

YOUR MONEY AT WORK

HOW THE SWISS PRIVATE BANKING COMMUNITY HELPS
SCIENTISTS TO FIND A CURE FOR CANCER



OUR STATED PRIORITY IS TO FIGHT CANCER WITH ALL AVAILABLE MEANS

... invest in cancer research worldwide

In the past years, we have supported numerous projects in Belgium, Brazil, France, Great Britain, Israel, Italy, the Norway, Spain, Sweden and Switzerland.

... generated up to 2 million Swiss francs in donations every year

Banks and solicitors in Switzerland have introduced numerous clients to SWISS BRIDGE, each of which has donated substantial amounts to SWISS BRIDGE.

... the SWISS BRIDGE AWARD for international researchers

The SWISS BRIDGE AWARD has become one of Europe's most important research awards. Only the best in class receive funding up to 500'000 Swiss francs for their future projects.

... no expenses deducted from donations for research

Over the past fifteen years, the supporters and friends of the foundation have covered all the costs of public relations, fundraising and administration. This allowed us to transfer 100% of donations designated for research to the selected research teams.

... world-class scientific standing

Both the Scientific Committee and the Patrons Committee include Nobel prize winners and other world-renowned scientists.

... close co-operation with the UICC (a WHO institution)

To enable international investors and international researchers to rate the quality of SWISS BRIDGE, the organisation stipulates that recipients of SWISS BRIDGE funding outside Switzerland be a member of the "Union for International Cancer Control" in Geneva.

... "swissness" – trustworthy, modest and precise

For fifteen years, SWISS BRIDGE has undertaken only modest PR activities, putting emphasis on one-to-one contacts with its donors and prospects.

GREETINGS



Having served the Swiss Cancer League and related organisations for many years, it is a pleasure to be associated with a private initiative like SWISS BRIDGE to engage in the fight against cancer. SWISS BRIDGE is now well positioned to reach its future goals. I have decided to step down from the Chairmanship of this organisation and wish my successor, Professor Jakob Passweg a very happy and rewarding time as new Chairman of SWISS BRIDGE.

Giorgio Noseda
Giorgio Noseda, Chairman of the Board
 (Chairman of the Board until 31.12.2012)



For almost ten years I have had the pleasure of leading the Scientific Jury of SWISS BRIDGE, and I have not become tired of it. Reviewing up to one-hundred innovative and first class research projects from all over Europe and overseas annually has become a preferred task in my lifelong engagement to fight cancer. The international collaboration of SWISS BRIDGE, as partner of the www.ecancer.org platform works together to promote Open Access and improve cancer communication. I hope that SWISS BRIDGE will further be supported by generous donors and other charitable institutions to help the cancer research community make speedy progress.

Gordon McVie
Gordon McVie, Chairman of the Scientific Jury



As a Member of the Board of Foundation I have been involved in collecting important funds for cancer research and investing them in cutting-edge research projects worldwide. The purpose and principle of SWISS BRIDGE is to lead an efficacious campaign to support international researchers to find means and ways to beat the fiercest enemy of mankind. Thanking the Board of Foundation for their confidence entrusted in me, I will endeavour to serve SWISS BRIDGE with my full engagement.

Jakob Passweg
Jakob Passweg, Member of the Board
 (Chairman of the Board from 01.01.2013)



After 15 years of intensive engagement to support Swiss and International efforts to understand the development of and fight against cancer, I am proud to look back on the successful contribution to the cause by SWISS BRIDGE. Thanks to the great collaboration between the fundraising/administrative- and the scientific teams, SWISS BRIDGE has become a well-recognised partner in the international cancer community. I have no intention to sit back but will continue to campaign to raise more funds to fulfil our vision to "leave our descendants a precious legacy".

Thomas Hoepli
Thomas Hoepli, Co-founder and Member of the Board of Foundation

ORGANISATION

Board of Foundation

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Prof. Jakob Passweg, Basel
Chairman (from 01.01.2013)
Eleonore Droux, Herrliberg
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Heinz Roth, Uitikon-Waldegg

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Management and Administration

Heinz Waech, Zurich

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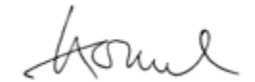
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15 YEARS OLD AND STILL GOING STRONG

A vision come true

In 1996, it was a tragedy, when a member of my family died from cancer; she was just 45 years old. Having just turned away from a 30 year long banking career, I decided to dedicate my time and energy to help the fight against man's number one enemy: CANCER. I proposed to the Swiss Cancer League to help me to set up an independent foundation to solicit donations from wealthy clients of the Swiss Private Banking Community with the goal to invest them in high quality, international cancer research projects. Thus in April 1997 the SWISS BRIDGE Foundation was born.



