UNIVERSITÄT BERN

HANS-SIGRIST-STIFTUNG

VOM STIFTUNGSRAT GENEHMIGT
AM 14. MAI 2014

Tätigkeitsbericht 2013

Geschäftsstelle:
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Hans-Sigrist-Stiftung

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Stiftungsrat

- Prof. Dr. N. Trautmann, Präsident
  Wirtschafts- und Sozialwissenschaftliche Fakultät
- Prof. Dr. C. Rigamonti, Vizepräsident
  Rechtswissenschaftliche Fakultät
- Prof. Dr. M. Leumann
  Vizerektor Forschung
- Dr. B. Pulver, Erziehungsdirektor
  Vertreten durch J. Locher,
  Amt für Hochschulen
- Prof. Dr. S. Brönnimann
  Philosophisch-naturwissenschaftliche Fakultät
- Prof. Dr. K. Henke
  Philosophisch-humanwissenschaftliche Fakultät
- Prof. Dr. A. Kunz
  Wirtschafts- und Sozialwissenschaftliche Fakultät
- Prof. Dr. E. Müller
  Veterinärmedizinische Fakultät (Vetsuisse)
- Prof. Dr. A. Perren
  Medizinische Fakultät
- Prof. Dr. G. Rippl
  Philosophisch-historische Fakultät
- Prof. Dr. S. Schroer
  Theologische Fakultät

An den beiden ordentlichen Sitzungen befasste sich der Stiftungsrat der Hans-Sigrist-Stiftung mit den folgenden Geschäften:

- Wahl des Preisträgers 2013
- Bestimmung des Forschungsgebietes für den Preis 2014
- Genehmigung des Tätigkeitsberichtes 2012
- Genehmigung der Jahresrechnung 2012 und des Revisionsberichtes 2012
- Genehmigung des Budgets 2014

Hinzu kamen folgende Tätigkeiten:

- Vergabe von drei Hans Sigrist Zuschüssen
- Vergabe einer weiteren wissenschaftsfördernden Massnahme

Mutationen im Stiftungsrat:

- Frau Prof. Dr. Marina Cattaruzza (Philosophisch-historische Fakultät) hat ihren Austritt aus dem Stiftungsrat auf Juni 2013 erklärt.
- Neu in den Stiftungsrat gewählt wurden Prof. Dr. Alexis Kunz (Wirtschafts- und Sozialwissenschafliche Fakultät), Prof. Dr. Aurel Perren (Medizinische Fakultät) und Prof. Dr. Gabriele Rippl (Philosophisch-historische Fakultät).

Im Namen des Stiftungsrats danke ich Marina Cattaruzza für ihr langjähriges Engagement und die angenehme Zusammenarbeit. Den Kolleginnen und Kollegen im Stiftungsrat und im Ausschuss danke ich für ihr aktives und konstruktives Mitwirken. Frau Rosenberg ist in den Ruhestand getreten und hat die Leitung der Geschäftsstelle an Frau Stockfleet übergeben. Beiden danke ich für die in jeder Hinsicht hervorragende Unterstützung.

Bern, 14. Mai 2014
Der Präsident des Stiftungsrates
Prof. Dr. N. Trautmann

2013 Hans Sigrist Prize
Stem Cell Applications in Regenerative Medicine

A committee of experts, under the leadership of Prof. Dr. Eliane Müller, Institute for Animal Pathology, Vetsuisse, University of Bern, presented a list of three finalists to the Board for the 2013 Hans Sigrist Prize in the field of Stem Cell Applications in Regenerative Medicine. On May 14, 2013, the board selected Prof. Dr. Yoshiki Sasai, RIKEN Center for Developmental Biology, Kobe, Japan as the 2013 Hans Sigrist Prize Winner.

Prof. Yoshiki Sasai, M.D., Ph.D.

Laudatio:

Professor for Organogenesis and Neurogenesis at the prestigious RIKEN Center for Developmental Biology is one of the internationally most distinguished and currently most innovative researchers in this year's prize field "Stem Cell Applications in Regenerative Medicine". His discovery of the "self-organizing principle of tissue" allows the stem cell-mediated reconstruction of three-dimensional tissues. The growth of the retina, responsible for vision in the eye, as well as perfectly organized three-dimensional brain and gland structures count amongst his most recognized achievements worldwide. Prof. Sasai receives the 2013 Hans-Sigrist Prize for his outstanding and innovative stem cell discoveries in the field of stem cell-mediated organogenesis, which pave the way for the next-generation of regenerative medicine.

