

## Description of Additional Supplementary Files

### **File Name: Supplementary Movie 1**

**Description:** This video summarizes the presented findings and demonstrates audio reconstructions generated by the top-performing neural decoding model for both the validation set and test set.

### **File Name: Supplementary Movie 2**

**Description:** During our analysis, we primarily used mean Pearson correlation between the target and predicted audio mel-spectrogram bands as a performance metric for neural decoding models. In this video, we present examples that demonstrate various reconstructions and their corresponding correlation scores. This video aims to provide subjective context to the reader regarding the intelligibility of our experimental results.