Thomas Hoepli, Co-founder and Member of the Board of Foundation

Purpose

The purpose of SWISS BRIDGE is to seek support for Swiss and worldwide cancer research from financially independent individuals and corporations.

Principles

Donors may choose the countries or organisations to which they wish to give their support. As a general principle, all donations for cancer research will be transferred to the designated (and approved) organisations in full.

Status

SWISS BRIDGE is a tax-exempt charitable foundation based in Switzerland. Donations may therefore be deducted from taxes in Switzerland to the legally permissible extent in accordance with the tax laws of the Swiss federal and cantonal governments.



Major projects supported

Besides the funding of the SWISS BRIDGE AWARD (see page 6), SWISS BRIDGE has supported many other projects, among them:

Instituto Nacional de Cancer (INCA) www.inca.gov.br in Rio de Janeiro received CHF 5 Mio over 5 years to build up and to support research projects such as:

- The establishment of a national tumour and DNA bank in Brazil,
- carry out gene expression profiling studies in Brazilian cancer patients,
- study molecular heterogeneity of leukaemia and lymphomas
- study molecular markers and environmental interaction in the study of pathogenesis of childhood leukaemia in Brazil.

At the SWISS BRIDGE AWARD Ceremony in 2008, from left to right: Prof. Dr. Arnold Koller, Dr. Giorgio Ghiringhelli, Thomas Hoepli, Prof. Dr. Giorgio Nosedà, Dr. Egon P.S. Zehnder

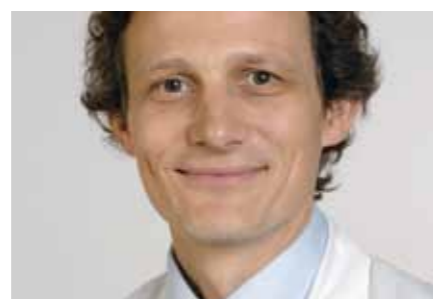
THE SWISS BRIDGE AWARD 2000 – 2011 THREE OUTSTANDING PROJECTS

In the past 12 years SWISS BRIDGE has invited European cancer research teams to compete for the SWISS BRIDGE AWARD, offering project support of 500,000 Swiss Francs (minimum) annually. Over 500 project proposals were received, which had to be evaluated by the Scientific Jury, headed by Prof. Dr. Gordon McVie, former Chairman of the UK Cancer Campaign, today Scientific Directorate, European Institute of Oncology, Milan.

32 research teams from 9 countries shared a total of CHF 6,850,000 price monies. Here are three of the most prominent award winners, whose outstanding achievements contributed immensely to the progress of basic cancer research applied to cancer care.



Dr Pier Paolo Di Fiore of the European Institute of Oncology in Milan received the SWISS BRIDGE AWARD in 2001 for: “Expression profiling of cancer metastasis using microarray technology”. Dr Di Fiore became famous in the cancer research community for his outstanding work on reasons for aggressiveness of certain cancers. Most cancers are difficult to cure after they have spread (metastasised) and Di Fiore and his group has unravelled some of the key mechanisms at the level of the cancer cell. His work has advanced the understanding of the threat posed by such nasty cancers, and has helped the development of new therapeutic strategies.



Dr Markus Gabriel Manz from the Institute for Research in Biomedicine (IRB) Bellinzona received the SWISS BRIDGE AWARD in 2002 for: “Modelling Cellular Immunotherapy in Cancer”. Dr Manz became a world renowned researcher, having successfully planted the human immune system into a specially pre-treated mouse, which allows replication of the way the immunity is overcome by a cancer, particularly one arising in the immune system such as lymph nodes and bone marrow. Immune therapy was unimportant at the time of this award, but is now accepted, thanks to the work of Dr Manz and others. Antibodies, lymphocyte transfusions, autotransplants, vaccines and lately anti T cell suppressor drugs have transformed a cinderella science into real patient benefit.



