

Research @ Department of Neurology

Dear Reader,

With this newsletter, we have the pleasure to give you insights into ongoing research activities at our Department and to portrait the people behind it. In addition, we would like to inform you about upcoming events, recent publications and open calls for proposals.

We hope you will enjoy reading it!

The [Research Board](#) of the Department of Neurology

September 2020

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Just Asking...



Niccolo Calcini, PhD

What are your main research interest?

I am interested in the ways in which the brain processes and stores information, starting from the level of single neurons, to small, and possibly finally larger neural networks.

After having first studied single neurons information processing during my PhD, I believe that to understanding the functioning of networks we need an approach that merges knowledge and techniques from the single cell level, to the study of the emergent complex properties of the larger networks, and the whole brain.

For this reason I joined the ZEN laboratory in the Adamantidis Group, studying transitions between sleep and awake states at the level of local microcircuitry, to learn about the interplay between the activity of local networks, and the overall status of the 'brain system'. Gaining more insights on basic physiological mechanisms of sleep-awake states and their transitions, I also hope to shed light on the macro-phenomena that affect the brain as a whole, such as sleep, and possibly also other 'states' of the healthy and pathological brain, such as awareness and epilepsy.

What is your motivation to do research?

I started as a very confused high school student who wanted to unravel and understand the secrets of the laws of the universe, so I joined as a physics bachelor. Although, during my first years I started realizing that the most attractive unsolved scientific mystery is a much closer meta-mystery: what makes us who we are? What generates our thoughts, as humans? While during the beginning of my career I learned the great importance of focused and realistically answerable questions, at the same time I believe it is fundamental for any scientist to keep their big dreams in front of themselves, it is the big questions that keeps us excited. Science is the enthusiasm of knowledge and understanding, and it is go big (questions) or go home!

References:

Azarfar, A., Calcini, N., Huang, C., Zeldenrust, F., & Celikel, T. (2018). Neural coding: A single neuron's perspective. *Neuroscience & Biobehavioral Reviews*, 94, 238-247.

Oesch, L. T., Gazea, M., Gent, T. C., Bandarabadi, M., Herrera, C. G., & Adamantidis, A. R. (2020). REM sleep stabilizes hypothalamic representation of feeding behavior. *Proceedings of the National Academy of Sciences*, 117(32), 19590-19598.

Dr. Niccolo Calcini is a Postdoc at the Adamantidis Lab of the Zentrum für Experimentelle Neurologie (ZEN), at the Department of Neurology, Inselspital, Bern University Hospital and the Department for BioMedical Research (DBMR), University of Bern, Switzerland.

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Congratulations

(1) Awarded Grants



Dr. phil. Deborah Amstutz (Main Applicant)

Funding Institution: Parkinson Schweiz ([Link](#))

Title: Objective Assessment of Behavioural Disorders in Parkinson's Disease

Awarded Grant: CHF 100'180.00

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Call for Grants and Prizes

Young Talents in Clinical Research

Focus of the grant: Clinical research such as patient-oriented research, epidemiological studies, outcome-based research and healthcare research.

Eligible for: Young researchers having obtained their MD no more than 5 (Beginner Grant), or 8 years (Project Grant) respectively.

- With the «Young Talents in Clinical Research» program, the SAMS and the Gottfried and Julia Bangerter-Rhyner Foundation aim at encouraging young medical doctors to venture into clinical research.
- Medical doctors working in Switzerland, having obtained their medical degree no more than five years before the submission deadline can apply for a **beginner grant** to start out in clinical research.
- In a subsequent step, grantees can submit a proposal for a **project grant** provided that they have obtained their medical degree no more than 8 years before the submission deadline.
- **Submission Deadline: 30 November** [Link](#)

SNF: Sinergia

Focus of the grant: Interdisciplinary research from two or more disciplines; all research fields (clinical and basic research).

