## StemEnhance® ULTRA



StemEnhance® Ultra (SEU) is made from nature's most primitive superfoods. It concentrates and combines extracts from fresh water microalgae and marine macroalgae. Cerule is specialized in the harvest of Aphanizomenon flos aquae (AFA) and transformation and extraction of both AFA and spirulina through processes that insure quality from the raw material to finished extracts.

SEU is the result of more than 10 years of research in the identification and extraction of active molecules, as well as the design of an exclusive drying technology called HydroDry® that preserves the nutritional benefits of algae, (US Patents 6,814,961 & 9,370,537 / EU Patent 1,895,973).

StemEnhance®, a patented and clinically tested extract of AFA, is associated with fucoidan from Undaria pinnatifida and Mesenkine™, a Cerule exclusive and patented concentrate from Spirulina. These 3 ingredients work in synergy to support the release of your adult stem cells.

### **CHARACTERISTICS AND BENEFITS**

• AFA is a blue-green algae that belongs to cyanobacteria family. It grows naturally in Klamath lake in Southern Oregon (USA). Cradled in a volcanic region surrounded with national parks and forest, Klamath lake constitutes a unique ecosystem rich in sediments and minerals that promotes and sustains exceptional algal blooms. Thus, AFA provides various essential macronutrients (Pietri A. M., 2011), proteins (>50%) and in fibers.

It also constitutes a good source of micronutrients:

- 20 amino acids, characterized by an ideal profile that matches the recommended daily intakes of the 10 essential amino acids
- 60 minerals and trace elements, rich in calcium (6mg/g) and in iron (0.32mg/g)
- 14 vitamins, particularly vitamins B1, B2, B12.

It provides several antioxidants such as carotenoids, lycopene, and chlorophyll.

Moreover, AFA contains PhenylEthylAmine (PEA). This molecule is naturally secreted by the brain and is associated with a sense of wellbeing, it participates to the regulation of mood.

StemEnhance contains a L-selectin inhibitor and has clinically tested to support the mobilization of your source of wellness (Jensen et al., 2007). The extract has been extensively studied in several preclinical and clinical studies (Drapeau et al., 2010; Drapeau et al., 2012; Ismail & al. 2013; El Akabawy & El Mehi 2015).

• Arthrospira platensis also called spirulina, belongs, just like AFA, to the family of blue-green algae. It grows and is cultivated in sunny regions worldwide such as the United States, Greece, Spain, Japan and India (Karkos et al., 2011). It is well known for its nutritional richness in macro and micronutrients. It is composed of more than 60 % proteins and 14% carbohydrates. It is a good source of essential polyunsaturated fatty acids, amino acids, and micronutrients such as Iron, Calcium, Magnesium, Phosphorus and Selenium. It is used in nutritional supplementation all over the world. It contains antioxidants and supports the immune system (Finamore et al., 2017).

While developing Cyactiv over several years, a yellow low-molecular weight compound called Mesenkine® was discovered and isolated from spirulina. The process to extract Mesenkin® has been patented by Cerule. The studies carried out on Mesenkine show that the extract helps mobilize your adult stem cells.

StemEnhance® Aphanizomenon Flos-Aquae



**Fucoidan** Undaria pinnatifida



Mesenkine® Arthrospira platensis



• Undaria pinnatifida is used in Japanese cuisine under the name of Wakame, it is used in salads and miso soup. Undaria pinnatifida is a brown algae traditionally called sea fern. It is growing in several regions of the world but the Wakame selected in SEU comes from Patagonia and Tasmania, two of the world's most pristine oceanic environments. Undaria pinnatifida helps to protect cells and tissues against damages from oxidative stress, thanks to its richness in polyphenols and fucoxanthin (Fung et al., 2013). This characteristic comes from an adaptive defense mechanism, as seaweeds are exposed to significant sunlight and oxygen.

Marine algae, or seaweeds, are well-known for their content in sulfated polysaccharides that compose their cell wall. The extract selected by Cerule, standardized to 80% of fucoidan, was documented to support the mobilization of your source of wellness (Irhimeh et al., 2007).



### **INGREDIENTS AND LABELS**





### Stem Cell Support

- **Ø** Releases

60 CAPSULES
DIETARY SUPPLEMENT

Suggested Use: Take 2 capsules daily with food.

# Supplement Facts Serving Size: 2 capsules Servings Per container: 30 Amount Per Serving StemEnhance® ULTRA Proprietary Blend StemEnhance® ULTRA Proprietary Blend StemEnhance® (Aphanizomenon flosaquae concentrate) Mesenkine® (Spirulina platensis extract) Fucoidan 80% (Undaria pinnatifida extract) † Daily value not established

**Other ingredients:** Hypromellose (Vegetable Capsule), Organic Rice Concentrate.

**Product does not contain:** Dairy, wheat, gluten, peanuts, soy or corn allergens. No artificial flavors or colors.

Distributed by: Cerule Europe 2b avenue de l'énergie 67800 Bischheim, France +33 (0) 977 550 100 l www.cerule.com US Patent 9,370,537

Product of the Europe



### **CONDITIONS OF USE**

Recommended daily dose for an adult: 2 capsules, 1 to 2 times per day, with a glass of water, during or outside meals. Do not refrigerate.