An Interview with the 2013 Hans Sigrist Prize Winner

While Prof. Dr. Yoshiki Sasai, our 2013 Hans Sigrist Prize winner, was in Bern to receive the prize at Dies Academicus in December, our Foundation Manager from the Hans Sigrist Foundation (HSF) sat down with him to ask him a few questions about his research and future plans.

HSF: Can you tell us a little about your recent work, aimed at our readers who are not stem cell scientists?

Sasai: I am particularly interested in the field of embryo origin, how complex organs such as brains or eyes can form, from relatively simple cells called stem cells. It is a mysterious process. Although these complex organs form in the mother's body, it is not like the mother put her hands into her body and made a nice shape. Actually, what happens is that after conception, the fertilized egg keeps on dividing, and somehow, these cells spontaneously develop the structure including organs before the embryo is formed. This is not simple, spontaneous generation, but it is programmed. Because if you have a brother who is a homozygous zygote (identical twin) with you, he should be very similar to you in many senses, including the shape of body and shape of organs, but homozygous twins are not totally genetically encoded. But most of organ development is genetically encoded. A mouse makes a mouse eye, a human makes a human eye. I found that this is a very interesting and mysterious area of biology, so over the last 12 years, my laboratory has been challenging this question, by using stem cell cultures to recapitulate organ development.

HSF: What made you use the specific approach that you did to working with stem cells. What inspired you to make the changes you did to stem cell research?

Sasai: What we really wanted to do was recapitulate the baby's development that usually happens in the body. We wanted to bring that into the in vitro context. In mammalian development, including human development, part of the body comes from only 30 cells, it is a ball of 30 cells, present in the conceived embryo, that is called the inner cell mass. These cells can become anything and everything in the body - brain, heart, bone, or gonadal tissue, the sperm and egg. They are the almighty kind of cells, the totipotent stem cells; they can develop into any kind of cells. In this field, we call that differentiation. In the end, a neuron is a neuron, and a heart is a heart, and a heart will not become a neuron anymore. There are two things we improved to recapitulate organ development from stem cells in culture. The first one is substantial improvement of the differentiation protocol. The stem cells can be steered to differentiate into a specific lineage of cells, such as cerebral cortex tissue or retinal tissue in the eye. Initially, over the last 15 years or so, many people in the field are working on this kind of differentiation to get 10 or 20 percent efficiency. In our case, we improved our culture in such a way that the cells of interest occupy more than 40 to 50 percent of the entire culture.

Once the cells of interest occupy 1/3 of the culture, we found something special happening. When the cells of interest are mixed with other kinds of cells, for example, if the cortex cells are mixed with other brain tissues in the culture, they do not do much, they just become cortical neurons. So, that is O.K., and that is probably O.K. to be used for regenerative medicine, or to be used for drug discovery for Alzheimers disease.

HSF: So the researchers would test the drugs on the cells?

Sasai: Yes, but we reached the condition where the differentiation efficiency is more than a third, like 40 or 50 percent, then the majority of the population starts to do their own job, by talking to each other. So, they started very complex intercellular interactions, cell-cell interactions. And without external instruction, without my instruction, they started their own program that is internally programmed in their genome. So, it is like, if you are a cell, let's say you are a cortical neuron, when you see at a party that there are lots of different kinds of people, cortical neurons, heart muscles, and eye cells, and so on, then probably you do not feel like, "I should be just one of them." But when you see that the guys and girls all around are cortical neurons, you start to talk to each other and say "Let's make our structure, let's make cortical tissue".

HSF: So, it's sort of like peer pressure?

Sasai: Yes, and this community effect apparently has a threshold, it only happens when it reaches a critical level of cells of the same kind. Then, their intercellular interaction becomes really strong, and they start some kind of structurization - they start to make structures, even in vitro.

I do not know about the people in Switzerland, but perhaps I can best explain it by saying if you go to somewhere like Munich, at Oktoberfest, and you have 40 or 50 people, and they start to drink, and wrap their arms around each other's shoulders and sway back and forth and sing. This would not happen if these guys are just in the middle of New York. So, this is the community effect. And the way they do it is Bavarian type, because it is programmed from their childhood. So, my finding was first that when the number of cell progenitors accumulates and reaches the critical mass, then they start their own program. That is one thing.

