

## Annual Report 2025

### Introduction

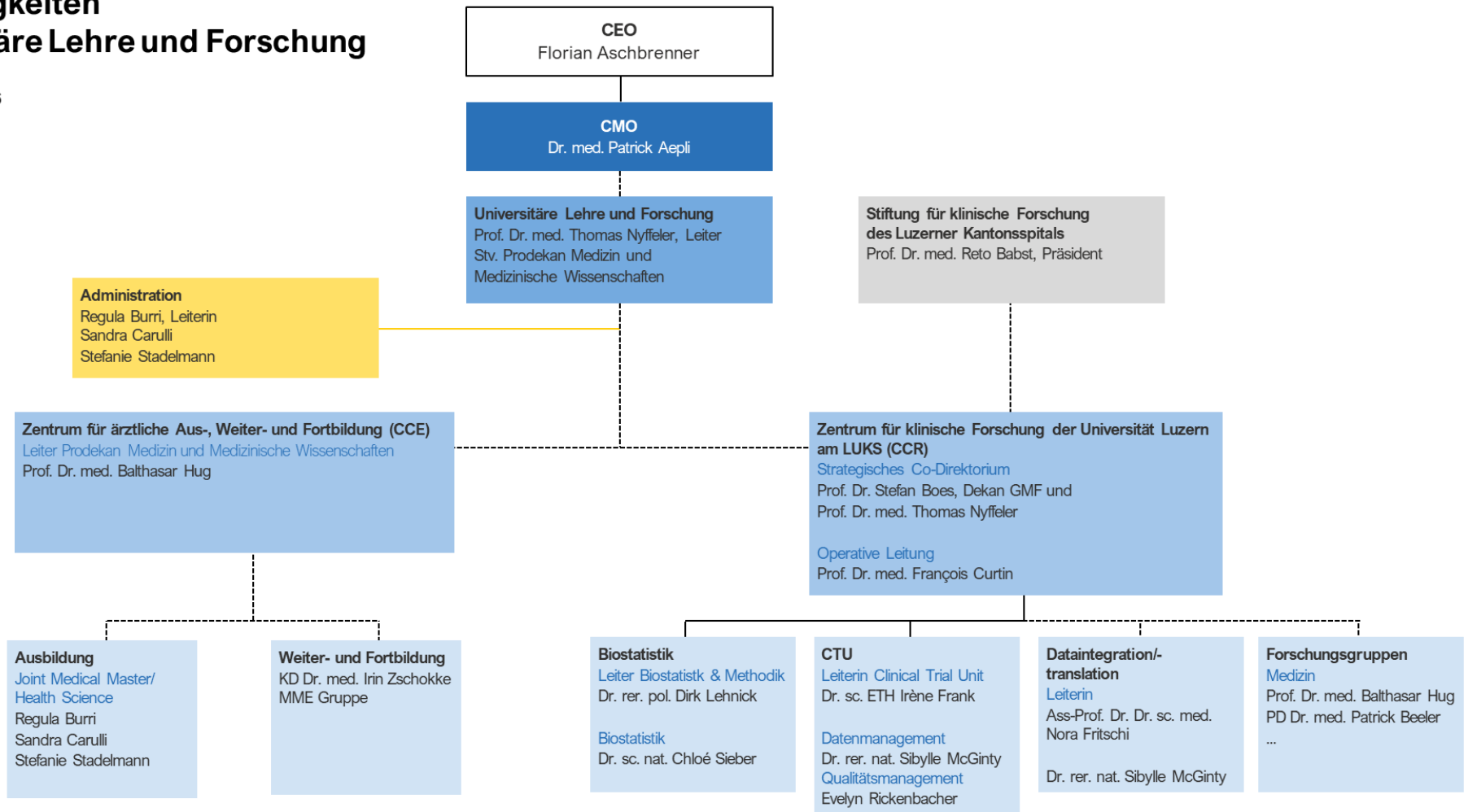
The Center for Clinical Research (CCR) of the University of Lucerne at the Luzerner Kantonsspital (LUKS) was created in 2023 by including the Clinical Trial Unit (CTU) of LUKS as well as the Biostatistics and Methodology Group of the University of Lucerne (UNILU) in order to develop further clinical research at LUKS in partnership with UNILU. Supporting strong clinical research at LUKS and creating bridges with academic research at UNILU are the missions of the CCR. During its second full year of operations, many activities and developments have been performed to fulfill this mission; they are summarized below.

