

January 31, 2018

Dear Dr. R. Myers,

Thank you for inviting us to submit a manuscript to JoVE on the protocol to prepare acute seizure models. Our manuscript describes how to prepare the acute 4-AP cortical seizure models for both *in vitro* and *in vivo* studies, as well as, for both mouse and human tissue. The acute 4-AP cortical seizure model is favorable because of its ability to reproduce the electrographic signatures of a clinical seizure. The acute 4-AP cortical model is also favorable because of its versatility across many study types, which is important for verifying results and confirming the clinical relevance of findings. We also describe how to trigger seizures on-demand in these various acute seizure models. This unique ability will allow for new opportunities to study seizure onset mechanisms and investigate the effectiveness of new antiseizure drug candidates.

The authors all gave their best effort to write the manuscript according to the guidelines set by JoVE. Please let me know if there is anything else I can complete on my end.

Kind Regards,

A handwritten signature in black ink, appearing to read "Michael", with a stylized flourish underneath.

Michael Chang