Eligible for: Advanced researchers

- Sinergia promotes the interdisciplinary collaboration of two to four research groups that propose breakthrough research.
- All applicants must have obtained a doctorate at least four years before submitting the application or have equivalent research experience.
- Duration: 1 to 4 years
- **Submission Deadline: 1 December 2020** [Link](#)

SNF: Eccellenza

Focus of the grant: All research fields (clinical and basic research)

Eligible for: Advanced researchers who aspire to a permanent professorship.

- SNF Eccellenza Professorial Fellowships are aimed at highly qualified researchers who aspire to a permanent professorship.
- Eccellenza supports them in achieving their goal by allowing them to lead a generously funded research project as an assistant professor with their team at a Swiss higher education institution.
- Eccellenza covers the grantee's salary and project funds of up to 1,000,000 Swiss francs for a five-year period.
- **Submission Deadline: 1 February 2021** [Link](#)



Other Open Calls for Proposals

- *Forschungsstipendium der Schweizerischen Hirnliga*
Deadline: 30 September 2020 [Link](#)
- *CTU-Research Grants*
Deadline: 30 September 2020 [Link](#)
- *J.&G. Gossweiler Foundation: Neurology Research Grant 2020*
Deadline: 30 September 2020 [Link](#)
- *Novartis Foundation for Biomedical Research*
Deadline: 1 October 2020 [Link](#)
- *Foundation for Laboratory Medicine: Scholarships for Biomedical Studies*
Deadline: 1 October 2020 [Link](#)
- *SNF: Project Funding*
Deadline: 1 October 2020 [Link](#)
- *UniBE: Promotion Fund*
Deadline: 13 October 2020 [Link](#)
- *Ypsomed Innovation Award*
Deadline: 16 October 2020 [Link](#)

- *EAN Clinical Fellowship Programme 2021*
Deadline: 31 October 2020 [Link](#)
- *SNF: Ambizione*
Deadline: 1 November 2020 [Link](#)
- *SNF: PRIMA*
Deadline: 1 November 2020 [Link](#)
- *Bangerter-Rhyner Foundation: Young Talents in Clinical Research*
Deadline: 30 November 2020 [Link](#)
- *SNF: Sinergia*
Deadline: 1 December 2020 [Link](#)
- *Olga Mayenfisch Stiftung*
Deadline: 1 December 2020 [Link](#)
- *ILAE COVID-19 and Epilepsy Research Award*
Deadline: 15 December 2020 [Link](#)
- *Swiss League Against Epilepsy: Research Recognition Award*
Deadline: 31 December 2020 [Link](#)
- *Swiss League Against Epilepsy: Alfred Hauptmann Award*
Deadline: 31 December 2020 [Link](#)
- *MICHAEL Foundation: MICHAEL Prize*
Deadline: 31 December 2020 [Link](#)
- *SNF: Eccellenza*
Deadline: 1 February 2021 [Link](#)

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Important Dates

- **SNS Academy of Young Neurologists**, 22 – 24 October 2020, University Hospital Zurich. [program](#) and [registration](#)
- **CNB-trifakultäres Jahresmeeting**, 23 October 2020, 08:00 – 18:00; Auditorium Ettore Rossi, Inselspital. **Deadline for Abstract submission: 11 October 2020** ([abstract submission and registration](#))
- **The Day of BioMedical Research 2020**, 4 November 2020; Auditorium Ettore Rossi, Inselspital. [program](#)
- **DGN-Congress**, 4 – 7 November 2020; *virtual congress*. [Link](#) and [registration](#)
- **ESO-WSO Virtual Congress**, 7 – 9 November 2020. [program](#) and [registration](#). **Deadline for Abstract submission: 22 September 2020** ([abstract submission](#))
- **SNG Annual Meeting**, 19 – 20 November 2020, *virtual congress*. [program](#) and [registration](#)

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Support

1) Topic of the Month: Transferable Skills



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Transferable skills are competencies acquired in one context that can be applied to other contexts, jobs, positions, functions or fields of work. A case in point are good project management skills, required in both research and various other fields (construction projects, development projects, and advertising or election campaigns).