### Organization of CCR

The CCR is an affiliated institute of the UNILU since 2024 and is part of the Universitäre Lehre und Forschung of the LUKS (see the organigram of LUKS Universitäre Lehre und Forschung on page 3). The CCR is supported by the Stiftung für Klinische Forschung LUKS (SKF). Its structure includes the Clinical Trial Unit (Head Dr Irène Frank), the Biostatistics and Methodology Group (Head Dr Dirk Lehnick), the Data Integration and Translation Group (Head Ass-Prof Dr med Nora Fritschi) and the Research Group Medicine (Clinical Head Prof Dr med Balthasar Hug, Scientific Head PD Dr med Patrick Beeler).

# Zuständigkeiten Universitäre Lehre und Forschung

Stand Januar 2026



## **Activities**

### Support to clinical research activities

The CCR, thanks to the teams of the CTU and Biostatistics and Methodology Group, provides different forms of support for colleagues at LUKS and UNILU in the preparation of research studies and protocols, in the review of documentation, in the support for ethics and regulatory submissions, for audit preparation, for monitoring, methodological advice and analysis of data, in the preparation of grant applications etc.

More than 700 hours were provided to LUKS colleagues by the CTU team for this support; the Biostatistics and Methodology group of CCR provided more than 2600 hours of statistical and methodological advice and statistical analyses for the LUKS and the UNILU research teams.

This service support is the core business of the CCR and will continue to be provided and hopefully be increased in the future.

### Fees for Service

The above described support activities are high value services and the CCR is in the process of introducing fees for service for these activities. This is current practice in other centers for clinical research in other Swiss hospitals. The concept is to include specific CCR budgets when grants applications are submitted to funding research organizations. The goal is to generate some revenues for the CCR and support the creation of further positions to support clinical research at LUKS. The scheme is in place, the information was given to clinical researchers at LUKS and the concept has been well understood. The implementation is under way.

### Logistic support for the Stiftung für Klinische Forschung LUKS

The CCR plays a central role in the coordination of the applications to the SKF. The CCR advises on how to submit applications and can review them. The CCR receives the applications from the researchers and, after checking the conformity of the applications, the CCR submits the applications to the LUKS Forschungskommission (FoKo). After evaluation by the FoKo, the CCR either transmits the application to the SKF for approval or return the application to their authors for corrections when the application needs modifications according to the FoKo.

### More information on the projects

### Research Day 2025

The CCR organized a Research Day (Forschungstag) in 2025 which took place on the 17th of September. The key note presentation was done by Dr Nora Toussaint, Head of Biomedical Data Science at the Swiss Data Science Center, based at the ETHZ: she presented the evolution and prospects of the implementation of artificial intelligence methods in medical research and practice such as oncology, cardiovascular diseases and scar prevention. Three other presentations by researchers from the UNILU and LUKS, Prof. Dr med. Michael Havranek, Prof. Dr Christian Baumgartner and Ass.-Prof. Dr med. Nora Fritschi covered different exciting aspects of data science implementation in health and medical research from diabetes monitoring, brain image analysis and pediatrics. The meeting was concluded by the presentation of the results of a competition for the LUKS best medical publications of the year: The winners were Prof. Dr Dario Cazzoli with a publication on visual neglect after stroke, Dr med. Christian Grossmann on surgical positioning methods in case of prostatectomies, and Dr med. Jan Affolter and Dr med. Julia Mühlhäusser on the costs of

robotic and laparoscopic bariatric surgery. The full references of these papers can be found in the Appendix.

As always, the Research Day provides the opportunity to present the vibrant research activities at LUKS and UNILU in the field of health and medical research and should encourage the younger generation to invest in research. It is also an excellent opportunity to strengthen the network between LUKS colleagues and researchers from external institutions.

### Lunch-meetings and teaching

Six lunch-meetings took place during 2025. The Spring season was dedicated to presentations by Brückenprofessoren and researchers based between UNILU and LUKS. Different speakers among them PD Dr med. Patrick Beeler, Prof. Dr med. Nora Fritschi, Prof. Dr med. Chrisitan Baumgartner, Prof. Dr Dario Cazzoli and Prof. Dr Matthias Ertl made presentations on their research topics highlighting the mutual benefits and synergies of a close collaboration between the Faculty of Health Science and Medicine (GMF) of UNILU and LUKS.

