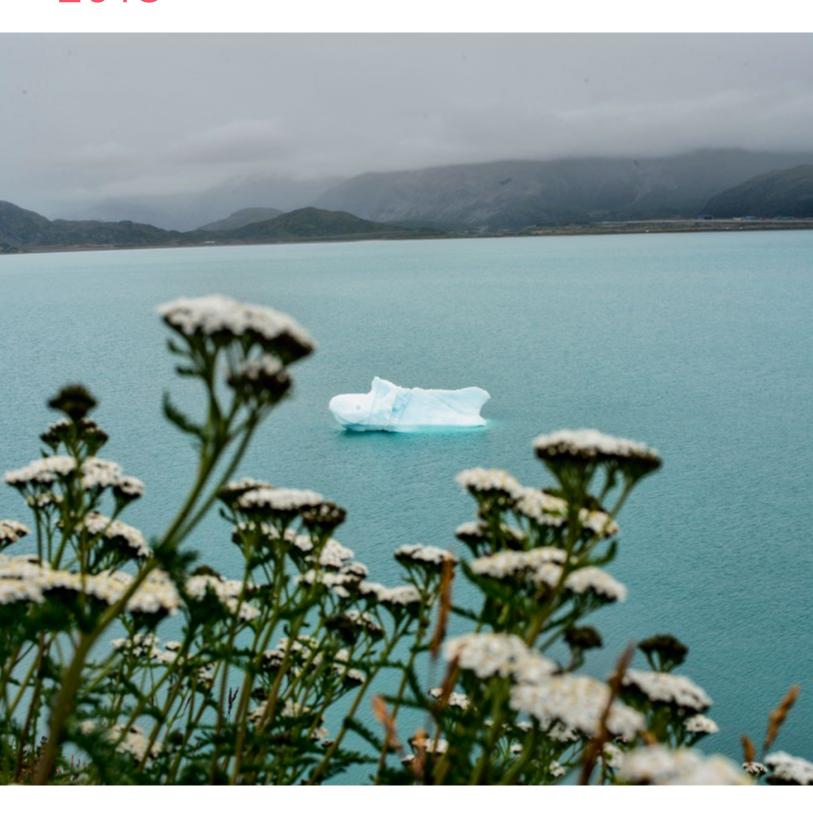


UNIVERSITÄT Bern

# Annual Report 2018



## 2018 AT A GLANCE

- *Medical program expanded.* An additional 100 students began their studies at the Faculty of Medicine.
- Interfaculty Research Cooperations in operation. Three large-scale interdisciplinary projects on the topics of sleep, religious conflict, and health of the environment, animals and humans strengthen the profile of the University of Bern.
- New Center for Precision Medicine. Personalized medicine will be given a boost with the opening in February 2019.
- *Uni Mittelstrasse opened.* The building replaces 20 former locations. The demand for new and replacement buildings continues to remain high.
- International visibility increased. The University of Bern was able to bring the relevance of its research even closer to the public and expand its media presence.
- Introductory workshops for first-semester students. The aim of the new opportunity is to make the transition into university life easier.
- Successful early career researchers. Research funding for early career scientists was revised and systematically expanded.
- **Sustainability in teaching.** Sustainable development is being integrated into teaching in all subjects, for example with a new online tutorial.
- Continuing education portfolio expanded. The 100th continuing education course was launched.
- *Earnings increased.* The positive statement of accounts enables targeted investments to be made.

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# Photo gallery: Sustainable development

The aim of Sustainable Development is to ensure that we enjoy a good life – not just today, but in the future too, and not just here in Switzerland, but everywhere in the world. With the "2030 Agenda", the United Nations has set itself 17 Sustainable Development Goals (SDGs) for dealing with challenges such as climate change, the destruction of the environment, poverty, starvation and migration.

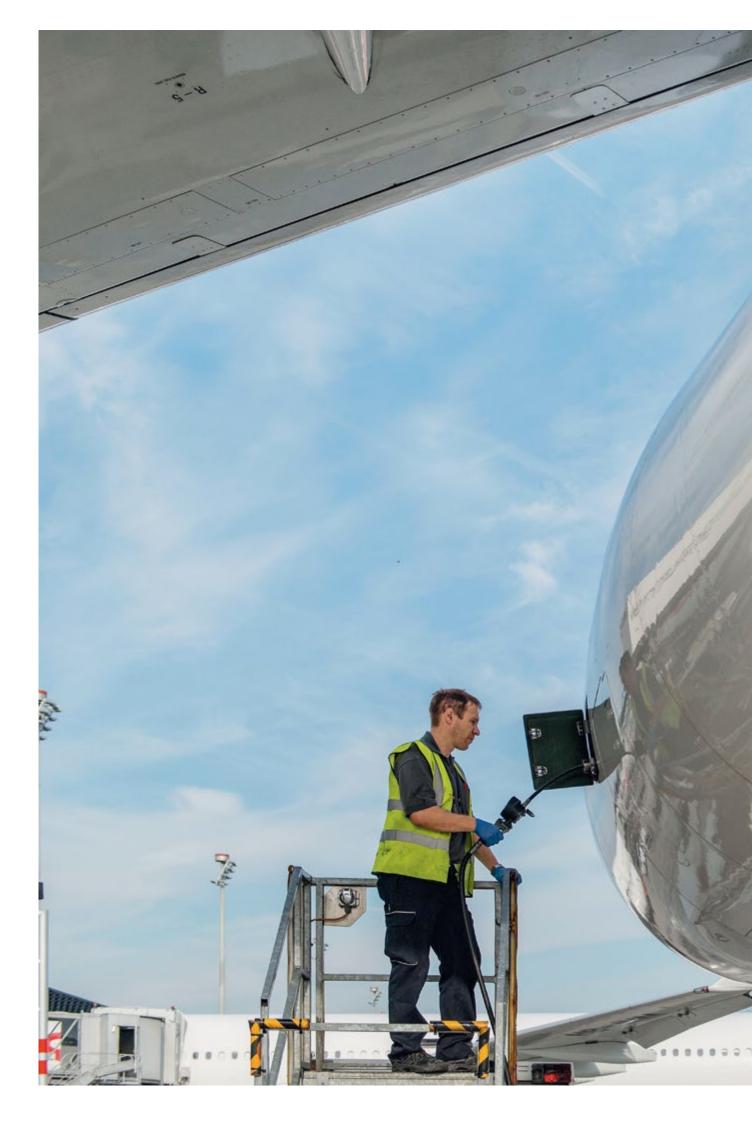
With its strategic focus on sustainability, the University of Bern is supporting the transformation towards a world equipped for the future. Scientists in Bern are also leaders in the preparation of global status reports on sustainability, the climate and biodiversity.

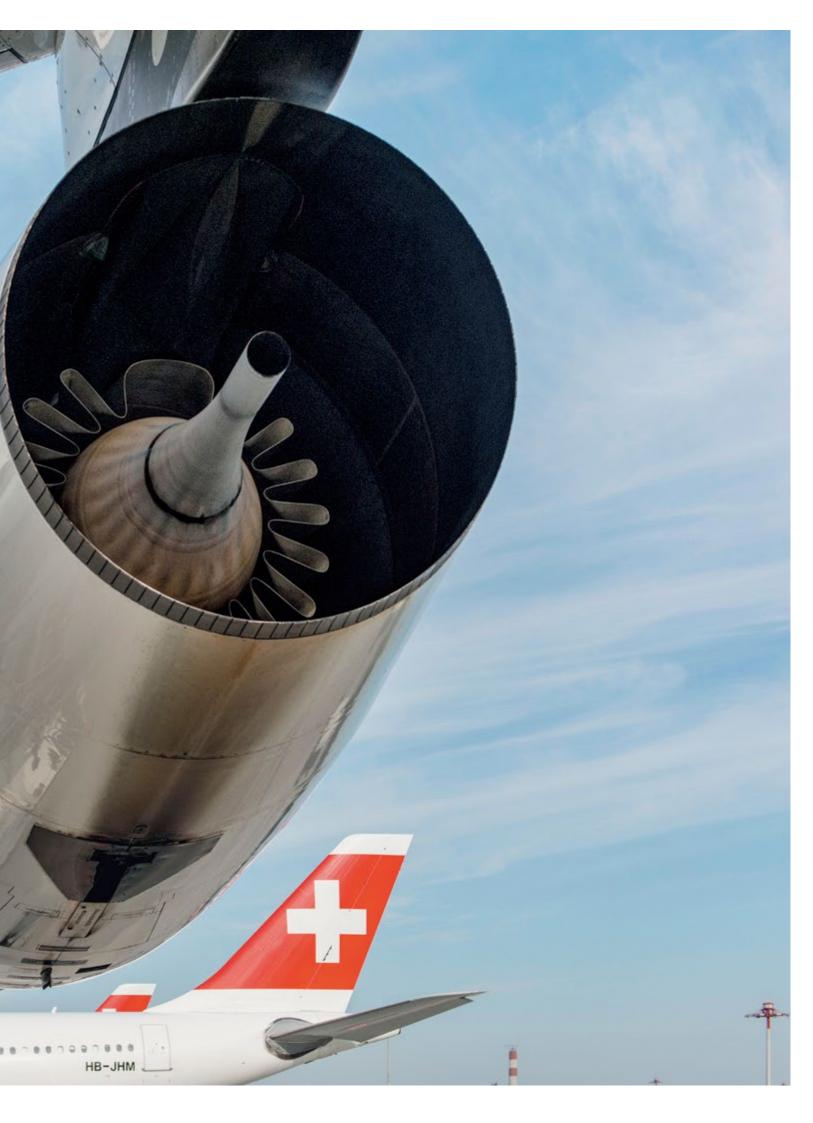
The photo gallery in this year's Annual Report shows the challenges posed by some of the 17 SDGs and the approaches taken to achieve them. 15 Vice-Rectorate Development

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# A Bern success story

More than 18,000 students for the first time. For the first time, a budget of over CHF 875 million, for the first time, 100 additional students in the first semester of medicine; a new strategic research center for precision medicine and three new interfaculty research cooperations. There are also a great many more instances of "new" and "firsts" that we could report. This makes me extremely happy as well as proud of our university and all the people who work or study with us.

However, there were and still are challenges to be faced. Some come unexpectedly and affect you very personally, such as the sudden death in the summer of 2018 of our Administrative Director, Daniel Odermatt, leaving a huge gap in our lives. Others are more predictable and less demanding on a personal level, albeit more so as a leader.

Our greatest challenge is due to the success and growth we have achieved. We were thankful to be able to move into Mittelstrasse 43 in June. However, we still urgently require new and replacement buildings, for example on the grounds of the Inselspital, Bern University Hospital for the extra medical students and on the Muesmatt site for natural sciences.

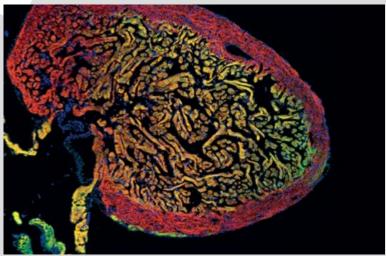
Another challenge we will have to face is Switzerland's future relationship with the European Union. It is becoming increasingly likely that participation in the EU's new research program, "Horizon Europe", will be dependent on the conclusion of a Framework Agreement. Without this, we risk losing access to the European Research Area and thus our attractiveness as a research location and place of study.

I now invite you to read on and find out more about our activities and successes. Enjoy your reading.

Prof. Dr. Christian Leumann, Rector

# Highlights 2018

#### Zebrafish flexibly repair their heart



Zebrafish are able to completely regenerate their heart after being wounded. A study led by Bern-based developmental biologist Nadia Mercader now shows that they repair their hearts flexibly in a predefined manner. As part of this repair process, multi-layer cells rebuild the heart muscles. The knowledge gained from this study could be used to initiate a similar repair process in human hearts.

#### Dental medicine among the top ten worldwide



The University of Bern School of Dental Medicine is world class: It placed seventh in the 2018 QS World University Rankings. The University of Bern is the only Swiss university among the top ten in this subject. It is not just the school's publication activities that distinguish it, translational research – the collaboration between researchers and experts in clinics – is also helping dental medicine in Bern stand out from the competition.

## Cosmic ravioli and spätzle pasta



In May, Bern-based astrophysicists Martin Rubin, Martin Jutzi and Adrien Leleu used computer simulations to show how Saturn's strangely shaped moons came into being, i.e. through the fusion of smaller moonlets. When the moonlets collided in an almost head-on manner, flattened, ravioli-shaped moons such as Atlas and Pan were created. Collisions where the angle of impact was slightly more oblique resulted in elongated, spätzle-shaped moons such as Prometheus.

# More student places in medicine



An extra 100 students will start their medical degree at the University of Bern Faculty of Medicine in fall. By expanding the number of student places available, the University is strengthening Bern as a medical location and is actively combating the shortage of doctors. The University of Bern Faculty of Medicine now has the largest intake capacity of all the faculties of medicine with numerus clausus in Switzerland.

### Sleep-wake control center discovered in the brain



It was previously assumed that different regions of the brain are responsible for falling asleep and waking up. Under the leadership of Antoine Adamantidis, neuroscientists from Bern have now discovered that there is a single control center in the brain that controls the sleep-wake cycle. These findings are extremely important for the treatment of sleep disorders and associated illnesses.

## Multifaith pastoral care



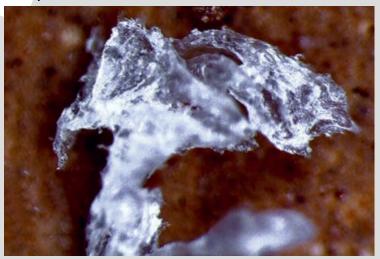
On May 28, Federal Councillor Simonetta Sommaruga gave a speech at the graduate ceremony for the "Religious Care in Migration Contexts" continuing education course. For the first time ever in Switzerland, members of different religions – from Christianity, Hinduism and Islam – came together and completed a degree course in religious-existential counseling. The course offered by the University of Bern Faculty of Theology provides non-Christian religious communities with access to professional qualifications in pastoral care and thus the ability to work, for example, in asylum centers.

## Ice sheets melting away



In June, the international "PAGES (Past Global Changes)" project based at the University of Bern published its evaluation of data on past warming periods. The analysis shows how a warmer world is likely to look in the future. According to the findings, which were published in Nature Geoscience, ecosystems and climatic zones will shift and polar ice sheets will melt greatly over the next millennia.

#### Microplastics in Swiss soil



The top five cm of Swiss alluvial soils contain around 53 tons of microplastic. Researchers from the Institute of Geography made this estimate after examining 29 alluvial soils in Swiss nature reserves from Geneva to Graubünden. This is one of the first research projects in this area. The effects that the tiny plastic particles with a diameter smaller than five mm will have on animals, plants and soil fertility are largely unknown.

#### Auditory cells made in test tubes



Researchers from the University and Inselspital, Bern University Hospital, led by Marta Roccio and Pascal Senn, have succeeded for the first time in generating human inner ear cells in the laboratory and in investigating their origin. This paves the way for new treatment methods for those suffering from hearing impairments. The findings provide a "blueprint" for the creation of cochlea hair cells made from stem cells and other types of cells. This will also allow tests to be carried out with the patient's own cells to determine whether individual treatment is possible.

### New workplace for University members



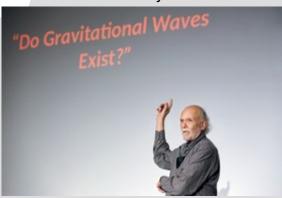
Members of four different faculties of the University have been carrying out research, teaching and learning at the building located at Mittelstrasse 43 since summer 2018. The former SBB administration building was renovated and modified to meet the needs of the University. An open day was held in October, during which the institutes presented their new working environment and their work to the general public.

# Ancient city complex discovered



Archaeologists from the University of Bern discovered a city complex that dates back to the bronze and iron age in Sirkeli Höyük in Turkey. Measuring over 80 hectares, the settlement is one of the largest known settlements from this period in Turkey. The center of the upper town features a necropolis with chamber tombs. Such remarkable finds underline the importance of the ancient city, which could even be the well-known cult center Kummanni.

# Einstein lectures with Barry Barish



At the Einstein Lectures in November, Nobel Prize winner Barry Barish proved that he is not only an outstanding scientist, but also a good raconteur. One of his stories told the tale of a chirping signal that was received on the LIGO detector on September 15, 2015. This was tantamount to the first direct proof of gravitational waves, as postulated by Albert Einstein.

# **Wyss Foundation supports the University of Bern**



In November, the Wyss Foundation announced that it would be working in partnership with the University of Bern on a one-year pilot project in Kenya and Peru as part of a global nature conservation campaign. The aim of this project is to show how sustainable development for nature and humankind can be organized in the future. The intention is to draw up innovative approaches to land use and strategies for biodiversity conservation, which will then be made available internationally.

#### Dürrenmatt professorship is institutionalized



Peter Stamm, the tenth "Friedrich Dürrenmatt Guest Professor for World Literature" – and the first person from Switzerland to be awarded this title – will teach at the University of Bern in the fall semester. The writer was awarded the Swiss Book Prize in November. Stamm will certainly not be the last Guest Professor for World Literature at the University of Bern. Following a five-year pilot phase, the Dürrenmatt Guest Professorship has been institutionalized for the next ten years thanks to funding from the Burgergemeinde Bern and a renewed contribution from the Mercator Foundation.

## 3,500 high school pupils visit the University



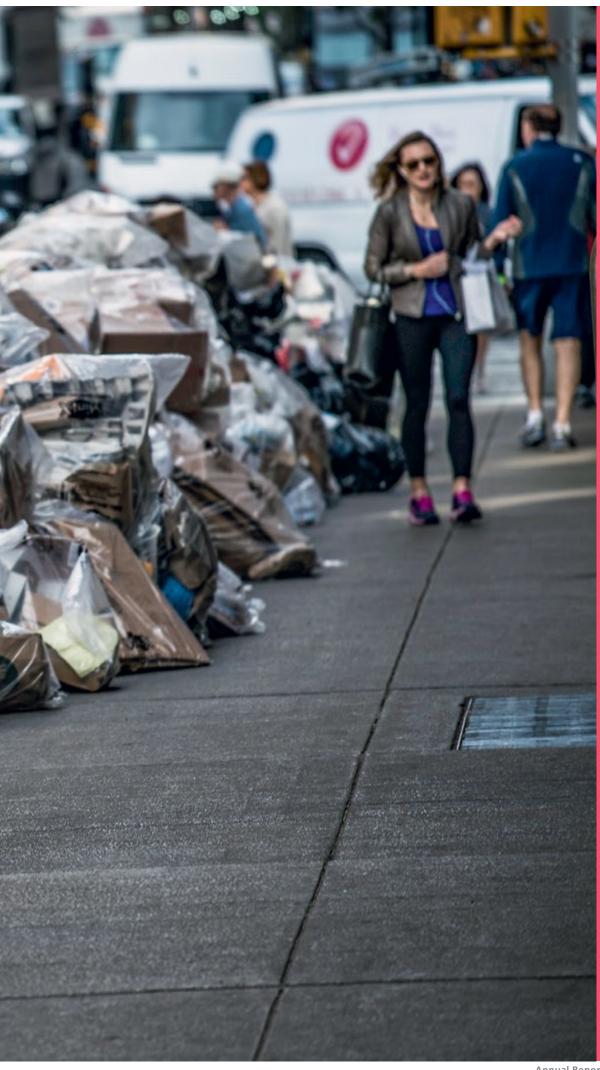
On the Bachelor's open days held on December 4 and 5, some 3,500 high school students from the Canton of Bern and the rest of Switzerland visited the University of Bern to learn about the 39 Bachelor's degree programs. The impressive array of degree programs offered by the University of Bern was well received among the high school pupils in attendance.

