

Editorial

Another Word on Ethics...**Ralph Spintge^{1,2}, Joanne Loewy^{3,4}**¹*Department of Algesiology and Interdisciplinary Pain Medicine, Regional Pain Centre DGS, Sportklinik Hellersen, Lüdenscheid, Germany*²*Institute for Music Therapy, University for Music and Drama HfMT Hamburg, Germany*³*The Louis Armstrong Center for Music & Medicine, Mount Sinai Beth Israel, New York, NY, USA*⁴*Icahn School of Medicine, New York, NY, USA*

There can be observed today a rapidly growing discussion about credit for scientific discoveries. Every person involved in scientific work and publishing knows about that issue.

Taking for example the development of the so-called CRISPR/Cas9 technology that is used for gen editing purposes in humans. There is a hot debate going on about who had the first idea and who made the idea practicable. In an article published recently, Bob Grant [1] tries to elucidate the pathways which led to a major breakthrough (from a pure science point of view), while at the same time, he tries to politically debate about ethics and responsibility in applying such research results on humans. It seems to be obvious, that the implications of gen editing are unknown and could shake the fundamentals of societies worldwide. Yet what is instead the focus, as observed in reporting about a conference on that most relevant topic, that took place in Washington last November, and was widely covered by professional and public media, is that the new technology is often oversimplified. The consequences there are that the impact is not being given any elaborated thought. The implications of this, in not generating discussion about an obviously necessary worldwide ethical codex, related to if and how to go on with further research and applications on humans is a gaping omission. A declaration of 12 (!) international experts participating in the above mentioned meeting may be a recommendation, not much more [2]. Even in such an issue of fundamental significance to humankind, there seems to be more emphasis and intense discussion about who gets assigned the credit for developing CRISPR, than on how we can handle the research results with ethical responsibility.

That observation becomes even more disturbing while realizing that even "...modern life-science researchers aren't working to uncover broad biological truths. These days the major discoveries lie waiting in the details, meaning that any one lab is unlikely to shed all the necessary light on a complex phenomenon – much less on how to adopt that phenomenon for human purposes – in isolation.", a quote from Bob Grant authoring a recent contribution to the journal *The Scientist* [1]. Jennifer Doudna, one of the discoverers of CRISPR, added "Things don't happen overnight; they happen through a process of investigation. And very typically there are multiple laboratories that are working in an area, and it's almost universally true." – The latter statement holds relevance and indeed is a truth existing amongst all life-sciences including health related science such as MusicMedicine and Music Therapy.

Our knowledge, at best, advances step-by-step, building on previous work and ideas and hypotheses of our ancestors. Many things we do today in research as well as in practice have been conceptualized long ago, however, technology at that time did not provide adequate means to realize studies or practical applications.

While the aforementioned statements specifically refer to a rising discussion concerning deserved credit for developing CRISPR/Cas9 technology usable for gen editing in humans, it seems obvious that the same applies to about 99% of all scientific progress. Taking aside such exceptions like Albert Einstein, Edward Jenner or Alexander Fleming- it is true that humankind's knowledge in fact, advances step-by-step, from of team working over time, across disciplines and forums. In MusicMedicine and Music Therapy we are standing on the shoulders of our ancestors and present colleagues as well. Today's ever more complex questions make it unlikely that only one person or one group will discover broad new truths. At the same time often discoverers of new findings are not those who come to utilize such new knowledge, as they may not have the mechanisms to ever apply it. May we repeat to stress here that many ideas and concepts in the healing arts have been discovered up to centuries ago, but only today's technology render them applicable.

We should be a little bit more grateful, a little bit more humble and a little bit more honest. Shouldn't we?

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Collaboration and transparency, multidisciplinary approaches and interdisciplinary teams crossing borders between specialties and hierarchies indeed promise most valuable gains in scientific progress. MusicMedicine and Music Therapy are a paradigm for such a holistic philosophy. At this same time may we reconsider our ethical standards for Music Therapy and MusicMedicine. Are they sufficient in that respect?

There is an old saying: what can do good can do harm also. Indications of a therapy are always accompanied by contraindications. How do we want to handle that issue? Are our standards sufficiently discussed and sufficient to make well-based decisions in a best-practice sense and do we thus fulfill our highest responsibility towards our patients?

The Editors would like to invite our readership to share their opinion on this issue. Please feel free to use our section “Letters to the Editors” to submit your text. As for format details please see guidelines for authors [\[LINK\]](#).

This journal has a plethora of topics and a diverse host of authors from unique disciplines. In Germany, from the Department of Cardiology and Angiology, University of Bochum, co-authors Hans-Joachim Trappe and Irini Maria Breker measure *The Effects of different styles of music on human cardiovascular response – a prospective controlled trial*. Comparing the potential effects of classical music and heavy metal in comparison to silence or noise on cardiovascular parameters (blood pressure, heart rate) and cortisol levels is a trail that has not, as of yet been studied before. The authors measured these randomized to 120 subjects from 25-75 years that were matched according to age, sex, height and weight, with interesting outcomes.