The Fall series was dedicated to wearables and digital medicine: Prof. Dr med. Balthasar Hug, Dr med. Christian Braun, Prof. Dr med. Nicole Ritz, Dr Urs Schumacher, Prof. Dr med. Christian Kamm and Manuela Rohner-Spengler MPTSc made presentations on new digital tools which can facilitate the care, monitoring and rehabilitation of patients with different medical or surgical conditions.

A course program on the methodology of clinical research was launched in 2024 with the support of the Faculty GMF. A second course year started in September 2025. The program covers the basic concepts of the methodology of clinical research. It includes 10 lectures and practicals on different aspects of clinical research including some basic foundations of statistics, calculation of sample size, study designs etc. The course provides one ECTS credit and is open to clinical researchers at LUKS as well as students of UNILU. About a dozen students achieved the first year. The second course series includes 5 students. The course will continue during the Spring semester of 2026.

These meetings and courses are an important platform for CCR to give up-to-date information and training to colleagues performing clinical research. They participate also in creating connections among researchers at LUKS and UNILU and stimulate discussions and exchanges between colleagues.

### Participation to the LOOP Zurich retraite

On 22-24 May 2025, the CCR was invited to participate in the retraite of [The LOOP Zurich](#). The LOOP Zurich is a translational research center in Zurich, which focuses on precision medicine; it combines the strength in basic research in biomedicine and bioinformatics of the ETH Zurich and the University of Zurich, with clinical research from the four Zurich university hospitals.

Many projects supported by the LOOP Zurich were presented and this meeting was the opportunity for the CCR to strengthen its relationship with the consortium. The ultimate goal is for LUKS to join the initiative in the near future and be able to collaborate for research projects with the leading institutions part of the LOOP. CCR will continue to work with the LOOP Zurich colleagues to concretize this collaboration in 2026.

## Meetings of the Research Group Leaders

In 2025, CCR started to organize regular meetings with the leaders of the different research groups of LUKS. The goal is to inform directly the clinical researchers about new initiatives and new opportunities for research and also to learn from the colleagues what their concrete needs are. These meetings represent a good platform to discuss the challenges and opportunities related to clinical research within LUKS. In 2025, four meetings took place and they will continue in 2026 with the same frequency.

## Data Governance Group and Data Access working group

To improve the access to health data for clinical researchers and notably for master and doctoral students, it is necessary to set up a regular and close dialogue between the LUKS IT department and LUKS research community. The goal of the Data Governance Group, launched in 2025 under the leadership of LUKS Chief Medical Information Officer, Dr med. Marshall Denking, is to bring together clinicians, researchers and IT specialists to address challenges related to the use of health data collected with the EPIC system and to encourage and facilitate a better use of these data in conformity with the Swiss legal framework. Several meetings took place in 2025 to start addressing different topics related to the secondary use of medical data for research purposes as well as the general consent. These meetings addressing different work packages will continue in 2026.

In parallel, the CCR has been involved in the first series of discussions with representatives of UNILU (Dr Nadja Meyenhofer, Dr Jennifer Gewinner and Dr Simone Rosenkrantz) for the creation of a data access strategy. Indeed, currently there is no unified policy at UNILU or at LUKS about the storage, sharing, reuse and dissemination of sensitive research data and in particular health data. This is all the more important as the trend is to facilitate the access of research results and data to the research community: see for example the Open Research Data initiative supported by major public research organizations in Switzerland:

This working group has the mission to develop a concept paper on the access and dissemination of data which should be presented to the UNILU in 2026.

## More Information

### **Achievements**

#### Expansion of the CCR team

Thanks to the support of the GMF, the CCR had the opportunity to create two new essential positions to improve its services.

A data manager, Dr Sibylle McGinty, started on the 1st January 2025: Dr McGinty is a neuropsychologist by training and has already a solid experience in clinical research notably acquired in the research center of the Lindenhofgruppe in Bern. She is in charge of supporting and advising on the development of research databases and access to the EPIC health data.