## Research to ensure happier hens



At the end of November, the University of Bern and the Swiss Federal Food Safety and Veterinary Office (FSVO) opened an experimental stable for poultry and rabbits. The facility located in Zollikofen provides new opportunities to explore how stables can be made more animal friendly.





# Reports

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evelopment

Finances, business operations and infrastructures

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# Stylish living

Our consumption habits embody our individual lifestyles. However, we are currently consuming far more resources than the ecosystems can provide.

Numerous initiatives have been set up in recent years to change our consumer habits – from recycling shopping centers and swap meets to community-supported agriculture. Researchers at the Centre for Development and Environment (CDE) are investigating the various approaches being used to encourage large numbers of people to adopt a sustainable lifestyle. Meanwhile, the Institute of Marketing and Management (IMU) is taking a look at what measures are needed for consumers to buy more sustainable and healthier food.

RESPONSIBLE CONSUMPTION AND PRODUCTION

# In the service of society

In 2018, the University of Bern further strengthened its international visibility and raised public awareness of its research.

#### By Prof. Dr. Christian Leumann, Rector

The University of Bern is guided by scientific interests and societal needs. The latter are constantly evolving, thus committing the University to constant change. In order to effect change, we must be open to the world and face it with curiosity. As rector of a comprehensive university, I am grateful for this duty. Through the interaction of the different scientific fields, something new can emerge and problems can be tackled from a variety of perspectives.

# **Cross-discipline collaboration**

Researchers at our university are prompted to share their own knowledge with colleagues from other disciplines and learn as a result. For example, legal scholars have joined forces with humanities scholars, psychologists and social scientists to research the causes of religious conflicts and identify potential solutions. Working under the title "Religious Conflicts and Coping Strategies", twelve research groups are involved in an Interfaculty Research Cooperation (IRC). In another IRC, "Decoding Sleep: From Neurons to Health & Mind", physicians, psychologists, neurologists, specialists in infectious diseases, and computer scientists – to name but a few – are analyzing scientific findings from their disciplines to better understand the mechanisms of sleep.

In 2018, the University of Bern once again performed excellently in international rankings. This should not be taken for granted as it is actually becoming increasingly difficult given the extent to which the East Asian region has heavily and successfully invested in education and research – and thus in its universities. We have international recognition as a center for science in the heart of Europe. A specific example of this is the World Bank's decision to carry out its new International Program for Development Evaluation Training (IPDET) at the University of Bern. Over 3,500 participants from

125 countries now come to our university every summer to take part.

## The University as a network for Bern

The University brings together people from different scientific disciplines, cultural backgrounds, countries and generations to discuss relevant issues of our time. The Spirit of Bern and the Swiss Governance Forum focused on digitalization, the Forum for University and Society discussed among other things the success of integration, and the various Alumni UniBE events saw students exchange ideas with experienced alumni members from business, culture and science. At the last alumni event, every seat was taken in the largest cinema hall in Bern to celebrate membership breaking the 3,000 mark.

A few more important figures from last year: The Institute of Primary Health Care (BIHAM) now has four professorships – the most in Switzerland. Nine additional professorships are now being supported at the University of Bern by the Swiss National Science Foundation (SNSF) as part of the "Eccellenza" program. And four researchers in Bern received a "Consolidator Grant", one an "Advanced Grant" and two together a "Synergy Grant" from the European Research Council (ERC). In addition, the Graduate School for Health Sciences celebrated its tenth anniversary in 2018, while the Centre for Fish and Wildlife Health celebrated its 20th anniversary and Sport Science its 50th anniversary. Lastly, we celebrated 100 years of Maurice E. Müller, paying tribute to the life's work of a great visionary and pioneer of orthopedic surgery.

#### Infrastructure remains the challenge

Construction and infrastructure are the two main challenges facing us. A number of projects were completed in 2018 – for example the "Uni Mittelstrasse"

"The university brings together people to discuss relevant issues of our time."

was opened and the foundation stones were laid in other projects, such as the new laboratory building at Murtenstrasse. In the medium term, we will see new construction projects at the Inselspital, the Uni Muesmatt and the Animal Clinic. These projects will include new buildings to meet the growing number of students in the area of medicine, as well as renovations of those buildings that have reached the end of their life cycle. In order to realize these projects, we are strongly dependent on the support of politics and the population as well as the long-sighted planning of our Building Development Office.

Christine Häsler as the new Minister of Education. I would also like to say a big thank you to all of the supporters and friends of our university. Those who invest in knowledge display foresight. This is not a matter of course and deserves great respect. I would also like to thank all of our employees for the strong commitment they have shown toward the performance of the various tasks within our university. We also owe a great debt of gratitude to our students for the trust they place in our institution as well as to our teaching staff, who are responsible for this.

## Successful communication

We are also making progress in terms of communication and bilingualism. Large parts of our website are now available in French, in addition to German and English. We have reorganized the Communication & Marketing Office in line with the concept of integrated communication. Since September, it has also been following a modern newsroom concept. Initial successes can be seen, for example, in the higher output and greater reach of the University's digital media. In addition, our visibility in the Swiss media has increased, with a 25 percent increase recorded in the number of media inquiries received in comparison with the previous year as well as a significant rise in the number of articles about the University, including in leading media, such as NZZ (200 articles, +32%) and 10vor10 (54 reports, +40%).

## **Political foresight**

Last year, there was a staff handover in the Department of Education. On behalf of the Executive Board of the University of Bern, I would like to thank Bernhard Pulver for everything he has achieved and for the great trust he showed in our institution. Furthermore, I would like to take this opportunity to welcome

# Efficient teaching awakens curiosity

The over 18,000 students at the University of Bern learn to ask questions and find ways to answer them. Students and lecturers are being provided with new opportunities in this pursuit of knowledge.

#### By Prof. Dr. Bruno Moretti, Vice-Rector for Teaching

University teaching follows the well-known motto of "the journey is the goal". Although there is no disputing the fact that the goal – in this case the degree – is very important, the value of a degree is defined by the journey required to obtain it. The most important thing that you can learn is to ask questions and find ways to answer them. This of course is not about exam questions, rather about curiosity and the desire to understand. It relates to the questions that students ask themselves and try to answer with the help of the lecturers. Efficient teaching is thus teaching that stimulates and accompanies this curiosity. This develops the ability of students to identify problems and find solutions, thus helping young university graduates to make an important contribution to the future of society.

#### Learning how to learn

The fall semester of 2018 was the first time that the number of students studying at the University of Bern broke the 18,000 mark – including the 100 students who received one of the additionally created places for medical studies. These students are able to enter into a dialog with lecturers who carry out first-hand research of outstanding quality.

To better prepare the first-semester students for their journey through university life, introductory workshops were organized for the first time in 2018 (see page 30). The workshop on learning strategies in particular was very well received. As a result, the Executive Board of the University of Bern has made the decision to organize a further option in the spring semester of 2019. As the workshops are based on findings from learning research, these events establish a close relationship between learning and research.

# Introduction for new lecturers

The knowledge gained from teaching and learning research is also being incorporated into the "Tips and

Tools for Good Teaching" workshops. These were also held for the first time in 2018 and are aimed mainly at newly appointed lecturers. In a half-day session, the new lecturers receive the opportunity to learn more about the teaching philosophy of the University of Bern. There are also further opportunities to explore this topic in depth. When implementing the findings, lecturers can also draw on funding pools. Within the "Promotion of Interdisciplinary Events" program, the two faculties that have collaborated the most are the Faculty of Science and the Faculty of Humanities. By the end of 2018, a total of 51 projects had benefited from the "Promotion of Innovative Teaching" program. Three-quarters of these projects were focused on digital solutions and content.

> "The value of a degree is defined by the journey required to obtain it."

Digitalization is posing new questions, but also providing new tools to be further developed in 2019: New questions, new potential answers, new dialog between students and lecturers, and between the university and society belong to the raison d'être of a university.

# **Interdisciplinary success**

The University of Bern's excellent subjectspecific and interdisciplinary research gives a boost to new major projects. In this environment, young researchers are able to develop and establish themselves.

By Prof. Dr. Daniel Candinas, Vice-Rector for Research

In 2018, researchers at the University of Bern once again achieved extraordinary results. Their numerous articles and innovations contributed to the good reputation of our alma mater as a center of science, and brought it out into the world. They excelled with extremely successful, subject-specific basic and translational research. On the other hand, interdisciplinary research approaches are growing at the University of Bern. We are pleased to note that our researchers are increasingly networking outside of the box in order to pose critical questions and look for innovative solutions. The systematic promotion of interdisciplinarity within a comprehensive university with a wide range of subject areas and broad methodological expertise seems to be paying off. The three Interfaculty Research Cooperations (IRCs) that were competitively selected in the previous year began work in 2018. These major projects are helping to develop new focus areas and increase the profile of the University of Bern. All eight of the faculties are involved in the three IRCs, which is proof of how well and how broadly our university is positioned.

#### **New Center for Precision Medicine**

Another milestone was reached at the end of last year with the completion of the elaborate planning work for the new Center for Precision Medicine. This interdisciplinary center with researchers from human and veterinary medicine, genetics, ethics, law, economics and data sciences has been set up as a virtual center that can draw on existing platforms and facilities such as the "biodatabase". In this cooperative center, in which the Inselspital, Bern University Hospital also participates as a partner institution, analyses of complex databases are being used to develop individualized and targeted therapies. This presents new approaches for the treatment of a wide range of diseases, such as cancer, circulatory problems and degenerative conditions.

## **Expanded support for young researchers**

Our research environment is characterized by a balanced relationship between established excellence and projects carried out by early career researchers. With an emphasis on early career researchers, the Executive Board of the University of Bern has revised the research funding and expanded it at various targeted levels.

"Researchers in Bern establish networks to pose critical questions and look for innovative solutions."

This is just one of the reasons why both established scientists and young researchers opt for the University of Bern. They know that they can successfully develop and establish themselves within our eight faculties. The result can be seen in both the impact of research publications and in the extremely successful acquisition of external funding from the Swiss National Science Foundation and European agencies. In addition, a significant amount of funding was acquired from overseas, from foundations and in translational research cooperations with industry.

# Sustainability concerns everyone

From online tools to continuing education and funding programs: the University of Bern is committed to sustainable development, particularly at the level of learning and teaching.

By Prof. Dr. Silvia Schroer, Vice-Rector for Quality

As part of its Strategy 2021, the University of Bern has set itself the target of promoting sustainability in research, teaching and business operations. In terms of teaching, this means that every student should learn about the connections between their main subject and sustainable development during the course of their studies. The University Executive Board supports lecturers in integrating the topic of sustainability into their teaching, thus helping to ensure that academic knowledge adds future-oriented and ethically sound value.

#### **Broad range of support**

In this way, lecturers can fall back on a guideline when integrating sustainable development into their teaching. The "Education for Sustainable Development" website provides lecturers with background information as well as teaching materials such as slide sets and short videos. There are also various coaching sessions, workshops and a higher education didactics module in which they can explore the connections between their respective discipline and sustainability, and develop innovative ideas for their courses.

The options also include a competitive funding program, which was launched at the end of 2017. Since teaching students about sustainability ideally involves an interdisciplinary approach, the preparation of such courses is a time-consuming process. The Vice-Rectorate for Quality is therefore supporting teaching projects in which lecturers are able to demonstrate the link between their academic field and sustainable development with additional personnel points. Teachers thus have time to design, implement and evaluate a course relevant to sustainability.

A two-hour tutorial was launched in November 2018. The e-learning option allows students to discover what sustainability is and how it is connected to their own discipline in an easy-to-follow and interesting

manner. The autodidactic tool is available on the ILIAS online platform and can be tested by users in a one-year pilot phase.

"Every student should learn about the connections between their main subject and sustainable development."

How far the integration of sustainable development into teaching has progressed can be seen by the newly introduced annexes to the curricula and corresponding information in the core teaching system (CTS), in which the courses relevant to sustainability are recorded.

## Status assessment and action plan

The University of Bern has been conducting annual sustainability monitoring since 2015. The second Sustainability Report was published in November 2018, providing an overview of the key findings from the monitoring in 2016/17. In addition, a university action plan on sustainable development was drawn up in connection with the further development of the University's quality assurance system. This action plan sets out the objectives and measures to be taken for the next four years.

# Strong educational partner for highly qualified workers

The University of Bern is expanding its portfolio as a leading provider of scientific continuing education. In 2018, it launched its 100th continuing education course.

By Prof. Dr. Achim Conzelmann, Vice-Rector for Development

In just 20 years, further education has grown from being a niche activity to a key task of the University. In 1998, there were only eight degree programs on offer at the University of Bern. By the end of 2018, this number had increased to 108 degree programs as well as numerous additional continuing education courses. In the fall semester of 2018, there were some 2,800 people taking part in continuing education.

## Dynamic development of offered courses

All eight faculties offer continuing education programs, thus allowing the University of Bern to demonstrate its strength as a comprehensive university. The continuing education sector is extremely dynamic: The faculties and institutes are geared toward the current needs of participants, the economy and society, and are able to flexibly cater to new trends and requirements. Over the past two years, several study programs have been launched on the subject of migration (CAS Migration and Education, CAS Legal Representation in Asylum Procedures, CAS Gender Competence in Migration and Globalization) and on digital topics (CAS Digital Transformation, CAS Applied Data Science). Established courses are regularly adapted to take account of new challenges in occupational fields or the changing requirements of target groups.

The University of Bern is a strong educational partner for highly qualified workers. University continuing education transfers scientific findings directly into the economy and society. Conversely, it transfers ideas from the professional world into science. This helps the university to entrench itself in the political, social and economic environment, strengthen its reputation and cultivate a valuable network. Continuing education also drives innovation within the university: Its courses often serve as a "laboratory" in which new teaching methods and degree structures can be tested and feed-

back can be gained from demanding target groups. Thanks to its interdisciplinary orientation, continuing education paves the way for cross-faculty collaboration and structures. The demand and service-based nature of continuing education can help to support undergraduate courses where universities are in growing competition with each other to acquire qualified students. This provides university members with access to attractive fields of activity, offering synergetic relationships with the core tasks of research and teaching.

"Everyone benefits from university continuing education – the students, the lecturers, the university and society."

# Increasing the flexibility of continuing education

The Centre for University Continuing Education (ZUW) helps faculties and institutes to launch tailored opportunities in a timely manner and to continuously develop them further. This will help to devise even stronger solutions for individual "learning journeys" in the future. More flexible, modularized and personalized forms of continuing education that meet the individual needs of experienced, highly qualified students are forward-looking.

# Financial success allows for targeted expansion

Thanks to higher earnings, the University of Bern can invest in the future: Such as with the expansion of the medical program, the setup of a complete pharmacy course, the new Center for Precision Medicine and the implementation of the digitalization strategy.

#### By Bernhard Steinmann, Interim Administrative Director

In the summer of 2018, the University of Bern received the unthinkable news that Daniel Odermatt, the long-standing Administrative Director, had died unexpectedly. The employees in the Administrative Director's Office were shocked and stunned. Despite being under enormous emotional strain, they managed to stand together in solidarity and ensure that the Office moved forward and ran smoothly at all times.

"Almost 10per cent of University employees are now housed at a central location in the mid-Länggasse area."

#### Attractive to students from other cantons

In comparison to the previous year, income rose by CHF 8.7 million to over CHF 883 million. The contribution from the Canton of Bern was also up CHF 2.5 million. The largest increase in basic funding – an increase of CHF 5.6 million or 5.2 percent – can be attributed to the Intercantonal University Agreement (IUV). This shows that the courses offered by the University of Bern are very attractive to students outside of the Canton of Bern. External funding increased by CHF 2.9 million, despite there being a funding gap of around CHF 4.5 million following the phasing out of a National Centre for Competence in Research (NCCR). In terms of expenditure, personnel costs rose by some CHF 13 million in comparison with the previous year. This was mainly due to the appointment of more members of scientific staff, teaching and research assistants, and doctoral students. The annual financial statement closed with a positive result of CHF 20 million in basic funding. Practically the same result was achieved from external funding and funds. In the coming years, the accumulated basic funding reserves of the past years will be used to finance the expansion of the medical program, the setup of a complete pharmacy course, the new Center for Precision Medicine, the implementation of the digitalization strategy, the realization of strategic faculty projects, and the support for new NCCRs.

# **University Mittelstrasse replaces 20 locations**

Following Hochschulstrasse 6, the University of Bern put a second former SBB administration building into operation in the summer of 2018 – Uni Mittelstrasse.

With a floor space of 10,000 square meters, the building houses 650 workstations and seminar rooms as well as an open access library and some 100 learning stations. Almost 10 percent of University employees from the 10 institutes and centers that up until now had been spread over 20 locations are now housed in this central location in the mid-Länggasse area.

The Bern Cantonal Government and the University of Bern decided two years ago to make 100 extra places available for medical students. As this was not possible in the existing infrastructure, a temporary solution was found in the Renferhaus on the site of the former Ziegler Hospital. Just in time for the start of the 2018 fall semester, 320 students were able to start their medical degrees at UniZiegler. There are plans to one day find a permanent solution for the entire medical program at the Inselspital, Bern University Hospital.

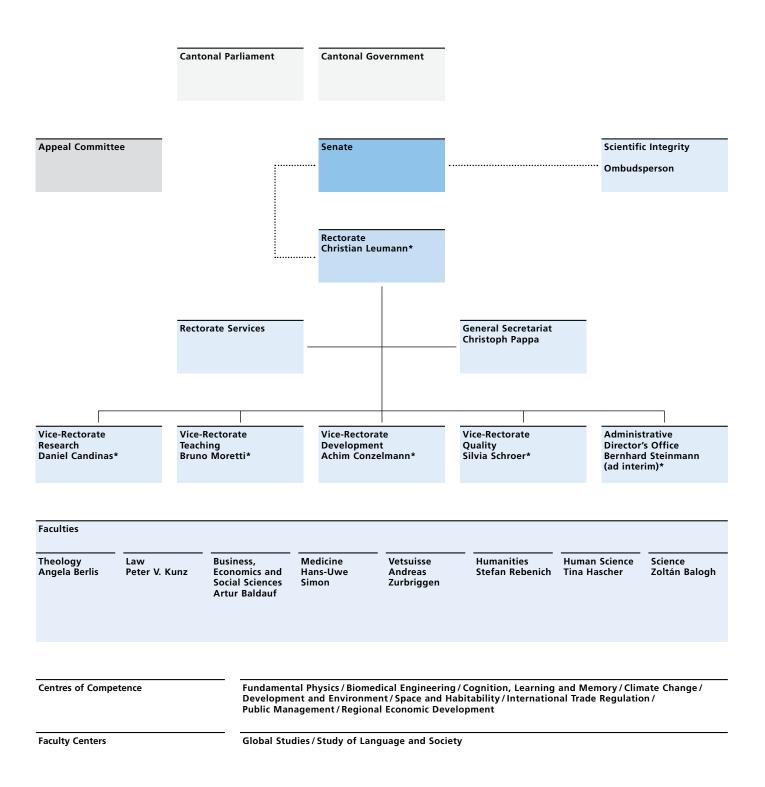
University funding in 20	18		
in CHF 1,000		2018	Share
Basic funding <sup>1</sup>		553,928	62.7%
	from the Canton of Bern	316,675	35.8%
	I University Agreement (IUV) <sup>2</sup>	113,376	12.8%
Contribution	s from the Swiss Federal Government	97,404	11.0%
Other incom	e	26,473	3.0%
<u>-</u>	Tuition fees	19,177	2.2%
-	Miscellaneous	7,296	0.8%
(+) Profit /(-	) Loss	+20,290	
External funding <sup>1</sup>		329,689	37.3%
Promotion o	f research		14.9%
	Swiss National Science Foundation (SNSF)	99,766	11.3%
_	Innosuisse	3,654	0.4%
_	EU research programs	16,258	1.8%
_	Other international research funding	11,718	1.3%
	led departmental research	21,935	2.5%
Private sector funding <sup>3</sup>		29,568	3.3%
Other income		146,790	16.6%
<del>-</del>	Continuing education	10,694	1.2%
<del>-</del>	Service centers	72,052	8.2%
=	Miscellaneous	64,043	7.2%
(+) Profit / (-) Loss		+20,223	
Total income		883,617	100.0%
Total expenditure		843,104	
Year-end result (+) Profit /(-) Loss		+40,513	

<sup>1</sup> Basic funding / external funding: The income generated by the University, which serves as the University's structural basic funding, counts as basic funding. All other income is recorded as external funding.

