UNIVERSITÄT
BERN

HANS-SIGRIST-STIFTUNG

VOM STIFTUNGSRAT GENEHMIGT
AM 15. MAI 2017

Tätigkeitsbericht 2016

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Hans-Sigrist-Stiftung

Stiftungsrat

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

Tätigkeitsbericht 2016

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

– Wahl des Preisträgers 2016
– Bestimmung des Forschungsgebietes für den Preis 2017
– Genehmigung des Tätigkeitsberichtes 2015
– Genehmigung der Jahresrechnung 2015 und des Revisionsberichtes 2015
– Genehmigung des Budgets 2017

Hinzu kamen folgende Tätigkeiten:

– Vergabe von vier Hans Sigrist Zuschüssen

Der Rektor der Universität Bern wird seit Ende 2016 neu von Vizerektor Prof. Dr. Daniel Candinas vertreten. Im Namen des Stiftungsrats danke ich Vizerektor Prof. Dr. Christian Leumann für sein Engagement im Stiftungsrat; wir freuen uns auf eine weiterhin erfolgreiche und angenehme Zusammenarbeit mit ihm als neuem Rektor der Universität Bern. Den Kolleginnen und Kollegen im Stiftungsrat und im Ausschuss danke ich für ihr aktives und konstruktives Mitwirken. Besonders danken möchte ich Frau A. Stockfleet für ihre engagierte, verantwortungsvolle und umsichtige Leitung der Geschäftsstelle.

Bern, 15. Mai 2017
Der Präsident des Stiftungsrates
Prof. Dr. N. Trautmann

2016 Hans Sigrist Prize
The Human Fingerprint on the Earth System

A committee of experts, under the leadership of Prof. Dr. Martin Grosjean, Oeschger Center for Climate Change Research, University of Bern, presented a list of three finalists to the Board for the 2016 Hans Sigrist Prize in the field of The Human Fingerprint on the Earth System. On May 2, 2016, the board selected Prof. Gabriele Hegerl of The University of Edinburgh, Scotland, as the 2016 Hans Sigrist Prize Winner.

Prof. Dr. Gabriele Hegerl

Laudatio:

The 2016 Hans Sigrist Prize is awarded to Gabriele C. Hegerl of the University of Edinburgh for her ground-breaking scientific work in this year's prize field, "The Human Fingerprint on the Earth System". Prof. Hegerl has brought about continuing innovative scientific contributions that enabled the detection and attribution of anthropogenic climate change and her work has helped to clarify the causes of global climate change and, thus, enabled significant progress in international climate policy. She has also demonstrated longstanding dedicated leadership on the Intergovernmental Panel on Climate Change (IPCC), where she has assumed societal responsibility, and has shown inspiring enthusiasm in working with young scientists.

An Interview with the 2016 Hans Sigrist Prize Winner

HSF: How did you get interested in your field originally?

Hegerl: I originally studied mathematics, and I really enjoyed it. After finishing my Ph.D., I was looking for what to do next, and everyone else in my class went on to "serious jobs" in consulting, which seemed like the natural path. However, I saw that the Max Planck Institute in Hamburg did climate simulations. I was a mountain enthusiast, and I went skiing, hiking, and mountain climbing with my friends, and I had learned about glacier retreat from the older maps we got from the Alpine Club, which indicated that the glaciers were further down than they actually were. We were all concerned about environmental issues at the time, and I was concerned about the glacier retreat. I thought the job at Max Planck would be really interesting, so I just applied for fun, while I was also applying for "serious jobs" (laughs). I persuaded myself that it would be a good thing to do for just two years as an experience, because when I went up there and visited, it was such an exciting environment, people were travelling all over the world, and they were collaborating internationally, and it was a really interesting subject that I thought was important. I stumbled into one of their best topics, which was the fingerprint of climate change, specifically trying to detect if climate change was actually happening through data, so that was the beginning of my career in this field.

HSF: Could you explain your current main area of research to people who are not experts in climate change?