University of Bern: Transferable Skills Program for (Post)Docs

The University of Bern offers a (Post)Doc Program on Transferable Skills. The course is a project of the Vice-Rectorate Development. As well as earning an academic qualification, the goal of an academic education is also to acquire transferable skills so as to prepare for a demanding position within or outside academia. A further goal of the program is to help postdocs advance in their academic career. Thus, the courses on offer also give postdocs the chance to further develop relevant skills and enhance their professional profile.

The course program "Transferable Skills" is free of charge for postdocs and doctoral candidates of the University of Bern. Whereas ECTS recommendations are made, the decision as to whether or not academic achievements shall be recognized or considered as a part of a candidate's doctoral studies lies with the faculties and graduate schools.

See the program for the fall semester 2020 to get a first impression: [Link](#)

2) Other News

The SNF has revised the implementation regulations on extended eligibility in case of maternity



SCHWEIZERISCHER NATIONALFONDS
ZUR FÖRDERUNG DER WISSENSCHAFTLICHEN FORSCHUNG



The SNF has implemented more flexible regulations on the extension of the maternity window. The time point of maternity is no longer important (before or after doctorate). In the event of maternity, the relevant period is extended by 18 months per child.

[Link](#)

SNF: Mandatory templates for Ambizione & PRIMA confirmation letters are online



SCHWEIZERISCHER NATIONALFONDS
ZUR FÖRDERUNG DER WISSENSCHAFTLICHEN FORSCHUNG



The Deadline for the two SNSF career funding schemes Ambizione and PRIMA is on 1 November 2020. Both Ambizione and PRIMA applicants need to submit a written confirmation letter from the host institute. This serves as the basis for a second confirmation letter, which will be issued and signed by the Vice-Rector for Research. *Please note that*

the university internal template must be used. The letter signed by the institute must be sent electronically to the Grants Office by 23 October 2020 at the latest: grantsoffice@research.unibe.ch. The mandatory template and instructions can be found on the University's internal website: [Ambizione - PRIMA](#)

European Research & Innovation Days, 22-24 September 2020



Join the virtual European Research & Innovation Days to discuss the future direction of research and innovation in Europe and beyond, ahead of the launch of Horizon Europe. In interactive sessions you will be able to shape and co-design research and innovation policy, debate with policymakers, researchers, entrepreneurs and citizens and find new opportunities for future collaborations.



[Link](#)

3) Training

Euresearch Event on Legal & Financial Aspects of Horizon 2020, 29 September 2020



Euresearch is offering a workshop to answer your questions around legal and financial aspects of Horizon 2020 and potential pitfalls, including the lump sum scheme, cost claims, audit and more. This will be the last Horizon 2020 outreach event targeted for Switzerland and is offered to persons working in Switzerland.

- 29 September 2020, 9:00 – 13:30
- This online workshop is free of charge but registration is compulsory

[Link](#)

CTU Trainings:

Clinical Investigators I: Basic GCP & clinical research training



This is a course split in two parts. The first part consists of self-learning and home-based exercises. For the second part, participants will attend the lectures and workshops. The course is designed to introduce basic concepts of patient-oriented clinical research to health care professionals involved in the recruitment of study participants.

- **Tuesday, 13 October 2020**; 1 full day: 8:15-17:30
Venue: ISPM; Mittelstrasse 43, 3012 Bern
Date for voluntary exam: 20 October 2020, 14:00 - 15:30 (to get 1.0 ECTS)

[Link and Registration](#)

Clinical Investigators II: Advanced GCP & clinical research training

This is a course which aims at providing especially sponsor-investigators and principal investigators with the knowledge to set-up their own project.