<sup>&</sup>lt;sup>2</sup> Intercantonal University Agreement (IUV): The IUV governs the participation of the cantons. It determines the contribution that the home canton can give a student toward payment for their degree course.

<sup>&</sup>lt;sup>3</sup> **Private sector funding:** Income from the private sector, private individuals, foundations and similar organizations.

# Organizational Chart



<sup>\*</sup> Members of the University Executive Board

As at December 31, 2018

# Executive Board of the University of Bern

Prof. Dr. Christian Leumann Rector

Prof. Dr. Daniel Candinas Vice-Rector for Research

Dr. Christoph Pappa Secretary General

Prof. Dr. Achim Conzelmann Vice-Rector for Development



Prof. Dr. Silvia Schroer Vice-Rector for Quality

Prof. Dr. Bruno Moretti Vice-Rector for Teaching

# Heads of Faculty

Prof. Dr. Hans-Uwe Simon Dean of the Faculty of Medicine

Prof. Dr. Angela Berlis Dean of the Faculty of Theology

Prof. Dr. Artur Baldauf Dean of the Faculty of Business, Economics and Social Sciences

Prof. Dr. Zoltán Balogh Dean of the Faculty of Science











Prof. Dr. Tina Hascher Dean of the Faculty of **Human Sciences** 



Prof. Dr. Andreas Zurbriggen Dean of the Vetsuisse Faculty



Prof. Dr. Stefan Rebenich Dean of the Faculty of Humanities



Prof. Dr. Peter V. Kunz Dean of the Faculty of Law

# Senate

The Senate is the highest legislative body of the University and supports the University Board of Directors in fulfilling the performance mandate of the Cantonal Government.

#### Chair

Prof. Dr. Christian Leumann Rector

#### **Faculties**

Prof. Angela Berlis

Dean of the Faculty of Theology

Prof. Peter V. Kunz

Dean of the Faculty of Law

Prof. Sibylle Hofer Delegate of the Faculty of Law

Prof. Artur Baldauf

Dean of the Faculty of Business,

**Economics and Social Sciences Prof. Winand Emons** 

Delegate of the Faculty of Business, Economics and Social Sciences

Prof. Hans-Uwe Simon

Dean of the Faculty of Medicine

**Prof. Daniel Buser** 

Delegate of the Faculty of Medicine

Prof. Andreas Zurbriggen

Dean of the Vetsuisse Faculty

Prof. Stefan Rebenich

Dean of the Faculty of Humanities

Prof. Elena Mango

Delegate of the Faculty of Humanities

Prof. Tina Hascher

Dean of the Faculty of Human Sciences

Prof. Ernst Hossner

Delegate of the Faculty of Human Sciences

Prof. Zoltán Balogh

Dean of the Faculty of Science

Prof. Robert Häner

Delegate of the Faculty of Science

Interfaculty and university-wide units

Prof. Heike Mayer

Delegate

Association of Lecturers (VDD)

Dr. Béla Filep

Delegate

Dr. Rouven Porz (private lecturer)

Delegate

Association of Teaching and Research Assistants (VAA)

Dr. Zoë Lehmann Imfeld

Delegate

Stefan Emmenegger

Delegate

Students (SUB)

**Noémie Lanz** 

Delegate

Jochen Tempelmann

Delegate

Anja Rüttimann

Delegate

Members in an advisory capacity

**Executive Board of the University** of Bern

Prof. Bruno Moretti

Vice-Rector for Teaching

**Prof. Daniel Candinas** 

Prof. Silvia Schroer

Vice-Rector for Quality

Prof. Achim Conzelmann Vice-Rector for Development

**Dr. Daniel Odermatt** Administrative Director

(decd. on July 6, 2018) **Bernhard Steinmann** 

Interim Head of the Administrative Director's Office

**Secretary General** 

Dr. Christoph Pappa

Administrative and technical staff

**Barbara Ingold** 

Delegate

**Philipp Muster** 

Delegate

**Honorary members** 

Dr. Renatus Gallati Walter Inäbnit Dr. Celia Zwillenberg

Permanent guests

Office for Gender Equality

Lilian Fankhauser

Co-Head

Communication & Marketing Office

**Christian Degen** 

Head

**General Secretariat** 

Verena Fiechter

Senate Secretary

As at December 31, 2018





# Strategy 2021

## Content of following pages:

24 Sub-strategy Comprehensive university

**Sub-strategy** 

32 Sub-strategy

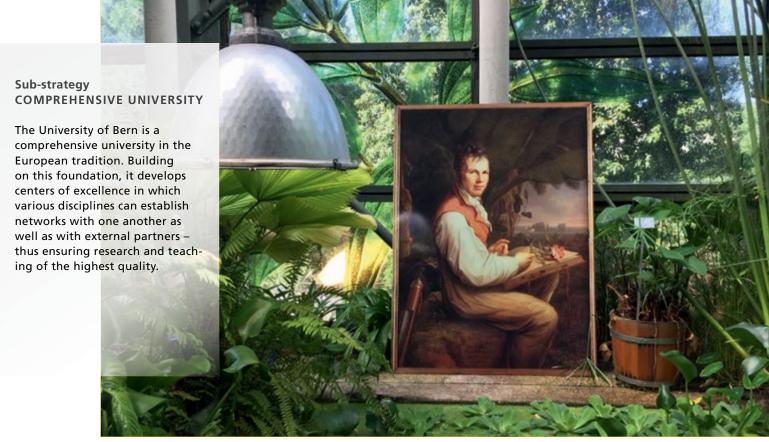
# **Enough to live**

Despite success in combating extreme poverty and starvapeople living on less than \$1.25 a day and suffering from

The Centre for Development and Environment (CDE) is investigating which alternative development paths lead to greater social justice and improve the food security of the poorest sections of the population in the long term. The Institute of Plant Sciences is currently working on cultivating less-susceptible varieties of dwarf millet. This species of cereal grass is the most important staple food for millions of small farmers in Ethiopia.







Installation in the Bern Botanical Garden as part of the "Botany in motion – Humboldt's expeditions" exhibition. The exhibition was planned by a team of literature scholars and plant scientists from the University of Bern.

# Unifying sciences

Natural scientist and explorer Alexander von Humboldt (1769–1859) is being rediscovered as a lateral and cross-disciplinary thinker. To mark his 250th birthday, the University of Bern put together the first complete edition of Humboldt's writings and held the "Botany in Motion" exhibition.

"This man is a complete walking academy" is a line taken from a poem written by Hans Magnus Enzensberger about Alexander von Humboldt. The fact of the matter is that it would take almost an entire university to research his works, as they connect various sciences and are written in numerous languages and forms.

As part of an SNSF project, the University of Bern has put together the first complete edition of Humboldt's writings, which will be published in ten volumes in dtv (and then online) to mark his 250th birthday in 2019. The writings comprise approximately 1,000 compositions, articles and essays. Together with their adaptations and translations, they were published more than 3,600 times throughout Humboldt's lifetime in journals and newspapers around the world or as contributions to the works of other authors. Only five percent of these texts have ever been reprinted since his death.

# Interdisciplinary collaboration

In order for this material to be made available for research, various disciplines had to work together: Comparatists, German and Romance scholars, publication and digital philologists, book and writing historians, science historians and historians collected and edited the texts, and then worked with scientists and researchers from the fields of art history, botany, zoology and climate research to anno-

tate the writings in various formats – on each individual text and on the material as a whole, while factoring in 21 guiding questions for the 21st century.

The complete edition will be accompanied by a radio production and an audio book with eight CDs, in which experts will express their opinions. A selection of Humboldt's writings will be published as early as spring and will give readers an insight into the diversity of his work: "The Other Cosmos: 70 Texts – 70 Years – 70 Locations". This volume features an article written in a different location across five different continents for each year in which Humboldt's writings were published (1789–1859) – something that could not be done for any other writer.

#### Bern exhibition goes on tour

Under the motto "Wissenschaften zusammendenken" ("Scholars come together"), a series of lectures was held by the Collegium generale in spring 2018, which provided an insight into Humboldt's writings from contemporary perspectives. The University of Bern was represented in the project by paleo-geoecologist Heinz Veit and climatologist Stefan Brönnimann.

In parallel to this, a team of literature scholars and plant scientists planned the "Botany in Motion – Humboldt's Expeditions" exhibition, which was held in the Bern Botanical Garden in 2018. Satellite exhibitions were also held in the Natural History Museum, Bern Generation House, University Library Bern, and Museum of Fine Arts. In 2019, the exhibition will travel to the Center of Natural History in Hamburg and a Spanish version will travel to Latin America.

www.humboldt.unibe.ch

# 60 years of interdisciplinarity

Robots, digitalization and artificial intelligence – these are just some of the areas that the Collegium generale focused on when showcasing the new world of interaction between humans and machines at its public events held in the fall semester of 2018. Since 1959, the Collegium generale has provided a platform for maintaining an interdisciplinary dialogue on contemporary topics.

Originating from the "Cultural and historical lectures" that began in 1929, the Collegium generale has been active in the University of Bern since 1959, making it the university's oldest independent, interdisciplinary unit. The interdisciplinary lecture series offered each semester are primarily aimed at the public and students. Interdisciplinary dialogue and networking within the university are also promoted through seminars for lecturers and early career researchers.

In the fall semester 2018, lectures were held in which the presenters engaged in a lively discussion with students and the general public about the opportunities and challenges that robotics present. This series of lectures provided an opportunity to learn more about the latest developments and research findings. Featuring representatives from the International Federation of Robotics, the ARTORG Center for Biomedical Engineering Research in Bern and the ETH Rehabilitation Engineering Lab, the series highlighted the main areas in which robotics are already being used, for example in industry and medical technology. The lectures also covered areas that have only just started to make use of robotics, such as university teaching, mobility and the judiciary.

To mark the 60th anniversary of the Collegium generale in 2019, the following topics have been chosen for discussion: In spring, Walter Benjamin – probably the most internationally recognized humanities graduate from the University of Bern. In fall, genetics with a focus on genome editing since the discovery of CRISPR/Cas9.

www.collegiumgenerale.unibe.ch

# EUR 6.4 million for a research project on Europe's first farmers

Using studies of the lakes of Greece and the southern Balkans as a basis, a research project aims to show how climate, the environment and agriculture have developed and influenced each other over the last 10,000 years. To do so, an interdisciplinary team from the Universities of Bern, Oxford and Thessaloniki, brought together by the University of Bern, received one of the coveted "Synergy Grants" from the European Research Council in October 2018. This grant represents the highest level of funding to promote excellence offered by the European Commission. Supported with EUR 6.4 million, the project aims to uncover the adaptation strategies with which early farming communities reacted to changing climate and environmental conditions. As part of this project, underwater archaeology will for the first time ever be combined with research methods used in the fields of ecology, biology and climate science. The project will use dynamic computer models to reconstruct the interplay between climate and humans.



Divers retrieve wood samples from a prehistoric settlement at Lake Ohrid in Macedonia. In the background, is the reconstruction of the Ploča settlement.

#### Sub-strategy **KEY AREAS**

Sustainability, Health and medicine, Intercultural knowledge, Politics and administration, as well as Matter and the universe - these are the five focus areas of the University of Bern's 2021 Strategy.

In focus: Matter and the universe

This annual report focuses on the key area of "Matter and the universe". This includes cutting-edge research in theoretical and empirical particle physics, on the formation, development and habitability of planets, and on the origin of life.



Mars, October 2, 2018: The CaSSIS Mars camera took this picture of stratified sediments. The camera on board the Trace Gas Orbiter ExoMars probe was developed at the University of Bern.

# The University of Bern in space

The University of Bern hits new heights every year, so it came as no surprise that it went to Mercury in 2018: The BepiColombo space probe is equipped with instruments developed at the University of Bern. The CaSSIS camera has also been providing spectacular images of Mars since April 2018. The successful story of Bern's space research began over 50 years ago.

On October 27, 1967, the Contraves Zenit rocket was launched to explore the Earth's upper atmosphere. The instruments on board had to be as small and robust as possible to survive the launch procedure and work in space. Nevertheless, these instruments had to be able to take measurements with the same level of accuracy as that of large laboratory instruments. The space scientists at the University of Bern mastered this challenge from the start – and their expertise has become a trademark of Bern's space research over the years.

# "One small step for man..."

Bern was involved in the first Moon landing in 1969. On board the Apollo 11 NASA mission was the Solar Wind Composition Experiment (SWC), which was designed by Professor Johannes Geiss at the University of Bern Physics Institute. The first thing that astronaut Buzz Aldrin did upon setting foot on the Moon was to set up the solar wind sail. This sail was used to catch solar particles, which were subsequently analyzed in the laboratories in Bern.

#### **National Centre for Competence in Research**

As rockets and space probes have become more powerful, research interest has shifted further and further into space. Since then, several dozen instruments designed

in Bern have flown onboard space probes to investigate the origin and development of the solar system as well as the origin of life. For example, Bern was involved in the European Space Agency (ESA) missions to Comets "Halley" and "Chury". In addition, the CaSSIS camera was recently installed on board the ExoMars mission. In 2018, instruments developed in Bern embarked on a voyage to Mercury with the BepiColombo. There will also be Bernese involvement in a trip to Jupiter, with the JUICE mission currently being prepared for 2022.

The successful work of the Physics Institute was reinforced in 2012 by the foundation of the Center for Space and Habitability (CSH). In addition to this, the Swiss National Science Foundation awarded the University of Bern the National Centre for Competence in Research (NCCR) "PlanetS" in 2014, which it manages together with the University of Geneva. The CSH and NCCR PlanetS focus on research into exoplanets. From fall 2019, the CHEOPS space telescope in Bern will also be searching for Earth-like planets. This is the first mission to be carried out by the ESA and Switzerland together.

As a founding member of the European Space Agency (ESA), Switzerland is an internationally competitive partner in space research and space technology. It takes part in ESA and NASA missions as well as other international space activities. International networks and partnerships with industry are vital for constructing the flight instruments. Swiss space policy is promoted and coordinated by the State Secretariat for Education, Research and Innovation (SERI).



"Switzerland is a space nation. Our politics, science and industry are all committed. Scientists at the University of Bern have demonstrated their excellence and reliability in space instrumentation since the beginning of the adventure into space. I wish them continued success."

Former Federal Councillor Johann Schneider-Ammann

"The University of Bern has been one of the leading universities worldwide for space research for over 50 years. The research findings from Bern are impressive, but the university plays an equally important role in education: When I was at the University of Bern, I worked on instruments that still form part of missions in space today, and in doing so I gained experience that shaped my entire career."

Thomas Zurbuchen, Associate Administrator for the Science Mission Directorate at NASA and alumnus of the University of Bern





"Research into exoplanets and their formation is one of the fastest growing and most exciting areas of astronomy! I enjoy visiting the University of Bern every year to hear about the latest scientific developments - such as the fantastic results of Rosetta and other space missions. I am also impressed by the inspiring opportunities for children and the general public."

> Ewine F. van Dishoeck, President of the International Astronomical Union

"The University of Bern is a recognized and major scientific partner in space research for ESA, notably through its leading role in the field of exoplanets. The proven partnership between ESA and the University of Bern strengthens Europe's role on a global level in the corresponding fields of expertise."

> Johann-Dietrich Wörner, Director General of the European Space Agency (ESA)





# Focus on space debris

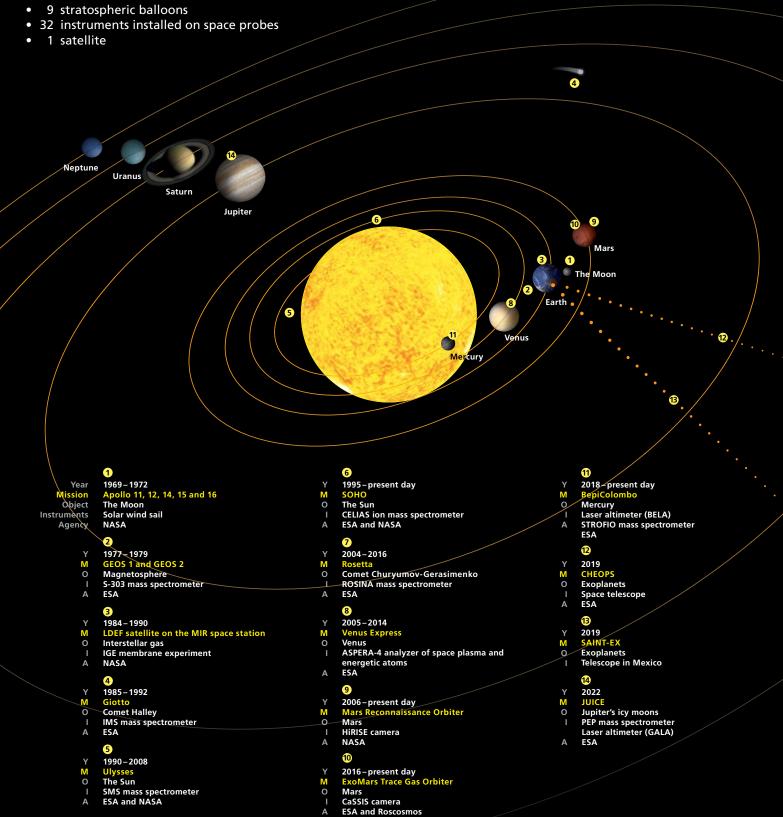
In 2018, the Institute of Astronomy (AIUB) upgraded its observatory in Zimmerwald on the Längenberg with two additional domes and replaced one dome. This means that six fully automated telescopes are now available for skywatching - in particular for detecting and monitoring space debris. This work improves the international significance of the research station, which is now named the "Swiss Optical Ground Station and Geodynamics Observatory".

# Missions involving the University of Bern

The University of Bern is regularly involved in international space missions and research projects. The diagram below shows a selection of such missions from the past 50 years.

Bernese space research – in figures

25 rocket launches



# Bern and the Big Bang

Researchers based in Bern are not only leaders in space research, they also make vital contributions in the field of particle physics. Using the ATLAS particle detector at CERN in Geneva, they are searching for the smallest building blocks of matter, which shed light on the birth of our universe.

How did matter come into being in our universe? This is one of the questions particle physicists are looking to answer. To do so, they are analyzing elementary particles, which are the smallest known building blocks in our universe. These are generated at the Large Hadron Collider (LHC) at CERN in Geneva by making protons collide with each other at around the speed of light and thus releasing a huge amount of energy. These collisions simulate the first fractions of a second after the Big Bang.

To ensure that this process and the resulting particles can be observed, particle detectors such as the ATLAS detector at CERN are needed. This detector was co-developed by researchers from the Laboratory for High Energy Physics (LHEP) and the Albert Einstein Center for Fundamental Physics (AEC) at the University of Bern. The fifteen-strong team led by professors Michele Weber and Antonio Ereditato also participates in the "LHC Computing Grid" computing network, in which data is processed by ATLAS and made accessible to researchers all over the world.

## An upgrade for ATLAS

Over the next few years, the particle accelerator at CERN will be maintained and upgraded so that from 2026 it can generate a multiple of proton collisions under the new name HL-LHC (High Luminosity Large Hadron Collider). ATLAS must be prepared for this because the data transfer rate required is up to 30 times higher than the current systems can provide. For this reason, the entire interior of the ATLAS detector is being replaced. The researchers in Bern have made a huge contribution to the development of this new "Inner Tracker". In recent years, the team has also helped to develop a new, radiation-resistant sensor technology that meets the high requirements of the HL-LHC. ATLAS will thus be ready to observe the collision of more high-energy protons at CERN in the future, giving us an even more accurate picture of the origin of our universe.