Hegerl: My research is largely about understanding the fluctuations in observed data for climate, so trying to understand if those are realizations of variability – of just the normal dynamics in the system – or if they are in response to changes in external influences, like changes in greenhouse gases or volcanic eruptions. We use so-called fingerprints of external drivers, which usually arise from models and quantify what change we expect to occur due to external forcings. Then tests are applied to determine if there is evidence for these fingerprints in observations. For example, the temperature response to greenhouse gases is expected to warm land more than ocean and ramp up over the historical periods. Volcanic eruptions are expected to lead to short-term cooling. This is because both change the energy budget of the planet, which is reflected in temperature, and the time at which this occurs depends on the thermal inertia of the system. It gets more complex when looking at precipitation changes. Greenhouse gas increases warm globally, which means the atmosphere becomes moister but the pattern is not expected to be a general increase in rainfall, but a moistening of the wet regions. Extreme rainfall also is expected to become strong in many regions.

HSF: Are you focusing on any certain geographic regions, or is it worldwide?

Hegerl: My reseach is very much worldwide, because the more data you use, the easier it is to disentangle the causes of climate change. For example, greenhouse gas increases change the energy balance of the planet, and therefore, should cause worldwide global scale warming, so the more data you look at, the stronger the evidence for or against it gets. When you look for changes in rainfall patterns, which is something I have found interesting in the last few years, there is a global pattern with strong regional variations. Warming due to increasing greenhouse gases means that worldwide mean precipitation increases, as a warmer atmosphere can contain more water vapor. However, the water transport in the atmosphere changes when greenhouse gases increase. Because of that, we expect to see, in our fingerprints, a very distinct pattern of wet getting wetter and dry getting drier. So, we have to look at regional changes in wet and dry regions. But only when we account for how the wet and dry regions move with the seasons and with variability, we see evidence that the contrast between wet and dry regions is indeed strengthening in satellite observations, that means my research does focus on regional variations, but the regions are chosen based on the pattern of change we expect to see from human influences. Volcanic eruptions, by the way, cause a similar change, just the other way around: wet gets drier and dry gets wetter.

HSF: How much are greenhouse gases affecting our weather?

Hegerl: It is easier to see how they affect our mean climate, for example, how they affect global mean temperature, or the anomalously warm seasonal temperatures all over the globe. It is an interesting question how greenhouse gases affect weather – when an unusual heat wave, flood, or drought arises, it is natural to ask if these events are linked to climate change. There is worldwide activity testing if a connection exists – for example, there is a very nice paper from a colleague on the Russian heat wave, which shows that the Russian heat wave was a very strong temperature anomaly, and most of the discrepancy between the temperature of that heat wave period to normal summer temperatures was just due to unusual weather, just the kind of weather that causes heat waves. However, because of greenhouse warming, the event got a little bit warmer than it would have otherwise been. If you look at it from a different perspective, at how rare an event the heat wave is, then you realize that temperatures as high as observed would have been expected to occur much more rarely without climate change. So, if we look at the frequency of extremes, we see quite a strong change due to human influences. My own interest is particularly in events in

the historical past, such as the 1930s heatwaves that set long-term records in the United States – what made these events so extreme, and what does this teach us about possible future heat waves? And why do some decades show a fairly high occurrence of heat waves and other decades do not show much at all?

HSF: What do you personally think that the biggest challenges are in your research field, in terms of areas that still need to be conquered?

Hegerl: An area which I am really excited about is analyzing the data that are now becoming available for climates of the past. I have worked with indirect records such as records based on tree rings and historical documents, such as diaries. The University of Bern is very strong in that area. Now, there is a big movement to digitize more old data, such as log books, so people can analyze them. This can tell us about weather, storms, temperatures, and sea ice in the past, and we can learn more about the climate of the last 200 or 300 years - I think there are going to be very interesting insights coming from that. My own research right now looks at what caused the warming in the early part of the 20th century, how big the climate fluctuations in the 19th and early 20th century were, and what caused them, and to what extent the effects of greenhouse gases were already visible by the early 20th century – after all industrialization started in the 18th century. People are also running climate models back to that time to see if with our present models, we can understand the fluctuations in that time period. This is something about which I am quite excited.

HSF: So, you already see humans having a tangible fingerprint that long ago?

