Editorial

Preface to the Special Issue: Noteworthy: *The Music in Music and Medicine* Joanne Loewy^{1,2}, Ralph Spintge^{3,4}

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What is the role of music in medicine? How are the body's unique systems integrated through rhythm and expressed through sound, motion and speech? Each of us physiologically holds a symphony of sounds and rhythms within our body, and these elements interconnect systems, such as cardio, pulmonary, neural with a variety of other functions. However, it is our mind's intentions, and the spirit, which arguably blends our intentions with a reliance on fate, that at times holds our sense of belief or otherwise. Depending on our physiology, body function, age, gender, sex and cultural belief system, we may be motivated to participate, or reflect, or we may be reticent to take action in our decisionmaking related to health. The music of the body speaks to our health or dis ease, and we are learning to listen.

It is an important year for our journal. We have enthusiastically hurdled through our 5-year anniversary. We have made strides in not only changing our production company, staff and platform from print to electronic (green) access, but additionally we have embarked upon some unique and special topics. The issue before you is a highlight of such ventures.

This journal, themed as '*Noteworthy: The Music in Music and Medicine*' marks another milestone in the marriage between music medicine and music therapy. It is apparent that music therapists are seeking deeper answers from quantitative and qualitative outcomes - in data that correlates the clinically significant music elements to an effect that is reliable and replicable. Furthermore, music therapists tend to have high regard for studies that analyze critical components of the music exchange, that are inclusive of a relationship,

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Copyright © 2014 All rights reserved. International Association for Music & Medicine (IAMM). which may be quite difficult to quantify, though not impossible.

At the same time, doctors and nurses are searching for elements of music that can have a healing effect. Our medical colleagues recognize the potency of music therapy, and in particular the expertise and training that is involved in the discipline of music psychotherapy. Many hospitals are hosting music therapists for Grand Rounds and the consults that result in interested program building ventures are reflecting a rise in the number of hospital music therapy programs worldwide.

Music technology study holds interesting implications that relate to the music of medicine. A few years ago, several researchers investigated accurate rhythms versus human rhythms and their effects on listeners. They found that the statistical laws governing rhythmic fluctuations in human musical performances render a preference in most people for non-perfect, 'humanized' music.

When they compared the beats of a live musician with those of an electrical metronome they found that: the live musician "induces a unique colorful aspect (with) discrepancies as small as a few milliseconds, but (that) many music-lovers claim not only to hear a difference, but also to appreciate it. According to them, this human touch uniquely colors a piece of music each time it is played."

It is interesting that in current music producing, recording studios, beat tracks, which are essentially artificially created rhythms, are taken out of context and "post-processed." Where every beat is shifted slightly in time, this method, cited by researchers and gaining momentum in the pop production world is referred to as 'humanizing'.

What is it about the human element of music that is so preferred, even as our media would have us believe that there is a perfect-best? Listeners, according to this research, strongly preferred long-range correlated fluctuations in musical rhythms. Perhaps rather predictably, this study provided a basis for further investigation of the patterns of favorable fluctuation type, in an effort to create "humanizing inter-beat intervals." The research substantiates their production of an instrument for music beat production that coincides with the one "generically inherent in human musical performances."

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One could argue that "human" "musical" and "performance" are unique aspects of expression, for which there is limited "generic" relevance. This may be particularly realized as we begin to think about the ways in which aesthetic values are developed and the role that creativity plays in the development of human thinking coupled with the evolution of medicine, technology and our capacity to realize change. Desire for change is part of the human condition, and arguably a "human" beat pattern incepted within musical production might be short cited.

There will always be a natural tendency to develop, which may be represented in our human way to tighten, to do more, and go faster. It may also be represented in the atmospheric response to our activation. This summer was the hottest on record for our globe, and people are responding, organizing climate change summits worldwide. Our standard A pitch tuning too has risen gradually over the decades. "In 1938, an international standard for A was set at 440 hertz, but the pitch continued to rise. The New York Philharmonic, under Zubin Mehta, tunes to an A at 442 hertz, as does the Chicago under Georg Solti and the Boston Symphony under Seiji Ozawa. In Berlin, orchestras tune to an A around 448 hertz. In Moscow, the symphony's pitch is even higher, near 450 hertz."(1989, NYTimes [LINK]).

In Music and Medicine, we have our eyes on patients and our studies that influence how we can institute music in a way that can enhance treatment strategies. In this important journal Guest Editors Stephan Quentzel MD and Therese West PhD dare to delve into the nut of music and medicine, in 'Noteworthy: The Music in Music and Medicine' these Editors have compiled a broad range of articles from current music therapists and doctors that practice from varying perspectives including GIM, Nordoff-Robbins, models of live music and theoretical models of how music decisions are made; in clinical work with individuals, groups, and a variety of settings, including Pain treatments, ICUs and clinics, bedsides and community centers. 'Noteworthy: The Music in Music and *Medicine*' promises to be a unique and broad compilation but perhaps most importantly, it is a theme that is based on the active practices of a medical doctor and a music therapist, and their clear desire to bring together deeper thinking and understanding about the most critical element of music medicine and music therapy, the music. We are grateful for their efforts.