical ingredients supplier [Nektium](#) and the University of Las Palmas de Gran Canaria in Spain evaluated both ingredients in a scientific review study for the European Journal of Medicinal Plants. Analysing existing *in vitro*, *in vivo* and clinical trials, they found that the overall evidence clearly indicates that both adaptogens have effective anti-stress activity.

*Rhodiola rosea* works by modulation of the central nervous system. In 2011, the European Medicines Agency's herbal monograph on *Rhodiola rosea* approved its traditional use as an adaptogen for the temporary relief of symptoms associated with stress, such as fatigue, exhaustion and a general sensation of weakness. The decision was based on its long-term use in traditional medicine and numerous scientific studies.<sup>1</sup>

The new review study considered more than 70 human clinical trials on *Rhodiola rosea*, which were of varying quality in methodology, design and conditions. Despite these limitations, there was a clear level of evidence to demonstrate that *Rhodiola rosea* can effectively combat physical stress-related fatigue, low mood, anxiety, depression and may improve physical-mental working capacity.

Ashwagandha, meanwhile, could work by a similar or additional neuromodulatory mechanism. The clinical efficacy of its preparations and extracts has now been demonstrated across a large number of human trials. They support Ashwagandha's potential therapeutic

---

<sup>1</sup> European Medicines Agency. (2012). Committee on herbal medicinal products (HMPC). Assessment report on *Rhodiola rosea* L., rhizoma et radix. Document reference. EMA/HMPC/232100/2011

role as an adaptogenic anti-stress agent and in counteracting stress-related conditions, especially anxiety, nervousness and insomnia.

The review also assessed the evidence on the safety of both adaptogens. In April 2023, Denmark announced a ban on Ashwagandha after a risk assessment failed to establish a safe lower limit for intake. This study presents a favourable picture of Ashwagandha's overall safety; however, it showed there is growing data concerning interactions with specific medications and potential adverse effects in susceptible individuals or those with certain health conditions or subclinical disorders.

The review found that *Rhodiola rosea* can be considered safe and is generally well tolerated in individuals with a wide variety of health statuses, although caution is required when consuming *Rhodiola rosea* alongside psychotropic medication.

Rubén P. Machín, PhD, Project Manager – Research, Development & Innovation at Nektium, said: “Both adaptogens show effective anti-stress activity, but their specific mechanisms of action differ. *Rhodiola rosea*, with its impact on the central nervous system, demonstrates improvement in stress-induced fatigue, depression and enhanced mental and physical performance. Ashwagandha, on the other hand, exhibits serotonergic-dependent antidepressant effects and modulates GABAergic neurotransmission, potentially making it more effective against stress-associated anxiety, nervousness, and insomnia.”

He added: “Taking into account the endocrine mechanism of action and the most robust evidence of efficacy from clinical trials, *Rhodiola rosea* may tentatively be assigned as a regenerative ‘tonic vitalizing’ adaptogen, supporting stress-associated fatigue and weakness in several physical and psychological contexts. Ashwagandha could be considered as regenerative ‘tonic-nervine’ that counteracts stress-related anxiety and insomnia or drowsiness.”

Bruno Berheide, Nektium's Commercial & Partnership Director, said: “The review study suggests that the choice of adaptogen is important in relation to the desired use and target audience. For example, *Rhodiola rosea* could be recommended for morning intake due to its energising and vitalising effects, while Ashwagandha could be more suited for evening intake, due to its calming and sleep-promoting effects. Likewise, sports people could take advantage of *Rhodiola rosea* to combat fatigue and improve mental and physical performance, while Ashwagandha could be well positioned for individuals wishing to manage their anxiety levels in everyday life.”

Launched in 1997 by Nektium, Rhodiolife® was the world's first standardised *Rhodiola rosea* extract to be made commercially available.

Laura López-Ríos, PhD, Head of Product Development – Research, Development & Innovation at Nektium, added: “Rhodiolife® is our premium adaptogen solution for use in health and nutrition products. It is standardised to the content of total rosavins and salidroside – the phytochemicals responsible for the adaptogenic anti-stress effects. Nektium has a rigorous, multi-step quality control program in place to ensure the authenticity and bioactives

composition, providing reassurance about its ability to help combat physical and psychological stressors.”

Rhodiolife® recently received approval and a NPN (Natural Product Number) from Health Canada, which means several recommended health claims can be used:

- As an adaptogen, to help to temporarily relieve symptoms of stress (such as mental fatigue and sensation of weakness)
- As an adaptogen, to help support cognitive function (such as mental focus and mental stamina)
- To help increase energy and resistance to stress (e.g. in case of mental and physical fatigue related to stress)
- A source of/provides antioxidants

The full study, ‘Adaptogenic Botanicals with Emphasis on *Rhodiola rosea* and *Withania somnifera*’, can be viewed here:

<https://journalejmp.com/index.php/EJMP/article/view/1168/2339>

**ENDS**

**For more information please contact:**

Robin Hackett, Ingredient Communications

Tel: +44 (0) 7507 277733 | Email: [robin@ingredientcommunications.com](mailto:robin@ingredientcommunications.com)

### **About Nektium**

Based on the island of Gran Canaria, Spain, Nektium specialises in the supply of branded and generic botanical ingredients of the highest quality. The business was born out of two friends’ shared passion for the phytochemistry and pharmacology of botanicals and their applications in health and wellness. When it was first established in 1997, little was known about many of these botanical extracts, but the team at Nektium made it their mission to explore and unleash their potential health benefits. Today, the company is still defined by this solid foundation of dedicated relationships and its love for nature and research.

Nektium’s flagship products are Zynamite®, a proprietary mango leaf extract (*Mangifera indica*), Rhodiolife®, a rhodiola plant extract (*Rhodiola rosea*) as well as Xanthigen®, a proprietary botanical blend for weight management.