

Swiss University Centre for Music Physiology

Contact: www.shzm.ch

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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 6 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. In the past academic year, Ursula Meier (Zürich) successfully completed her Master of Advanced Studies in Music Physiology with the following project:

«65 – so what?» Association for the Support of the Singing Voice in Ageing People – Singing Projects for Retirees

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

- Anita Hassler (Cello, Bern)
- Katharina Stibal (Flute, Winterthur)

The graduates of this continuing education study in music physiology (from the DAS-level) have by now taught over 220 further education 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. A musicophysiological counselling service has been successfully implemented for this institution.

The research project begun in October 2014 in cooperation with the Zürcher Zentrum Musikerhand (www.zzm.ch) at the ZHdK under the title "Objective Criteria for the Individual Selection of a Physiologically Advantageous Violin Position" has reached its final phase of measurements and first evaluation of results in June 2016.

The aim of the project is to devise ergonomic solutions for positioning the violin in dependency of individual biomechanical parameters of the musicians' hands and on an objective basis. This application-oriented research project aims to provide for the first time a quantitative analysis of individually limiting or enabling biomechanical and muscular factors of the left upper extremity in connection with the most typical instrument positions in violinists. The results hereof will be modified for practical

transfer into music teaching, musicophysiological coaching and therapeutic settings when working with musicians. The project is financed by the Swiss National Research Fund (SNF) and the Ernst Göhner Stiftung.

Clear differences in subjectively perceived effort between prototypical violin positions observed in a preliminary study in an everyday music school setting are being examined in a laboratory-based phase of the study. The study equally considers conventional as well as historically informed playing positions. With data analysis ongoing, we expect results in the course of the summer to yield information on the connection between physical pre-dispositions resp. biomechanics and individual, physiologically advantageous violin positions. Simplified movement tests possible to apply in a teaching surrounding and independent of a laboratory setting have been developed. 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.

The SNF research project “Prolonged Performance-Related Psychophysiological Activation in High- and Low-anxious Music Students“ in cooperation with the Lausanne University and the SHZM is in a decisive phase of evaluation. First publications to cognitive processes in connection with an appearance on stage in concert are in preparation.

In the last academic year, the multi-year SNF research project “Toward a Science of Music Performance: Interdisciplinary Research on Task-Specific Movement and Learning Parameters in Professional Musicians” has been completed. Project leadership was shared by the Zurich University of the Arts and the Collegium Helveticum of the Zurich University and ETH. Project partners continued to be the Department of Computer Science and Engineering of the Goteborg University and the Institute for Electronics of the ETH Zürich. The project’s focal point was the scientific examination of learning strategies and movement execution in professional musicians with regard to parameters of movement connected to highly complex skills in fingers and hands.

The further education offers in the area of music physiology, built up since 2006, continue to be available for music universities wishing to host such events in collaboration with the SHZM.

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 one of 16 events, held in multiple languages, by the following lecturers:

Victor Candia, Johanna Gutzwiller, Horst Hildebrandt, Oliver Margulies, Christoph Mohler, Marina Sommacal and Irene Spirgi.

The precise content of these lectures/workshops can be tailored to the needs of the music university in coordination with the lecturers. So far, the duration of the events have ranged from a half-day event to a maximum of two days. An expansion of these lectures/workshops is currently being planned for voice and historical keyboard instruments. Information can be found on the SHZM website.

The project designed seven years ago to build up fitness and good physical condition amongst students of Swiss music universities continues on a regular basis. During the last academic year, the Music Universities of Basel (Hochschule für Musik und Schola Cantorum Baseliensis of the Musikhochschulen FHNW) participated in this program. 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 Geneva, Basel, Feldkirch, Graz, Munich and Zürich. Written publications have appeared in connection with the Zurich Symposium of the SMM (Stress and Music-Making. Origins-Prevention-Coping Strategies).

Horst Hildebrandt, Johanna Gutzwiller and Irene Spirgi for the SHZM coordination team, August 2016