Hegerl: There was a transitional point – the Little Ice Age, which extends from the middle of the last millennium to about the early 19th century, was a period where particularly winters were much colder than today, for example, in Europe. My research in the past has focused on explaining that fluctuation: there was overall strong volcanic activity, so that depressed mean temperatures a little and made cold summers and winters more likely. There was also somewhat reduced solar radiation, which my research suggests was not as important as the volcanoes, and there was also a little drop in carbon dioxide, not much, but a sustained drop over a few centuries. All this contributed to this period being so cold. Then carbon dioxide started rising again around the time when the industrial revolution began. So a part of the temperature rise immediately out of the Little Ice Age is linked to the industrial revolution, and a part to the recovery from the Little Ice Age. Similarly, you can also see the sea level increasing, as we came out of the Little Ice Age. Another factor that is really important is, of course, just naturally occurring variations due to the interactions of weather variability and ocean dynamics. Disentangling how much of these past fluctuations were due to what factors is very interesting to me.

HSF: Could you also predict the impact a future natural disaster will have?

Hegerl: If we had a big volcanic eruption now, I think we know a lot more now than say, a decade ago, about what will happen, how this will affect climate, how this will cause short-term cooling and changes in rainfall patterns. Studying the volcanoes of the past gives us a good opportunity to figure that out. The Pinatubo eruption in 1991, for example, caused sustained cooling for a year or two, and then later, when temperatures recover, there is often a fast rise such as that seen in the later 1990s. This fast rise probably was a combination of greenhouse warming, accelerated from a rebound effect from the volcano along with natural climate fluctuations. On the other hand, you can have slowdown periods in warming due to natural fluctuations or natural forcings, such as the one we had in the early 2000s until temperatures started breaking records again in the very recent past.

HSF: If you could change one thing about how governments and international organizations are handling climate change, what would be your number one agenda item?

Hegerl: Oh yes, I would like them to think much more effectively about the longer-term future. Addressing climate change is so difficult, because climate changes are slower and more sustained than the period covered by an election cycle. If you do something about climate change now, you will not see any instant benefits of it during your political term. The benefits will begin in a decade or two, and be largest for our children and our grandchildren. If we do not take climate change seriously, then our children and grandchildren will really pay the price for that. I also hope that with our innovativeness, we can transition to sources of energy other than fossil fuels, and meanwhile, we can limit emissions to limit warming rates to less dangerous levels. It would be great if we could inspire more politicians to think in the longer term, and to be brave enough to address long-term problems of humanity such as climate change.

HSF: What do you think that the prize funding will do for you in terms of what you can do for your own research and the things you are hoping to accomplish?

Hegerl: At the moment, I have a reasonably sized research group, funded by an ERC Advanced Grant, which is going to run out in a year's time, so it will be great to have the Hans Sigrist Prize funding to be able to continue working in many areas where I think we are just scratching the surface. When I started the ERC grant years ago, it seemed like a long time, but for example, regarding extremes of the past, there is so much more we can do. I am hoping to use this funding to work a bit more on extreme events, on understanding fluctuations in the past, and on understanding if we can trust models to simulate these fluctuations correctly.

HSF: Your husband was also an academic in the area of climate change. What challenges did you face as part of a dual career couple, with you both being academics, and what do you think universities can do better to support people in your shoes?

Hegerl: Dual career couples face many struggles, as it is really tricky to find satisfying positions for two people at the same or closely located academic institutions. For us, I was the junior partner in my marriage, my husband was a full professor and I was a post-doc, so I was trailing him for a while. That did have its downsides, because I was the trailing spouse who was going to be there anyway, creating little incentive for the university to provide a nice job for me. So I spent a lot of my career on project funding without a permanent position. It turns out, however, that it was not as bad as I thought at the time. I was able to pursue my research without teaching much at all initially, and eventually only a little on a voluntary basis. That helped me to combine my career with my children, but I did worry about the job insecurity. I was, of course, dependent on being able to attract funding to support my salary and my research, which I was fortunate enough to do. Looking for funding is not always easy though, and it is important that universities continue to find a way to help when both spouses have career aspirations. Sometimes, people feed off one another's passions, and a couple can inspire one another to get further in their work. For us, it was a challenge to determine how much we would collaborate. My husband was a geologist, and he was very intuitive while I was very quantitative, so there was some difference there. I would question the way he thought about a problem, and come back with a more quantitative approach. We definitely inspired each other and learned so much from one another's approaches. I think I am now more intuitive than some of my colleagues, due to him.