Mrs Evelyn Rickenbacher, a physiotherapist by training, has a long experience in clinical research, more recently with the Swiss Paraplegic Center in Nottwil, has started the position of quality affair specialist at the same date: in her role, she is in charge of setting up a quality management system for clinical research and is in charge of study monitoring and support in case of audits and inspections.

Ass.-Prof. Dr med. Dr Sc. Nora Fritschi has officially joined the CCR in late 2025: Dr Fritschi is a pediatrician and hold a PhD in clinical research; she will lead the newly created unit for Data Translation and Integration, key aspects of current clinical research.

The CCR is particularly happy with the arrival of these new experienced colleagues as they will increase its capacity for services and reinforce its scientific visibility and competences.

#### Achievement of the connection to SPHN

In 2024, an agreement to connect LUKS to the Swiss Personalized Health Network (SPHN) had been signed.

The project was brought to LUKS by CCR and was led by the LUKIS team who dedicated a lot of efforts to achieve this connection during 2025. In October 2025, LUKS achieved the connection to the SPHN system. This is a critical step for LUKS clinical research as it allows the connection of LUKS data system with those of the main Swiss hospitals and research institutions and it allows the safe exchange of health data with the rest of the Swiss academic community and support the harmonization of LUKS data standards with those of other main Swiss hospitals.

LUKS will be able to participate to different research programs initiated by SPHN or which are based on the SPHN platform.

#### Development of a research core team within the CCR

Prof. Dr med. Balthasar Hug, Vice-Dean of Medicine and Medical Science at the GMF and Head of Internal Medicine at LUKS, and PD Dr med. Patrick Beeler, are leading the Research Group Medicine of the CCR. With the recent arrival of Ass.-Prof. Dr med. Nora Fritschi, heading the new Data Translation and Integration group, the CCR benefits now of a core team of strong researchers.

The development of academic research within the CCR is seen as a very positive development: there is a mutual benefit for the CCR to include together service activities with its own academic research. It is expected that in the future the exploration of new research domains related to the activities of CCR will become possible in particular in fields related to health data science in support of medical practice and research.

#### Development of first contacts with the industry and SPHN initiative

During 2025, the CCR has established initial contacts with a few pharma companies. The idea behind these contacts is to make these companies aware of the capacities of LUKS in terms of clinical trials. This may offer more possibilities to LUKS departments active in research to participate in industrial R&D projects: this may represent opportunities for clinicians as well for patients to participate in protocols testing innovating products.

The interest for the industry is to benefit from the top competences and infrastructure of LUKS to accelerate their research. A key factor for industry is the rapid decision about participation to trials and the straightforward processes in terms of administrative work. CCR will work on these aspects notably with the LUKS legal department in 2026 in order to streamline these processes.

SPHN is in parallel setting up cooperations between Swiss pharmaceutical companies and Swiss hospitals to allow a secure and privacy-guaranteeing access to Swiss data for these companies.

As LUKS is now part of the SPHN network, LUKS has the possibility to participate and the CCR is currently in discussion with SPHN to eventually take part in this initiative.

### First project of synthetic data production

Synthetic data are artificial data simulated on the basis of existing data mimicking all statistical characteristics of the original dataset while guaranteeing full confidentiality. This approach is very useful for health data and it may become a solution to support the exchange of LUKS health data with external public and private partners.

During 2025, different companies active in synthetic data production have been contacted and interviewed, a process to which CCR was closely associated. A pilot project for the creation of synthetic health data set, based on LUKS patient data, has been started with a partner at the end of 2025. If this project appears conclusive, it may serve as a benchmark for developing further this technology at LUKS and be the basis for health data exchange and research.

### Financial flows for research funding

After multiple discussions with different departments at the UNILU, LUKS and with the SKF, CCR has set up a process for the financial flows related to grants, notably originating from federal agencies such as the Swiss National Foundation and Innosuisse. This process should help all stakeholders and in particular researchers to benefit from a straight forward process which ensures the transparency of the financial flow for the hosting institutions as well as for the financing institutions and the capacity of accounting for institutional overheads.

## **Perspectives**

### Visibility and Communication

The visibility of CCR is important to the community of researchers at LUKS and at UNILU who work on clinical projects as well as in the health research field. The CCR websites at LUKS and at UNILU have been improved significantly during 2025. Notably, the clinical departments of LUKS have been invited to provide an overview of their research activities on the [CCR UNILU website](#).