Dr Thomas Helleday from the Gray Institute for Radiation Oncology & Biology, University of Oxford, UK, received the SWISS BRIDGE AWARD in 2008 for “Novel therapy for PARP inhibitor resistance BRCA1 or BRCA2 tumours”. Dr. Helleday is credited with the co-discovery of the link between family breast cancers and damage to two genes called BRCA1 and BRCA2, and PARP. It seems that the two key genes’ job is to help cells repair damage done to the DNA, the building blocks of cells. So if cells, such as those in the breast suffer DNA insult, and BRCA 1 and 2 are damaged when passed on at birth, the repair doesn’t happen, and the cells become cancerous. The subsequent discovery of a helper repair mechanism called PARP, and new drugs which knock out PARP has opened up a very promising way to kill the affected cancer cells, and perhaps in the future, prevent their emergence.

SWISS BRIDGE AWARD 2009

Dr Stephen C. West, PhD, Senior Group Leader & Deputy Director, Clare Hall Laboratories, London Research Institute UK, South Mimms, UK received the SWISS BRIDGE AWARD 2009 for the project “Interplay between the cancer pre-disposition disorders Fanconi Anemia, Bloom’s Syndrome and BRCA2 breast cancer”.

Dr West’s team at the London Research Institute was awarded the 10th Anniversary SWISS BRIDGE AWARD to study how our genetic material (DNA) is protected from chemical damage, from radiation, and from agents that we are exposed to in the environment. Remarkably, all of our cells have very efficient repair processes that can specifically recognise lesions, and breaks in DNA, and can repair them without us even knowing that those damages occurred. Unfortunately, not everyone is quite so fortunate and there are many individuals that are lacking in one or more of these important DNA repair processes. These individuals are often predisposed to develop cancers, or other crippling diseases, often at a young age.

Dr West’s group has been studying the interplay between three cancer pre-disposition disorders – Fanconi Anemia, Bloom’s Syndrome and breast cancers caused by mutations in the BRCA2 gene. All three diseases are caused by mutations in genes that play important roles in the recognition and processing of DNA damages that are repaired by a key cellular process known as homologous recombination.

Fanconi Anemia (FA) is an inheritable genetic disorder characterised by congenital abnormalities, bone marrow failure and increased incidence of cancer including acute myeloid leukaemia and squamous carcinomas of the head and neck. Some patients with FA develop breast cancers, and in fact some patients with this disease (sub-group FA-D1) carry mutations in the BRCA2 breast cancer



predisposition gene. After many years of research, the group was successful in isolating and purifying the product of the BRCA2 gene, which is known as BRCA2 protein, and have been able to visualise the protein by electron microscopy as it binds to DNA.

Bloom’s syndrome (BS) is a rare genetic disorder associated with dwarfism, immunodeficiency, reduced fertility, and most importantly by a high incidence of cancers of all types. At the microscopic level, cells taken from patients with FA, BS, or BRCA2-linked breast cancer show an abnormally high frequency of genome instability, characteristic of a defective repair system. In particular, the research carried out by this group discovered that the cancers associated with BS are caused in part by the use of alternative pathways for processing DNA intermediates that arise during DNA repair by homologous recombination. They have now identified the cellular components, or enzymes, that mediate these alternative

processing pathways and have isolated the proteins responsible so that they can be studied in fine detail. They found that these alternative pathways are normally switched off in growing cells, but in the absence of the Bloom Syndrome protein, BLM, they become active and it is the use of these alternative, often incorrect, pathways of repair that leads to the high level of genome instability that is seen with BS and other cancer predisposition syndromes. Work in the laboratory has led to a greater understanding of the DNA repair systems that are defective in cells derived from these patients and will ultimately help in the development of new cures for these diseases. Dr West has been awarded several prizes for his ground-breaking research including the Louis-Jeantet Prize for Medicine (2007), the GlaxoSmithKline Medal of the Royal Society (2010) and the Genetics Medal (2012).

SWISS BRIDGE AWARD 2010

Dr. Andrea Alimonti, Head Molecular Oncology lab, Institute for Oncology Research, Oncology Institute of Southern Switzerland, Bellinzona received the SWISS BRIDGE AWARD 2010 for the project “Aging cancer cells by targeting senescence: A pro-senescence therapy approach for cancer therapy”.