# On the trail of quantum entanglement

André Stefanov is a professor at the Institute of Applied Physics and is currently working on quantum entanglement. In the past year, he has found himself one step closer to making sense of the astounding phenomenon that could revolutionize measurement technology.

# André Stefanov, what is your research about?

We are carrying out experiments to investigate the properties of entangled photons. Photons, i.e. light particles, behave according to the laws of quantum mechanics and these predict strange effects. It is possible, for example, that two photons behave like a single physical object, although they are spatially separated from each other. This entanglement – like many quantum-mechanical phenomena is fundamentally different from our everyday experiences with the world.

## What is the purpose of researching quantum mechanics?

We conduct basic research that influences our understanding of elementary aspects of the laws of nature. However, quantum technologies also promise groundbreaking changes in measurement technology. For example, we are working on the experimental implementation of new spectroscopic or imaging procedures, such as for medicine. Quantum effects could ensure that these techniques surpass traditional methods.

# What is the biggest challenge in your work?

Conventional light sources, such as the lasers we work with, emit billions of photons per second. However, we are investigating the effects that occur at the level of individual photons. In 2018, we were successful in developing a new camera for photon pairs with which we established a new quantum imaging method.



André Stefanov at his workstation in the Laboratory for Laser Physics at the Institute of Applied Physics.



#### Interdisciplinary learning about climate change

A summer school for bachelor students on the subject of climate change brought students from eleven nations and a wide range of disciplines to the University of Bern. The young students showed a great deal of enthusiasm for the interdisciplinary exchange and the first-class lectures. As part of the program, 32 participants carried out a role play of negotiations at a climate conference. The summer school ran for just under two weeks under the title of "Confronting Climate Change – from Science to Policy". This was the first instance of a bachelor's level summer school at the University of Bern. Such summer schools help to increase the University of Bern's visibility on an international level.

# Well-equipped for everyday university life

How should I organize my studies? Where can I register for my courses? And how do I deal with exam nerves and study stress? These questions stand at the core of the revamped introductory days at the University of Bern. Their aim is to make it easier for new students to get started.

A new life begins for young first-semester students with the start of their studies. In order to ensure they can get off to the best possible start, the University of Bern's introductory days provide them with helpful information.

This year, the introductory workshops focused for the first time on topics such as learning strategies, the use of tools for course and exam registration, personal time management and dealing with stress and exam nerves. The lecture documents for the workshops were made available in German, French and English to all newly enrolled students on the ILIAS electronic learning platform. The so-called "Student Starter Kit" available on ILIAS also contained video clips, podcasts and important links to support the new students. The workshops developed under the supervision of the Vice-Rectorate Teaching also enabled the students to get to know other people just starting out with their studies.

# Freshers' day

As part of the introductory days, around 2,300 young men and women were welcomed to the University of Bern on "freshers' day". The official welcome by the Rector and a speech by the Secretary General were followed by various introductory events in each faculty and institute. The students were also given the chance to become better acquainted with the various university service centers and groups.

Impressions of the introductory workshops from firstsemester students

"I found the workshop structure extremely practical and understandable."

"I am very grateful for these introductory workshops. I really benefited from them!"

"I feel much calmer starting my degree. I am more at ease, because I feel better prepared. The 'learning strategies' topic was very well presented."

"The learning strategies in particular proved to be very useful and I will definitely use them in my degree."

"It was an excellent day, as it made me feel a little less fearful and more secure."

"This event really helped to give me an overview of everything and made me less nervous about starting something new."



Kathrin Chlench-Priber, a participant in the COMET career development program, in a Skype meeting with her mentor.

# "Role models are extremely important"

The COMET career development program is aimed at female postdocs and habilitation candidates. Former participant Kathrin Chlench-Priber tells us about her experiences and Vice-Rector Daniel Candinas explains why dedicated support is needed.

Following the successful completion of the first round of the COMET career development program, the program was started once again in May 2018 with 20 new participants. COMET (COaching, MEntoring and Training) is part of the university's "Strategy 2021" and complements the faculty and student mentoring programs that have long been in place at the University of Bern.

"The fact that there are still so few women at professor level within the Faculty of Medicine is partly a reflection of social conventions," Daniel Candinas, Vice-Rector for Research and Professor of Medicine, is certain. The "leaky pipeline", i.e. the departure of women from academic careers, can be seen guite clearly in this area, as women make up 60 percent of the students at bachelor level, but only 14 percent continue on to become professors. Why is this?

# Traditional role concepts

"It is extremely challenging to follow an academic career all the way to the end, especially in areas such as surgery," stressed Candinas. A balance has to be found over many years between academic work, teaching obligations and clinic duties. "This is demanding enough in itself. Once you add children into the equation, the traditional role concepts often come to the fore, as women cut down on the amount of time they work and their academic careers soon disappear

into the distance." As a result, it is only possible for women to establish a healthy balance between everyday clinic duties, academia and family life if they are in a strong partnership. "This means that men also have to cut back the hours that they work in order to take the weight off their partner's shoulders," emphasized Candinas.

Daniel Candinas' team at the Department of Visceral Surgery and Medicine includes three female doctors who work in management positions and have small children. They all have partners who work parttime or have also partially abandoned their academic careers. "These new role models, both women and men, are enormously important," said Candinas.

Candinas continues by emphasizing that programs such as COMET are also important, as they provide dedicated and targeted support in a phase in which female academics are under strong pressure. Demand was already high in the first round of the program in 2017: 42 applications were submitted by female early career researchers and only half of this figure could be admitted.

# Courage to take the academic path

One of the 21 participants in the pilot project was Kathrin Chlench-Priber, senior research assistant at the Institute of Germanic Languages and Literatures: "The COMET program gave me the courage to continue down the path I had chosen." In her opinion, she really benefited from a three-day retreat. She took part in a vocational training session, which in addition to detailed information on the procedure for appointing professors, also featured many practical exercises. "This improved my self-confidence," reported Chlench-Priber.

The researcher also found the mentoring aspect of the program extremely valuable: "My mentor was a female professor in the same field of study, albeit from another university." She continues by explaining that she invited her mentor to a conference at which she would speak. Afterwards, her mentor gave her feedback on her presentation.

#### Support at an early stage is key

Kathrin Chlench-Priber has a six-year-old son. Thanks to the great deal of support she receives from her family, she has been able to strike a balance between her obligations to her family and her academic career. "When my son turned one-and-a-half, my husband cut down his working hours to 30 percent. He now works 50 percent." When the father has to work, the boy goes to the university daycare center and kindergarten. Since her son turned one-and-a-half, she has thus been able to start working full-time again and focus com-

pletely on her academic work. The couple believe that this model – still unusual in Switzerland – is a perfect fit for the both of them. "My husband's job at home is much more stressful than mine," said Kathrin Chlench-Priber with a chuckle.

Questions about striking a healthy work-life balance are a key topic and start during pregnancy something to which Daniel Candinas can attest. In his team, pregnant doctors are exempted as a rule from night shifts and long operations. "You have to have the courage to support young women," believes the Vice-Rector. What is particularly key, he continues, is that women receive support from an early stage – way before they begin their journey towards becoming professors. He hopes that the COMET career program will point the way forward in this respect - even outside of the University of Bern.

www.comet.unibe.ch

# Research training in health

The Graduate School for Health Sciences (GHS) is an interdisciplinary doctoral program that is offered jointly by the Faculty of Medicine and the Faculty of Human Sciences. The program celebrated its tenth anniversary in 2018.

How do social, psychological, biological and environmental factors affect the health of individuals and society as a whole? The Graduate School for Health Sciences (GHS) investigates these questions, among others, in the areas in which medicine and the humanities meet. "The aim is to identify and investigate the various factors that influence humans so that we can understand how they interact," explained Marlene Wolf, the coordinator of the GHS. This program has helped to obtain new knowledge about physical and mental health, individual well-being and human development.

The GHS has grown at a constant rate and expanded the range of areas in which it works. The way in which the school approaches its work, however, has remained in step with current practices: "Many research projects focus on how to prevent illnesses and keep healthy," said Wolf. For example, Ph.D. students investigate what effect core muscle training has on incisional hernias and pain after abdominal surgery, as well as how premature babies can best be cared for during the transition from hospital to home.

### Successful graduates

To celebrate the tenth anniversary of the GHS, a one-day anniversary event was held in November 2018. In addition to input presentations and a panel discussion, graduates of the GHS were also on hand to share experiences from their professional careers. Tim Vanbellingen, for example, is now the Head of Motor Therapies at the Lucerne Cantonal Hospital and at the same time works as a senior researcher in the field of gerontechnology at the ARTORG Center of the University of Bern. Bruno R. Da Costa now works as an



Doctoral students from the Graduate School for Health Sciences discuss research results.

assistant professor at the University of Toronto in Canada. The former physiotherapist from Brazil was part of the first student intake at GHS. His Ph.D. thesis focused on the effects of physiotherapy treatment. After graduating from GHS two years ago, Judith Lupatsch took up a research post at the University of Basel. "The main areas in which I benefited from studying at the GHS were methodology, preparation of presentations, writing and literature research," explained the researcher. Her Ph.D. thesis covered the risks of cancer in children.

# Structured doctoral program

Graduate schools offer young researchers structured and interdisciplinary training programs, and the targeted measures and intensive supervision provide them with excellent conditions in which to successfully complete their doctorate. The topics covered in the graduate schools reflect the key strategic focuses of the University of Bern.

www.graduateschools.unibe.ch





# Staff

## Content of following pages:

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**Appointments** 

# Seeing red

overutilization are placing coral reefs are losing their color and dying due to heat

A study published by the Oeschger Centre for Climate Change Research in August heatwaves have increased massively over the last few decades. With climate change, oceans are increasing more than those on land. In addimuch more sensitively to these consequences, also for fishing.



# Honors

## Dies academicus

At the 184th "Dies academicus", the foundation day ceremony of the University of Bern, seven honorary doctorates and seven academic prizes were awarded.



The 2018 honorary doctors (from left to right). Back: Clara E. Hill, Reto Müller, Günter Baars, Peter Gauch. Front: Franziska Borer Winzenried, Rector Christian Leumann, Ingeborg Hochmair-Desoyer, Klaus Bäumlin.



Faculty of Theology: **Klaus Bäumlin, pastor** Bern

Faculty of Law: **Prof. em. Dr. Dr. h.c. Peter Gauch** Fribourg

Faculty of Medicine:
PD Dr. Dr. h.c. Ingeborg
Hochmair-Desoyer
Innsbruck, Austria

Vetsuisse Faculty: Franziska Borer Winzenried Lyss

Faculty of Humanities: **Reto Müller** Basel

Faculty of Human Sciences: **Prof. Dr. Clara E. Hill** Maryland, USA

Faculty of Science: **Prof. Dr. Günter Baars**Bern



The prize winners 2018 (from left to right). Back: Veronika Siegl, Melanie Elisabeth Werren, Nina Carol Mäder, Marina von Keyserlingk, Valérie Ziltener. Front: Ulrich Baumgartner, Kathleen Seidel, Rector Christian Leumann, Manon Karin Schweinfurth, Yara Banz Wälti.

## Prizes

Hans Sigrist Prize: Prof. Dr. Marina von Keyserlingk

Theodor Kocher Prize: **Dr. Kathleen Seidel** 

Barbara Lischetti Prize:

Dr. des. Veronika Siegl

Dr. Lutz Zwillenberg Prize:
Dr. Ulrich Baumgartner
Dr. Manon Karin
Schweinfurth

Senior Citizens' University Prize for Aging Research: Dr. des. Melanie Elisabeth Werren Nina Carol Mäder Valérie Ziltener

Credit Suisse Award for Best Teaching: PD Dr. Yara Banz Wälti

#### Prizes and honors awarded to University members in 2018

#### **Dr. Christoph Albers**

"Research grant from the Clinical Trials Unit (CTU)" from the University of Bern

#### Prof. Dr. Drahomir Aujesky

Elected Co-President of the Swiss Society of General Internal Medicine (SGAIM)

#### Prof. Dr. Lia Bally

- "Eduard Adolf Stein Prize" from the University of Bern Faculty of Science
- "Young Independent Investigator Grant Award 2018" from the Swiss Society of Endocrinology and Diabetology (SGED) -eServier Research Award 2018" from the Annual Conference of the Swiss Society of Endocrinology

# and Diabetology (SGED) **Dr. Christoph Berendonk**

"Award for innovative teaching project ideas 2017" from the German Association for Medical Education (GMA)

#### Dr. David Bervini

"Research grant from the Clinical Trials Unit (CTU)" from the University of Bern

## Prof. Dr. Annalisa Berzigotti

"Stern Gattiker Prize" from the Swiss Academy of Medical Sciences (SAMS)

#### **Arthur Bik**

"DIAMANT Award for best talk by a Ph.D. student" at the Discrete, Interactive and Algorithmic Mathematics, Algebra and Number Theory (DIAMANT) Symposium 2017 from the Netherlands Organisation for Scientific Research

## Prof. Dr. René Bloch

Elected as a new member of the Board of Directors at the Annual Conference of the Association of Jewish Studies (AJS)

#### PD Dr. Jürgen Bohlender

"Servier Research Prize 2018" from the Swiss Society of Hypertension

# Prof. Dr. Luca Borradori

"Presidential Citation" from the American Academy of Dermatology

#### Dr. Beate Brem

"Interprofessionality Award 2017" from the Swiss Academy of Medical Sciences (SAMS)

#### Prof. Dr. Stefan Brönnimann

"Advanced Grant" from the European Research Council (ERC)

#### Dr. Sandra Brügger

"Poster Prize in the Geosphere/ Biosphere category" from ProClim, Forum for Climate and Global Change

#### Prof. Dr. Daniel Buser

"Robert N. Eskow Implant Dentistry Award"

#### Dr. Ramona Buser

"Poster prize" from the Swiss Society of Gerodontology and Special Care (SSGS)

#### Sophia Maria Büttiker

"Nightmare Session Award 2018" from Swiss Urology

## Prof. Dr. Thierry Carrel

 Appointed "International Member of the Board of Directors" of the American Association for Thoracic Surgery (AATS) - President of the International Society for Minimal Invasive Extra-corporeal Circulation, Bern - "MAORI Award for Aortic Surgery 2017" from the Italian Society of Cardiac and Vascular Surgery

#### Prof. Dr. Franz Caspar

"Distinguished Career Award" from the Society for Pyschotherapy Research (SPR)

#### Prof. Dr. Vivianne Chappuis

"André Schroeder Research Prize (ASRP) for Clinical Research 2018" from the International Team for Implantology (ITI)

## **Alvin Chesham**

"Novartis FreeNovation 2018 Prize" from Novartis AG

#### Dr. Luca Cioccari

"Research grant from the Clinical Trials Unit (CTU)" from the University of Bern

#### Prof. Dr. Mihai Constantinescu

"Prix Lux", gender equality prize from the University of Bern

### Dr. Kellie Anne Cotter

"Young Investigator Award" from the Prostate Cancer Foundation (PFC)

#### Dr. Anelia Dietmann

"Research grant from the Clinical Trials Unit (CTU)" from the University of Bern

#### **Fabrice Dulla**

Prize from the Swiss Dental Association (SSO)

#### Prof. Dr. Jan Draisma

Chair of local organizing committee, SIAM Conference on Applied Algebraic Geometry, 2019

#### Dr. Rainer Egli

"Research grant from the Clinical Trials Unit (CTU)" from the University of Bern

#### Prof. Dr. Sigrun Eick

"Dentsply Sirona Prize" from the German Society for Oral and Maxillofacial Surgery (DGZMK)

#### Dr. Katrin Feller

- "Interprofessionality Award" from the Swiss Academy of Medical Sciences (SAMS) "Jacques Handschin Prize 2018" from the Swiss Institute for Medical Education and Training (SIWF)

#### Prof. Dr. Lorenz Fischer

- "BNR-NAZLIKUL Award" from the Scientific Neuraltherapy and Regulation Association - Honorary Member of Neuralia

# Dr. Mary Flannery

"Eccellenza Professorial Fellowship" from the Swiss National Science Foundation (SNSF)

#### Dr. Stephanie Ganal-Vonarburg

"Johanna Dürmüller-Bol DCR Research Award (DBMR Award)"

## Prof. Dr. Thomas Geiser

Elected as Treasurer in the Executive Committee of the European Respiratory Society (ERS)

#### **Dr. Johannes Goldberg**

"Young Talents in Clinical Research" beginner grant from the Swiss Academy of Medical Sciences (SAMS) and the Gottfried and Julia Bangerter-Rhyner Foundation

#### Martina Göldlin

"Young Talents in Clinical Research" beginner grant from the Swiss Academy of Medical Sciences (SAMS) and the Gottfried and Julia Bangerter-Rhyner Foundation

#### **Dr. Nicolas Greber**

"Eccellenza Professorial Fellowship" from the Swiss National Science Foundation (SNSF)

#### Prof. Dr. Olivier Thierry Guenat

"Naef Prize" from the Egon Naef Foundation for In-vitro Research Vitro (FENRIV)

#### Dr. Dominik Günsch

"Research grant from the Clinical Trials Unit (CTU)" from the University of Bern

#### Dr. med. Dr. phil. Andreas Häberlin

"Research grant from the Clinical Trials Unit (CTU)" from the University of Bern

#### Dr. Simon Häfliger

"Research grant from the Clinical Trials Unit (CTU)" from the University of Bern

#### Prof. Dr. Albert Hafner

"Synergy Grant" from the European Research Council (ERC)

# Prof. Dr. Tina Hascher

Elected to the Scientific Advisory Board of the German Institute for International Educational Research (DIPF)

# PD Dr. Wolf Hautz

Conference President, 2nd European Conference on Diagnostic Error, 2018

#### Prof. Dr. Thomas Heidegger

Faculty Professor, Difficult Airway Society (DAS), UK

# Dr. Alexander Heidt

"Eccellenza Professorial Fellowship" from the Swiss National Science Foundation (SNSF)

### Dr. Toni Hildebrandt

"Wolfgang Ratjen Prize" from the Central Institution for Art History in Munich for outstanding research in the area of graphic

#### Dr. Martin Hoferichter

"Eccellenza Professorial Fellowship" from the Swiss National Science Foundation (SNSF)

#### Michael Hostettler

"Ph.D. Prize 2018" from the Heinrich Greinacher Foundation

#### Prof. Dr. Johanna Anna Kremer Hovinga

Appointed to the newly created Guidelines Committee of the European Hematology Association (EHA)

# Honors

#### Prof. Dr. Ernst Hunziker

"Arthur Steindler Award" from the Orthopaedic Research Society (ORS)

#### Prof. Dr. Sören Huwendiek

"Preis für innovative Lehrprojektideen 2017" from the German Association for Medical Education (GMA)

#### Prof. Dr. Samuel Jaccard

"Consolidator Grant" from the European Research Council (ERC)

#### Prof. Dr. Adrian Jäggi

"Consolidator Grant" from the European Research Council (ERC)

#### **Johannes Kaesmacher**

"Beginner Grant" from the Swiss Academy of Medical Sciences (SAMS)

## Dr. Claus Kiefer

"Research Recognition Award 2018" from the Swiss League Against Epilepsy

#### **Dr. Richard McKinley**

– "BraTS 2018 (deep learning-based tumor segmentation)" at the MICCAI 2018 Conference – "Novartis FreeNovation 2018 Prize" in the category of Clinical Development from Novartis AG

# PD Dr. André Klostermann

"Theoriepreis" from the German Psychological Society, Sports Psychology Section

#### PD Dr. Gregor Kocher

Prize for the best academic presentation from the Swiss Society for Thoracic Surgery (SGT)

