Center for Music in the Brain – Annual Report 2017

HIGHLIGHTS OF THE YEAR

2017 – the third year of The Danish National Research Foundation's Center for Music in the Brain (MIB) – has been a year of consolidation, cooperation and growth. Due to hard work of the centre's now more than 30 researchers we had a number of significant findings resulting in a growing number of publications in high ranking peer reviewed journals and growing international recognition as testified by the forthcoming conference Neurosciences and Music VII in Aarhus in 2020. Mentionable are the papers by Brattico, Vuust et al in Human Brain Mapping showing the involvement of more action-based neural networks during naturalistic listening in musicians than in non-musicians and the paper by Kringelbach and colleagues in Scientific Reports comparing brain states in participants experiencing LSD and music using a connectome-harmony decomposition.

A particular highlight in 2017 was the participation of 14 MIB researchers at the Neurosciences and Music VI conference in Boston. MIB presented 13 posters, and Peter Vuust's symposium on predictive coding of music was chosen among a highly competitive field of proposals for this conference, which is considered the most prestigious within the field of neuroscience and music. During the closing ceremony, it was announced that Center for Music in the Brain will be hosting the next conference in 2020 in Aarhus. This is a great international acknowledgement of our centre and we look very much forward to hosting scientists from all over the world.

On the agenda this year has also been a number of outreach activities. We consider the task of communicating our results to both fellow scientists and laypersons an important and natural task for MIB. This is evident in the number of invited talks at international conferences and the media attention that our research generates. Already at the beginning of the year, when the results of the Mass Experiment were published, MIB found itself in the middle of the limelight receiving an enormous amount of media attention in both local and national news. The results from more than 20,000 school children demonstrated a correlation between music practice and working memory in children. Later in the spring this was followed by the centre leader's book "Musik på Hjernen", in which he in layman terms tries to answer the million dollar question: Why do we have music? The book received 5 stars in Gaffa and made its way to the evening news on national TV.

Combining outreach and science, MIB ran a live-experiment during a concert with the power-trio *Randolph Cricket* at the annual SPOT festival in Aarhus in May. Equipped with a simple motion capture device, the movements of each person in the audience were followed while the listened to music of various rhythmic complexity. The results extend our previous findings showing an inverted U-shaped relationship between rhythmic complexity and wanting to move, into a real world setting.

MIB received acknowledgement throughout the year: PhD student Patricia Alves da Mota won the prize for Best Poster at the Annual PhD day at Aarhus University, PhD student Signe Derdau Sørensen won the clinical research Flash Presentation prize for her 3 minutes' talk about the Mass Experiment at the annual Neuroscience Day 2017 at Aarhus University and finally Peter Vuust was awarded Dansk Lydpris 2017.

In 2017, we hired postdocs Massimo Lumaca, Marina Kliuchko and Angus Stevner and started up no less than seven PhD students: Mette Kaasgaard, Rasmine Mogensen, Signe Hagner, Nadia Høgholt, Leonardo Bonetti, Pauline Cantou and Marie Dahlstrøm. In June, Manon Grube agreed to join MIB in 2018 as assistant professor, and in December, Christine Ahrends arrived to start preparing her PhD studies that will commence in early 2018.

International collaborations are highly prioritized at MIB. Funded by Aarhus University Research Foundation (AUFF) Senior Lecturer Marcus Pearce from Queen Mary University of London spent eight months at MIB, and Professor Maria Dolores Roldan Tapia from University of Almeria, Spain visited for 6 months. Furthermore, during the year we hosted many prominent guest speakers and ten pre- and postgraduate international students. Finally, we signed cooperation agreements with among others Virginia Penhune at Concordia University, Canada.