- **Tuesday, 17 + 24 November 2020**, 2 half days: 8:30-12:15 (on 17 November) and 13:00-17:00 (on 24 November)
Venue: ISPM; Mittelstrasse 43, 3012 Bern
Date for voluntary exam: 1 December 2020, 14:00 - 15:30 (to get 0.5 ECTS)

[Link and Registration](#)

REDCap Database Implementation



The course will give an introduction to the Clinical Data Management System REDCap and is designed for persons who plan to set up their own study in REDCap. After the course researchers will be able to set up their own database in REDCap. Target audience: Clinical Researchers, Study Nurses and all persons who would like to set up their own study in REDCap.

Next Training Dates

- Thu, 01. OCT 2020, 15.00-17.00, Online – English
- Thu, 05. NOV 2020, 15.00-17.00, Online – Deutsch
- Thu, 03. DEC 2020, 15.00-17.00, Online – English

Until further notice, all REDCap courses will be offered online. The course participants will receive a personal e-mail with specific instructions on how to login to the digital class room before the course is held.

[Link and Registration](#)

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Gender Equality and Diversity

If you come across interesting news and/ or would like to read about a specific topic related to gender equality and diversity, please let us know (chantal.kottler@insel.ch).

Let's Talk! PD Dr. med. Mirjam Heldner



Why did you choose an academic pathway?

I think, an academic pathway is optimally in line with my personality, personal history, lifestyle and attitudes, better than clinical work alone. I am curious, adventurous, persistent, open and strong-minded, idealistic, genuine, ambitious and efficient.

I enjoy the colorfulness, diversity, challenges, freedom and chances of my academic daily activities and pathway. If you are naturally drawn towards an academic pathway, just go for it.

1) Academic Career Paths at the University of Bern

How is it like to be a professor at the University of Bern? How many hours per day is a professor working? Does she/ he brings her/ his children to daycare? What does her/ his partner work? Was her/ his career path linear, or were there challenges to overcome?

These and similar questions have been asked to several female and male professors within the scope of the project "Exzellenz ist vielfältig" of the University of Bern. The aim of the project is to show academic career paths and thus set an example to young researchers: an academic career is possible, even if the road can be long and take unexpected turns. – But, read for yourselves: [Link](#)

2) Initiative «Better Science»

**better
science**

The initiative «Better Science – Akademische Kultur im 21. Jahrhundert» demands a paradigm shift from the quantification of academic work towards more sustainability, diversity, inclusion and equality of opportunity in academia. The goal of «Better Science» is to break through current tendencies in science and to help establish a new culture in science.

PD Dr.med. Mirjam Heldner is an active member of the working group «Better Science».

Unsere Initiative fordert ein Umdenken in der akademischen Welt hin zu mehr Nachhaltigkeit, Diversität und Chancengleichheit.

Find here more info on the initiative and how to get involved: [Link](#)

3) Publications on the topic

- Minen MT, Law EF, Harriott A, Seng EK, Hranilovich J, Szperka CL, Wells RE. *Challenges to successful research careers in neurology: How gender differences may play a role.* Neurology. 2020 Aug 25;95(8):349-359. doi: 10.1212/WNL.0000000000010285.
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- Interview on Protected Research Time for clinicians with Prof.Dr.med. Thomas Geiser, Director and Physician-in-chief of the Department of Pneumology.
[VITA-Magazin](#)