The second thing is that we invented a 3D culture. Most of the previous stem cell work used a 2D culture, so that the cells are attached to the culture plate as a monolayer. In the body, there is no cell that actually behaves that way, especially in the brain or eyes, which are my interest. They are not one sheet of cells, they have a 3D structure. Being pasted to the bottom of the culture plate is like crucifying them - they are under very strong stress and they do not have freedom. So, we decided to make 3D cultures of several thousand cells, and culture them in a homogenous medium, which has been optimized to induce a retina, for instance, or cortical tissue. So, when you culture that, it becomes retinal or cortical cells, depending upon the medium you choose. Then, I just let them do what they want to do. It is like a boy meets a girl, but in front of the parents, they will not do anything at all.

Anyway, they start making a single tissue, but in the case of retinal cells, they really make a fetal eye structure, in the correct size and the correct shape, in other words, they know what to make.

HSF: That's fascinating.

Sasai: It is fascinating. Each cell probably does not know what to make, but as a mass of cells, several thousand cells, if they are already committed to becoming a retina, then they make retinas. You can easily imagine what would happen with Munich people, if you have 3,000 of them, with beer in the medium, well, that is what is programmed. It was really difficult to analyze these things in vivo, in the embryo, because there are so many different tissues around, so you cannot analyze cell-cell communications, but when you take it out into a culture tube, with minimal components, you can observe it, because it is not surrounded by all the other tissues. This size of such a structure is about 0.5 mm to 1 mm. This size is called mesoscopic, not macroscopic or microscopic, but somewhere in the middle.

It is not New York, but it is not a very small old town, but the size of .... I do not know.

HSF: How many cells did you say it is?

Sasai: Around 3,000 or 4,000.

HSF: So, it is a thriving Swiss village.

Sasai: Right. Probably there, you do not need parliament or say, local laws, but they know what they have to do, how to make their village, just by talking to each other.

HSF: So, you let a certain type of cells rule themselves because they know what to do?

Sasai: My finding, what it means, is that there are lots of local rules that determine the fine structure, that are working, not just through dictated instructive signals, say control towers. There are some, but most of the fine structures are locally determined. For instance, the eye, is a local autonomous kind of development. But where to make the eye, is dictated by organizer signals. We found a new concept at the mesoscopic level for cell autonomy over cell society.

HSF: Can you tell us about the implications of these 3D cultures?

Sasai: Conventionally, when you do tissue analysis, you make a slice of the tissue and stain it with a certain colored medium, and then look at it under the microscope. Each slice gives 2D information. These days, at the mesocopic level (1 mm or less), you do not have to make slides. We have optic slicing, providing 3D images, similar to a CAT Scan. In cooperation with Olympus, we have optimized that for 3D. We have also further improved the incubator, we make it fit with this 3D microscope, so you can keep on recording all the cells in the culture for more than 2 weeks, the entire process, from 3,000 cells, watch them growing, growing, making an optic cup, etc., capturing everything at the single cell level - that is amazing. This is called in toto imaging.

So from that kind of information, we could extract some mechanisms, on how the optic cup forms spontaneously. The spontaneous formation of optic cups, is very, in a sense, strange, because no one pushes it to make this kind of structure. We could learn that only three local tissue mechanics, when they are combined in the right order, can make this optic cup shape.

HSF: Where do you hope to go next in your work, and how will the Hans Sigrist Prize money help you reach that next step?

Sasai: I have two directions in mind for my studies.

The first thing is the basic question, the main concept I would like to pursue, is how multiple cells, like a thousand cells, can interact in a complex way, to make all the structures, such as organs. This is fundamentally important, because the cells are not like just a block in form, the cell itself divides and changes shape and moves in a very flexible way. Cell-cell interactions are very flexible as well, and also dynamic, involving many cells. Common sense will tell you that what ends up, should be chaotic, there is no order. Each element is so flexible, their relationships are very flexible. What happens should be just a mess.

HSF: Anarchy, right?

Sasai: Yes, but during development and also in the stem cell culture system, the opposite is reality, at least under certain conditions. From just a simple aggregate of cells, you can make an eye. This is a very basic biological question - this is how our body is made. God somehow made an amazing program that self-develops, so that the cells are dividing and dividing, talking to each other, and make a very ordered thing. I want to understand the principles of that.

