

Swiss University Centre for Music Physiology

Contact: www.shzm.ch

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The further education offers in music physiology, now available for the last 12 years, continue to be offered for music universities wishing to host such events in collaboration with the SHZM. Last season, Prof. Dr. Adina Mornell gave the following lecture:

Attentional Focus on Stage: How Mistakes Occur or How they can be Avoided

- Experts' error analysis in stress situations, including
 - Findings from aviation psychology
- Latest Updates on the linkage between cognitive sciences with sports and music psychology
 - Internal and external attentional foci
 - Deliberate practice
 - Desirable difficulties
- Practicing strategies in view of successful appearances on stage

In the next season on December 3rd, 2018, 18:00h, Oliver Margulies will be presenting results of his dissertation "Towards a Scientific Foundation for Individualised Violin Positions". Allocated in the area of scientific music pedagogy, the dissertation draws upon certain results from the SNF-funded research project "Objective Criteria for the Individual Selection of a Physiologically Advantageous Violin Position", which began in 2014 in cooperation with the SHZM and the Zurich Centre for Musicians' Hands (www.zzm.ch), and which has by now been successfully completed. The differences between subjectively perceived effort in prototypical violin positions observed in two preliminary studies with music school as well as university-level music students were confirmed in the research project's main study phase. The study equally considered conventional as well as historically informed playing positions. On this scientific foundation, ergonomic solutions for positioning the violin in dependency of individual biomechanical parameters of the musicians' hands can be devised. Simple mobility tests, which can be conducted independently of a laboratory setting and which can be applied to an everyday teaching surrounding for music schools and music universities have already been developed during the study and have been presented in further educations. The observation of the most frequent compensation movements as a cause for technical limitation and task-specific health problems are equally part of this analysis.

On March 30th, 2019, an event dedicated to the topic of “Mental Training for Everyday Professional Use in Music” will take place in Basel with Horst Hildebrandt and Judith Buchmann.

When booking these events, the respective music university is responsible for hosting and budgeting issues. The SHZM has the possibility of granting contributions to the lecturers’ fees. Invitations to the event can be sent out via the SHZM throughout Switzerland. In addition to their own musicophysiological courses on offer, the respective music universities also have the option of booking carrying out one of the over 15 presentation and workshop options offered by the SHZM in multiple languages. You can find further information on this under [Aktuelles/Veranstaltungen](#) on the SHZM homepage.

The research project, “Hidden Characteristics of the Hand and Arm in Percussionists” has been successfully completed in the spring of 2018. The study’s aim was to measure inter-individual differences between lower arm and wrist mobility parameters relevant for playing a percussion instrument. Results show great differences and dispersions within a given hand characteristic (e.g. passive pronation and lateral mobility of the wrist). The aim of this long-term project is to build up an instrument-specific comparison group for percussionists in analogy to the comparison groups built up by Christoph Wagner over 50 years of research for piano, violin, cello etc. These comparison groups are still used by our laboratory and include numerous anonymised data of prominent musicians of several countries as well as complete section of the world’s leading orchestras. Valuable insight can thereby be gained in view of optimised playing positions, practicing techniques, endurance training, therapy options, etc. For percussion pedagogy, and economization of playing movements and positions, which have been adapted to individual anatomical characteristics, is recommendable.

A further research project, “Investigation of Pelvic Floor Activity During Singing”, which is being carried out in cooperation with the Zurich University of Applied Sciences (ZHAW) using ultrasound technology is awaiting completion. The focus of this investigation is the documentation of the pelvic floor’s initial position and its measurable activity in connection with the muscle activity of the feet and legs. Also, devising training recommendation for the pelvic floor as a foundation of optimised vocal performance and reduced effort when singing shall be made possible based on results.

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. 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, 2 further Diplomas of Advanced Studies (DAS) in Music Physiology were successfully completed by

- Beatrix Sieber (violin, Wil)
- Astrid Leuthold (violin, Zurich)

The graduates of this continuing education study in music physiology (from the DAS-level) have by now taught over 350 further training courses for other music institutions. Starting from the autumn semester 2011 / 2012, a team 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.

The project designed nine 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 Aarau, Bad Wildbad, Basel, Graz, Hamburg, Lausanne, Liechtenstein, München, Zofingen and Zürich. Written publications have appeared in the *Schweizerischen Musikzeitung*, the proceedings of the *Psychosomatische Klinik Bad Neustadt* as well the journals *Psychology of Music* and *Psychoneuroendocrinology*.

Horst Hildebrandt, Johanna Gutzwiller and Irene Spirgi for the SHZM coordination team, August 2018.