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Recent Publications

Stroke

- 1) Goyal M, (...), **Fischer U**, et al. *Challenging the Ischemic Core Concept in Acute Ischemic Stroke Imaging*. Stroke. 2020 Sep 16;STROKEAHA120030620.
doi: 10.1161/STROKEAHA.120.030620.
[Find article online](#)
[Link to PDF](#)
- 2) Kaesmacher J, **Maamari B**, **Meinel TR**, Piechowiak EI, Mosimann PJ, Mordasini P, **Goeldlin M**, **Arnold M**, Dobrocky T, Boeckh-Behrens T, Berndt M, Michel P, Requena M Benali A, Pierot L, Pereira VM, Boulouis G, Brehm A, Sporns PB, Ospel JM, Gralla J, **Fischer U**, BEYOND-SWIFT Investigators. *Effect of Pre- and In-Hospital Delay on Reperfusion in Acute Ischemic Stroke Mechanical Thrombectomy*. Stroke. 2020 Sep 16;STROKEAHA120030208.
doi: 10.1161/STROKEAHA.120.030208.
[Find article online](#)
[Link to PDF](#)
- 3) **Meinel TR**, Kaesmacher J, Mosimann PJ, **Seiffge D**, **Jung S**, Mordasini P, **Arnold M**, **Goeldlin M**, Hajdu SD, Olivé-Gadea M, Maegerlein C, Costalat V, Pierot L, Schaafsma JD, **Fischer U**, Gralla J. *Association of initial imaging modality and futile recanalization after thrombectomy*. Neurology. 2020 Aug 26;10.1212/WNL.0000000000010614.
doi: 10.1212/WNL.0000000000010614.
[Find article online](#)
[Link to PDF](#)
- 4) Müller M, **Goeldlin MB**, Gaschen J, Sauter TC, Stock S, Wagner F, Exadaktylos AK, **Fischer U**, **Kalla R**, Mantokoudis G. *Characteristics and resource needs in patients with vestibular symptoms: a comparison of patients with symptoms of unknown versus determined origin*. BMC Emerg Med. 2020 Aug 31;20(1):70. doi: 10.1186/s12873-020-00361-8.
[Find article online](#)
[Link to PDF](#)
- 5) **Oesch L**, **Arnold M**, **Bernasconi C**, Kaesmacher J, **Fischer U**, Mosimann PJ, **Jung S**, **Meinel T**, **Goeldlin M**, **Heldner M**, **Volbers B**, Gralla J, **Sarikaya H**. *Impact of pre-stroke dependency on outcome after endovascular therapy in acute ischemic stroke*. J Neurol. 2020 Aug 31.
doi: 10.1007/s00415-020-10172-3.
[Find article online](#)
[Link to PDF](#)

SWEZ

- 1) Burrello A, Benatti S, **Schindler KA**, Benini L, Rahimi A. *An Ensemble of Hyperdimensional Classifiers: Hardware-Friendly Short-Latency Seizure Detection with Automatic iEEG Electrode Selection*. IEEE J Biomed Health Inform. 2020 Sep 7;PP. doi: 10.1109/JBHI.2020.3022211.
[Find article online](#)
- 2) **Pchelina P**, Poluektov M, Berger T, Krieger T, **Duss SB**, **Bassetti C**. *Effectiveness and Cost-Effectiveness of Internet-Based Cognitive Behavioral Therapy for Insomnia in Clinical Settings*. Front. Psychiatry, 20 August 2020. doi:10.3389/fpsy.2020.00838
[Link to PDF](#)
- 3) Sarasso S, **Zubler F**, Pigorini A, Sartori I, Castana L, Nobili L. *Thalamic and neocortical differences in the relationship between the time course of delta and sigma power during NREM sleep in humans*. J Sleep Res. 2020 Aug 24;e13166. doi: 10.1111/jsr.13166.
[Find article online](#)
[Link to PDF](#)
- 4) Wasserman D, **Bassetti CLA**, Rosenzweig I. *Narcolepsy with resolution of cataplexy and persisting orexin deficiency*. J Clin Sleep Med. 2020 Aug 15;16(8):1383-1386. doi: 10.5664/jcsm.8572.
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Psychosomatic Medicine