The second thing is to transfer our technology to translational researchers and pharmaceutical companies, so that they can use real tissue, not cells, for their therapeutics or drug discovery. For instance, our method of self-organization of the retina, can make a human retina structure, with all the components in it, and they are very, very similar, even in their fine structure. So, now you have a very young retina in your reach, which you have never been able to get previously. We are transferring this technique to biologists in such a way that they can develop the method of transplantation for diseases of the eye, especially retinitis pigmentosa, in which photo receptors are gradually dying, and over time, ends up in an almost total loss of vision. The treatment of this is very difficult, because photo receptors are not easily obtained, and also the number and the density of photo receptors in the eye are under an amazing level of attack. You cannot really rescue these patients by injecting a few cells into their eyes. So, now we have a real retina, having a lot of photo receptors, as a seed. It gives a totally different chance for translational researchers to make a new transplantation method. That is what I really hope. I am helping them to improve. A deeper understanding of the basic principles is also very helpful here.

I really appreciate the Hans Sigrist Prize, as it will allow me to do new principle-based studies, for which it is harder to find funding. The government or companies are more interested in funding translational research.

HSF: The foundational work is where you think the Hans Sigrist Prize will be the most helpful?

Sasai: Yes. Also, I really need to have wider contact with non-biologists, because this kind of multicellular interaction that orders the structure, that is called the self-organization, this field was previously a part of complex physics. Also, we need to develop more fine measurement devices, like new microscopes, so I need to discuss and collaborate with many people around the world, with different specialties, so this award will also help me travel to meet these people. Also, probably, I will use this prize money to help make a sort of prototype machine for some kind of measurement. That would make me happy.

HSF: Could you tell me a bit about your experience so far on this, your first trip to Bern and to the University of Bern.

Sasai: Yes, I had the chance to spend the day yesterday with Prof. Eliane Müller at the Vetsuisse Faculty and meet her staff. I discovered that the culture medium I am using, actually two of them, are from her spin-off university venture, CELLnTEC advanced systems AG. We discussed which medium is good for which kind of cultures. They told me they are further improving some of their culture mediums, and I got a couple of new beta testing bottles.

HSF: Great, so we are sending you back with souvenirs from the University of Bern that may be useful in your research too!

2013 Hans Sigrist Prize Winner Prof. Dr. Yoshiki Sasai, with University of Bern Rector Prof. Dr. Martin Täuber, at the 2013 Dies Academicus ceremony. (Photo Copyright: University of Bern, Communications Section).

HANS SIGRIST SYMPOSIUM 2013

Unter dem Titel «Stem Cell Applications in Regenerative Medicine», organisierte Frau Prof. Dr. Eliane Müller, Institut für Tierpathologie, Vetsuisse, Universität Bern, ein Symposium mit dem Preisträger und weiteren weltweit renommierten Referenten:

- Yoshiki Sasai, M.D., Ph.D., RIKEN Center for Developmental Biology, Kobe, Japan
  Self-organization of Neural Patterns and Structures in Multicellular Systems

- Eliane J. Müller, Ph.D., Institute of Animal Pathology, University of Bern
  A New Light on an Old Molecule: Cadherin Signaling in Epidermal Stem Cells

- Tewis Bouwmeester, Ph.D., Novartis Institutes for Biomedical Research (NIBR), Stem Cell Division, Basel
  Organoid Cultures for Target Validation and Drug Discovery

- Eduardo Moreno, Ph.D., Institute of Cell Biology, University of Bern
  The Secret Society of Stem Cells

- Lorenz Studer, M.D., Sloan-Kettering Institute, New York
  Human Pluripotent Stem Cells: From Developmental Biology to Disease Modeling and Cell Therapy

- Volker Enzmann, Ph.D., Department of Ophthalmology, University of Bern
  Müller glia - Cells of Choice for Endogenous Regeneration in the Retina?

- Elena Cattaneo, Ph.D., Laboratory of Stem Cell Biology, Università di Milano
  Translating the Natural History of Human Striatal Development into Pluripotent Stem Cell Differentiation

From left to right, Tewis Bouwmeester, Lorenz Studer, Elena Cattaneo, Norbert Trautmann, Eduardo Moreno, Yoshiki Sasai, Volker Enzmann, and Eliane Müller.

FORSCHUNGSGEBIET FÜR DEN HANS SIGRIST PREIS 2014

Der Stiftungsrat hat in der Herbstsitzung vom 30. Oktober 2013 dem durch Frau Prof. Dr. Brigitte Studer in einem engagierten Referat vorgestellten Forschungsgebiet "Historische Erklärungsansätze zur weiblichen Prekäritat" für den Preis 2014 zugestimmt. Dieses Gebiet wurde von der Philosophisch-historischen Fakultät mit Unterstützung des Interdisziplinären Zentrums für Genderforschung und der Theologischen Fakultät der Universität Bern vorgeschlagen. Frau Prof. Brigitte Studer wird in Zusammenarbeit mit den erwähnten Fakultäten ein Evaluationsgremium berufen. Die Wahl des Preisträgers oder der Preisträgerin durch den Stiftungsrat erfolgt im Mai 2014.