Senescence is an irreversible cell growth arrest that occurs in all the human cells during aging. This process leads to a progressive exhaustion of the pool of stem cells that normally renew human tissues leading to organ failure. Senescence can also occur in tumor cells upon overexpression of oncogenes or down-regulation of certain tumor suppressor genes blocking tumor development. We have recently discovered a novel type of cellular senescence response that

Hitherto, there are only few pro-senescence compounds under clinical investigation and little effort has been put into the identification of novel pro-senescence compounds for cancer therapy. The Swiss Bridge Award has allowed our group to set up a screening platform for the identification of novel selective pro-senescence compounds that act in PTEN null tumors at different stages. PTEN is one of the most frequently altered tumor suppressor genes in cancer. Therefore

Up to now, we have screened more than 2000 compounds and we have identified almost 30 “prosenescence” compounds. Fifteen out of thirty compounds are highly effective in increasing senescence in a selective manner (in Pten null cells but not in normal cells) and have been further characterized in vitro in both mouse and human primary cells and cancer cells. Two of these compounds have been further developed in collaboration with industrial partners and will be soon tested in pre-clinical trials in mice before their final testing in phase I clinical trial. Importantly, these compounds are also capable to induce senescence in cancer stem cells (CSCs) by activating tumor suppressive signalings that are commonly silenced in these tumor cells. Since CSCs are responsible for tumor relapse and metastasis in patients that do not respond to chemo and/or radiotherapy, the further development of these compounds holds hope for an improvement of survival and quality of life of metastatic cancer patients. We are convinced, that our results will provide novel exciting therapeutic avenues once they will be validated in the clinic hence we are extremely grateful to the Swiss Bridge Award for providing the support during these years.



Dr. Andrea Alimonti (middle) in his lab in Bellinzona.

occurs upon complete inactivation of the tumor suppressor PTEN, termed PTEN loss induced cellular senescence (PICS). We have demonstrated that PICS opposes the development of tumors in vivo and this response can be targeted for cancer therapy. This novel therapeutic approach has been named pro-senescence therapy for cancer.

the identification of pro-senescence compounds that block tumors with deletion or mutation of PTEN would be of an enormous social value. In collaboration with the bioinformatic department of Siena Biotech Spa, we have created a database containing information on genes known to be essential for senescence. This dataset includes not only genes relevant for replicative and onco-gene-induced senescence but also genes associated with aging related disorders or involved in the regulation of specific hallmarks of senescence cells. From this analysis we have identified 2500 “senescence” relevant genes. By comparing our genes list with the list of all the small molecules available in both private and public compound libraries, we have created a library of 5000 small molecules that we are screening in our platform.

SWISS BRIDGE AWARD 2011

Prof. Monika Hegi, Laboratory of Brain Tumour Biology and Genetics, University Hospital Lausanne received the SWISS BRIDGE AWARD 2011 for the project “Identification of Novel Therapeutic Targets and Biomarkers for Response to Treatment”.

Management of patients suffering from a low grade glioma remains challenging. Due to the diffuse infiltration into the normal brain, tumors can never be completely removed by surgery and invariably recur, often progressed to a more aggressive grade. The disease affects young patients below the age of 45 years, with a median survival of 3.2 (high-risk disease) and 7.8 years (low risk). Due to the rarity of the disease (yearly incidence 1-2/100.000) no homogenous series with clinical and molecular data are available, hence, very little is known about the biology of the disease and treatment response.

The Brain Tumor Group of the European Organisation for Treatment of Cancer (EORTC) has recently completed randomization of over 500 low grade glioma patients into a prospective international trial for which outcome data will become available within one year. Most importantly for our project, tumor tissues were collected on all patients. This provides us with the unique opportunity to link molecular profiles of the tumors with response to therapy. The goals are, first to identify predictive biomarkers for personalized therapy, in order to provide patients with the most adequate treatment according to their tumor’s molecular profiles. Second, we aim at uncovering new targets for the development of novel treatment approaches for improvement of patient outcome.