HSF: As a woman in the science and mathematical fields, do you have advice for young women planning to study math and sciences?

Hegerl: I think it is easy as a woman to feel that you cannot compete with the guys, who can be more vocal and sometimes more confident, and I think that is an easy trap to fall into. I have felt often, when I was younger, that half of the class was much smarter than me, because many appeared to be quick learners. I am someone who needs to think carefully, often quite slowly and ideally in a quiet room. I am then able to do things that I did not think I would be able to do, while other people were faster in their uptake and asked questions in lectures where I was just trying to follow. No matter your gender, it is important not to be too easily discouraged. I also did what I did because I found it so interesting, so I think that following your interest is also really worth doing - not just doing the strategic thing, but instead the thing that you find most interesting. It is useful to know about the studies on gender bias, on how people often listen more to men and take their suggestions up more readily – I have seen this happen, and initially, I blamed myself thinking I just didn't phrase my suggestion right which is why it was taken up only after a guy repeated it – could be, but studies about women in committees suggest that that's not the whole story. So my advice is to follow your interest, and do not get discouraged. It is actually quite nice raising a family while being a researcher - academic jobs can be fairly flexible, and it is nice to have the kids to distract one from agonizing about research all the time! It can be a win-win situation, even though sometimes unusual solutions are needed to deal with everyday life.

HSF: Are you concerned about the recent developments in politics and the future of environmental protection?

Hegerl: Yes. What worries me is that there seems to be a skepticism about science in the public, and about the value and neutrality of scientific advice to government. That really, really concerns me, because we need to make our decisions based on the best scientific understanding that people can offer. The infamous quote that came out of the Brexit discussion, "people in this country have had enough of experts", really scares me, because ignoring scientific evidence and expert advice puts us into a bad position to make decisions. We need experts, and we rely on them when building and fixing machines, or healing disease, and we also need to listen to them when it comes to environmental problems. Society, of course, needs to make a decision not only based on what the experts say, but also based on its values and balancing multiple demands, such as protecting the planet while maintaining a viable economy. However, it is vital to start out by accepting what the experts have to say. For example, climate change is something where people who study the data, study the models, and study the physics will tell you that this is real, this is happening, and this not something you can discount as a myth. It is not a belief system, it is theory, data, modelling, observations lining up, and there is basically no wiggle room left: climate change is an important problem that will become worse the more greenhouse gases we emit, and that we can only limit if we stop emitting greenhouse gases altogether in the not too distant future. These are difficult problems to address, and starting out by ignoring or dismissing what science tells us about certain problems of our time is a terrible way to start addressing them. I can tell you that we have to take this problem seriously and if we do not, we will pay a very hefty price in the years to come.

2016 Hans Sigrist Prize Winner Prof. Dr. Gabriele Hegerl with University of Bern Rector Prof. Dr. Christian Leumann at the 2016 Dies Academicus ceremony. (Photo © Universität Bern, Bild: Manu Friederich)

HANS SIGRIST SYMPOSIUM 2016

Prof. Dr. Martin Grosjean, Oeschger Center for Climate Change Research, University of Bern, organized the 2016 Hans Sigrist Symposium, entitled, "The Human Fingerprint on the Earth System" on Friday, December 2, 2016, with lectures by the Hans Sigrist Prize Winner and other globally-known speakers in the field:

- Prof. Raymond S. Bradley, Climate System Research Center, University of Massachusetts
- Prof. Martin Claussen, Max Planck Institute for Meteorology, Hamburg
- Prof. Gabriele C. Hegerl, School of Geosciences, University of Edinburgh
- Dr. Erich M. Fischer, Institute for Atmospheric and Climate Science, ETH Zurich
- Prof. Simon Caney, Department of Politics & International Relations, University of Oxford
- Prof. Miranda Schreurs, Bavarian School of Public Policy, Technical University of Munich
- Dr. Roda Verheyen, Rechtsanwälte Günther, Hamburg and former Director of the Climate Justice Programme

Hans Sigrist Symposium Speakers, from left to right: Prof. Ray Bradley, Dr. Erich M. Fischer, Prof. Martin Claussen, Dr. Roda Verheyen, Prof. Gabriele Hegerl, Prof. Martin Grosjean, Prof. Norbert Trautmann, Prof. Simon Caney, and Prof. Miranda Schreurs.