# Prof. Dr. Paul Krack

"Annemarie Opprecht Parkinson Award" from the Annemarie Opprecht Foundation

#### Serife Seda Kucur Ergünay

"Innovation Agency Proof of Concept (PoC) Award" from BRIDGE SNSF and Innosuisse – Swiss Innovation Agency

#### Prof. Dr. Tosso Leeb

President of the 10th International Conference on Canine and Feline Genetics and Genomics 2019

#### Dr. Adrian Leemann

"Eccellenza Professorial Fellowship" from the Swiss National Science Foundation (SNSF)

Dr. Livio Liechti

"Schläfli Prize 2018" from the Swiss Academy of Sciences (SCNAT)

#### Prof. Dr. Adrian Lussi

Honorary Member of the SwissDental Association (SSO)Honorary Member of the Swiss

 Honorary Member of the Swiss Society for Preventative, Restorative and Esthetic Dentistry (SSPRE)

– "German Prize for Dental Hygiene 2018"

#### Dr. Jan Bernhard Meister

"Eccellenza Professorial Fellowship" from the Swiss National Science Foundation (SNSF)

#### Prof. Dr. Nadia Isabel Mercader Huber

Research grant from the
International Human Frontier
Science Program (HFSP)
"Consolidator Grant" from the
European Research Council (ERC)

#### Dr. Stefan Meyer

"4th swissvacuum Prize" from the Swiss Vacuum Society (SVG)

#### Maria Karolina de Montmollin "Young Talents in Clinical Re-

"Young Talents in Clinical Research" beginner grant from the Swiss Academy of Medical Sciences (SAMS) and the Gottfried and Julia Bangerter-Rhyner Foundation

### Prof. em. Dr. Rupert Moser

Honorary Member of the Swiss Academies of Arts and Sciences, in the Swiss Society for African Studies

# Dr. Charles Mullon

"Eccellenza Professorial Fellowship" from the Swiss National Science Foundation (SNSF)

## Dr. Martin Müller

- "Research grant from the Clinical Trials Unit (CTU)" from the University of Bern - "Beginner Grant" from the Swiss Academy of Medical Sciences (SAMS)

#### PD Dr. Marion Munk

"Retina Prize 2018" from the Swiss VitreoRetinal Group

# Prof. Dr. Siegfried Nagel

President of the 25th European Association for Sport Management Conference, 2017 Dr. Lluís Nisa Hernández "Erster Posterpreis" from the Swiss Society for Otorhinolaryngology and Throat and Maxillofacial Surgery (SGORL)

#### Prof. Dr. Dominik Obrist

"Innosuisse Grant" from Innosuisse – Swiss Innovation Agency

# Prof. Dr. Christa Flück Pandey

"ESPE Research Award 2018" from the European Society for Paediatric Endocrinology (ESPE)

#### PD Dr. Ren-Wang Peng

Award for the best scientific work from the Swiss Society for Thoracic Surgery (SGT)

#### Dr. Stéphanie Perrodin

"Young Talents in Clinical Research" beginner grant 2017 from the Swiss Academy of Medical Sciences (SAMS) and the Gottfried and Julia Bangerter-Rhyner Foundation

#### PD Dr. Carmen A. Pfortmüller

"Research grant from the Clinical Trials Unit (CTU)" from the University of Bern

## Dr. Eike Immo Piechowiak

"Peter Huber Prize 2018" from the Swiss Society of Neuroradiology (SGNR)

### Dr. Josef Prazák

"Young Investigator Award" from the Swiss Society for Intensive Care (SGI)

#### Dr. Anda-Petronela Radan

Lecture Prize at the 62nd Conference of the German Society for Gynecology and Obstetrics

# PD Dr. Christoph Ramseier

"EFP Clinical Research Prize in Periodontology (Jaccard Prize)" from the European Federation of Periodontology (EFP)

#### Dr. des. Miriam Roner

"Jacques Handschin Prize 2018" from the Swiss Institute for Medical Education and Training (SIWF)

## Dr. Christine Roten-Joss

"SIWF Award for special commitment in continuing education" from the Swiss Institute for Medical Education and Training (SIWF) Prof. Dr. Daniela Rubatto "Robert Wilhelm Bunsen Medal 2019" from the European Geosciences Union (EGU)

#### Prof. Dr. Mark Rubin

"Challenge Award 2018" from the Prostate Cancer Foundation (PCF)

#### **Dr. Christian Rummel**

"Novartis FreeNovation 2018 Prize" in the category of Clinical Development from Novartis AG

#### Prof. Dr. Smita Saxena

Research grant from the Swiss Foundation for Myopathy Research (FSRMM)

#### Prof. Dr. Kaspar Schindler

"Research Recognition Award 2018" from the Swiss League Against Epilepsy

#### Prof. Dr. Mirko Schmidt

"Eccellenza Grant" from the Swiss National Science Foundation (SNSF)

### Prof. Dr. Philippe Schucht

"Best Reward Award for the neurosurgery project HORAO" at the first Crowdfunding Science Festival in Switzerland

## Prof. Dr. Eberhard Seifert

Conference President of the Third Three Nations D-A-CH Conference of the German Society of Phoniatrics and Pediatric Audiology, Swiss Society for Phoniatry and the Phoniatry Section of the Austrian Society for Otorhinolaryngology and Head and Throat Surgery, 2017

### Prof. Dr. Roland Seiler

Badge of Honor from the German Society for Sport Psychology (asp)

#### Prof. Dr. Hans-Uwe Simon

Honorary doctorate from the University of Ljubljana

#### Dr. Hester Sheehan

"Schläfli Prize" from the Swiss Academy of Sciences (SCNAT)

#### Dr. Michael Sigl

"Consolidator Grant" from the European Research Council (ERC)

#### Dr. Marialuigia Spinelli

"Research grant from the Clinical Trials Unit (CTU)" from the University of Bern Prof. Dr. em. Beda M. Stadler

# **Donations**

# **Appointments**

Appointed to the Scientific Advisory Board of the pharmaceutical developer Berlin Cures

#### Prof. Dr. Zeno Stanga

"Nutricia Award for medical nutrition research 2018" from the Swiss Society for Clinical Nutrition

#### Dr. Katharina Stegmayer

"Research Prize 2018" from the Swiss Brain League

#### Prof. Dr. Sven Streit

"Research Prize 2018" from the Swiss College for Family Medicine (KHM)

# Prof. Dr. George Thalmann

"Cancer Prize" from the Swiss Cancer League

#### Prof. Dr. Willy Tinner

"Synergy Grant" from the European Research Council (ERC)

#### **Dr. Michael Jeffrey Toscano**

Marie Skłodowska-Curie Innovative Training Network from the European Commission

#### Dr. Benjamin Towbin

"Eccellenza Professorial Fellowship" from the Swiss National Science Foundation (SNSF)

#### **Dr. Louisa Traser**

"1st Place in the European Phoniatrics Voice Award" from the Union of The European Phoniatricians (UEP)

#### **Shang-Min Tsai**

"Ph.D. Prize 2018" from the Heinrich Greinacher Foundation

#### Dr. Prabitha **Urwyler-Harischandra**

"Novartis FreeNovation 2018 Prize" from Novartis AG

#### Prof. Dr. Marco Valgimigli

"Innosuisse Grant" from Innosuisse - Swiss Innovation Agency

#### Mélanie von Bergen

Science Prize from the German Menopause Society

### Dr. Franca Wagner

"Jacques Handschin Prize 2018" from the Swiss Institute for Medical Education and Training (SIWF)

#### Prof. Dr. Sebastian Walther

"Forschungspreis 2018" from the Swiss Brain League Dr. Susanne Wampfler

"Eccellenza Professorial Fellowship" from the Swiss National Science Foundation (SNSF)

#### **Manuel Nicola Waser**

"2nd Lecture Prize in the Experimental category 2018" from the Swiss Society for Otorhinolaryngology and Throat and Maxillofacial Surgery (SGORL)

#### Prof. Dr. Hans Rudolf Widmer

"Molly and Bernard Sanberg Memorial Award 2018" from the American Society for Neural Therapy and Repair (ASNTR)

#### Prof. Dr. Roland Wiest

– "Research Recognition Award" from the Swiss League Against **Epilepsy** 

– "BraTS 2018 (deep learningbased tumor segmentation)" at the MICCAI 2018 Conference

#### Soheila Zeinali

"Best Poster Award" at the International Organ-on-Chip Symposium (IOOCS) 2018

#### Dr. Thomas Züger

"Research grant from the Clinical Trials Unit (CTU)" from the University of Bern

The University of Bern would like to take this opportunity to thank all the donors for their generous support.

We would like to thank all of the individuals, foundations, companies and other organizations who have supported the projects and initiatives implemented at the University of Bern in the past year. Companies are key partners for the University. Their contributions support innovation and development at the University and help to secure its place at the heart of Bern's business community. Philanthropically motivated funding helps raise the profile of the University of Bern, facilitates research that goes beyond the public budget, allows the University's strategy to be implemented at a faster rate and enhances Bern's standing as a center for business and academia.

We would also like to thank the companies that make the events held throughout the University possible through their sponsorship. We likewise extend our thanks to all individuals, foundations and companies who have made prize money available for specific areas.

The University of Bern would especially like to thank the donors who support the establishment of a professorship and thus contribute to structurally anchoring and developing a new field of research. Endowed professorships complement the publicly financed basic structure of the University. This guarantees the unrestricted freedom of research and teaching.

We also honor every individual who has passed away and left a legacy to the University of Bern in their will.

#### **Full professors**

#### Faculty of Law:

Prof. Dr. Florian Eichel, Civil Procedural Law with special focus on Debt Enforcement and Bankruptcy Law and International Law

#### Faculty of Business, Economics and Social Sciences:

Prof. Dr. Manfred Elsig, International Relations (Political Sciences)

#### Faculty of Medicine:

Prof. Dr. Jürgen Burger, Swiss School in Translational Medicine and Entrepreneurship Prof. Dr. Oscar Horacio Franco Duran.

Epidemiology and Public Health Prof. Dr. Stephan Jakob, Intensive Care Prof. Dr. Axel Oliver Rominger,

Nuclear Medicine

#### Faculty of Humanities:

Prof. Dr. Christof Dejung, Modern History Prof. Dr. Péter Maitz, German Linguistics and Sociolinguistics

#### Faculty of Science:

Prof. Dr. David Bommes, Computer Graphics Prof. Dr. Sebastian Andreas Leidel, **RNA Biochemistry** Prof. Dr. Mariusz Nowacki, Genetics Prof. Dr. Willy Tinner, Paleoecology

# Faculty of Human Sciences:

Prof. Dr. Thomas Berger, Clinical Psychology and Psychotherapy Prof. Dr. Stefan Troche, Personality Psychology, Differential Psychology and Diagnostics

### **Professors**

# Faculty of Theology: Prof. Dr. Peter-Ben Smit,

Systematic Theology and **Fcumenics** 

Faculty of Business, Economics and Social Sciences: Prof. Dr. Philipp Baumann, Quantitative Methods and Operations Research Prof. Dr. Rudolf Blankart, Regulatory Affairs

# Departures

Prof. Dr. Julien Cujean, Finance Management Prof. Dr. Philipp Sieger, Strategic Entrepreneurship Prof. Dr. Sonja Vogt, Social Sciences and Sustainable Social Development

Faculty of Medicine:
Prof. Dr. Martin Fiedler,
Clinical Chemistry
Prof. Dr. Thomas Niklaus Pabst,
Medical Oncology
Prof. Dr. Tobias Reichlin,
Rhythmology and

Vetsuisse Faculty:
Prof. Dr. Franck Forterre,
Small Animal Surgery/
Neurosurgery

Electrophysiology

Faculty of Humanities:
Prof. Dr. Anna Goppel,
Practical Philosophy and Political
Philosophy
Prof. Dr. Urte Krass,
Art History of the Modern Era
Prof. Dr. Michaela Schäuble,
Social Anthropology and Media
Anthropology

Faculty of Science:
Prof. Dr. Eric Allan,
Community Ecology
Prof. Dr. Johanna F. Ziegel,
Statistics
Prof. Dr. Carolin Schurr,
Cultural and Social Geography

# Assistant professors

Faculty of Theology:
Prof. Dr. Georgiana Huian,
Systematic Theology and
Ecumenics
Prof. Dr. Mathias Wirth,
Systematic Theology and Ethics

Faculty of Law:
Prof. Dr. Franziska Sprecher,
Constitutional and Administrative
Law and Health Legislation

Faculty of Business, Economics and Social Sciences: Prof. Dr. Arthur Posch, Managerial Accounting

Faculty of Medicine:
Prof. Dr. Lia Bally,
Clinical Nutrition and Metabolism
Prof. Dr. Stéphane Ciocchi,
Physiology
(SNSF professorship)
Prof. Dr. Jean Pascal Pfister,
Physiology
(SNSF professorship)

Prof. Dr. Joerg C. Schefold, Intensive Care Prof. Dr. Dr. Sven Streit, Family Medicine and General Internal Medicine

Faculty of Humanities:
Prof. Dr. Silvia Berger Ziauddin,
History of the 19th and
20th Century
Prof. Dr. Roberto Zaugg,
Institute of History
(SNSF professorship)

Faculty of Science:
Prof. Dr. Andrea Biedermann,
Rock Magnetism
(SNSF professorship)
Prof. Dr. Patrick Bottazzi,
Institute of Geography
(SNSF professorship)

Faculty of Human Sciences:
Prof. Dr. Jennifer Inauen,
Health Psychology
Prof. Dr. Stefanie Julia Schmidt,
Clinical Childhood and Adolescent
Psychology

# **Associate professors**

Faculty of Theology:
Prof. Dr. Luca Daniele Di Blasi,
Philosophy of Religion

Faculty of Medicine:
Prof. Dr. Arnaud Chiolero,
Public Health and Family Medicine
Prof. Dr. Marwan El-Koussy,
Neuroradiology
Prof. Dr. Pascal Escher,
Ophthalmic Genetics
Prof. Dr. Sören Huwendiek,
Medical Education
Prof. Dr. Tim Joda,
Dental Medicine, Reconstructive
Dental Medicine and Implant
Prosthetics
Prof. Dr. Roger Kalla,
Neurology
Prof. Dr. Deborah Stroka,
Molecular and Cell Biology
Prof. Dr. Karen Lidzba,

Neurology Prof. Dr. Deborah Stroka, Molecular and Cell Biology Prof. Dr. Karen Lidzba, Pediatric Neuropsychology Prof. Dr. Georgios Mantokoudis, Otorhinolaryngology Prof. Dr. Jonas Marschall, Infectiology Prof. Dr. Stavroula Mougiakakou, Biomedical Engineering Yok-Ai Que, Intensive Care Prof. Dr. Christian Schyma, Forensic Medicine Prof. Dr. Moritz Tannast, Orthopedic Surgery and Traumatology of the Musculoskeletal System

Prof. Dr. Lorenz Theiler, Anesthesiology Prof. Dr. Patrick Wüthrich, Anesthesiology Prof. Dr. Yitzhak Zimmer, Molecular and Cell Biology

Vetsuisse Faculty: Prof. Dr. Matthias Schweizer, Virology

Faculty of Science: Prof. Dr. Alfons Berger, Geology and Mineralogy Prof. Dr. Piero Macchi, Chemical Crystallography

## **Titular professors**

Faculty of Theology: Prof. Dr. Christoph Sigrist, Diaconic Science

Faculty of Medicine: Prof. Dr. Andreas Arnold, Otorhinolaryngology Prof. Dr. Stefan Bachmann, Physical Medicine and Rehabilitation Prof. Dr. Steffen Glökler, Cardiology Prof. Dr. Thomas Heidegger, Anesthesiology Prof. Dr. Arto Nirkko, Neurology Prof. Dr. Parham Sendi, Infectiology Prof. Dr. David Spirk, Pharmacology Prof. Dr. Einar Wilder-Smith, Neurology

Faculty of Humanities: Prof. Dr. Sacha Zala, Second World War and Swiss Foreign Policy

Faculty of Science:
Prof. Dr. David Ginsbourger,
Spatial Statistics

# Teaching staff

Faculty of Law:
Dr. Cynthia Anderfuhren-Wayne,
Associate Lecturer, Anglo-American Law: A Foundation Course in
Legal English

Prof. Dr. Jolanta Kren Kostkiewicz, Full Professor, International Private Law and Procedural Law

Faculty of Business, Economics and Social Sciences: Prof. Dr. Fabrice Collard, Full Professor, Monetary Macroeconomics Prof. Dr. Gunter Stephan, Full Professor, Economics, particularly Applied Microeconomics

Faculty of Medicine: Prof. Dr. Michael Altmann, Associate Professor, Molecular Biology Prof. Dr. Kerri Clough-Gorr, Assistant Professor, Epidemiology and Prevention of Chronic Diseases: Cancer (resignation) Prof. Dr. Sabina Gallati Kraemer, Professor, Human Genetics Prof. Dr. Gregor Hasler, Professor, Psychiatric Care Research and Social Psychiatry (resignation) Prof. Dr. Andreas R. Huber, Titular Professor, Oncology/ Hematology Prof. Dr. Rolf Jaggi,

Lecturer, Molecular Biology Prof. Dr. Thomas Krause, Associate Professor, Nuclear Medicine Prof. Dr. Harald F. Krug,

Prof. Dr. Harald F. Krug, Titular Professor, Materials-Biology Interactions Prof. Dr. Katharina Meyer,

Titular Professor, Cardiovascular Sports Medicine Prof. Dr. Paul Mohacsi, Professor, Cardiac Failure (resignation) Prof. Dr. Adrian Schmassmann, Honorary Professor, Internal Medicine and Gastroenterology Prof. Dr. Christian A. Seiler,

Associate Professor, Surgery
Prof. Dr. Jukka Takala,
Full Professor, Intensive Care
Prof. Dr. Wolfgang Thormann,
Lecturer, Chemical Analysis and
Material Separation in Clinical
Pharmacology
Prof. Dr. Andreas Tobler,
Full Professor, Internal Medicine,

specifically Hematology Prof. Dr. Roland von Känel, Titular Professor, Psychosomatic and Psychosocial Medicine (resignation)

# In remembrance

#### Faculty of Humanities:

Prof. Dr. Pascal Attinger, Associate Professor, Ancient Oriental Philology Prof. Dr. Christine Göttler, Full Professor, Art History Prof. Dr. Elke Hentschel, Full Professor, German Linguistics Prof. Dr. Barbara Mahlmann-Bauer, Full Professor, Modern German Literature Prof. Dr. Stefano Prandi, Full Professor, Italian Literature (resignation) Prof. Dr. Gesine Schiewer, Titular Professor, German Linguistics Prof. Dr. Heinrich Richard Schmidt, Associate Professor, Modern and Contemporary History Prof. Dr. Reinhard Schulze,

### Faculty of Science:

Institute of History

Prof. Dr. Niklaus Kämpfer, Full Professor, Applied Physics Prof. Dr. Daniel Neuenschwander, Honorary Professor, Mathematics of Life Insurance Prof. Dr. Igor Maria Villa-Toscani, Associate Professor, Geochronology Prof. Dr. Doris Wastl-Walter, Full Professor, Cultural Geography

Full Professor, Islamic Studies and

(SNSF professorship) (resignation)

Modern Oriental Philology

Prof. Dr. Kim Siebenhüner,

# Faculty of Human Sciences:

Prof. Dr. Franz Caspar, Full Professor, Clinical Psychology and Psychotherapy Prof. Dr. Thomas Rammsayer, Full Professor, Personality Psychology and Differential Psychology

## **Teaching staff**

Faculty of Humanities: Prof. Dr. Louis-Marc Suter, Titular Professor, Musicology, decd. on November 3, 2018

Faculty of Business, Economics and Social Sciences: Dr. Daniel Odermatt, Lecturer, Management of IT Projects,

decd. on July 6, 2018 Faculty of Medicine:

Prof. Dr. Georg Pilleri, Retired Adjunct Professor, Neuroanatomy and Comparative Neuropathology, decd. on September 10, 2018 Dr. Christine Römer-Lüthi, Retired Lecturer, Biochemistry, decd. on September 16, 2018 Prof. Dr. Friedrich Roth, Retired Titular Professor, Intensive Care, decd. on April 13, 2018 Prof. Dr. Alois Schärli, Retired Titular Professor, Pediatric Surgery, decd. on February 25, 2018

#### Faculty of Human Sciences:

Dr. Simone Grebner, Associate Lecturer, Psychology, decd. on June 27, 2018

Faculty of Science:

Prof. Dr. Bernhard Stauffer, Retired Professor, Experimental Physics, particularly Physical Glaciology, decd. on October 26,2017

#### **Employees**

**Executive Board** of the University of Bern: Dr. Daniel Odermatt. Administrative Director, decd. on July 6, 2018

Faculty of Medicine:

Norbert Braun, Technician, decd. on December 6, 2018 Melinda Good, Secretary, decd. on June 27, 2018 Franziska Penitschka-Luginbühl, Laboratory Assistant, decd. on March 23, 2018

#### Faculty of Science: Maria del Pilar Rodriguez, Administrator, decd. on April 16, 2018

#### **Students**

Dario Colussi, Student of Sport Science, decd. on September 25, 2018 David Buschmann, Ph.D. Student of Musicology, decd. on May 14, 2018 Roman Näpflin, Student of Biology, decd. on April 4, 2018 Victoria Ann Roloff, Ph.D. student of Physics, decd. on February 12, 2018





# **Statistics**

Content of following pages:

44

47 **Employees** 

## **Protecting** the environment

Evident environmental pollufor the dramatic global decline in biodiversity – the overuse of soil, climate change and habitat loss are just as important in this respect.

