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Robert Bing Prize 2020 goes to Johanna Joyce and Grégoire Courtine

The Robert Bing Prize 2020 goes to two exceptional neuroscientists from Lausanne: Johanna Joyce, professor at the University of Lausanne and member of the international Ludwig Institute for Cancer Research, is distinguished for her pioneering work on the role of immune cells in the development of brain tumours. Grégoire Courtine, Professor at EPFL, the University of Lausanne and CHUV, is awarded the Prize for his highly innovative research on neurotechnology to restore walking ability after a spinal cord injury. Each prize is worth 30'000 francs.

The Prize, bestowed every two years by the SAMS, originates from a generous bequest of Basel neurologist Robert Bing (1878 – 1956). In accordance with the donor's will, the Prize is awarded to researchers who have done outstanding work to improve the recognition, treatment and cure of neurological diseases. Due to the corona virus situation, laureates were confirmed by the SAMS Senate at the end of 2020 only, and the announcement was postponed to 2021. The award ceremony will take place on 27 May 2021. Further information and an overview of past Bing Prize laureates are available on the SAMS website: sams.ch/bing-prize

Johanna Joyce short CV



Johanna Joyce is a full Professor in the Department of Oncology at the University of Lausanne, and a full member of the international Ludwig Institute for Cancer Research. Trained in Ireland and England, Prof. Joyce pursued her career in the United States before moving to Lausanne in 2016. She is internationally recognised as an expert in brain tumours and has received many awards for her innovative research.

Her laboratory investigates the tumour microenvironment and the influence of non-cancerous immune and stromal cells on cancer progression and metastasis. Prof. Joyce's research group has shown that immune and stromal cells produce important molecular signals that enhance tumour malignancy.

Johanna Joyce has increasingly focused her research programme on primary and metastatic brain cancers, given the frequently poor prognosis for patients diagnosed with these diseases. A number of clinical trials have been informed by her lab's findings, illustrating their high translational potential.

The identification of molecular mechanisms driving the education of tumour-supporting macrophages is one of the main discoveries of her research group. The re-education of these cells could represent an effective therapeutic approach. Her lab has also identified key mechanisms that allow the tumour microenvironment to regulate the response to therapeutic interventions. They have recently published a comprehensive map of the immune cell landscape in primary and metastatic brain tumours, a landmark study in this field.

Grégoire Courtine short CV



Trained in Physics and Neurosciences, Grégoire Courtine studied in France, deepened his knowledge in translational neuroscience at UCLA in California and at the University of Zurich, before moving to Lausanne in 2012.

Grégoire Courtine is full Professor of Neuroscience and Neurotechnology at EPFL, at the University and at the University Hospital of Lausanne, where he is director of the .NeuroRestore centre. He has distinguished himself in particular through the development of neurotechnologies that restore walking in people with paralysis due to spinal cord injuries, through targeted stimulation of the posterior

roots of the spinal cord. This technology is currently being tested in a clinical trial. Thanks to his impressive performance at the interface of neuroscience, medicine and biomedical technology, and to his contributions to new therapeutic approaches, he is recognised worldwide as a leading researcher in his field.

Prof. Courtine's scientific work is mainly oriented towards translational research and covers a broad methodological spectrum from animal models to humans. The results of his research receive special attention both in the specialist literature and in the international press. His success is also expressed in the 40 patents in his name and in his capacity as Chief Scientific Officer of ONWARD medical. This start-up, which he co-founded in 2014, translates the neurotechnologies developed in his laboratory into clinical treatments.

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Portraits of the two laureates can be downloaded from the SAMS website: sams.ch/media