Moving next to Ireland Bill Ahessy investigated group singing and the impact it can make on the lives of older adults in *The Use of a Music Therapy Choir to Reduce Depression and Improve Quality of Life in Older Adults-A Randomized Control Trial*. One of the unique elements of this study was Ahessy’s use of familiar, participant selected songs, but also an incorporation of the learning of new material, which turned out to be highly rated by the participating adults. This study reflects the physical, cognitive and social benefits of choir singing, a domain that is building in the research literature.

In Toronto, Canada the next two authors, Bev Foster and Lee Bartel review how music has been used in Canadian long term care facilities in *Understanding Music Care in Canadian Facility-Based Long Term Care*. In their leadership and quest towards person-centered care, their mixed method study reveals 7 key emergent factors devised from a phase one qualitative study in 5 Ontario LTC homes. This groundwork piloting raises the bar for what can be the next focus in planning for music in a more person-centered, intuitive and culturally sensitive way. Such aspects of music health are often remiss in the planning phases of music and medicine. In Philadelphia, Pennsylvania, researcher Torrey N. H. Gimpel develops some critical theoretical thinking on a subject not often as well formulated as is apparent in her

article; *The Military, Moral Injury, and Music Therapy*. Realizing that those in the military and veterans present one of the most underserved yet neediest populations, Gimpel emphasizes the dire consequences of being faced with morally ambiguous situations that can lead to inner conflict and guilt. This work certainly builds upon the PTSD limited literature by revealing efficacy in music therapy as a potential avenue for treatment through its versatility. Gimpel’s familiarity and increased awareness of this construct as a potential avenue with music therapists and others working within the military milieu, provides a fruitful potential for the development of specific interventions and further study in this sensitive topic of moral injury.

Psychophysiological Responses to Preferred Music in Healthy Subjects and Patients in Minimally Conscious State – A Pilot Study by authors Mayra Choudry, Marlehn B.J.S. Luebbert, Simone B. Schmidt, Daniel S. Scholz, Michael Großbach, Jens D. Rollnik, and Eckhart O. Altenmüller from Germany elegantly show something most have speculated, but have not proven to our liking. In showing that preferred music might be useful in the treatment of patients suffering from disorders of consciousness they investigated the psychophysiological responses to preferred music in controls and age-matched patients in minimally conscious state after traumatic brain injury. We see that preferred music can have profound effects in respiration frequency, heart rate and blood pressure.

Finally, An interesting study is undertaken in *Sex Differences in Psychophysiological Responses to Music Listening in Healthy Individuals* by Uma Gupta and B. S. Gupta from India. They found some significant effects resulting from music listening in blood pressure, stress, anxiety and depression. Using a unique and indiginous piece of music, they sampled effects of life satisfaction, hope, and life perception, as well as affect, and considered music’s role in terms of sex differences.

This issue closes with a delightful orientation and update of a *Country Feature: Music Therapy in China* by music therapists and Professors Jing Wen Zhang, Tian Gao, Ming Ming Liu. As is the tradition of ‘Music and Medicine’ we welcome the development of music and medicine and undertake such missions through the International Association for Music and Medicine (IAMM) alliances-where their conferences can be fortified by special introductory articles which can affiliate readers to the developments. This coming June, from the 11th to the 13th- the IAMM will hold its 4th conference in Beijing China. Our hope is that this piece will serve as an informative overture to attending what will be a celebration and gathering of doctors, nurses, music therapists and other colleagues from all corners of the earth.

To close this issue, Silvia Nakkach from California’s Institute of Integral Studies provides a *Memoriam for Mitchell Gaynor MD*-whose memory for service and compassion, and whose affiliation with our Journal and involvement with so

many integrative practitioners will stay in our minds in the years to come.

We are grateful to you, our readership for your steadfast commitment to the growth of music and medicine. This New Year, 2016 brings in some exciting and new, but also sad adieus. We sadly but gratefully acknowledge the amazing stewardship of former Production Editor Julian Koenig. We welcome our new Production Editor Erik Baumann, and International Abstract Editor Bernardo Canga. Our journal team is growing, and we are grateful for the brilliant alacrity of our Managing Editor, Dr. Amy Clements-Cortes and the constant over-seeing of our success from inception to production-through the guidance of Dr. Helen Shoemark.

See you in Beijing!

References

1. Grant B (2016) Credit for CRISPR: A Conversation with George Church. The Scientist Magazine dec 29, 2015; retrieved 01-08-2016; [\[LINK\]](#)
2. International Summit on Human Gen Editing (2015) On human gene editing: International Summit Statement. Washington; retrieved 01-14-2016 [\[LINK\]](#)