

## INFORMATION SHEET FOR PARTICIPANTS

*Ethical Clearance Reference Number: 45316*



### YOU WILL BE GIVEN A COPY OF THIS INFORMATION SHEET

#### **Title of study**

Evaluation of heartbeat sonifications created using sonecules

#### **Invitation Paragraph**

I would like to invite you to participate in this research project which forms part of my postgraduate research. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information.

#### **What is the purpose of the study?**

This study is based on sonifications of heartbeat data from a rabbit created using the Sonecule library and SuperCollider software. The rabbit heart data has been mapped to acoustic parameters such as tempo, loudness, and pitch or an excerpt of a music file. This study explores listeners' comprehension of how well sonifications interpreted the cardiac data and evaluates the success of the sound mappings. Participants' ratings of the sonifications and justifications for their ratings are collected from individuals having different musical backgrounds, sound discrimination abilities, and musical preferences. Statistical analyses were conducted to explore how individuals' backgrounds, abilities, and preferences affect their ratings and comprehension of how well sonifications interpreted the heartbeat data, thereby revealing potential links between music perception and biomedical data. This study not only improves our understanding of the interaction between music and biological rhythms, but also provides new ways of data representation and analysis for biomedical research.

#### **Why have I been invited to take part?**

You are being invited to participate in this study because you have normal strength and normal hearing, and we need your perspective

#### **What will happen if I take part?**

If you agree to take part you will complete a survey anonymously. You will be given visual representations of a dataset, and asked to rate several audio clips with regard to how well they represent the visual data. In addition, we may also need to know about your musical background

#### **Do I have to take part?**

Participation is completely voluntary. You should only take part if you want to and choosing not to take part will not disadvantage you in anyway. If you choose to take part you will be

asked to provide your consent. To do this you will be asked to indicate that you have read and understand the information provided and that you consent to your anonymous data being used for the purposes explained.

You are free to withdraw at any point during completion of the survey, without having to give a reason. If you choose to opt out, you can simply close your browser window or leave the survey page and your responses will not be saved or submitted.. Withdrawing from the study will not affect you in any way. Once you submit the survey, it will no longer be possible to withdraw from the study because the data will be fully anonymous. Please do not include any personal identifiable information in your responses.

### **Data handling and confidentiality**

This research is anonymous. This means that nobody, including the researchers, will be aware of your identity, and that nobody will be able to connect you to the answers you provide, even indirectly. Your answers will nevertheless be treated confidentially and the information you provide will not allow you to be identified in any research outputs/publications. Your data will be held securely, only authorised research team members have access to this data.

### **What will happen to the results of the study?**

The results of the study will be summarised in the report.

### **Who should I contact for further information?**

If you have any questions or require more information about this study, please contact me using the following contact details:

Ruoying Wang  
k23046715@kcl.ac.uk

### **What if I have further questions, or if something goes wrong?**

If this study has harmed you in any way or if you wish to make a complaint about the conduct of the study you can contact King's College London using the details below for further advice and information:

Professor Elaine Chew, [elaine.chew@kcl.ac.uk](mailto:elaine.chew@kcl.ac.uk)  
Becket House  
1 Lambeth Palace Rd, South Bank, London, SE1 7EU

**Thank you for reading this information sheet and for considering taking part in this research.**