2013 HANS SIGRIST SUPPLEMENTARY GRANTS (ZUSCHÜSSE)

In 2013, the Foundation approved three applications for Hans Sigrist Supplementary Grants for a total amount of 8,500 CHF:

Prof. Dr. Mark Nixon, University of Reading, United Kingdom

Prof. Dr. Oliver Lubrich, Institute of Advanced Studies in the Humanities and the Social Sciences (IASH), requested 6,000 CHF for a six-month grant for Prof. Mark Nixon from the University of Reading (United Kingdom). While at the University of Bern, Prof. Nixon, who serves as the Director of the Beckett International Foundation at the University of Reading, and who is the current President of the Samuel Beckett Society, worked together with Prof. Lubrich on a two-volume edition of Samuel Beckett's *German Diaries* (1936-1937). These diaries are the last significant unpublished work of Irish author and Nobel Prize winner Samuel Beckett and shed light not only on the author's thoughts and on the development of his style but also on the situation in Germany during his travels in 1936-1937. Professor Nixon also taught a full MA seminar on Beckett and gave a lecture and workshop for doctoral students.

Prof. Dr. Francesca Levi-Schäfer, Hebrew University of Jerusalem, Israel

Prof. Dr. Hans-Uwe Simon, Institute for Pharmacology, requested 1,000 CHF for a one-month grant for Prof. Dr. Francesca Levi-Schäfer from The Hebrew University of Jerusalem (Israel). They worked together on the project "Expression Associated with Mast Cells and Eosinophils in Atopic Dermatitis and Psoriasis: Does it Correlate with Hypoxia and Angiogenesis?". They reported that the data obtained in this study might shed light into the fine mechanisms regulating mast cells and eosinophils in in vivo inflamed tissues and validate previous in vitro evidences found on isolated cells.

Prof. Dr. Joerg Schaefer, Columbia University, USA

Prof. Dr. Hubertus Fischer, Institute for Climate and Environmental Physics, requested 1,500 CHF for a six-week grant for Prof. Dr. Joerg Schaefer of Columbia University's Lamont-Doherty Earth Observatory (U.S.A.). While in Bern, Prof. Schaefer worked together with Prof. Fischer and Prof. Thomas Stocker to map and date glacier margin sediments (e.g. moraines) and bedrock, applying the cosmogenic nuclide surface exposure dating method. Comparing these glacier culminations with temperature and hydrological records from other climate archives yields a first-order sensitivity function of the respective glaciers to temperature and precipitation change. They expect to work together again in 2014 and to publish their results then.

APPLYING FOR A SUPPLEMENTARY GRANT (ZUSCHUSS)

Hans Sigrist Supplementary Grants are meant to supplement, but not fully fund, the cost of a research visit to the University of Bern. Given the high cost of living in Bern, the Foundation offers up to 1,000 CHF per month, pro-rated weekly, to assist professors from other universities with their living costs while conducting a project in cooperation with a University of Bern faculty member. The foundation accepts applications for supplementary grants (Zuschüsse) on a rolling basis. Applications must be submitted at least six weeks before the proposed research visit, in order to allow time for consideration. However, because the foundation has a fixed annual budget for these grants, earlier applications are encouraged. The request/application for a Supplementary Grant must made by the University of Bern host professor. Full details on the application process (in English) are available on our website at www.sigrist.unibe.ch.

2013 Hans Sigrist Supplementary Grant recipient Joerg Schaefer, sampling an erratic boulder on a moraine for cosmogenic nuclide surface exposure dating in Graubünden, as a part of the research project, "Glacier Change in the Alps, The Little Ice Age".

FORSCHUNGSAUSZEICHNUNG UND -FÖRDERUNG DURCH DIE HANS-SIGRIST-STIFTUNG

Die Hans-Sigrist-Stiftung hat seit ihrer Gründung zahlreiche Persönlichkeiten aus Bern, aus der Schweiz sowie aus dem Ausland auszeichnen und unterstützen können. Nachstehend werden alle Preis- und Stipendiumsempfänger und -empfängerinnen aufgeführt. Zu erwähnen ist, dass zahlreiche dieser Persönlichkeiten nach der Auszeichnung durch die Hans-Sigrist-Stiftung ihre wissenschaftliche Laufbahn mit grösstem Erfolg fortgesetzt haben, was u.a. auch auf den innovativen Charakter der Hans Sigrist Unterstützung schliessen lässt. So erhielt Robert Horvitz, unser erster Preisträger 1994, acht Jahre später den Nobelpreis, und 2009 wurde der frühere Hans Sigrist Preisträger (Preis 1997), Prof. Jack W. Szostack, zusammen mit Elisabeth Blackburn und Carol Greider mit dem Nobelpreis für Medizin ausgezeichnet.