2016 Hans Sigrist Prize Winner, Prof. Dr. Gabriele Hegerl speaks to an engaged symposium audience.

FORSCHUNGSGEBIET FÜR DEN HANS-SIGRIST-PREIS 2017

Der Stiftungsrat hat in der Herbstsitzung vom 24. Oktober 2016 dem durch Prof. Dr. Martin Sallman und Prof. Dr. Katharina Heyden in einem engagierten Referat vorgestellten Forschungsgebiet "Historische Forschung zum orientalischen Christentum" für den Preis 2017 zugestimmt. Dieses Gebiet wurde von der Theologischen Fakultät der Universität Bern vorgeschlagen. Prof. Dr. Heyden und Prof. Dr. Sallman werden in Zusammenarbeit mit der erwähnten Fakultät ein Evaluationsgremium einberufen. Die Wahl der Preisträgerin oder des Preisträgers durch den Stiftungsrat erfolgt im Mai 2017.

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.

2016 HANS SIGRIST SUPPLEMENTARY GRANTS (ZUSCHÜSSE)

In 2016, the Foundation approved four Hans Sigrist Supplementary Grants for a total amount of 11,500 CHF.

Wilfried N'Sondé, Independent Novelist and Musician

Professor Anselm Gerhard requested 1,000 CHF to support the visit of Wilfried N'Sondé during the fall semester of 2016. Mr. N'Sondé taught a course entitled "L'érotisme chez les auteurs afro-descendants". Students in this course analyzed the works of 15 authors of Afro-origin from Africa, the Caribbean, Europe, and America. The course taught students to reflect on the images of men and women and on the rapport between the sexes described in these works. Mr. N'Sondé also taught students to improve their creative writing skills. While in Bern, he completed his fifth novel, regarding trans-Atlantic commerce in the 17th century, entitled "Les voix oubliées".

Wilfried N'Sondé teaching a course on Afro-origin authors.

2016 HANS SIGRIST SUPPLEMENTARY GRANTS (ZUSCHÜSSE)

Prof. Dr. Susan Kaspari, Central Washington University, U.S.A.

Prof. Dr. Margit Schwikowski, member of the Oeschger Center for Climate Change Research at the University of Bern and head of the Laboratory of Environmental Chemistry at the Paul Scherrer Institute, received 1,500 CHF to help support a visit by Dr. Susan Kaspari to the Oeschger Center for Climate Change Research at the University of Bern and to the Paul Scherrer Institut. Kaspari and Schwikowski are studying the role that light-absorbing impurities (mineral dust, organic material, and black carbon produced by incomplete combustion) play in reducing the reflectivity of glacier surfaces. The darkening of glacier surfaces due to impurities results in enhanced absorption of solar energy and accelerated glacier melt. A challenge in attributing reductions in glacier reflectivity to the different types of light-absorbing impurities is uncertainty regarding the optical properties of the impurities. Kaspari, Schwikowski and Ph.D. student Anna Dal Farra developed a novel hyperspectral microscopy method that allows the reflectance of the impurities to be characterized at submicron scales. Combined with geochemical analyses that provide information on relative abundances, the new hyperspectral method will allow the partitioning of darkening of glacier surfaces to the different types of light-absorbing impurities.

Professors Schwikowski and Kaspari testing an ice core drill at Jungfraujoch.

2016 HANS SIGRIST SUPPLEMENTARY GRANTS (ZUSCHÜSSE)

Prof. Dr. Nor Chejanovsky, The Volcani Center, Israel

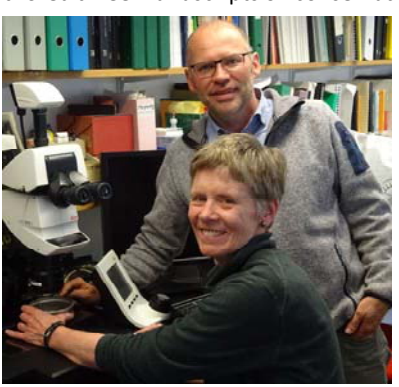
Prof. Nor Chejanovsky, an insect virologist from the Volcani Center in Israel, received 6,000 CHF toward his stay to study host shifts of bee viruses with Prof. Peter Neumann at the Institute of Bee Health at the University of Bern. Virus spillover from honeybees has been suggested to contribute to the decline of wild bees and may also affect other ecosystem service-providing insects. However, the transmission of these viruses to and their impact (if any) on alternative hosts and on honeybees after spillback is poorly understood. Professors Chejanovsky and Neumann combined their expertise to experimentally address those very interesting issues in a range of insect host species. They believe that their study has considerable potential to contribute to the understanding of virus host shifts. The resulting data will enable them to put in context the potential role of virus spillover/spillback for the decline of wild insects and losses of managed honeybee colonies.