Moreover, LUKS researchers have been invited in 2025 to participate to the Forschungsinformation system (FIS) of the UNILU and to upload publications and research projects in the system: they are now visible on the [UNILU website](#).

The process is still ongoing, but the CCR website and the FIS system give now a more realistic picture of the huge research efforts provided by many LUKS teams.

This effort must continue and it appears important to CCR to spearhead the visibility and communication of all colleagues performing clinical research; indeed a better understanding of the meaning of clinical research and its impact for the medical profession as well as for the public is essential to attract support and participation of all.

### Strengthen Links with external partners in Luzern and beyond

Currently with the association of CCR with the UNILU and the creation of several positions of Bridging Professors between the UNILU and LUKS, the connection with UNILU is becoming stronger and several collaborative projects are to be seen in research and teaching. Discussion on common projects are also ongoing with HSLU and will be extended; a Bridging Professorship between LUKS and HSLU was also created with the nomination of Prof Luzia Vetter in 2025.

Since 2024, the memorandum of understanding between ETHZ and LUKS is in place and several discussions for collaboration took place in 2025. These discussions must now translate into concrete research projects which can mutually benefit the two institutions. Other discussions with

academic research centers are planned to take place in 2026 and should strengthen the capacities of CCR and LUKS to fruitfully collaborate with leading academic partners in Switzerland.

#### Offering work placements for students

The CCR offers now the possibilities for students of the UNILU as well as for students from other Universities to make work placements at the CCR and to prepare Master thesis there. A couple of students came during 2025 for short stays and the offer will be expanded in 2026 with the possibility to welcome GMF Master students. The CCR feels that it is part of its missions to train young talents in the CCR and to provide them with the opportunity to participate to clinical research. This is all the more important as the medical community needs a new generation of clinical researchers and specialists who can support these research activities in hospitals and in life science companies in Switzerland.

#### Accreditation with Innosuisse

Until now LUKS could participate to Innosuisse projects but only as a third party service provider, which limited the amount of financing to be received for research projects. The goal is now that LUKS would be recognized fully as a research partner by Innosuisse and could submit grant applications to this agency without restriction. The CCR with the help of several LUKS departments active in clinical research prepared a dossier for the accreditation of LUKS as a research institution recognized by Innosuisse. One expects to submit the dossier in the first quarter of 2026.

#### **Conclusion**

The year 2025 represented a consolidation of the first full year of activity of the CCR and was rich in events and new developments which shows the dynamism of research at LUKS and at the UNILU GMF.

Clinical research is the essential tool to test and improve therapies and diagnostic procedures; it is not only needed for highly innovative technologies but also for the improvement of the day to day practice as well for teaching.

It is a highly regulated activity which needs to be performed with the highest of international standards. CCR is here to reach these standards and the efforts of all are required to achieve this particular goal.

Beyond the usual implementation of the good clinical practices, the growing importance of data and their analysis with new powerful tools such as those based on artificial intelligence represent new opportunities for clinical research but also new challenges, notably in terms of data protection and security.

It becomes clear that clinical research more than ever must be seen as a multi-disciplinary activity involving multiple stakeholders. It makes the activity more complex but also more exciting. This represents the opportunity for CCR to increase its efforts in supporting colleagues in their daily research work while exploring new horizons.

Co-Direktorium

Prof. Dr. Stefan Boes

Prof. Dr. med. Thomas Nyffeler

CEO

Prof. Dr. med. François Curtin

#### Forschungskommission LUKS (FoKo)

Prof. Dr. med. Nyffeler Thomas (Präsident)

Prof. Dr. med. François Curtin (Vize Präsident)

Prof. em. Dr. med. Reto Babst

PD Dr. med. Bryan Van de Wall

PD Dr. med. Martin Christmann

Prof. Dr. med. Christ Michael

Prof. Dr. med. Gautschi Oliver

Prof. Dr. med. Hug Balthasar

Prof. Dr. med. Mattei Agostino

Prof. Dr. med. Nyffeler Thomas

Prof. Dr. med. Roos Justus

Prof. Dr. med. Schneider Ulf

Prof. Dr. med. Studer Gabriela

Stiftung für Klinische Forschung des Luzerner Kantonsspitals (SKF) <https://forschungsstiftung-luks.com/>

