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BASTION - FROM BASIC TO TRANSLATIONAL RESEARCH IN ONCOLOGY

## Report on the European Society for Photobiology Congress, Liege, 03-06 September 2013



Prof. Jakub Golab during discussion after his lecture at ESP, Liege, Belgium. Prof. Vivien Reeve, co-chair of the session, on the left.

Between 3<sup>rd</sup> and 6<sup>th</sup> September 2013 Jakub Golab participated in the European Society for Photobiology Congress in Liege, Belgium. On September 6<sup>th</sup> together with Vivienne E Reeve from Sydney, NSW, Australia he chaired in the session *Photoimmunology: UV and PDT effects*. Moreover, Jakub Golab had presented **an invited lecture** entitled: "**PDT-mediated damage to lymphatic vessels – mechanisms and outcomes".** 

Photodynamic therapy exerts its anti-tumor effects through direct cytotoxicity towards tumor cells and indirectly through induction of inflammatory response and destruction of blood vessels. While anti-vascular effects of PDT have been intensively explored for the last two decades, relatively little is

known about the influence of this treatment on lymphatic vessels. Lymphatic vessels provide an escape route for cancer cells and peritumoral lymphangiogenesis is associated with invasion and dissemination in cancer. Emerging evidence is also implicating lymphatic vessels as modulators of anti-tumor immunity, through alterations in immune cell trafficking to and from the tumor, as well as the inflammatory cytokine environment. Recently, the use of PDT against the peri-tumoral lymphatics was reported. The time is ripe to begin exploring the overall influence of this strategy on host immunity to the tumor. This research can be used to develop new translatable therapeutic strategies as well as build new understanding of how tumor lymphangiogenesis is regulated and affects tumor invasion and immunity.