2016 Hans Sigrist Supplementary Grant recipient Prof. Nor Chejanovsky and University of Bern Prof. Peter Neumann, working together in the lab on honey bee virus samples.

2016 HANS SIGRIST SUPPLEMENTARY GRANTS (ZUSCHÜSSE)

Prof. Dr. Cathy Whitlock, Montana State University, U.S.A.

Dr. Cathy Whitlock, a Professor of Earth Sciences at Montana State University, USA, received 3,000 CHF from the Sigrist Foundation to help support her sabbatical, working with Professor Willy Tinner of the Institute of Plant Sciences and the Oeschger Center for Climate Change Research, University of Bern. The Sigrist Foundation award supplemented fellowships from the Oeschger Center and Swiss Federal Institute of Forest, Snow and Landscape Research (WSL) in Cadenazzo, as well as travel support from the Past Global Changes Program (PAGES). Prof. Whitlock's six months in Switzerland provided an opportunity for her to collaborate with Prof. Tinner and Dr. Marco Conedera, Research Head of Community Ecology at WSL, on their mutual interests in paleoecology and its relevance for conservation. Prof. Whitlock's research on the vegetation and fire history of the western U.S. and the Southern Hemisphere complements that of Prof. Tinner and his group with their expertise in European forest history. Dr. Conedera has longstanding interests in paleoecology and forest management. Together, the scientists focused on the long-term history of eight regions in the northwest U.S., New Zealand, Patagonia, and central and southern Europe that have experienced different levels of climate and land-use change in the past. This comparison highlighted a range of ecosystem responses to past variations in climate, environment and human activity and pointed to the importance of historical information for assessing the present-day landscape condition as well as future landscape vulnerability. These insights help inform conservation strategies and management plans by assessing the feasibility of restoring "naturalness" versus maintaining cultural landscapes in the face of current and future climate change. During her stay, Prof. Whitlock gave a seminar in the Institute of Plant Sciences, spent time with researchers in the field, and presented a collaborative paper at the PAGES conference in Cluj Napoli, Romania. Prof. Whitlock along with Prof. Tinner, Dr. Conedera, and senior lecturer Dr. Daniele Colombaroli co-authored three manuscripts on conservation and paleoecology.



Professors Cathy Whitlock (Montana) and Willy Tinner (Bern) share time at the microscope to discuss pollen analysis.

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

2014 Prof. Dr. Jennifer Klein, Yale University, New Haven, CT, USA
Women and Precarity: Historical Perspectives

2015 Prof. Dr. Luciano Marraffini, The Rockefeller University, New York, NY, USA
Combatting Antibiotic Resistance: Novel Antibacterial Strategies

