



photonamic

October 9<sup>th</sup> , 2019  
SBI Holdings, Inc.  
photonamic GmbH & Co. KG

### **photonamic GmbH & Co. KG (Germany) Acquires Majority in Photonics Healthcare B.V. (Netherlands)**

photonamic GmbH & Co. KG (Head office: Pinneberg, Germany; CEO: Ulrich Kosciessa, Ph.D.) (“photonamic”), a subsidiary of SBI Holdings, Inc. (Head office: Minato-ku, Tokyo; Representative Director, President and CEO: Yoshitaka Kitao) is engaged in the business of pharmaceutical development of 5-aminolevulinic acid (“5-ALA”) (\*) hereby announces the acquisition of Majority in Photonics Healthcare B.V. (Head office: Utrecht, Netherlands; CEO: Michael Münker) (“Photonics”).

Photonics is a leader in the measurement of oxygen in tissue and/or skin cells with their CE marked device COMET. Photonamic and Photonics have been collaborating for several years in this field combining Photonics’ sensor technology with photonamic’s 5-ALA agent in appropriate pharmaceutical formulations.

In cells Mitochondria use oxygen and create the molecule PP IX specifically after introduction of 5-ALA. After excitation with a short light beam of a relevant wavelength, this PP IX emits characteristic fluorescence that fades out in darkness in a glow-like manner. The duration of the “afterglow” is dependent on oxygen. This allows the quantitative determination of oxygen availability in the respective cells in the target tissues. For the first time, non-invasive oxygen measurements are possible at the site where oxygen is actually needed: within active tissue cells. This measurement has already been tested in more than 20 clinical trials in several institutes in Germany and The Netherlands. It is photonamic’s as well as Photonics’ intention to further develop this technology to be used in clinical routine in the future allowing the measurement of the availability, delivery and utilization of oxygen in tissue.

“With this important step in our expansion of R&D into this very important field we anticipate to broaden the use of 5-ALA. This unique mode of action allows to measure oxygen in the tissue and not only as presently in blood circulation”, explained Ulrich Kosciessa, photonamic GmbH & Co. KG’s CEO. “We are pleased to intensify our successful and excellent collaboration with Photonics further, targeting the approval of both the device and photosensitizer for this exciting new application”.

“Together with photonamic, we will provide doctors with the means to obtain information they need to decide about vital treatments.”, says Michael Münker, CEO Photonics. “Our technology needs 5-ALA from photonamic to prime the cells and to measure only in active cells. The measurement of oxygen in mitochondria was invented by an anaesthesiologist who realized he needed it to treat critically ill patients. Myriad treatments in various clinical settings aim to improve oxygen supply to tissues.

Managing blood pressure or blood flow are examples. Such treatments so far lacked guidance, but both over- and under-treatment can cause complications. These range from lack of wound healing to infections to organ failures. Doctors have long asked for information about the activity of the cells and the oxygen levels within them. photonamic and Photonics will finally provide it. I am excited about this collaboration and our perfect synergy. Together, we can make care easier, safer and cheaper for millions of critical situations”.

The SBI Group will continue to pursue a range of potential applications of 5-ALA and focus on research and development to provide pharmaceuticals that satisfy unmet medical needs for patients globally.

(\* ) 5-aminolevulinic acid (“5-ALA”)

An endogenous amino acid derivative produced in mitochondria. Apart from its natural role as an important physiological substance metabolized to heme and cytochromes serving the energy production in the mitochondria membranes it is metabolized to Protoporphyrin IX (PP IX) e.g. in cancer cells. PP IX, a photosensitizer, can be activated by blue light causing pink fluorescence, clearly visualizing the respective cancer cells..

#### **About photonamic GmbH & Co. KG**

photonamic is a German based company involved in the development of 5-ALA in various applications as precursor for the photosensitizer PP IX. As a member of the SBI group with its parent company SBI ALA Hong Kong photonamic developed 5-ALA for the photodynamic therapy of certain types of Actinic Keratosis, a non-melanoma skin cancer, as well as for fluorescence guided resection of Glioblastoma. Both products are marketed through various partners in various territories in Europe, Japan, Australia, Korea and the United States of America. Within the group photonamic and its affiliated companies in the US, Canada and Japan are aggressively extending the development activities with 5-ALA even outside the field of photodynamic application, e.g. food supplement and cosmetics.

#### **About Photonics Healthcare B.V.**

Photonics Healthcare B.V. is a Dutch medical device company, a spin-out of Erasmus Medical Center, Rotterdam, The Netherlands and the Academic Medical Center in Amsterdam, The Netherlands. Its COMET measurement system was CE marked in 2016. It provides the first method to measure oxygen within active cells.

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