The Oncology Institute of Southern Switzerland (IOSI) is one of the largest clinical cancer research centers in Switzerland. With more than 50 phase I-III clinical trials open it offers access to innovative therapies and is involved in the development of new anti-cancer treatments.

In 2018 a scientific research board was established with the aim to evaluate new clinical trials to eventually activate. The IOSI Departments of Medical Oncology, Haematology, Radiation Oncology and Palliative Care’s Clinical Research is centrally coordinated by the IOSI Clinical Research Unit (CRU). The IOSI-CRU staff includes study coordinators and research nurses and provides the infrastructures and support for researchers of the Institute. In addition, the New Drugs Development Unit is taking care of the activation and conduct of early phase clinical trials, which include phase I trials for solid tumours and lymphomas. Although IOSI performs research in different types of cancer, lymphoproliferative diseases, prostate cancer and new drug development represent the main areas of interest, because of the strong collaboration with the preclinical research program of the Institute of Oncology Research (IOR), which have the same three main focuses. Other topics of interest include breast cancer, acute leukaemia, lung and gastrointestinal cancer, and radiomics.

In 2018, 29 new clinical trials (including 5 phase I trials) were activated and 95 patients were included in clinical trials, among them 23 patients in phase I trials evaluating new drugs. Lymphoma and chronic lymphocytic leukemia, prostate, breast and lung cancer were the tumour types more frequently included.

In addition to these trials, several projects performed in collaboration with the IOR are evaluating the use of peripheral blood biomarkers as predictors of patients’ outcome. This type of research, already active and largely expanded in lymphoma and chronic lymphocytic leukemia under the supervision of Prof. Dr. D. Rossi, is now active, starting from 2018, also for prostate cancer in collaboration with Prof. Dr. A. Alimonti. Another important aspect of research in 2018 was represented by the efforts to develop an adoptive cell therapy group and we expect that the first clinical trial using CAR-T cells for patients with lymphoma will be opened in 2019.

Clinical research at the IOSI has a strong and long-standing collaboration with national and international research groups. As in the past, during 2018 clinical research was performed in collaboration with the Swiss Group for Clinical Cancer Research (SAKK), the International Extranodal Lymphoma Group (IELSG) directed by Prof. Dr. E. Zucca, the International Breast Cancer Group (IBCSG) where Prof. Dr. O. Pagani is an influential member and more locally, with the help of the EOC Research Found (ABREOC), the Clinical Trial Unit (CTU) and the Pathology Institute in Locarno (ICPL). For the phase I studies, in addition to the collaboration with pharmaceutical industries, several investigator initiated studies have been developed by researchers of the IOSI in collaboration with the IOR, the CTU and the SAKK. Thanks also to these collaborations, many publications could be completed in 2018 including IOSI members and researchers from IOSI have presented results in national and international conferences.