2016 Prof. Dr. Gabriele Hegerl, University of Edinburgh, Scotland, The Human
Fingerprint on the Earth System

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

2014 Matthieu Lavoyer (2014 - 2015); Lisia Buergi (2017 - 2019)
Women and Precarity: Historical Perspectives

2015 Odette Bernasconi
Combatting Antibiotic Resistance: Novel Antibacterial Strategies

2016 Stamatina Makri
The Human Fingerprint on the Earth System

Beilage 1

Hans - Sigrist - Stiftung, Bern

Bilanz

	31.12.2016	31.12.2015	Abweichung
	CHF	CHF	CHF
AKTIVEN			
Umlaufvermögen			
Flüssige Mittel	480'892.62	706'301.47	-225'408.85
Übrige kurzfristige Forderungen	42'929.35	28'934.65	13'994.70
Verrechnungssteuer	42'929.35	26'255.95	
Forderung ggü. Salärbuchhaltung Universität Bern	0.00	2'678.70	
Aktive Rechnungsabgrenzungen	4'890.30	4'186.10	704.20
Anlagevermögen			
Finanzanlagen	4'981'714.16	4'982'009.73	-295.57
Total AKTIVEN	**5'510'426.43**	**5'721'431.95**	**-211'005.52**
PASSIVEN			
Kurzfristiges Fremdkapital			
Passive Rechnungsabgrenzungen	9'400.55	11'117.65	-1'717.10
Dritte	7'240.55	5'917.65	
Organe	2'160.00	5'200.00	
Eigenkapital			
Stiftungskapital	7'431'908.10	7'431'908.10	0.00
Verlustvortrag	-1'721'593.80	-1'358'151.68	-363'442.12
Jahresergebnis	-209'288.42	-363'442.12	154'153.70
Total	**5'501'025.88**	**5'710'314.30**	**-209'288.42**
Total PASSIVEN	**5'510'426.43**	**5'721'431.95**	**-211'005.52**

Hans - Sigrist - Stiftung, Bern

Erfolgsrechnung

	2016	2015	Abweichung
	CHF	**CHF**	**CHF**
Wertschriftenertrag			
Dividenden-und Zinsertrag Finanzanlagen	124'364.50	69'157.63	55'206.87
Fremdwährungsgewinne	499.78	265.66	234.12
Realisierte Kursgewinne Finanzanlagen	49'680.61	84'510.92	-34'830.31
Nicht realisierte Kursgewinne Finanzanlagen	56'187.52	40'684.61	15'502.91
Total Nettoerlös aus Leistungen	**230'732.41**	**194'618.82**	**36'113.59**
Wertschriftenaufwand			
Bankspesen	194.00	176.00	18.00
Spesen Finanzanlagen	402.00	640.10	-238.10
Fremdwährungsverluste	29'412.85	6'532.60	22'880.25
Realisierte Kursverluste Finanzanlagen	3'902.09	3'706.98	195.11
Nicht realisierte Kursverluste Finanzanlagen	84'000.44	97'788.71	-13'788.27
Wertschriftenverwaltung	18'568.00	19'145.70	-577.70
Total Aufwand	**136'479.38**	**127'990.09**	**8'489.29**
Bruttoergebnis	**94'253.03**	**66'628.73**	**27'624.30**
Personalaufwand			
Saläre	28'072.20	27'491.40	580.80
Sozialleistungen	5'716.20	5'559.20	157.00
Total	**33'788.40**	**33'050.60**	**737.80**
Übriger betrieblicher Aufwand			
Verwaltungsaufwand	3'081.05	3'435.70	-354.65
Buchführung	972.00	868.95	103.05
Revision	2'144.00	5'200.00	-3'056.00
Aufwand Stiftungsrat	276.40	351.80	-75.40
Total	**6'473.45**	**9'856.45**	**-3'383.00**
Ergebnis vor Verwendungen gemäss Stiftungszweck	**53'991.18**	**23'721.68**	**30'269.50**

Hans - Sigrist - Stiftung, Bern

Erfolgsrechnung

	2016	2015	Abweichung
	CHF	CHF	CHF
Ergebnis vor Verwendung gemäss Stiftungszweck	**53'991.18**	**23'721.68**	**30'269.50**
Verwendung gemäss Stiftungszweck			
Hans Sigrist-Stiftung Preis	-100'000.00	-100'000.00	0.00
Spesen i.S. Hans Sigrist-Stiftung Preis	-7'904.90	-14'824.70	-6'919.80
Stipendien	-143'874.70	-245'739.10	-101'864.40
Wissenschaftliche Massnahmen	-11'500.00	-26'600.00	-15'100.00
Total	**-263'279.60**	**-387'163.80**	**-123'884.20**
Jahresergebnis	***-209'288.42***	***-363'442.12***	***-154'153.70***

Hans - Sigrist - Stiftung, Bern

Anhang

A. Bewertungsgrundsätze

Die vorliegende Jahresrechnung wurde gemäss den Vorschriften des Schweizer Gesetzes, insbesondere der Artikel über die kaufmännische Buchführung und Rechnungslegung des Obligationenrechts (Art. 957 bis 962 OR) erstellt. Die wesentlichen Abschlusspositionen sind wie nachstehend bilanziert:

Finanzanlagen
Die Wertschriften des Anlagevermögens werden zum Stichtagskurs am Bilanzstichtag, also zum Marktwert bewertet.