Thanks to the financial support of the SWISS BRIDGE AWARD 2011 we are currently molecularly characterizing these brain tumor samples in collaboration with other contributing laboratories in Rotterdam, Heidelberg, Ghent, Brussels, Paris, and the EORTC Brain Tumor Group



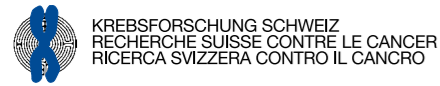
The multidisciplinary team of the Hegi Lab – chill out at the beach in Lutry (VD).

of which I am the coordinator for translational research. Recent technical advances allow us the use of high through put technologies to investigate so called epigenetic alterations in clinical tumor samples. Epigenetic alterations consist of modifications of the DNA that do not change the genetic code, but have a strong impact on gene regulation and have been recognized to play an important role in the cancer process. Commonly tumor suppressor genes are “silenced” by aberrant methylation of so called CpG-islands located in the gene promoter, the regulatory region of a gene that basically results in a loss of function of the affected gene. These aberrations target diverse cancer relevant pathways, either leading to activation of tumor promoting pathways, mediated by silencing of negative regulators, or silencing of tumor suppressing pathways. In addition, epigenetic changes also include inactivation of mechanisms involved in maintenance of cell integrity such as DNA repair and apoptosis (programmed cell death). Most interestingly, some of these epigenetic alterations can be converted into the “Achilles heel” of the affected tumors upon treatment with certain classes of anti-cancer agents as we have shown

previously for glioblastoma, the most aggressive brain tumor type. We could demonstrate that patients with tumors containing an epigenetically silenced DNA repair gene called “MGMT” particularly benefited from treatment with the alkylating agent temozolomide, due to this tumor specific deficiency of repairing the most toxic lesions introduced by the anti-cancer drug. The methylation status of the MGMT gene promoter has become an important biomarker changing how clinical trials are performed in neuro-oncology and guiding treatment decisions.

We are confident that our molecular analyses of low grade glioma will uncover pathways affected by epigenetic alterations that will improve our understanding of the disease, but most importantly will also identify new targets for therapeutic interventions, providing options for personalized patient care. Furthermore, our collaborative group comprises all necessary expertise, from biologist to neuro-oncologist, pathologists and biostatisticians, assuring that new findings will be quickly translated into improved patient care.

PARNTER ORGANISATIONS



The Foundation Krebsforschung Schweiz **www.krebsforschung.ch** supported the setting up of the SWISS BRIDGE Foundation in 1997 and manages the scientific office of SWISS BRIDGE, presently under the leadership of Prof. Dr. Gordon McVie, chairman of the Scientific Jury since 2002.

The Foundation was inaugurated in 1990 mainly to collect donations to support and promote all areas of cancer research such as: basic, clinical, epidemiologic and psychosocial research, as well as paediatric research (cancer diseases in children). The Foundation especially focuses on patient-relevant research, independent of the pharmaceutical research activities.



Union for International Cancer Control **www.uicc.org** was a founding partner of the SWISS BRIDGE Foundation. SWISS BRIDGE generally supports a cancer research project outside of Switzerland only, if the beneficiaries are members of UICC. Thus international investors and international researchers may rate the quality of the SWISS BRIDGE activities.

Union for International Cancer Control was founded by the World Health Organisation (WHO). UICC shares a passion to eliminate cancer as a life-threatening disease for future generations. The network brings together organisations that all contribute to shape cancer control on a global scale. Current UICC membership comprise more than 700 member-organisations in 155 countries, among them the Swiss Cancer League.



Ecancermedscience **www.ecancer.eu**, established in 2008, is an online publishing company, and operates a leading TV channel, which provides access to medical publications and information relating to all aspects of cancer research.