The decline in biodiversity is also threatening our quality of life and economic performance, as revealed in the first assessment report for Europe and Central Asia from the IPBES world biodiversity in March 2018 was coordinated by the Universities of Bern and Edinburgh. The University of Bern is also home to the Global Land Programme, which works with local partthe sustainable management of land, a scarce resource. The Wyss Foundation is supporting tive land use and the protec-Kenya.



# **Students**

# Students by level of study (2018 fall semester)

	Total				Bachel	Bachelor's degree M		Master's degree			Doctorate				Continuing education				
	All		Fgn.*	BE	All		Fgn.*	—— BE	All		Fgn.*	—— BE	All		Fgn.*	—— BE	All		Fgn.*
Total	18,019	57%	12%	37%	7,692	57%	3%	50%	4,602	58%	11%	40%	2,966	52%	41%	25%	2,759	61%	5%
Faculty of Theology	375	51%	10%	28%	56	66%	5%	66%	37	70%	11%	57%	53	47%	53%	23%	229	46%	1%
Faculty of Law	2,268	56%	9%	47%	1,070	60%	3%	57%	616	60%	16%	48%	219	43%	31%	33%	363	50%	2%
Faculty of Business, Economics and Social Sciences	2,659	40%	6%	39%	1,350	43%	5%	49%	745	41%	8%	46%	114	46%	31%	32%	450	26%	1%
Faculty of Medicine	3,287	57%	14%	35%	915	61%	2%	48%	950	57%	4%	37%	1,210	53%	33%	28%	212	68%	4%
Vetsuisse Faculty Bern	581	81%	19%	28%	214	87%	0%	31%	151	85%	3%	35%	214	73%	49%	19%	2	100%	100%
Faculty of Humanities	2,507	61%	14%	42%	1,377	62%	4%	51%	690	62%	18%	36%	392	55%	40%	24%	48	52%	8%
Faculty of Human Sciences	3,725	72%	7%	27%	1,441	65%	3%	43%	776	74%	8%	37%	178	66%	37%	26%	1,330	80%	7%
Faculty of Science	2,617	44%	21%	40%	1,269	44%	3%	55%	637	45%	22%	38%	586	40%	62%	15%	125	47%	5%

<sup>\*</sup> Foreign

# Trend in number of students by level of study and gender

Number of students									Difference	
		2015		2016		2017		2018	2	015–2018
Total	All	17,430	17,514	0%	17,882	+2%	18,019	+1%	+589	+3%
	Male	44%	44%		44%		43%			
	Female	56%	56%		56%		57%			
Bachelor's degree	All	7,869	7,747	<b>- 2</b> %	7,709	0%	7,692	0%	-177	- 2%
	Male	45%	45%		44%		43%			
	Female	55%	55%		56%		57%			
Master's degree	All	4,424	4,523	+2%	4,614	+2%	4,602	0%	+ 178	+4%
	Male	44%	44%		43%		42%			
	Female	56%	56%		57%		58%			
Doctorate	All	2,648	2,776	+5%	2,882	+4%	2,966	+3%	+318	+12%
	Male	47%	47%		48%		48%			
	Female	53%	53%		52%		52%			
Continuing education	All	2,488	2,468	<b>- 1%</b>	2,677	+8%	2,759	+3%	+271	+11%
	Male	40%	37%		40%		39%			
	Female	60%	63%		60%		61%			

# New students by level of study (2018 fall semester)

All new students	Total				Bache	or's de	gree		Maste	r's deg	ree		Doctor	ate			Contin	_	
	All		Fgn.*	BE	——		Fgn.*	BE	All		Fgn.*	BE	All		Fgn.*	BE	All	φ	Fgn.*
Total	5,028	58%	9%	40%	2,492	59%	4%	50%	1,349	57%	11%	39%	550	50%	33%	28%	637	58%	4%
Faculty of Theology	74	61%	9%	47%	21	76%	5%	81%	12	58%	8%	58%	6	33%	67%	0%	35	57%	3%
Faculty of Law	598	60%	7%	49%	311	62%	4%	58%	144	58%	15%	44%	25	44%	32%	28%	118	59%	3%
Faculty of Business, Economics and Social Sciences	745	40%	6%	36%	360	43%	6%	45%	213	41%	7%	44%	21	38%	38%	48%	151	31%	1%
Faculty of Medicine	1,102	58%	11%	39%	366	63%	4%	48%	352	57%	5%	40%	328	49%	24%	31%	56	75%	7%
Vetsuisse Faculty Bern	178	83%	11%	33%	70	84%	0%	39%	70	87%	1%	36%	36	72%	44%	19%	2	100%	100%
Faculty of Humanities	557	63%	10%	44%	342	65%	4%	56%	146	64%	16%	34%	30	60%	57%	10%	39	51%	10%
Faculty of Human Sciences	901	71%	4%	33%	499	67%	4%	43%	190	76%	6%	35%	27	70%	30%	30%	185	80%	1%
Faculty of Science	873	47%	14%	45%	523	50%	3%	54%	222	43%	26%	36%	77	42%	53%	21%	51	43%	12%

<sup>\*</sup> Foreign

# Trend in new students by level of study and gender

Number of new student	ts								Difference	
		2015		2016		2017		2018		2015–2018
 Total	All	5,055	4,867	-4%	4,944	+2%	5,028	+2%	-27	- 1%
	Male	44%	43%		43%		42%			
	Female	56%	57%		57%		58%			
Bachelor's degree	All	2,495	2,300	-8%	2,416	+5%	2,492	+3%	-3	0%
	Male	43%	43%		42%		41%			
	Female	57%	57%		58%		59%			
Master's degree	All	1,393	1,392	0%	1,365	- 2%	1,349	- 1%	-44	- 3%
	Male	45%	41%		41%		43%			
	Female	55%	59%		59%		57%			
Doctorate	All	520	536	+3%	542	+1%	550	+1%	+30	+6%
	Male	44%	45%		46%		50%			
	Female	56%	55%		54%		50%			
Continuing education	All	647	639	- 1%	621	-3%	637	+3%	-10	- 2%
	Male	44%	45%		49%		42%			
	Female	56%	55%		51%		58%			

# **Students**

# Degrees in 2018

	Total			Bachel	or's de	gree	Maste	r's degr	ee	Doctor	ate		Contin educat	_		Habilit	ation	
	All		Fgn.*	All		Fgn.*	——		Fgn.*	All		Fgn.*	All		Fgn.*	All		Fgn.*
Total	4,457	55%	12%	1,638	56%	4%	1,629	55%	10%	640	54%	38%	489	54%	14%	61	33%	67%
Faculty of Theology	68	68%	7%	12	75%	0%	24	71%	8%	5	40%	40%	27	67%	6%	0	0%	0%
Faculty of Law	554	57%	6%	221	55%	3%	253	59%	9%	20	50%	20%	60	58%	3%	0	0%	0%
Faculty of Business, Economics and Social Sciences	750	40%	5%	322	43%	4%	260	46%	7%	30	37%	33%	138	23%	0%	0	0%	0%
Faculty of Medicine	958	51%	17%	231	61%	3%	327	43%	4%	341	54%	34%	25	68%	0%	34	29%	71%
Vetsuisse Faculty Bern	198	83%	15%	71	86%	1%	61	84%	7%	60	78%	38%	0	0%	0%	6	83%	17%
Faculty of Humanities	568	60%	15%	248	63%	6%	223	58%	18%	59	51%	46%	30	57%	0%	8	50%	50%
Faculty of Human Sciences	747	71%	10%	290	65%	3%	254	73%	9%	25	68%	28%	175	80%	24%	3	0%	100%
Faculty of Science	614	41%	19%	243	39%	3%	227	47%	20%	100	44%	52%	34	21%	0%	10	10%	90%

# Trend in new degrees by level of study and gender

Number of degrees									Difference	
		2015		2016		2017		2018	-	2015–2018
Total	All	4,274	4,269	0%	4,307	+1%	4,457	+3%	+ 183	+4%
	Male	44%	44%		45%		45%			
	Female	56%	56%		55%		55%			
Bachelor's degree	All	1,575	1,561	<b>– 1%</b>	1,601	+3%	1,638	+2%	+63	+4%
	Male	44%	42%		43%		44%			
	Female	56%	58%	<del></del>	57%		56%			
Master's degree	All	1,566	1,489	- 5%	1,549	+4%	1,629	+5%	+63	+4%
	Male	41%	41%		44%		45%			
	Female	59%	59%		56%		55%			
Doctorate	All	534	570	+7%	600	+5%	640	+7%	+106	+20%
	Male	44%	46%		47%		46%			
	Female	56%	54%		53%		54%			
Continuing education	All	526	574	+9%	493	- 14%	489	- 1%	-37	- 7%
	Male	47%	49%	+5%	51%		46%			
	Female	53%	51%		49%		54%			
Habilitation	All	73	75	+3%	64	- 15%	61	- 5%	-12	- 16%
	Male	74%	72%		80%		67%			
	Female	26%	28%		20%		33%			

<sup>&</sup>lt;sup>1</sup> Master MAS 279 (165 females), Diploma DAS 27 (15 females), Certificate CAS 173 (79 females), Other 10 (7 females)

<sup>\*</sup> Foreign

# **Employees**

# Full-time equivalents at the university in 2018 (average for the year, including external funding positions)

	Total			Professo	orships		Lecturers			Teaching research		nts	Administ services	tration 8	
	All		Foreign	All	Φ	Foreign	All	φ	Foreign	All	φ	Foreign	All		Foreign
Total	4,610	51%	37%	509	23%	51%	241	35%	39%	2,091	50%	48%	1,769	61%	19%
Faculty of Theology	60	60%	43%	14	36%	57%	8	50%	38%	32	69%	47%	6	83%	0%
Faculty of Law	190	49%	24%	41	24%	24%	12	33%	42%	109	51%	26%	28	86%	11%
Faculty of Business, Economics and Social Sciences	246	45%	33%	43	14%	74%	18	28%	33%	152	49%	25%	33	76%	12%
Faculty of Medicine	1,387	55%	38%	151	17%	44%	77	40%	39%	522	51%	57%	637	69%	21%
Vetsuisse Faculty Bern	431	66%	35%	41	37%	56%	9	33%	33%	207	66%	52%	174	75%	10%
Faculty of Humanities	388	55%	43%	70	46%	66%	29	45%	45%	241	58%	40%	48	63%	19%
Faculty of Human Sciences	220	56%	34%	25	32%	60%	31	35%	35%	136	64%	32%	28	61%	14%
Faculty of Science	1,091	33%	48%	122	12%	48%	36	11%	53%	649	36%	59%	284	39%	21%
Central Administration	597	57%	18%	2	100%	0%	21	43%	24%	43	79%	16%	531	56%	18%

# Trend in full-time equivalents by staff group and gender

Number of full-time equiv	valents								Difference	
		2015		2016		2017		2018	2	015-2018
 Total	All	4,108	4,191	+2%	4,499	+7%	4,610	+2%	+502	+12%
	Male	49%	50%		50%		49%			
	Female	51%	50%		50%		51%			
Professorships	All	466	484	+4%	508	+5%	509	0%	+43	+9%
	Male	78%	78%		77%		77%			
	Female	22%	22%		23%		23%			
Lecturers	All	233	241	+3%	238		241	+1%	+8	+3%
	Male	68%	67%		66%		65%			
	Female	32%	33%		34%		35%			
Teaching & research	All	1,684	1,690	0%	1,983	+ 17%	2,091	+5%	+407	+24%
assistants	Male	50%	51%	-	51%		50%			
	Female	50%	49%		49%		50%			
Administration & services	All	1,725	1,776	+3%	1,770	0%	1,769	0%	+44	+3%
	Male	38%	39%	_	39%		39%	9%		
	Female	62%	61%		61%		61%			





# **Annual financial** statements

## Content of following pages:

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# **Shaping the future**

Full employment and digitalization economic growth concepts mutually compatible?

Occupational psychologists in Bern are investigating the can map out their careers and remain in good health during times of change. The "Time as carried out at the Centre for **Development and Environment** (CDE) is looking into how reducing working hours can promote sustainable consumption patterns. Political scientists and economists in Bern are analyzing how the energy revolution and transformation to a green economy can for Digital Sustainability is investigating how digitaliza-



# University of Bern 2018 annual financial statements<sup>1</sup>

The University of Bern draws up its financial statements using Swiss GAAP FER accounting standards. The highest principle of Swiss GAAP FER is to present a true and fair view of the financial position, cash flows and results of operations.

## **Balance sheet**

Amounts in CHF 000s	Note	Dec 31, 2018	Dec 31, 2017	Chan	је
Cash and cash equivalents		15,689	16,044	<del>_</del>	-2.2%
Financial management current accounts		359,435	315,818	43,617	13.8%
Trade receivables	3	25,541	27,391	-1,850	-6.8%
Other current receivables	4	13,251	10,638	2,613	24.6%
Current financial investments	5	13,246	11,455	1,791	15.6%
Inventories and work in progress	6	5,888	5,365	523	9.7%
Prepaid expenses and accrued income	7	53,802	51,012	2,790	5.5%
Current assets		486,850	437,721	49,129	11.2%
Financial investments		74,137	90,289	-16,153	-17.9%
Property, plant and equipment	9	49,690	47,274	2,416	5.1%
Intangible assets	10	18,650	20,766	-2,116	-10.2%
Non-current assets		142,477	158,329	-15,853	-10.0%
Total assets		629,327	596,051	33,276	5.6%
Trade payables		22,997	20,158	2,839	14.1%
Other current liabilities	12	3,486	1,971	1,515	76.8%
Current financial liabilities	13	426	340	86	25.4%
Commitments to external funding	14	137,378	140,788	-3,410	-2.4%
Current provisions	15	13,759	19,138	-5,378	-28.1%
Accrued expenses and deferred income	16	7,472	7,323	149	2.0%
Current liabilities		185,519	189,718	-4,199	-2.2%
Non-current financial liabilities		1,750	1,634	116	7.1%
Non-current provisions	15	31,440	32,694	-1,254	-3.8%
Pension liabilities	18	89,200	91,100	-1,900	-2.1%
Non-current liabilities		122,390	125,428	-3,038	-2.4%
Accumulated profits		280,904	229,379	51,525	22.5%
Year-end result		40,513	51,525	-11,012	-21.4%
Equity		321,417	280,904	40,513	14.4%
Total liabilities		629,327	596,051	33,276	5.6%

<sup>&</sup>lt;sup>1</sup> Any differences in the following tables are due to rounding.

# **Income statement**

Amounts in CHF 000s	Note	2018	2017	Chan	ge
Contribution from the Canton of Bern under service agreement		316,675	314,170	2,505	0.8%
Contribution from the federal government under the University Funding Act		97,404	98,505	-1,101	-1.1%
Contributions from the intercantonal university agreement		113,376	107,789	5,587	5.2%
Basic funding or public sector contributions	19	527,455	520,465	6,991	1.3%
Project contributions from the Swiss National Science Foundation		99,766	103,847	-4,081	-3.9%
Project contributions from international organizations		27,976	27,984	-8	0.0%
Other project contributions		63,974	55,163	8,811	16.0%
Project commitments from external funding	20	191,716	186,994	4,722	2.5%
Tuition fees		18,222	18,357	-135	-0.7%
Income from ongoing services		72,494	71,215	1,279	1.8%
Miscellaneous income		72,619	74,178	-1,559	-2.1%
Reductions in revenue		-633	-707	74	-10.4%
Other income	21	162,702	163,043	-341	-0.2%
Total operating income		881,874	870,502	11,371	1.3%
Salaries		467,646	456,741	10,905	2.4%
Social security contributions		85,400	81,798	3,602	4.4%
Other staff expense		5,141	6,754	-1,614	-23.9%
Staff expense	22	558,186	545,293	12,893	2.4%
Purchase of equipment		15,099	13,752	1,347	9.8%
Property and premises expense		22,761	21,831	930	4.3%
Other expense		94,031	98,252	-4,222	-4.3%
Other and miscellaneous operating expense	23	131,890	133,835	-1,945	-1.5%
Contributions for teaching and research in clinical medicine		110,792	109,013	1,779	1.6%
Contributions to third parties		24,003	20,139	3,864	19.2%
Contributions	24	134,795	129,152	5,643	4.4%
Depreciation on property, plant and equipment	9	11,004	10,592	411	3.9%
Amortization of intangible assets	10	3,378	3,064	314	10.2%
Total operating expense		839,253	821,936	17,317	2.1%
Financial income		1,743	4,333	-2,589	-59.8%
Financial expense		3,851	1,374	2,478	180.3%
Net financial income	25	-2,108	2,959	-5,067	-171.2%
Year-end result		40,513	51,525	-11,012	-21.4%

# **Cash flow statement**

Amounts in	CHF 000s	2018	2017
Operating a	ctivities		
+/-	Profit/loss	40,513	51,525
+/-	Share of profits/losses of equity associates	306	101
+/-	Depreciation/write-ups on non-current assets	14,423	13,304
+/-	Impairments/reversals of impairments	784	160
+/-	Change in retirement benefit obligation under staff expense	-1,900	-2,900
+/-	Increase/decrease in non-cash provisions	-1,254	302
+/-	Other non-cash income/expense	3,547	-844
+/-	Loss/gain on disposal of non-current assets		
+/-	Decrease/increase in receivables	1,217	-3,138
+/-	Decrease/increase in inventories and work in progress	-523	1′009
+/-	Decrease/increase in other current receivables and prepaid expenses and accrued income	-5,371	22,339
+/-	Increase/decrease in creditors	2,839	2,435
+/-	Increase/decrease in other current liabilities and accrued expenses and deferred income	- 3,714	- 1,166
+/-	Increase/reduction in commitments to external funding	-3,410	5,529
+/-	Cash flow from operating activities	47,457	88,655
 Investing ac	tivities		
	Payments for purchase of property, plant and equipment		-10,479
	Payments for purchase of current and non-current financial investments	-13,209	-5,743
+	Receipts from sale of current and non-current financial investments	24,319	17,944
_	Payments for purchase of intangible assets	-2,559	-3,788
	Cash flow from investing activities	-4,397	-2,066
Financing ac	tivities		
+/-	Increase/reduction in current financial liabilities	86	-7
+/-	Increase/reduction in non-current financial liabilities	116	378
	Cash flow from financing activities	202	371
Total cash fl	ow .	43,262	86,960
N	et cash and cash equivalents at the start of the period	331,862	244,902
_		375,123	331,862
N	et cash and cash equivalents at the end of the period	373,123	

Net cash and cash equivalents break down as follows:

ounts in CHF 000s	Dec 31, 2018	Dec 31, 2017
Cash	166	132
Post office	6,703	3,749
Bank	8,820	12,163
Financial management current account (basic funding)	113,394	76,273
Financial management current account (external funding)	246,041	239,545
I	375,123	331,862

## Equity statement as of Dec 31, 2018

Amounts in CHF 000s	Basic funding	External funding	Funds	Total equity
Equity Dec 31, 2016	15,751	162,960	50,668	229,379
Year-end result (profit (+)/loss(-))	28,372	16,683	6,471	51,525
Equity Dec 31, 2017	44,123	179,643	57,139	280,904
Year-end result (profit (+)/loss(-))	20,290	23,677	-3,454	40,513
Equity Dec 31, 2018	64,413	203,319	53,685	321,417

The equity of the University of Bern consists of three different sources of funding: basic funding, external funding and funds.