BISHERIGE TRÄGERINNEN UND TRÄGER DES HANS SIGRIST PREISES

1994 Prof. H. Robert Horvitz, Massachusetts Institute of Technology, USA
Apoptosis – Der programmierte Zelltod

1995 Prof. Joseph P. Newhouse, Harvard University, USA
Gesundheitsökonomie

1996 Prof. Frantisek Smahel, Karls-Universität Prag, Tschechien
Geschichtliche Erforschung von Ostmitteleuropa

1997 Prof. Gerald F. Joyce, Scripps Research Institut, USA, und
Prof. Jack W. Szostak, Harvard Medical School, USA
RNA – Schlüsselmolekül zur Entstehung von Leben

1998 Dr. Michel Orrit, Centre de Physique Moléculaire Optique et Hertzienne, Université de Bordeaux, Frankreich
Chemische Grundlagen neuartiger Materialien

1999 Prof. Joan W. Scott
Institute for Advanced Study, Princeton, USA
Neue Erkenntnisse in der Geschlechterforschung

2000 Prof. Elsa Tamez, Universidad Biblica Latinoamericana, Costa Rica
Kontextuelle Bibelhermeneutik

2001 Prof. Jan Johansson, Karolinska Institutet, Schweden
Biologische Grenzflächen: Die innere Lungenoberfläche

2002 Dr. Jorge Galàn, Yale University, USA
Pathogen-Wirt-Interaktion

2003 Prof. Dr. Emilio Gentile, Università «La Sapienza», Rom, Italien
Politische Religionen als Merkmal des 20. Jahrhunderts

2004 Prof. Dr. Christopher Pollitt, Erasmus University, Rotterdam, Niederlande
Public Governance

2005 Prof. Dr. Stephen Elledge, Harvard Medical School, Boston, USA
Qualitätskontrolle in lebenden Zellen

2006 Prof. Dr. David M. Richardson, Stellenbosch University, Südafrika
Biological Invasions

2008 Prof. Dr. Andreas Feldtkeller, Humboldt-Universität, Berlin, Deutschland
Religionen – Wahrheitsansprüche – Konflikte – Theologien:
Theoretische Perspektiven

2009 Prof. Dr. Patrik Vuilleumier, Universität Genf, Schweiz
Kognitive Neurowissenschaft

2011 Prof. Dr. Nicola Lacey, University of Oxford, United Kingdom
Rechtsstaat und Spätmoderne

2012 Prof. Dr. Stephen A. Boppart, University of Illinois, USA
Diagnostische Lasermedizin

2013 Prof. Dr. Yoshiki Sasai, RIKEN Center for Developmental Biology, Kobe, Japan
Stem Cells in Regenerative Medicine

BISHERIGE EMPFÄNGERINNEN UND EMPFÄNGER VON HANS SIGRIST STIPENDIEN

1994 Dr. Michael Gerfin
Rechts- und Wirtschaftswissenschaften

1996 Dr. Petra S. Hüppi
Klinische Forschung

1997 Dr. Alberto Achermann und Dr. Andreas Lienhard
Rechtswissenschaft

1998 Dr. Eliane Marti
Forschung mit dem Tier – Forschung für das Tier

1999 Dr. Werner Eugster
Einfluss der Juragewässerkorrektionen auf das lokale und regionale Klima

2000 Dr. Lorenz E. Baumer
Kultureller Austausch - Classical Archaeology

2001 Dr. Ohad S. Parnes
Geschichte der Naturwissenschaften, Mathematik oder Logik des 19. und 20. Jahrhunderts

2002 Dr. Erik Vassella
Erreger-Wirt-Wechselwirkung auf molekularer Ebene

2003 Dr. Claudia Spadavecchia
Schmerzerkennung und Behandlung beim Tier

2004 Dr. Sacha Zala
Historische Politologie: politische Geschichte im Spannungsfeld von Anthropologie, «politischer Theologie», Sozial- und Politikwissenschaften (18.–20. Jahrhundert)

