**In order to save time and effort later on, and to get the best results from this process, please answer the following questions:**

1. **What is your research question(s)?**

**How** does art-making purport its salutary effect (what dosage, timing, specific intervention), using novel modes of assessment (MOBI, fNIRS, brain imaging, EMA, EEG, HRV)? **Why does** this happen on the theoretical and mechanistic levels, connecting our evidence to the contributing ingredients that drive these effects? **So What**, are the clinical, community, regional and global implications of our scientific knowledge?

1. **Why is the research question important? You may mention other literature in the field, and the expected contribution of your research.**

Human society is beset with a series of maladies from the individual to the social, which have a major impact on wellbeing, with societal, environmental and economic implications that are rapidly becoming worldwide issues. There is a need for targeted and personalized interventions that are cost effective, yet potent, preferably already part of human behavior, society and culture. The arts are ubiquitous, and an inherent part of human behavior. Engaging actively and receptively with the arts has a salutary effect and is culturally adaptable. There is a recent explosion in practice and research of the use of arts in health that is manifesting by recognition by governmental and global initiatives, scoping and systematic reviews of research programs and the sprouting of research centers and grassroots initiatives. However, there are several scientific problems and major questions that remain unanswered, that require a synergistic approach

1. **What are your hypotheses?**
2. There are specific timings and dosages of artmaking and viewing that have optimal effects.
3. Art making and viewing is helpful in improving wellbeing in certain conditions, and detrimental in others.
4. There are specific mechanisms that mediate the effect of art making and viewing.
5. **What is the proposed methodology? Why was it selected?**

We propose to conduct a multi-level, interdisciplinary study that will provide robust and multifaceted evidence shaping better art therapy and arts in health practice, art centered policy and collaborative empirical evidence-based quantification that will inform and affect guidelines and policy. It will establish our research group in Europe as the major collaborative arts and health research hub, globally.

To answer our research questions, and provide a synergy woven from our triune expertise, we propose a multi-level, series of longitudinal and laboratory studies, that will be comprised of multiple experiments targeting several potential processes, mechanisms, active ingredients and outcomes, that will be measured on the individual (inter and intra), community and regional levels.

1. **What are the main steps that will be involved in conducting your research?**

**Thread 1a: Implementing the synergy.**

In the first stage of the study will use the time and space, as well as the funding to engage grassroots organizations and health care systems (see letters of collaboration and table 1) to collect data collaboratively. We will train our sites to specify and implement the productive and receptive arts-based interventions.

**Thread 1b: Testing mechanisms and active ingredients.**

Based on the results of the previous thread, and the emerging mechanisms and active ingredients, we will design interventions aimed at testing these. For example, REPAT study, purported mechanism is not a mediator of the efficacy after all, so how can the next study answer the questions raised in the first round.

**Thread 2: Taking the show on the road**

In this thread we will utilize a fleet of art vans that will travel to remote locations. We will utilize the results of thread 1a to determine where the needed areas of intervention are and randomize the order in which the interventions are implemented to compare and contrast the effects of the interventions. The interventions will be multiphase. In phase one open studios will be conducted for 9 months, which will summate in an art show. The viewers of the art show will then also become the study participants (see figure 2).

**Thread 3: Microdoses- Art in your pocket**

In this thread we will examine the use of digital art interventions, with and without the presence of a virtual and non-virtual art therapist, guiding the process. This will enable us to learn more about the potential of digital art making, which is highly accessible on smart phones, but emerging evidence from our team, shows that without the support of a trained therapist to guide the process, art making may have both beneficial as well as detrimental effects on mood and well-being. Zubala, A., Kennell, N., & Hackett, S. (2021). Art therapy in the digital world: an integrative review of current practice and future directions. *Frontiers in Psychology*, *12*, 595536.