B. Erläuterungen zur Jahresrechnung

	31.12.2016	31.12.2015
	CHF	CHF
Finanzanlagen		
Aktien Schweiz	790'121.50	813'466.40
Immobilen-Fonds	840'526.30	604'386.70
Obligationen Schweiz CHF	2'059'800.00	2'255'220.00
Obligationen Ausland FW	687'588.00	672'296.63
Aktien Welt	603'678.36	636'640.00
Total	**4'981'714.16**	**4'982'009.73**

C. Übrige im Gesetz vorgesehene Angaben

1.1 Rechtsform, Zweck

Die Hans Sigrist-Stiftung ist eine gemäss öffentlicher Urkunde vom 12. August 1993 (Urschrift 1755) errichtete Stiftung im Sinne der Art. 80ff ZGB mit Sitz in Bern. Domizil der Stiftung ist Schanzeneckstrasse 1, 3012 Bern.

Gemäss den Statuten vom 21. Januar 1997 hat die Stiftung zum Zweck: die Förderung der wissenschaftlichen Forschung und Honorierung hervorragender wissenschaftlicher Leistungen, gleichgültig in welchem Fachgebiet gemäss Reglement vom 29. Oktober 1996.

1.2 Personelle Zusammensetzung des Stiftungsrates

Trautmann Norbert, Prof. Dr., Bern	Präsident
Rigamonti Cyrill, Prof. Dr., Bern	Vizepräsident
Brönnimann Stefan, Prof. Dr., Zollikofen	Mitglied
Henke Katharina, Prof. Dr., Murzelen	Mitglied
Kunz Alexis, Prof. Dr., Riaz	Mitglied
Leumann Christian, Prof. Dr., Bern	Mitglied
Pulver Bernhard, Dr., Bern	Mitglied
Müller Eliane, Prof. Dr., Sugiez	Mitglied
Perren Aurel, Prof. Dr., Bern	Mitglied
Rippl Gabriele, Prof. Dr., Biel/Bienne	Mitglied
Schroer Staubli Silvia, Prof. Dr., Köniz	Mitglied

1.3 Entschädigungen an die Stiftungsräte werden keine ausgerichtet.

1.4 Zeichnungsberechtigung

Der Präsident und der Vizepräsident des Stiftungsrates
führen Kollektivunterschrift zu zweien.

1.5 Revisionsstelle

Gfeller + Partner AG
Amthausgasse 6
3000 Bern 7

1.6 Erklärung, ob Anzahl Vollzeitstellen im Jahresdurchschnitt nicht über 10, 50 oder 250 liegt

Die Anzahl Vollzeitstellen liegt im Jahresdurchschnitt nicht über 10 Mitarbeitenden.

1.7 Wesentliche Ereignisse nach dem Bilanzstichtag

Nach dem Bilanzstichtag sind keine wesentlichen Ereignisse eingetreten, welche die Aussagefähigkeit der Jahresrechnung (2016) beeinträchtigen könnten bzw. an dieser Stelle offengelegt werden müssten.

An den Stiftungsrat der
Hans-Sigrist-Stiftung, Bern

GFELLER + PARTNER AG

Bericht der Revisionsstelle zur eingeschränkten Revision

Als Revisionsstelle haben wir die Jahresrechnung (Bilanz, Erfolgsrechnung und Anhang) der Hans-Sigrist-Stiftung für das am 31. Dezember 2016 abgeschlossene Geschäftsjahr geprüft.

Für die Jahresrechnung ist der Stiftungsrat verantwortlich, während unsere Aufgabe darin besteht, die Jahresrechnung 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, 17. März 2017
CZ/13

GFELLER + PARTNER AG

ppa. Christian Zwahlen
Dipl. Wirtschaftsprüfer
Zugelassener Revisionsexperte
(Leitender Revisor)

Salvatore Fasciana
Dipl. Treuhandexperte
Zugelassener Revisionsexperte

Beilagen:
- Jahresrechnung (Bilanz, Erfolgsrechnung und Anhang)

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