2005 Dr. Georg Lutz
Entwicklung politischer Institutionen zur Förderung guter Regierungsführung

2007 Dr. Friederike Zeeh
Studien im Rahmen der «Veterinary Public Health»: Neue Nachweismethoden für aktuelle Erkrankungen des Verdauungs- und des Atmungsapparates und Untersuchungen zur Entstehung von Lahmheiten bei Schweinen

2008 Dr. Oliver Bossdorf
Evolutionary Ecology of Plant Invasion

2009 Dr. Johannes Klein
Schwurverhalten im Alten Testament

2010 Dr. David Weibel
Die Rolle von Avataren bei der Identitätskonstruktion in virtuellen Welten

Dr. Bartholomäus Wissmath
Immersion in Virtual Realities

2011 Dr. Anna Coninx
Risikoprävention und Gefahrenabwehr im Strafrecht und Polizeirecht

2012 Kai Gerrit Held
Biomedical Photonics, Optoacoustic Imaging

2013 William Hariton
Cell-Cell Adhesion-mediated Signaling in Epidermal Stem Cells

ANDERE WISSENSCHAFTSFÖRDERNDE MASSNAHMEN

Der Stiftungsrat der Hans-Sigrist-Stiftung gewährte im November 2013 per Zirkularbeschluss eine weitere wissenschaftsfördernde Massnahme im Betrag von CHF 1'000 zur Unterstützung der Durchführung einer Lectio Magistralis und eines Workshops des Hans Sigrist Preisträgers 2003, Prof. Emilio Gentile. Sein Vortrag über "Die Europäische Kulturkrise beim Ausbruch des Ersten Weltkrieges" und seine Teilnahme am Workshop über politische Religionen und Totalitarismus stiess auf grosses Interesse. Darüber hinaus traf er sich mit Nachwuchswissenschaftlern der Universität Bern im Rahmen eines Seminars.

JAHRESRECHNUNG 2013

Betriebsrechnung

	1.1.–31.12.2013	1.1.–31.12.2012
	CHF	CHF
Ertrag aus Wertschriften und Flüssigen Mitteln		
Erträge aus Wertschriften	107 330.38	90 576.47
Veränderung Marchzinsen	0.00	0.00
Zinsertrag Flüssige Mittel	24 022.20	509.90
Kursgewinne Flüssige Mittel	3 819.79	0.00
Realisierte Kursgewinne Wertschriften	61 709.00	63 332.29
Unrealisierte Kursgewinne Wertschriften	283 855.68	222 959.86
Ausserordentlicher Ertrag	13 145.70	0.00
Total	493 882.75	377 378.52
Aufwand aus Wertschriften und Flüssigen Mitteln		
Bankspesen	28.00	28.10
Spesen auf Wertschriften	471.30	1 492.00
Kursverluste Flüssige Mittel	1 894.42	10 442.83
Realisierte Kursverluste Wertschriften	4 308.00	8 827.51
Unrealisierte Kursverluste Wertschriften	176 002.59	16 872.06
Ausserord. unreal. Kursverl. Wertschriften	0.00	0.00
Nicht rückforderbare Verrechnungssteuer	0.00	0.00
Wertschriftenverwaltung	11 592.55	5 134.80
Total	194 296.86	42 797.30
Bruttogewinn/-verlust (–) aus Wertschriften und Flüssigen Mitteln	299 585.89	334 581.22

	1.1.–31.12.2013	1.1.–31.12.2012
	CHF	CHF
Personalaufwand		
Saläre	33 132.75	24 226.60
Sozialleistungen	10 069.75	5 700.60
Total	43 202.50	29 927.20
Verwaltungsaufwand		
Übriger Verwaltungsaufwand	4 249.45	6 574.00
Buchführung, Kontrollstelle	3 034.80	4 326.00
Total	7 284.25	10 900.00
Nettoerfolg vor Verwendung	249 099.14	293 754.02
Verwendung gemäss Stiftungszweck		
Hans-Sigrist-Stiftung Preis	– 100 000.00	–99 923.30
Spesen i.S. Hans-Sigrist-Preis	– 14 043.37	– 9726.40
Publikation Preis	0.00	0.00
Stipendien	–104 399.30	–54 879.20
Spesen i.S. Stipendien	0.00	0.00
Wissenschaftliche Massnahmen	– 9 491.45	–5 500.00
Diverser Aufwand Stiftungsrat	–651.50	–610.60
Total	–228 585.62	–170 639.50
Ergebnis nach Verwendung	20 513.52	123 114.52