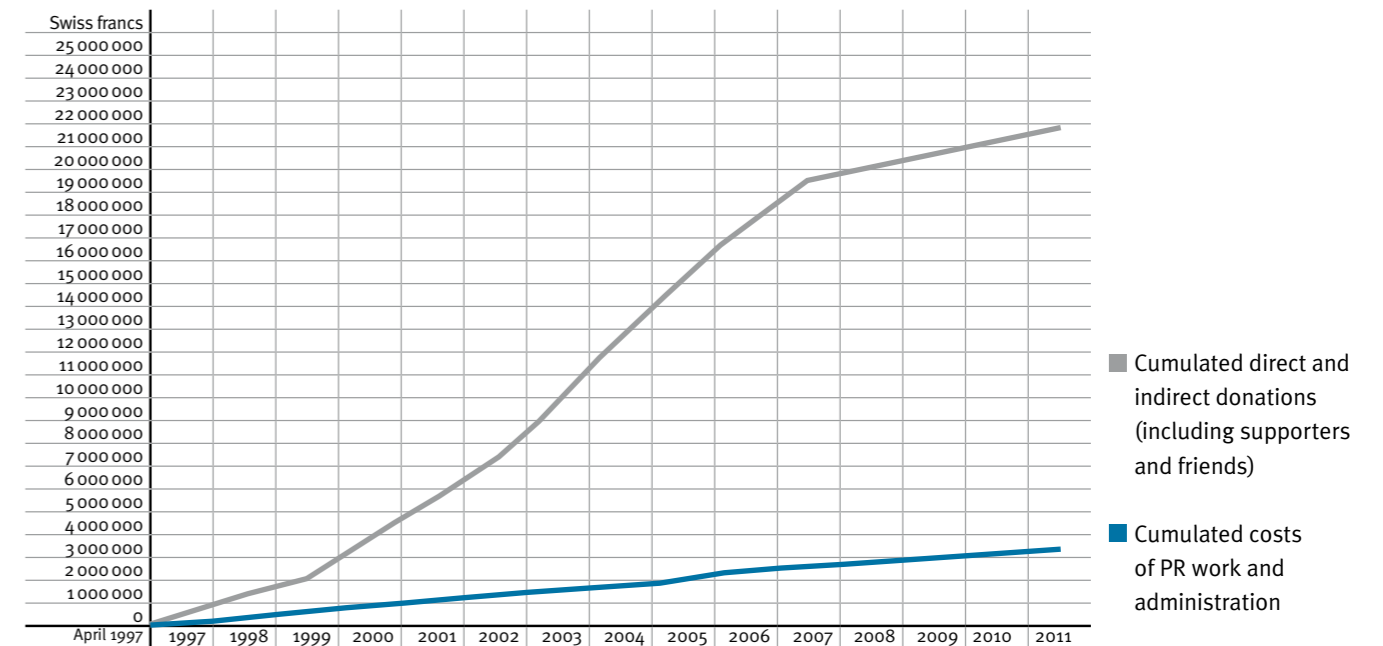
SWISS BRIDGE Foundation was a founding partner of ecancer, together with European Cancer Organisation, Bruxelles (ECCO), Istituto Europeo di Oncologia (IEO), Milano and Umberto Veronesi Foundation, Milano. ecancer, with the financial support of SWISS BRIDGE, is currently working with Sociedad Anticancerosa de Venezuela on a number of online initiatives for oncology patients and professionals that will directly improve outcomes for patients within Latin America.



The foundation biobank-suisse **www.biobank-suisse.ch**, established in 2005, is a network of biobanks in Switzerland. It allows researchers a quick overview of the available biospecimens and data for research. Biobank-suisse has successfully completed its pilot phase and will soon be fully operational.

SWISS BRIDGE Foundation was a founding partner of biobank-suisse, together with Oncosuisse, a partner organisation of the Swiss Cancer League.

HOW TO SUPPORT SWISS BRIDGE FOUNDATION



Designated donations

Donors may designate their contribution to specific institutions of their choice. With the approval of the Scientific Committee, and under the condition that the beneficiaries are members of the Union for International Cancer Control (a WHO institution), projects in any part of the world may be supported.

Non-designated donations

Many donors entrust the decision for the use of funds to the Scientific Committee. Through the SWISS BRIDGE AWARD, international scientists are invited to compete for this prestigious award and funds (see page 6).

Cooperation with other Foundations and direct donations

SWISS BRIDGE has a longstanding tradition to help other foundations evaluate cancer research projects to be supported by them. Often, these foundations establish a direct contact with the selected researchers, although the flow of funds and the progress of the projects are controlled by SWISS BRIDGE. The most prominent example is the Stammbach Foundation, which supported projects of SWISS BRIDGE for many years (see SWISS BRIDGE Magazine 2009).

Other donors have entrusted the Scientific Committee of SWISS BRIDGE to select and evaluate cancer research projects, which they support directly. This is also a very effective way to contribute towards cancer research, profiting from a high-quality selection process at minimal costs.

We would like to motivate other donors to make use of our outstanding scientific expertise.

Supporter and Friends of the Foundation

The costs for administration and public relations have been borne over the past 15 years by the Supporters and Friends of the Foundation. Various events, such as Golf Days, Charity Dinners or Award Ceremonies have given Supporters and Friends the opportunity to get personally acquainted with the activities of the SWISS BRIDGE Foundation.

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12 298 Espressi getrunken.
810 Nächte durchgearbeitet.
1 neue Therapie gegen Krebs entwickelt.