September 17, 2018

Dear ICS members,

It is my pleasure to announce that the 2018 ICS-Adama Prize for Technological Innovation will be awarded to Prof. Doron Shabat of Tel Aviv University for developing revolutionary chemiluminescent biological probes that are based on highly efficient synthetic luminophores.

Doron Shabat and his group developed highly efficient luminophores that are suitable for synthesis of biological probes. Upon activation, these probes produce light under physiological conditions with intensity of 3000-fold stronger than that of previously known luminophores, emitting light with quantum yield efficiency similar to that of the natural firefly luciferin/luciferase system. The new compounds allow for the preparation of highly efficient turn-on chemiluminescent imaging probes for various biological and chemical tasks. Biosynth, a Swiss-based developer of reagents and biologically active chemicals, and RAMOT, the Tel Aviv University Business Engagement Center, have announced in August 2017 the incorporation of a Joint Venture, NEMIS Technologies, which is based on Shabat’s technology. The jointly developed technological platform AquaSpark™ forms the basis of NEMIS development of diagnostic kits and solutions for rapid pathogenic bacteria detection in food safety, hospital and clinical applications and water treatment.

Doron Shabat received his B.Sc. in chemistry (1990) and Ph.D. (1997) from the Technion under the supervision of Ehud Keinan in the field of catalytic antibodies. He carried out his postdoctoral research on antibody catalysis under the supervision of Richard A. Lerner and Carlos F. Barbas, III at The Scripps Research Institute in La Jolla, California. In 2000, he joined the School of Chemistry at Tel Aviv University and was promoted to the rank of Associate Professor in 2005 and to Full Professor in 2008. His research on bioorganic chemistry focuses on self-immolative molecular systems, long-wavelength fluorescent dyes and chemiluminescence probes for in vitro and in vivo imaging. He received the Juludan Prize (2005), the ICS Prize for Outstanding Young Scientist (2005) and the Frost Fellowship administrated by The Scripps Research Institute (2012 and 2014). He holds the Emerico Letay Chair of Chemical Processes.

The award ceremony will take place during the 84th ICS Annual Meeting in February 12, 2019.

Congratulations to Doron for his achievements!

Ehud Keinan

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