

Webinar Q & A

Please note that we had technical difficulties with the live webinar recording from June 4, 2009.

Following is a transcript from that live session. Toward the end of the document we answer questions that were sent during the presentation, but we were not able to answer at that time.

Question: Will the BrainNavigator support normalization (i.e. scaling of an atlas image to my image)? Will there be an output to 3D pixel image with/without normalization, to have regions of interests for MRI and PET imaging and kinetic modeling?

Answer: *The question is about the scaling of the image to your own images. The answer to that is we've made a start with that with the calibration tool that I showed you. So the idea essentially is yes.*

We do want to allow you to be able to adjust the atlas to your own situation, at least in terms of linear scaling. That's the first step in that direction.

One of the features that we're planning to add within the next six months is a possibility to adjust the maps onto your own image. Obviously if you're looking at the specimen in a microscope it will never quite look like the atlas, because the maps are somewhat idealized, because of individual and preparation differences.

So one of the things we want to allow you to do is actually overlay images with the atlas drawings and then allow you to adjust those drawings to fit your image.

Secondly it's the connection between 3-D and 2D. Yes, if you create a virtual slice through the 3-D model, there will be a possibility added in the next few months to export that to the 2-dimensional part of the atlas and directly compare it to your situation.

And the question about connection to MRI and PET imaging, this is probably a longer term project. It's definitely on our list of things to do for the next year. We have started to think about how we can co-register the 3-D environment with MRI and PET imaging and other such additional imaging methodologies.

I hope that helped a little bit.

Question: I understand that cortical areas of the rat are included. Any insight into the cortex of the primate brain?

Answer: *This is what we will do in the next half year - that's the next major release. We will add the primate and human atlases that we have in our program to the system in the same way. So there will be a primate version based on the Paxinos et al. Rhesus Monkey atlas, and a human version based on the Mai, Paxinos, and Voss Atlas of the Human Brain.*

And the idea is essentially we're going to initially do the same as we did for the mouse and the rat here. And then we will continue on from that. There will be a direct connect to MRI models for both the monkey and the human. We will continue to develop that over the year.

Question: I need to purchase soon because our budget cycle ends in June. If we decide to go with BrainNavigator, what are the next steps?

Answer: I would suggest you send us an email at brainnavigator@elsevier.com if this is an offering you'd like to license right now.

I also want to share that we've announced a special offer for purchases made in June of 2009. BrainNavigator is typically a one year term. So we'd like to offer two free months, essentially giving you access to BrainNavigator for 14 months only at the price of 12 months.

BrainNavigator accommodates workgroups of one to five researchers, up to thousands of researchers. So, please let us know that information, and the best way to reach you. And we will follow up accordingly.

Question: Regarding the ontologies and taxonomies that you are using. It seems like you are using brain region ontologies for autocompletion for the searches, which source are you using and how will you be expanding them in future?

Answer: The ontology is a unified one between Mouse and Rat that Paxinos, Watson, and Puelles have created. It is based on the published atlases, but significantly improved. I believe they are planning to publish it soon.

Question: How can we see two brain areas together?

In the 2D representations only those areas that are on the same section, be it horizontal, sagittal, or coronal can be seen, just like in the print atlases. In the 3D model, you can use the virtual slicing tool to create sections that show the two areas you are interested in together, or just show those areas in their 3D models.

Question: Hippocampus anatomy in the Sprague Dawly Rats

The atlases are based on Wistar rats. I am not sure if there are major differences in the hippocampus anatomy – if so, we can consider adding specific images to show those differences in future releases of BrainNavigator if you can point us to a source of such images.