

Swiss University Centre for Music Physiology

Contact: www.shzm.ch

Annual Report 2018 / 2019 and Newsletter August 2019

The Swiss University Centre for Music Physiology was co-responsible organiser of the convention *Prävention und Behandlung bei Musikern* ("Prevention and Treatment for Musicians") at the RHÖN-Klinikum Campus Bad Neustadt (Germany). The convention was held on May 24th and 25th, 2019. A versatile and use-inspired program mirrored the field's state of the art. It consisted of seven speeches and eight workshops with a focus on bodywork, was available to the 85 participants. The speeches were dedicated to a broad spectrum of themes, such as innovative offers at music universities, presentations on specific medical topics and pilot projects in professional orchestras. The fully booked workshops focused on aspects of instrumental technique and ergonomic aspects thereof, but also stress management concepts and bodywork. The detailed program can be retrieved on the website under "Aktuelles/Veranstaltungen" (German page). A further cooperation between the SHZM and the RHÖN-Klinikum Campus Bad Neustadt is planned for the end of October 2021 in Zurich.

The further education offers in music physiology, now available for the last 13 years, continue to be offered for music universities wishing to host such events in collaboration with the SHZM.

In the last academic year, Dr. László Stachó (Budapest) gave the following presentation:

Practice Methodology and Attentional Processes in Music Performance

- Exercises from Practice Methodology (PM) as a toolbox for the development of artistic attentional control.
- Parallelism of full concentration on and emotional immersion in music
 - o Development of the three most important musical foci, incl. the ability to "let go" in the moment of performance.
 - o Taking risks with regards to expressivity and dealing constructively with mistakes
- Saving time when practicing and reducing high levels of stage fright

Dr. Oliver Margulies gave a speech dedicated to the theme "Towards a Scientific Foundation for Individualised Violin Positions", thereby presenting results from the research project "Objective Criteria for the Individual Selection of a Physiologically Advantageous Violin Position", a research project reaching back to 2014 and carried out at the Zurich Centre for Musicians' Hands (www.zzm.ch) in cooperation with the SHZM.

The research project “Investigation of Pelvic Floor Activity During Singing”, carried out in cooperation with the Zurich University of Applied Sciences (ZHAW) using ultrasound technology, has been successfully completed. The focus of this investigation is the documentation of the pelvic floor’s initial position and its measurable activity in connection with muscular activity of the feet and legs. Also, devising training recommendations for the pelvic floor as a foundation of optimised vocal performance and reduced effort when singing was made possible based on results.

A new research project, “Neurofeedback-Training for Attention and Concentration in Music Students” has been initiated in cooperation with the University of Music and Performing Arts Munich and the company Brainboost in Munich (Germany). Within the framework of this study and after qEEG analysis, music students train professionally relevant attentional conditions using portable neurofeedback devices for several months. Before and after each training entity, students are examined and compared intra-individually by means of psychometric scales and qEEG. The aim of the training is to consciously access and generate different levels of concentration depending on the situations’ requirements, if needed independently of the neurofeedback training devices.

The cooperation with the University of Lausanne begun in 2007 and dedicated to research on stage fright will continue with the new research project „Music Performance Anxiety from the Challenge and Threat Perspective: Psychophysiological and Performance Outcomes“. This project, funded by the Swiss National Science Foundation (SNF), examines changes in stress, cognition, emotion and physiological parameters attributable to stage fright (stress hormone levels, cardio-vascular functions and respiration) with regards to how they relate to qualitative parameters relevant for solo performance quality. The project aims to make a further contribution to the prevention of performance anxiety and a constructive way of dealing with excessive levels of stage fright.

The continuing education study program in Music Physiology, supported by the SHZM and structured by lecturers of several Swiss music universities has accepted a new group of 8 students for the syllabus. In all modules, students have the opportunity of attending and participating in courses offered by the lecturers at their respective music universities in Basel and Bern. Credit is equally given for work shadowing at places of musical training as well as for the attendance of thematically relevant conferences. More information on the syllabus aiming for the degrees CAS, DAS and MAS (Master of Advanced Studies) can be found on the website of the SHZM under [Links](#).

In the meantime, 4 further Diplomas of Advanced Studies (DAS) in Music Physiology were successfully completed by

- Isabel Bösch (piano, St. Gallen)
- Judith Buchmann (Oboe, Uitikon)
- Sarah Huber (Voice, Birr)
- Christina Theis (Clarinet, Saarbrücken)

The graduates of this continuing education study in music physiology (from the DAS-level) have by now taught over 400 further training courses for other music institutions. Starting from the autumn semester 2011 / 2012, some of these graduates have been teaching a basic training in music physiology at the Swiss Academy for Music and Music Pedagogy (Kalaidos Music College) in Aarau within the framework of the Academy's Bachelor degree syllabus. This syllabus will be significantly expanded in the next academic year. From 2013, these graduates also have given further education courses for the Zurich Music School and Conservatory and have built up a school-intern musicophysiological consultation offer.

Following the music schools *Knonaeramt* and *Zürcher Oberland*, the Zurich Music School and Conservatory (*Musikschule Konservatorium Zürich*) presented with the Certificate of Health Promotion at Music Schools. By definition, a music school holding such a certificate promotes the prevention of task-specific health problems and supports health promotion for their teachers as well as their students by regularly offering further educations with musicophysiological topics. Prior to such a certificate, the music school will have had to offer the following further educations:

- 1) Introductory lecture
- 2) Workshop treating basic themes of music physiology
- 3) Instrument-specific advanced training course(s)
- 4) Introductory course covering the themes of performance/stage training, specific competencies for appearance on stage and constructive dealing with stage fright.

Furthermore, a certified music school offers their employees free-of-cost individual musicophysiological counselling sessions with specialists of the Music Physiology and Preventive Medicine Section as well as persons in training of the continuing education study program in Music Physiology of the Zurich University of the Arts. Music schools interested in this certificate can retrieve further information from the website of the Musicophysiological Counselling Centre of the Zurich University of the Arts: <https://www.zhdk.ch/?beratungszentrum.musikphysiologie>

The project designed ten years ago to build up fitness and good physical condition amongst students of Swiss music universities continues on a regular basis. In coordination with the universities' sport offers, the introduction to this program is given by Christoph Mohler, directly in the respective music universities. In addition, there exists the possibility of booking a fitness check-up free of cost with suggestions for exercises and a progress control of development after several months. Music universities, who are currently not participating in this scheme, are invited to contact

Horst Hildebrandt anytime (please refer to the SHZM's homepage for further information).

The SHZM's flyer can be downloaded and printed out in German, French and English from the homepage under the link [Downloads](#).

Important projects involving the SHZM were presented during the last season at continuing education courses and conventions in Bad Neustadt, Basel, Bottmingen, Luzern, Osnabrück and Zürich. Written publications have appeared in the Dokumentationsband der EPTA 2017-18, in the Schweizerischen Musikzeitung and the journals *promanu* und *Psychology & Health*.

Horst Hildebrandt, Johanna Gutzwiller and Irene Spirgi for the SHZM coordination team, August 2019.