Fondsrechnung
(Ausrichtungen im Sinne des Stiftungszweckes)

	31.12.2013	31.12.2012
	CHF	CHF
Zuwachskapital		
Zuwachskapital vor Ausrichtung		
Stand Vorjahr	–1 569 218.90	–1 692 333.42
Ergebnis (Nettoertrag)	249 099.14	293 754.02
Total	–1 320 119.76	–1 398 579.40
Ausrichtungen		
Bezahlte Ausrichtungen im Sinne des Stiftungszweckes	–228 585.62	–170 639.50
Total	–228 585.62	–170 639.50
Zuwachskapital nach Ausrichtungen	*–1 548 705.38*	*–1 569 218.90*

Bilanz

	31.12.2013	31.12.2012
	CHF	CHF
AKTIVEN		
Flüssige Mittel	548 047.88	460 717.41
Eidg. Steuerverwaltung,		
Verrechnungssteuer	38 052.75	20 555.85
Kontokorrente	0.00	6 072.80
Transitorische Aktiven	23 448.90	25 075.04
Wertschriften	5 280 690.09	5 359 171.60
Total	5 890 239.62	5 871 592.70
Total AKTIVEN	5 890 239.62	5 871 592.70
PASSIVEN		
Fremdkapital		
Kreditoren	0.00	0.00
Kontokorrent	484.00	0.00
Transitorische Passiven	6 522.90	8 903.50
Total	7 036.90	8 903.50
Rückstellungen für zweckbestimmte Verwendungen		
Rückstellungen Stipendien	0.00	0.00
Total	0.00	0.00
Eigenkapital		
Stiftungskapital (Stand 31.12.1991)	7 431 908.10	7 431 908.10
Zuwachskapital Stand Vorjahr	–1 569 218.90	–1 692 333.42
Ausrichtung i.S. des Stiftungszweckes	–228 585.62	–170 639.50
Nettoergebnis (Gewinn/Verlust [–])	249 009.14	293 754.02
Stand Ende Jahr	–1 548 705.38	–1 569 218.90
Total	5 883 202.72	5 862 689.20
Total PASSIVEN	5 890 239.62	5 871 592.70

Anhang

	31.12.2013	31.12.2012
	CHF	CHF
Kurswert der Wertschriften Gemäss Wertschriftenverzeichnis	5 280 690.09	5 359 171.60

An den Stiftungsrat der
Hans-Sigrist-Stiftung, Bern

GFELLER + PARTNER AG

Bericht der Revisionsstelle zur Eingeschränkten Revision

Als Revisionsstelle haben wir die Jahresrechnung (Betriebsrechnung, Fondsrechnung, Bilanz und Anhang) der Hans-Sigrist-Stiftung für das am 31. Dezember 2013 abgeschlossene Geschäftsjahr geprüft.

Für die Jahresrechnung ist der Stiftungsrat verantwortlich, während unsere Aufgabe darin besteht, diese zu prüfen. Wir bestätigen, dass wir die gesetzlichen Anforderungen hinsichtlich Zulassung und Unabhängigkeit erfüllen.

Unsere Revision erfolgte nach dem Schweizer Standard zur Eingeschränkten Revision. Danach ist diese Revision so zu planen und durchzuführen, dass wesentliche Fehlaussagen in der Jahresrechnung erkannt werden. Eine Eingeschränkte Revision umfasst hauptsächlich Befragungen und analytische Prüfungshandlungen sowie den Umständen angemessene Detailprüfungen der beim geprüften Unternehmen vorhandenen Unterlagen. Dagegen sind Prüfungen der betrieblichen Abläufe und des internen Kontrollsystems sowie Befragungen und weitere Prüfungshandlungen zur Aufdeckung deliktischer Handlungen oder anderer Gesetzesverstösse nicht Bestandteil dieser Revision.

Bei unserer Revision sind wir nicht auf Sachverhalte gestossen, aus denen wir schliessen müssten, dass die Jahresrechnung nicht Gesetz und Stiftungsurkunde entspricht.

Bern, 4. April 2014
D/13

GFELLER + PARTNER AG

Hans Jörg Dubach
Dipl. Wirtschaftsprüfer
Zugelassener Revisionsexperte
(Leitender Revisor)

ppa. Christian Zwahlen
Dipl. Wirtschaftsprüfer
Zugelassener Revisionsexperte

Beilagen:
- Jahresrechnung (Betriebsrechnung, Fondsrechnung, Bilanz und Anhang)

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