### **ADDITIONAL INFORMATION**

Do not contain dairy product and gluten.

Do not contain artificial aroma, preservative or coloring agent. Capsule exclusively composed of ingredient from vegetal origin. Suitable for vegetarian consumers.

Cerule has no knowledge of any contraindications to consume StemEnhance Ultra® in case of pregnancy or breastfeeding. However, as a precaution, we advise to consult your physician as pregnancy and breastfeeding represent specific health conditions.

Cerule has no knowledge of any contraindications or interactions to consume StemEnhance Ultra® with any medication. However, if you are taking a treatment or if your health state requires a medical follow-up, we advise to consult your physician. Not advised for people under anticoagulants medication.

Food supplements cannot be substitutes for a varied and balanced diet and a healthy lifestyle. StemEnhance Ultra® is a food supplement which is not intended to treat, diagnose or prevent any disease.

### Q&A

What are the ingredients in StemEnhance Ultra (SEU)?

StemEnhance®, a patented and clinically tested extract of Aphanizomenon Flos Aquae (AFA), is associated with fucoidan from Undaria pinnatifida and Mesenkine™ - a Cerule exclusive and patented concentrate from Spirulina. These 3 ingredients work in synergy to support the release of your adult stem cells.

Can StemEnhance Ultra® be used with Cerule food supplements (PlasmaFlo and Cyactiv) or with other food supplements?

Yes, Cerule products can be consumed together and have been created to act in synergy for an optimal wellness. Cerule has no knowledge of any contraindications or interactions to consume StemEnhance Ultra® with any other food supplements.

For more information, please visit our website www.cerule.com,

Facebook.com, Youtube.com: Cerule. Customer service will answer all your questions by phone at 0033 (0) 977 550 100 or by email at infoeurope@cerule.com

### **REFERENCES**

Drapeau C., Antarr D., Ma H., Yang Z., Tang L., Hoffman R. M. & Schaeffer D.J., 2010, Mobilization of bone marrow stem cells with StemEnhance® improves muscle regeneration in cardiotoxin-induced muscle injury, Cell Cycle, 9:9, 1819-1823, DOI: 10.4161/cc.9.9.11540

Drapeau C., Eufemio G., Mazzoni P., Roth G., and Strandberg S., 2012 The Therapeutic Potential of Stimulating Endogenous Stem Cell Mobilization, Tissue Regeneration – From Basic Biology to Clinical Application, Chapter 8, 167-202, ISBN: 978-953-51-0387-5

El Akabawy G. & El Mehi A., 2015, Mobilization of endogenous bone marrowderived stem cells in athioacetamide-induced mouse model of liver fibrosis, Tissue Cell, Volume 47, Issue 3, Pages 257-265

Finamore A., Palmery M., Bensehaila S., Peluso I., 2017, Antioxidant, Immunomodulating and Microbial-Modulating activities of the Sustainable and Ecofriendly Spirulina, Oxidative Medicine and Cellular Longevity, 3247528:1-14.

Fung A., Hamid N., Lu J., 2013, Fucoxanthin content and antioxidant properties of Undaria pinnatifida, Food Chemistry, 136:1055+1062.

Irhimeh M. R., Fitton J. H., Lowenthal R. M., Fucoidan ingestion increases the expression of CXCR4 on human CD34+ cells, Experimental Hematology 35:989–994.

Ismail Z., Kamel A., Yacoub M., Aboulkhair A., et al. 2013 The Effect of In Vivo Mobilization of Bone Marrow Stem Cells on the Pancreas of Diabetic Albino Rats (A Histological & Immunohistochemical Study), International Journal of Stem Cells Vol. 6, No. 1,1:11

Jensen G. S., Hart A. N., Zaske L. A. M., Drapeau C., Gupta N., Schaeffer D. J., Cruickshank J. A., 2007, Mobilization of human CD34+CD133+ and CD34+CD133+ stem cells in vivo by consumption of an extract from Aphanizomenon flosaquae – related to modulation of CXCR4 expression by an L-selectin ligand?, Cardiovascular Revascularization Medecine 8:189-202.

Karkos P. D., Leong S. C., Karkos C. D., Sivaji N., Assimakopoulos D. A., 2011, Spirulina in clinical practice: evidence-Based Human Applications, Evidence-Based Complementary and Alternative Medicine, 531053:1-4.

Pietri Anne-Marie, 2011, L'aliment le plus complet de la planète, Editions Lanore.

