
SWISS BRIDGE AWARD 2007 – WINNERS

Ariel Ruiz i Altaba (Prof., PhD, 45 yo) of the Department of Genetic Medicine and Development at the University of Geneva, Switzerland receives CHF 350,000 for the project:

Glioma cancer stem cell self-renewal: Regulation of stemness by HEDGEHOG-GLI signaling.

The project focuses on the elucidation of the self-renewal mechanisms utilized by brain cancer stem cells. Such cells have been shown to exist in gliomas and other human tumors and to be responsible for tumor initiation. They are thought to cause tumor growth, recurrence and metastases. Understanding how these cells persist (self-renew) is thus a key to design therapies that will be efficient in eradicating cancer.

Ruiz i Altaba will study the molecular mechanisms that are activated by HEDGEHOG-GLI signaling and control in glioma cancer stem cell self-renewal.

Pier Giuseppe Pelicci (Prof., MD, PhD, 50 yo) of the Department of Experimental Oncology at the Istituto Europeo di Oncologia, Milano, Italy receives CHF 300,000 for the project:

Biological and molecular characterization of Cancer Stem Cells.

This project is based on the hypothesis that breast cancer is a “stem cell” disease. In this context breast cancer may be viewed as an abnormal “tissue” driven by a Cancer Stem Cell population that is resistant to current therapeutic regimens. These Breast Cancer Stem Cells, if not eradicated, have the potential to regenerate metastatic tumor even after years of apparent remission.

In this project, the applicant will use *in vitro* and *in vivo* model systems to study the biology and genetics of Breast Cancer Stem Cells, the molecular basis underlying their genesis from normal epithelial Breast Stem Cells, and their susceptibility to either existing or newly developed therapeutic challenges.

Furthermore, genomic approaches will be used to identify molecular markers that specifically identify these cells.

Matteo Cesari (Assistant Prof., MD, PhD, 32 yo) of the Department of Gerontological, Geriatric and Psychiatric Sciences at the Catholic University of Sacred Heart in Roma, Italy receives CHF 200,000 for the project:

Onco-Geriatric approach for the management of oncological older patients.

Patients older than 65 years present an 11-fold increased risk of cancer incidence and 16-fold increase in cancer mortality compared to younger patients. The population at risk is growing rapidly. Despite this emerging need due to the demographic shift, oncologists still choose the best treatment intervention for older cancer patients adopting an approach designed for physically fit younger subjects. Elderly people with cancer are less likely to tolerate treatments optimized for younger patients.

This innovative and original project evaluates for the first time, if a comprehensive and coherent geriatric assessment will improve the treatment of elderly cancer patients (higher survival and less adverse events). Furthermore, there are numerous additional benefits of this study, such as the creation of a research database, translation of clinical hypotheses into research and research data into clinical practice as well as identification of biological and psychosocial markers for outcome prediction.

Please do not hesitate to request more information on the projects supported from info@swissbridge.ch.