- 1) Baslet G, Bajestan SN, **Aybek S**, Modirrousta M, D Clin Psy JP, Cavanna A, Perez DL, Scott Lazarow S, Raynor G, Voon V, Ducharme S, LaFrance Jr WC. *Evidence-Based Practice for the Clinical Assessment of Psychogenic Nonepileptic Seizures: A Report From the American Neuropsychiatric Association Committee on Research*. J Neuropsychiatry Clin Neurosci. 2020 Aug 11;appineuropsych19120354. doi: 10.1176/appi.neuropsych.19120354.
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[Link to PDF](#)
- 2) Galli S, Béreau M, Magnin E, Moulin T, **Aybek S**. *Functional movement disorders*. Rev Neurol (Paris). 2020 May;176(4):244-251. doi: 10.1016/j.neurol.2019.08.007.
[Find article online](#)
[Link to PDF](#)
- 3) Perez DL, **Aybek S**, Popkirov S, Kozłowska K, Stephen CD, Anderson J, Shura R, Ducharme S, Carson A, Hallett M, Nicholson TR, Stone J, LaFrance Jr WC, Voon V, (On behalf of the American Neuropsychiatric Association Committee for Research). *A Review and Expert Opinion on the Neuropsychiatric Assessment of Motor Functional Neurological Disorders*. J Neuropsychiatry Clin Neurosci. 2020 Aug 11;appineuropsych19120357. doi: 10.1176/appi.neuropsych.19120357.
[Find article online](#)

Neuromuscular Center

- 1) **Blanquet M, Scheidegger O.** *Neurologische Evaluation des neuropathischen Schmerzes.* Ther Umsch. 2020 Aug;77(6):246-251. doi: 10.1024/0040-5930/a001186.
[Find article online](#)
[Link to PDF](#)
- 2) **Kamber N.** *Neuroanatomie und Pathophysiologie des Schmerzes.* Ther Umsch. 2020 Aug;77(6):239-245. doi: 10.1024/0040-5930/a001185.
[Find article online](#)
[Link to PDF](#)

Zentrum für Seltene Erkrankungen

- 1) **Bremova-Ertl T, Platt F, Strupp M.** *Sandhoff Disease: Improvement of Gait by Acetyl-DL-Leucine: A Case Report.* Neuropediatrics. 2020 Sep 6. doi: 10.1055/s-0040-1715486.
[Find article online](#)
[Link to PDF](#)
- 2) Kaya E, Smith DA, Smith C, Morris L, **Bremova-Ertl T**, Cortina-Borja M, Fineran P, Morten KJ, Poulton J, Boland B, Spencer J, Strupp M, Platt FM. *Acetyl-leucine slows disease progression in lysosomal storage disorders.* Brain Communications, , fcaa148, doi:10.1093/braincomms/fcaa148.
[Find article online](#)
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ZfPB

- 1) **Fleury V, Catalano Chiuvé S, Forjaz MJ, Di Marco M, Messe M, Debove I, Angulo J, Hariz GM, Burkhard PR, Martinez-Martin P, Rodriguez-Blazquez C, Krack P.** *Embarrassment and Shame in People With Parkinson's Disease: A New Tool for Self-Assessment.* Front Neurol. 2020 Jul 31;11:779. doi: 10.3389/fneur.2020.00779.
[Find article online](#)
[Link to PDF](#)
- 2) Martinez-Martin P, Deuschl G, Tonder L, Schnitzler A, Houeto JL, Timmermann L, Rau J, Schade-Brittinger C, Stoker V, Vidailhet M, **Krack P**, EARLYSTIM Study Group. *Interpretation of health-related quality of life outcomes in Parkinson's disease from the EARLYSTIM Study.* PLoS One. 2020 Aug 21;15(8):e0237498. doi: 10.1371/journal.pone.0237498.
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Headache

- 1) Eren O, Schankin Ch. *Insights into pathophysiology and treatment of visual snow syndrome: A systematic review*. In: Shuu-Jiun Wang, Chi leong Lau (Ed.). Progress in Brain Research. Update on Emerging Treatments for Migraine. Vol.255; 311-326.
doi:10.1016/bs.pbr.2020.05.020.
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Contact

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