#### Stiftungsrat

Prof. Dr. med. Reto Babst (Präsident)

Dr. med. Guido Schüpfer (Geschäftsführer)

PD Dr. med. Martin Schmid

Prof. Dr. med. Stefan Toggweiler

#### Beiräte

Castellaneta Marco Kulturbeauftragter des Kanton Luzern

Christen Urs CEO Fumedica AG

Stäger Rudolf Inhaber Stameg Beratungs GmbH

Weymann Andy Founder and Executive Partner Celva GmbH

Prof. Dr. Wolfrum Christian Deputy-President and Provost Nanyang Technological University - NTU Singapore

## APPENDIX

### Publications laureates of the 2025 competition

Cazzoli D, Kaufmann BC, Rühle H, Geiser N, Nyffeler T. Incidence of Visuospatial Neglect in Acute Stroke: Assessment and Stroke Characteristics in an Unselected 1-Year Cohort. *Stroke*. 2025 Jul;56(7):1693-1703. doi: 10.1161/STROKEAHA.124.048907. Epub 2025 Apr 7. PMID: 40190269 [https://www.ahajournals.org/doi/10.1161/STROKEAHA.124.048907?url\\_ver=Z39.88-2003&rft\\_id=ori:rid:crossref.org&rft\\_dat=cr\\_pub%20%20pubmed](https://www.ahajournals.org/doi/10.1161/STROKEAHA.124.048907?url_ver=Z39.88-2003&rft_id=ori:rid:crossref.org&rft_dat=cr_pub%20%20pubmed)

Affolter J, Mühlhäusser J, Marengo M, Garofalo F, Gass JM, Mongelli F Costs of robotic and laparoscopic bariatric surgery: a systematic review and meta-analysis. *Surgical Endoscopy* (2025) 39:2784–2798 <https://doi.org/10.1007/s00464-025-11744-y>

Grossmann NC, Aschwanden FJ, Cornelius J, Malkmus C, Zahiti L, Viktorin P, Fierley L, Wilder-Smith E, Baumeister P, Mattei A and Fankhauser CD Impact of patient positioning during surgery on neuropathies after robot-assisted laparoscopic radical prostatectomy: a randomised controlled trial *BJU Int* 2025; 135: 802–809 doi:10.1111/bju.16623

The following projects have been validated in 2025 by the FoKo and have received a financial support by the SKF:

1. Michael Büttcher: Bridging the Past and Future: Transforming Analog Vaccination Records to Digital Data with AI to improve Patient Care and enable Research (CHF 32'500)
2. Benedict Krischer: Improving outcome of post-partum hemorrhage: Analyzing the effectiveness and complication rate of current state of the art management techniques (CHF 25'520)
3. Gia Thu Ly: Implementing a Patient and Public Involvement (PPI) research infrastructure at LUKS including nested PPI research projects (CHF 31'820)
4. Einar Wilder-Smith: Lucerne Small Fibre Neuropathy Register (LSNR), Swiss Small Fibre Neuropathy Registry (Swiss-Small-Fire) (CHF 35'000)
5. Niclas Geldermann: Umgang von Primärversorgern mit der Diuretikatherapie bei Erwachsenen mit Herzinsuffizienz (CHF 9'300)
6. Lucca David Loretz: Comparing two health-care systems using transcatheter aortic valve implantation — SUI-CAN-study (CHF 25'000)
7. Fabia Urech: Comparative Effectiveness of weight loss with GLP-1 Agonist Therapy or combined strategies (bariatric surgery/ pharmacological treatment) on Urinary Incontinence in Women with Obesity: A Prospective Observational Study (CHF 21'600)
8. Helene Pfister-Meyer: Cerebrovascular Events and Long-Term Outcomes of TAVR in Bicuspid vs. Tricuspid Aortic Valve Patients (CHF 25'520)
9. Christoph Würnschimmel: Evaluation der Teilnahmeraten an einem Prostatakarzinom-Screening im Kanton Luzern (CHF 44'400)
10. Philipp Stein: Entwicklung und Validierung einer MRI-basierten Klassifikation labraler Adhäsionen nach Hüftarthroskopie (CHF 15'950)
11. Bettina Vogel: Open Access Publikation: Clinical prognostic models for sarcomas (CHF 2'447)