Basic funding comprises investments made by the Canton and the public sector in teaching, research and services. Income from tuition fees and part of other income also count as basic funding.

External funding comprises unrestricted external funding. This external funding (ongoing services, orders, reports, donations, professional fees, financial income) is not subject to any requirement by the provider to use the funding for a particular project. The funding is available for general research projects, training and development and to maintain ongoing services.

Funds comprises bequests and legally dependent foundations transferred to the University of Bern for a particular purpose.

The University of Bern cannot distribute profits. Once the annual financial statements have been approved by the Bern Cantonal Government, the year-end result for 2018 is therefore allocated to equity.

# Notes

# Accounting principles

#### General

These annual financial statements have been drawn up under Swiss GAAP FER, applying all FER standards. They provide a true and fair view of the financial position, cash flows and results of operations of the University of Bern. The financial year ended on 31 December

The annual financial statements were approved by the Executive Board of the University of Bern on March 19, 2019 and notified to the Senate on April 16, 2019. The annual financial statements have to be approved by the Bern Cantonal Government and will then be notified to the Cantonal Parliament in the September session.

#### **Principles of consolidation**

The University of Bern holds equity investments in companies which give it over 50% of the voting rights and is therefore required under Swiss GAAP FER 30 to produce consolidated financial statements. However, total equity investments held are not material, so no consolidated financial statements are provided. Equity investments are measured in the individual financial statements using the equity method. The equity investments held are carried under financial investments.

#### **Accounting and valuation principles**

Assets and liabilities are measured individually. Measurement is at historic cost. Assets are measured at cost of acquisition or production, liabilities at nominal value. The principles for the main items in the financial statements are explained below:

#### Cash and cash equivalents

Cash and cash equivalents comprise cash in hand, credit balances with banks and the Post Office and fixed deposits. These are measured at nominal value.

### Financial management current accounts

Financial management current accounts are measured at nominal value and treated as cash and cash equivalents.

# Trade receivables and other current receivables

These are measured at nominal value less any impairments. Where receivables are clearly at risk, a value adjustment is recognized based on the individual risk situation. Credit and loss risks that cannot be clearly quantified are covered by a portfolio value adjustment. The size of the portfolio value adjustment is calculated as the average amount of receivables actually derecognized over the last two accounting periods.

### **Current financial investments**

Current financial investments are financial investments with a maturity of between 90 days and one year where there is an intention to hold them in the short term. Current financial investments are measured at current value using the market price. Current financial investments without a market price are measured at no more than cost of acquisition less any impairments. Positions are measured individually. Capital gains and losses and value adjustments are recognized in income for the period.

#### Inventories and work in progress

Inventories include consumables. Inventories are measured at cost of acquisition or production, or at net market value where this is lower. Work in progress refers to services that have not yet been invoiced. This only occurs in organizational units providing ongoing services, such as the School of Dental Medicine and the Animal Hospital. Cost of production for work in progress is calculated based on valuations from the relevant patient information systems.

#### Prepaid expenses and accrued income

Prepaid expenses and accrued income allow income and expense to be recognized in the relevant period. Measurement is at nominal value.

#### **Financial investments**

Financial investments include financial instruments such as securities, loans and equity shareholdings. Financial investments are measured at current value using the market price. Financial investments without a market price are measured at cost of acquisition less any impairments. Equity shareholdings over 20% are recognized using the equity method.

#### Property, plant and equipment

Property, plant and equipment is measured at cost of acquisition or production less cumulative depreciation. Depreciation is on a straight-line basis over the useful life of the asset. The useful life of property, plant and equipment is set as follows:

Asset category	Useful life	
Land and buildings	Land: unlimited Buildings: 30 to 50 years	
Machinery, fittings, equipment	2 to 10 years	
Vehicles	5 years	
Special vehicles	10 years	
IT equipment	2 to 5 years	

Contributions to investments in building under Art. 55 (1) of the Higher Education Act<sup>2</sup> are recognized as a separate negative item under property, plant and equipment. Release is over the same useful life as the investment financed by the federal subsidy.

#### Intangible assets

Intangible assets are acquired software solutions, university-specific software applications in use developed by an external provider, investment contributions to Cantons and private institutions, patents and licenses and loans to professors to buy in to the pension fund. Software is amortized on a straight-line basis over five years. Contributions for professors to the Bern Cantonal Pension Fund (BPK) are amortized on a declining balance basis at 4%3 or 5%4. Intangible assets are reviewed for impairment on the reporting date. Any additional value adjustments are charged to income for the period.

#### **Impairment**

Assets are reviewed on each reporting date for indications that their book value may no longer be achievable. If the book value of an asset exceeds the achievable value (value in use or net market value) a value adjustment (impairment/extraordinary write-down) is recognized in income.

### Trade payables

Trade payables are current liabilities arising from ordinary business activity with a remaining term of up to one year on the reporting date.

#### Other current liabilities

Other current liabilities are liabilities not directly related to the provision of services with a maturity of up to one year. Recognition is at nominal value.

#### Other current financial liabilities

Current financial liabilities are monetary debts arising from financing activities. Recognition is at nominal value.

## Commitments to external funding

Commitments to external funding are debts to external funding providers. They correspond to the outstanding liabilities of the University of Bern to external funding providers on the reporting date. Recognition is at nominal value.

#### **Current and non-current provisions**

Provisions with a maturity of less than 12 months are shown under current liabilities; provisions with a maturity of over 12 months are shown under non-current liabilities.

A provision is a probable liability arising from a past event where the amount and/or date is uncertain but can be estimated. The event in question must have occurred before the reporting date. It may be based on a liability which is expressly legal or de facto. Employee flexitime and vacation balances and special and transitional pensions are treated as provisions. Provisions are set aside by debiting the equivalent expense or reduction in revenue item. Provisions are reduced/released in

<sup>&</sup>lt;sup>2</sup> Federal Act of September 30, 2011 on the Funding and Coordination of the Higher Education Sector (HFKG), as of January 1, 2018

<sup>&</sup>lt;sup>3</sup> Art. 7 (1) of the Decree of November 19, 1997 on the Principles of Salary and Other Benefits for University Employees (UniD), repealed on September

<sup>&</sup>lt;sup>4</sup> Art. 66 (4) of the Ordinance of December 12, 2012 on the University (UniV)

the same part of the income statement in which they were entered. Changes in provisions are shown in the statement of provisions.

#### Accrued expenses and deferred income

Accrued expenses and deferred income allow income and expense to be recognized in the relevant period. Recognition is at nominal value.

#### Non-current financial liabilities

Non-current financial liabilities are monetary debts arising from financing activities with a maturity of over 12 months. Recognition is at nominal value.

#### **Retirement benefits**

The University of Bern belongs to the Bern Cantonal Pension Fund (BPK), the Bern Cantonal Teachers Insurance Fund (BLVK), the Assistant and Senior Doctors Pension Fund (VSAO) and the SSO Foundations of the Swiss Dental Association (SSO). The economic impact of retirement benefit plans on the university is calculated as of the reporting date. An asset is only recognized if a positive impact on future cash flow (e.g. lower contributions) is expected. Liabilities (e.g. contributions to make up underfunding) are recognized in accordance with the rules on provisions.

#### Income taxes

The University of Bern is exempt from direct income taxes.

#### Related party transactions

Any individual or legal entity capable of directly or indirectly exercising considerable influence on the financial or operational decisions of the university of Bern is deemed a related party. Organizations which are in turn directly or indirectly controlled by related parties are also deemed related parties.

All material transactions with related parties and the resultant credit balances or liabilities are disclosed in the annual financial statements.

### Items in foreign currencies

Assets and liabilities in foreign currencies are translated into Swiss francs (CHF) as of the reporting date. The exchange rate used is that shown on the bank statement. If no exchange rate is shown on the bank statement, the average interbank rate for the accounting period is used (oanda.com).

# Notes to the annual financial statements

#### 1 Cash and cash equivalents

Amounts in CHF 000s	Dec 31, 2018	Dec 31, 2017	Cha	nge
Cash	166	132	35	26.3%
Post office	6,703	3,749	2,954	78.8%
Bank	8,820	12,163	-3,343	- 27.5%
Cash and cash equivalents	15,689	16,044	-355	- 2.2%

Cash and cash equivalents fell by CHF 355,000.

#### 2 Financial management current accounts

Amounts in CHF 000s	Dec 31, 2018	Dec 31, 2017	Change	
Financial management current account (basic funding)	113,394	76,273	37,121	48.7%
Financial management current account (external funding)	246,041	239,545	6,496	2.7%
Financial management current accounts	359,435	315,818	43,617	13.8%

The Canton of Bern organizes the cash management of the University of Bern. The financial management current accounts represent the cash and cash equivalents the Canton of Bern is managing for the University of Bern.

#### 3 Trade receivables

Amounts in CHF 000s	Dec 31, 2018	Dec 31, 2017	Cha	nge
Receivables for services to third parties	26,245	28,061	-1,816	- 6.5%
Trade receivables from related organizations	1	48	-47	- 98.7%
Provision for doubtful debts		-718	13	- 1.9%
Trade receivables	25,541	27,391	-1,850	- 6.8%

Trade receivables fell by CHF 1,850,000. Work in progress rose, however (see Note 6 Inventories and work in progress).

# Other current receivables

Amounts in CHF 000s	Dec 31, 2018	Dec 31, 2017	Cha	nge
Temporary cash advances	177	255	-77	- 30.4%
Withholding tax credit	919	674	245	36.4%
Teller counter receivables		74	-74	-100.0%
Receivables external funding liabilities	12,098	9,613	2,485	25.9%
Rental deposits	25	23	2	8.8%
Short-term loans	32		32	100.0%
Other current receivables	13,251	10,638	2,613	24.6%

Other current receivables rose by CHF 2,613,000. The change is mainly due to the increase in research projects with receivables due from the funder.

#### 5 **Current financial investments**

Amounts in CHF 000s	Dec 31, 2018	Dec 31, 2017	Chan	ige
Interest-bearing investments (bonds)	13,246	11,455	1,791	15.6%
Current financial investments	13,246	11,455	1,791	15.6%

Current financial investments rose by CHF 1,791,000.

#### 6 Inventories and work in progress

Amounts in CHF 000s	Dec 31, 2018	Dec 31, 2017	Change	
Inventories	3,113	3,015	98	3.2%
Work in progress	2,775	2,350	425	18.1%
Inventories and work in progress	5,888	5,365	523	9.7%

Inventories and work in progress were up by CHF 523,000.

#### 7 Prepaid expenses and accrued income

Amounts in CHF 000s	Dec 31, 2018	Dec 31, 2017	Cha	nge
Accrued interest	309	380		- 18.7%
Contributions from the intercantonal university agreement	48,300	46,000	2,300	5.0%
Journal subscriptions	4,811	4,632	179	3.9%
Other accruals	382		382	
Prepaid expenses and accrued income	53,802	51,012	2,790	5.5%

Prepaid expenses and accrued income increased year on year by CHF 2,790,000. A major part of this increase came from the accrual for the contributions from the intercantonal university agreement for students from outside the Canton of Bern. This increased by CHF 2,300,000 (see Note 19 Basic funding or contributions from the public sector).

#### 8 Financial investments

Amounts in CHF 000s	Dec 31, 2018	Dec 31, 2017	Cha	nge
Equities and share certificates	12,795	15,530	-2,735	<del>- 17.6%</del>
Interest-bearing investments, fixed deposits with a term over one year (funds)	5,922	5,746	176	3.1%
Interest-bearing investments nominal (bonds)	52,725	66,262	-13,537	- 20.4%
Loans to third parties	1,231	1,000	231	23.1%
Equity investments in private companies	1,464	1,752	-288	- 16.4%
Financial investments	74,137	90,289	-16,153	- 17.9%

With the bonds, in the absence of suitable investment opportunities liquidity was transferred to the financial management current account (external funding) (see Note 2 Financial management current accounts).

Equity investments representing a holding of more than 5% are listed below by name:

Equity investment		% held		Share capita 000s	l in CHF	Value of equ	ity in CHF
	Registered office	Dec 31, 2018	Dec 31, 2017	Dec 31, 2018	Dec 31, 2017	Dec 31, 2018	Dec 31, 2017
Center of Continuing Dental Education (CCDE)	Bern	75%	75%	100	100	62	78
Unitectra AG	Zurich	33%	33%	300	300	145	143
be-advanced AG (formerly InnoBE AG)	Bern	21%	21%	240	240	63	51
sitem-insel AG	Bern	16%	16%	9,591	9,591	1,082	1,386
SLSP AG	Zurich	8%	8%	520	520	40	40
Miscellaneous		≤ 5%	≤ 5%	n.a.	n.a.	72	53
Total						1,464	1,752

#### 9 Property, plant and equipment

Amounts in CHF 000s	;	Land and build- ings	Machinery, fittings, equip- ment, vehicles	IT hardware	Federal subsi- dies	Total property, plant and equip- ment
Net book value Dec 3	31, 2016	58	47,872	3,662	-5,217	46,375
Cost of acquisition/p	roduction					
As of Dec	31, 2016	87	123,488	14,350	-9,647	128,278
Additions		972	10,255	2,143	-295	13,076
Difference	on federal subsidies issued				609	609
Disposals			-4,631	-660	216	-5,075
Reclassific	cations		-151	151		
As of Dec 31, 2017		1,059	128,962	15,984	-9,116	136,889
Cumulativ	re impairments					
As of Dec	31, 2016	-28		-10,688	4,430	-81,903
Scheduled	d depreciation	-3	-9,161	-1,340	774	-9,730
Extraordir	nary depreciation		-2	-48	240	190
Disposals			1,850	509	-531	1,828
Reclassific	cations					
As of Dec 31, 2017		-31	-82,929	-11,567	4,913	-89,616
Net book value Dec	31, 2017	1,028	46,032	4,417	-4,203	47,274
Net book value Dec 3	31, 2017	1,028	46,032	4,417	-4,203	47,274
Cost of acquisition/p	roduction					
As of Dec		1,059	128,962	15,984	-9,116	136,888
Additions			10,757	2,216	-370	12,603
	on federal subsidies issued					
Disposals			-3,553		-	-6,006
Reclassific	cations					
As of Dec 31, 2018		1,059	136,166	15,748	-9,486	143,486
	ve impairments	<u> </u>			<u> </u>	
As of Dec		-31			4,913	-89,614
	depreciation	-22		-1,503	841	-9,935
	nary depreciation	-	-228			-228
Disposals			3,529	2,452		5,982
Reclassific		_				
As of Dec 31, 2018		-53	-88,879	-10,617	5,754	-93,796
Net book value Dec 3	31, 2018	1,006	47,287	5,130	-3,732	49,690

Investments during the year slightly exceeded depreciation, hence the increase of around CHF 2,416,000 in property, plant and equipment.

#### 10 Intangible assets

Amounts in CHF 000s	Software	Intangible assets in progress (soft- ware)	Other intangible assets	Contributions for professors to the BPK	Total intangible assets
Net book value Dec 31, 2016	9,400	2,149	34	9,281	20,864
Cost of acquisition/production					
As of Dec 31, 2016	17,946	2,204	59	16,485	36,694
Additions	951	2,161		702	3,814
Difference on federal subsidies issued					
Disposals	-665	-55		-134	-855
Reclassifications	2,358	-2,358			
As of Dec 31, 2017	20,589	1,951	59	17,053	39,652
Cumulative impairments					
As of Dec 31, 2016	-8,546	-55	-24	-7,205	-15,830
Scheduled depreciation	-3,007		-12		-3,814
Extraordinary depreciation	-84			-27	-111
Disposals	677	55		134	867
Reclassifications					
As of Dec 31, 2017	-10,959		-36	-7,892	-18,888
Net book value Dec 31, 2017	9,631	1,951	22	9,161	20,766
Net book value Dec 31, 2017	9,631	1,951	22	9,161	20,766
Cost of acquisition/production					
As of Dec 31, 2017	20,589	1,952	59	17,053	39,653
Additions	2,706	136		960	3,802
Difference on federal subsidies issued					
Disposals	-1,981	-1,243		-1,664	-4,888
Reclassifications					
As of Dec 31, 2018	21,314	844	59	16,349	38,566
Cumulative impairments					
As of Dec 31, 2017	-10,958		-36	-7,892	-18,887
Scheduled depreciation	-3,341		-12	-775	-4,127
Extraordinary depreciation	-25			-522	-547
Disposals	1,981			1,664	3,645
Reclassifications					
As of Dec 31, 2018	-12,343		-48	-7,525	-19,916
Net book value Dec 31, 2018	8,971	844		8,824	18,650

Fewer intangible assets were purchased in 2018 than the previous year, which explains the decline of around CHF 2,116,000.

#### 11 Trade payables

Amounts in CHF 000s	Dec 31, 2018	Dec 31, 2017	Chai	nge
Trade payables to third parties	21,631	18,504	3,127	16.9%
Trade payables to related organizations (manual)	126	129	-3	- 2.4%
Trade payables (manual)	1,240	1,525	-285	- 18.7%
Trade payables	22,997	20,158	2,839	14.1%

Trade payables rose year on year by a total of CHF 2,839,000. This increase is due to the introduction of the electronic creditor workflow and the associated central recording of supplier invoices.

#### 12 Other current liabilities

Amounts in CHF 000s	Dec 31, 2018	Dec 31, 2017	Chai	nge
Prepayments by clients	1,173	454	719	158.4%
Current account VAT creditor	819	849	-30	- 3.6%
Miscellaneous current liabilities	1,494	668	826	123.6%
Other current liabilities	3,486	1,971	1,515	76.8%

Other current liabilities rose year on year by CHF 1,515,000. The CHF 719,000 increase in prepayments by clients is mainly due to an invoice that could not be submitted until 2019.

#### **Current financial liabilities** 13

Amounts in CHF 000s	Dec 31, 2018	Dec 31, 2017	Char	ige
Deposit money	163	153	10	6.6%
Other current debts to third parties	263	187	76	40.8%
Current financial liabilities	426	340	86	25.4%

Current financial liabilities rose year on year by CHF 86,000.

#### 14 Commitments to external funding

Amounts in CHF 000s	<b>Dec 31, 2018</b> Dec 31, 2017		Change	
Commitments to external funding	137,378	140,788	-3,410	- 2.4%

The outstanding commitments of the University of Bern to external funding providers fell year on year on the reporting date by CHF 3,410,000 (see Note 20 Project commitments external funding, project contributions Swiss National Science Foundation).

#### 15 **Provisions**

Amou	nts in CHF 000s	Staff provisions	Other provisions	Total
As of I	Dec 31, 2016	32,612	20,509	53,121
	Of which current provisions	20,411	318	20,729
	Set aside (inc. increases)	2,361	2,027	4,388
	Released	-5,433		-5,433
	Used	-40	-204	-244
As of I	Dec 31, 2017	29,499	22,333	51,832
	Of which current provisions	18,818	318	19,135
	Set aside (inc. increases)	13,584	145	13,584
	Released	-2,140		-2,140
	Used		-204	-18,221
As of	Dec 31, 2018	22,926	22,274	45,200
	Of which current provisions	12,787	973	13,759

Staff provisions include provisions for flexitime credit balances, vacations, long service rewards and long-term working hours accounts. Provisions for flexitime, vacations and long service rewards are treated as current. Following the introduction of a time management tool, the reference date for determining staff provisions was shifted from October 31 to December 31. This revealed that a considerable number of vacation days were still being taken in November and December. The staff provisions therefore fell by a total of CHF 6,573,000. This includes the release of CHF 2,140,000 for special pensions and severance payments<sup>5</sup>.

The presentation of the change in short-term flexitime credit balances was amended in this year.

#### Accrued expenses and deferred income 16

Amounts in CHF 000s	Dec 31, 2018	Dec 31, 2017	Cha	nge
Registration fees	7,372	6,900	473	6.8%
Other accrued deferrals	100	423	-323	- 76.4%
Accrued expenses and deferred income	7,472	7,323	149	2.0%

There was no material change in accrued expenses and deferred income from the previous year.

#### 17 Non-current financial liabilities

Amounts in CHF 000s	Dec 31, 2018	Dec 31, 2017	Chan	ge
Long-term loans (loans to professors for the BPK)	1,393	1,277	116	9.1%
Other non-current financial liabilities	357	357		0.0%
Non-current financial liabilities	1,750	1,634	116	7.1%

There was no material change over the year in the long-term loans (loans to professors for the BPK).

<sup>&</sup>lt;sup>5</sup> Art. 33 of the Personnel Act (PG)

#### 18 Retirement benefit liabilities

Amounts in CHF 000s	Pension fund over- funding(+)/under- funding(-)		share of the rsity of Bern	Change taken to income	Amounts accrued for the period	Pension fund operati	expense in ng expense
		2018	2017	2018	2018	2018	2017
Pension schemes with no over/ underfunding							
Overfunded pension schemes	5,578				249	249	290
Underfunded pension schemes	-69,436	-89,200	-91,100	-1,900	-220	43,705	42,037
Pension schemes with no own assets							
Total	-63,858	-89,200	-91,100	-1,900	29	43,954	42,327

The largest share of employees of the University of Bern (5,482 members) are insured with the Bern Cantonal Pension Fund (BPK). There are also pension arrangements with the Assistant and Senior Doctors Pension Fund (VSAO - 79 members), the Bern Cantonal Teachers Insurance Fund (BLVK - 64 members) and the Swiss Dental Association (SSO - 3 members). As of December 31, 2018 the BPK had a funding ratio of 91.5% (previous year: 95.2%) using a technical interest rate of 2.5%. The University of Bern's share in the funding shortfall as of December 31, 2018 was CHF 69,195,000 (previous year: CHF 37,954,000).

The overall provisional cover ratio of the BLVK as of December 31, 2018 was 90.3% (previous year: 94.7%) with a technical interest rate of 2.5%. The University of Bern's share in the cover shortfall as of December 31, 2018 was CHF 241,000 in total (previous year: CHF 117,000).

The VSAO had a provisional cover ratio of between 106.0% and 107.0% as of December 31, 2018 (previous year: 113.0%). The University of Bern's share in the surplus as of December 31, 2018 was CHF 5,578,000 (previous year: CHF 4,241,000).

The cover ratio of the SSO was 128.26% as of December 31, 2017. The cover ratio as of December 31, 2018 will not be known until after the annual financial statements of the University of Bern have been approved. It is not possible to show the share in the surplus/shortfall of the SSO, and given that there are three members this is also not material.

A dynamic calculation method using wage trends/inflation and population growth as parameters was applied to determine the retirement benefit provision to be recognized. The calculation method is based on the regulations in the Canton of Bern and includes the following components or parameters:

- Insured years of service of all employees over the age of 25 (as of 31 December)
- Employer financing contribution of 1.35% for the BPK and 2.55% for the BLVK
- Planning parameters of 1.5% (inflation 0.6%, salary growth 0.7%, safety margin 0.2%)
- Population growth of 0.49% until 2034
- Remaining number of years under the financing plan (2018 = 16 years)

Given the current level of interest rates the discount rate is 0%.

### 19 Basic funding or contributions from the public sector

Amounts in CHF 000s	2018	2017	Chai	nge
Contribution from the Canton of Bern under service agreement	316,675	314,170	2,505	0.8%
Contribution from the federal government under the University Funding Act	97,404	98,505	-1,101	- 1.1%
Contributions from the intercantonal university agreement	113,376	107,789	5,587	5.2%
Basic funding or contributions from the public sector	527,455	520,465	6,991	1.3%

Basic funding or contributions from the public sector account for 59.8% of operating income. Year on year the basic funding or contributions from the public sector rose by CHF 6,991,000. The Canton of Bern financed 35.9% (previous year: 36.1% of operating income). The share contributed by the federal government under the Higher Education Act (HFKG) was 11.0% (previous year: 11.3%). The share contributed under the intercantonal university agreement to educate students from outside the Canton of Bern was 12.9% (previous year: 12.4%).

#### 20 Project commitments from external funding

Amounts in CHF 000s	2018	2017	Cha	nge
Project contributions from the Swiss National Science Foundation	99,766	103,847	-4,081	- 3.9%
Project contributions from international organizations	27,976	27,984	-8	0.0%
Other project contributions	63,974	55,163	8,811	16.0%
Project commitments from external funding	191,716	186,994	4,722	2.5%

Project commitments from external funding account for 21.7% of operating income (previous year: 21.5%). Project contributions from the Swiss National Science Foundation (SNF) fell by CHF 4,081,000 due to the ending of an NCCR project (NCCR Trade Regulation) and an SNF contribution to overheads that was lower than the previous year; the share in operating income was 11.3% (previous year: 11.9%). There was no material change in project contributions from international organizations from the previous year. These accounted for 3.2% of operating income (previous year: 3.2%). Other project contributions, by contrast (from project partners such as the federal government, municipalities, not-for-profit foundations, private business and Innosuisse) rose by CHF 8,811,000. These accounted for 7.3% of operating income (previous year: 6.3%).

#### Other income 21

Amounts in CHF 000s	2018	2017	Cha	nge
Tuition fees	18,222	18,357	 135	- 0.7%
Income from continuing education	10,524	10,554	-30	- 0.3%
Examination and other fees	3,803	3,578	225	6.3%
Income from human, dental, forensic and veterinary medical services	72,494	71,215	1,279	1.8%
Income from reimbursements	24,489	20,084	4,405	21.9%
Income from sales	7,614	7,386	228	3.1%
Miscellaneous income	26,189	32,576	-6,386	- 19.6%
Discounts	-633	-707	74	- 10.4%
Other income	162,702	163,043	-341	- 0.2%

There was no material change in other income from the previous year. This accounted for 18.4% of operating income (previous year: 18.7%). Various organizational units at the University of Bern provide human, dental, forensic and veterinary medical services. Total revenue from service units makes up 8.2% of operating income (previous year: 8.2%). Miscellaneous income was down CHF 6,386,000 year on year. This was due to the elimination of internal cost allocations, which were higher than the previous year (see Note 23 Other and miscellaneous operating expense).

#### 22 Staff expense

Amounts in CHF 000s	2018	2017	Cha	nge
Salaries	467,646	456,741	10,905	2.4%
Social security contributions	85,400	81,798	3,602	4.4%
Other staff expense	5,141	6,754	-1,614	- 23.9%
Staff expense	558,186	545,293	12,893	2.4%

Staff expense is the largest cost item under operating expense at 66.5% (previous year: 66.3%). Year on year, salaries increased by CHF 10,905,000. Social security contributions were up CHF 3,602,000 year on year. The provision for putting the pension funds on a sound footing was reduced by CHF 1,900,000 during the year and credited through the income statement to social security contributions. Other staff expense covers items such as flat-rate allowances, training and professional development costs, recruitment costs, etc. This fell by CHF 1,614,000 year on year. The provision for special pensions and severance payments was reduced by CHF 2,140,000 (see Note 15 Provisions).

#### 23 Other and miscellaneous operating expense

Amounts in CHF 000s	2018	2017	Chai	nge
Purchase of equipment	15,099	13,752	1,347	9.8%
Property and premises expense	22,761	21,831	930	4.3%
Other expense	94,031	98,252	-4,222	- 4.3%
Other and miscellaneous operating expense	131,890	133,835	-1,945	- 1.5%

Replacement of machinery, equipment, and IT hardware rose by CHF 1,347,000. This accounted for 1.8% of operating expense (previous year: 1.7%). Property and premises expense rose by CHF 930,000 year on year. Property operating costs accounted for 2.7% (previous year: 2.7% of operating expense. This includes energy costs, maintenance work, maintenance agreements, waste disposal, cleaning and telecoms. It does not include rental expense, as the premises required are provided by the Canton free of charge.

Miscellaneous expense was down CHF 4,222,000 year on year. This was due to the elimination of internal cost allocations, which were higher than the previous year (see Note 21 Other income). Other expense accounts for 11.2% of operating expense (previous year: 12.0%).

#### 24 Contributions

Amounts in CHF 000s	2018	2017	Char	Change	
Contributions for teaching and research - clinical medicine	110,792	109,013	1,779	1.6%	
Contributions to third parties	24,003	20,139	3,864	19.2%	
Contributions	134,795	129,152	5,643	4.4%	

The expense of contributions rose by a total of CHF 5,643,000. This accounted for 16.1% of operating income (previous year: 15.7%). Of this, 13.2% relates to contributions for teaching and research in clinical medicine at the Bern University Hospital, the University Psychiatric Services (UPD), and other teaching hospitals. Contributions to third parties rose by CHF 3,864,000, partly because more funds were paid over to project partners abroad.

#### 25 Net financial income

Amounts in CHF 000s	2018	2017	Cha	nge
Financial income	1,743	4,333	-2,589	- 59.8%
Financial expense	3,851	1,374	2,478	180.3%
Net financial income	-2′108	2,959	-5,067	-171.2%

Financial income fell by CHF 2,589,000 year on year because the performance of the market resulted in reduced capital gains. In addition, large capital losses on financial investments added CHF 2,478,000 to financial expense. Net financial income therefore declined by CHF 5,607,000 year on year.

#### Additional disclosures

#### Warranties, guarantees and pledges to third parties

As of December 31, 2018 there were no off-balance sheet warranties, guarantees or pledges to third parties.

#### **Contingent liabilities and assets**

The federal government finances the universities every year by a basic amount under the University Funding Act (UFG; until 2016) or the Higher Education Act (HFKG, from 2017). In a ruling dated November 10, 2015 the Federal Administrative Court held that under the University Funding Act the contributions are deemed to be in arrears. The federal government continues to take the view that the contributions are paid for the current year (Art. 17 of the HFKG Ordinance). The University of Bern recognizes the basic amount as income in the year in which it is paid (2018: CHF 97,404,000). Until this has been definitively clarified, there remains the possibility that the basic amounts may have to be regarded as paid in arrears. If this were to be the case, the amount for the following year would have to be recognized under prepaid expenses accrued income as of December 31, 2018.

The board of directors of Swiss Library Service Platform AG (SLSP) requested a loan from shareholders for the implementation work for the SLSP platform. The University of Bern is granting a loan of CHF 800,000 for the SLSP. Under the contribution plan, an amount of CHF 230,000 was transferred in 2018. The balance of the loan (CHF 570,000) will be paid out in 2019 and 2020.

## **Related party transactions**

As the sponsor of the University of Bern, the Canton of Bern has significant influence on the university and is therefore deemed a related party for the purposes of FER 15. As a consequence, material transactions with the Canton of Bern have to be disclosed in the annual financial statements.

Description of transaction	Volume of transaction	Material other conditions
Four-year service mandate issued to the University of Bern by the Cantonal Government (UniG, Art. 59ff.) Annual amount paid to the University of Bern by the Ministry of Education of the Canton of Bern	CHF 316,675,000 for 2018 (previous year: CHF 314,170,000).	Service mandate runs for four years Annual tranche approved each year by the Cantonal Government
Use of premises owned by the Canton of Bern	Main usable area 235,135 m² (previous year: 223,470 m²) The stated property costs excluding the property and premises costs reported in Note 23 are put at roughly CHF 106,050,000 (previous year: CHF 105,400,000). The infrastructure costs are essentially based on the cost calculation model of the Swiss University Conference. The inventory of space was produced by the University Buildings Specialist Authority (FHB). The figures produced in the survey of space are main usable area and floor space pursuant to SIA 416.	Provided free of charge by the Canton of Bern
Service agreements with the Canton of Bern to provide IT services in finance and personnel applications.	No figure can be provided	Provided free of charge by the Canton of Bern
Service agreements with the Audit Office of the Canton of Bern to provide audit services.	No figure can be provided	Provided free of charge by the Canton of Bern

Purchases of services (such as expert opinions) by official bodies of the Canton of Bern do not count as material related party transactions.

The University of Bern holds an equity investment of over 20% in the following organizations.

Name of organization	Description of transaction	Volume of transaction	Material other conditions
Unitectra AG	Equity interest 33%  Unitectra AG supports the institutions of the University of Bern in negotiating cooperation and licensing agreements with industrial partners and in protecting and commercializing inventions.	Gross costs for services around CHF 757,000 (previ- ous year: CHF 790,000)	Transactions are at arm's length terms
CCDE AG (Center for Continuing Dental Education)	Equity interest 75%  CCDE AG offers training events in dental medicine and arranges congresses and other associated activities.  The University of Bern receives a share of the profit in the courses; CCDE AG uses the infrastructure of the University of Bern in exchange for a fee.	Received a share of profit of around CHF 276,000 (previous year: 382,000) and payment for use of infrastructure of around CHF 167,000 (previous year: CHF 246,000)	Transactions are at arm's length terms
be-advanced AG (formerly InnoBE AG)	Equity interest 21%  be-advanced is the innovation agency of the Canton of Bern and is supported by the cantonal economic development authority; it is an independent corporate trend-setter to boost the innovation and competitiveness of local companies.	No transactions	

With the following organizations the University of Bern either:

- has agreed material loans;
- has provided material financing through annual subscriptions; or
- holds more than 20% of the voting rights on the board of trustees through representatives of the Executive Board of the University of Bern

Name of organization	Description of transaction	Volume of transaction	Material other condi- tions
KiHoB Foundation (childcare at Bern universities)	The KiHoB Foundation organizes and operates the childcare options of the University of Bern and the University of Teacher Education Bern	Paid an operating contribu- tion of CHF 720,000 (previous year: CHF 720,000)	Transactions are at arm's length terms
University of Bern Canteen Operations Foundation	Operating contribution for rent, energy, maintenance, repairs and purchases	Paid an operating contribu- tion of CHF 89,000 (previous year: CHF 89,000)	Transactions are at arm's length terms
University of Bern Social Fund Foundation	Supports students registered at the University of Bern who have fallen into severe financial difficulty	Paid an operating contribu- tion of CHF zero (previous year: CHF 70,000)	
Genaxen Research Foundation	Operating contribution	Paid an operating contribu- tion of CHF 70,000 (previous year: CHF 70,000)	
University House Foundation	The Burgergemeinde Bern provides the University House to the University House Foundation; the University of Bern rents out the seminar and teaching rooms in the University House for events and pays an operating cost contribution	Paid an operating contribu- tion of CHF 49,000 (previous year: CHF 49,000)	Transactions are at arm's length terms
UniBern Research Foundation	Promotes scientific research at the University of Bern	Received development funds CHF 323,000 (previous year: CHF 330,000)	

#### **Details of derivative financial instruments**

No derivative financial instruments were used.

#### **Leasing agreements**

The total amount of future leasing payments for copiers at the University of Bern is CHF 819,000 (previous year: CHF 696,000)

Maturity	y structure of leasing installments for copiers	Amounts in CHF 000s
	Term to end of agreement 1 year	45
	Term to end of agreement 2 years	136
	Term to end of agreement 3 years	347
	Term to end of agreement 4 years	254
	Term to end of agreement >4 years	36
Total		819

# Unusual pending transactions and risks

The Executive Board of the University of Bern has systematically identified the risks that could have a material impact on the assessment of the annual financial statements of the University of Bern and reviewed them based on scale of loss and probability of occurrence. Measures to deal with the relevant risks were evaluated and included in the review.

#### **Events after the reporting date**

These annual financial statements were approved by the Executive Board of the University of Bern on March 19, 2019. No events occurred between December 31, 2018 and March 19, 2019 that had a material impact on the annual financial statements.

# Report of the Statutory Auditors

Control Board of the Canton of Bern

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# Report of the Auditor **University of Bern Annual Financial Statements 2018**

#### to the Cantonal Government of the Canton of Bern

As auditor in application of article 62c of the Act governing the University (BSG 436.11), we have audited the financial statements of the University of Bern, which comprise the balance sheet, and the income statement, cash flow statement, equity statement and notes (pages 50 to 69) for the year ended on December 31, 2018.

#### Responsibility of the Executive Board of the University

The Executive Board of the University is responsible for the preparation of these financial statements in accordance with Swiss GAAP FER and the requirements of the Act governing the University and the bylaw governing the University. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation of financial statements that are free from material misstatement, whether due to fraud or error. The Executive Board of the University is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

## Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Act of Financial Supervision (BSG 622.1) and Swiss Auditing Standards. Those standards require that we plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the entity's preparation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control system. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion, the financial statements for the year ended December 31, 2018 give a true and fair view of the financial position, the results of operations and the cash flows in accordance with Swiss GAAP FER and comply with the Act governing the University and the bylaw governing the University.

Report of the Auditor / March 19, 2019

Control Board of the Canton of Bern

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# **Report on Other Legal Requirements**

We confirm that we meet the legal requirements on independence by the Act of Financial Supervision and that there are no circumstances incompatible with our independence.

In accordance with Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of financial statements according to the instructions of the Executive Board of the University.

We recommend that the financial statements submitted to you be approved.

Bern, March 19, 2019

Control Board of the Canton of Bern

Licensed audit expert Auditor in charge

L. Benninger Licensed audit expert

Report of the Auditor / March 19, 2019





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University of Bern

Communication & Marketing Office

Hochschulstrasse 6

3012 Bern

Tel. +41 31 631 80 44 kommunikation@unibe.ch

Website:

www.unibe.ch/annualreport





### Mobilization

Global inequalities - as well as the environmental changes linked to climate change - can make people seek happiness elsewhere.

As part of a European project, the World Trade Institute is showing to what extent climate change leads to increased migration to Europe and how local authorities can deal with security challenges. The researchers are investigating how migration can be controlled and legally regulated. To this end, they are carrying out case studies – for example on islands in the South Pacific under threat from rising sea levels.



## **2018 IN FIGURES**

## 18.019 students and doctoral students

39 Bachelor degree courses, 72 Master degree courses, 31 Ph.D. programs, 9 graduate schools and 108 continuing education courses

4,457 degrees including 640 doctorates and 489 continuing education courses

4,610 full-time employees and 575 professors

8 faculties, around 150 institutes and 9 inter- and transdisciplinary competence centers

3 National Centres for Competence in Research, 409 National Science Foundation projects, 96 EU projects and some 40 international grants Around 700 new research cooperations for technology transfer with the public sector and the private sector

CHF 884 million annual budget, of which CHF 330 million is competitively acquired external funding

