

# RE: New wrinkle

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From: **Patrick Lyden** | plyden@usc.edu

Friday, Apr 23, 4:49 PM

To: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu

Cc: **Jessica Lamb** | lambj@usc.edu, **Karisma A Nagarkatti** | nagarkat@usc.edu, **Diniz, Marcio A** | Marcio.Diniz@cshs.org, **'Andre Rogatko (Andre.Rogatko@cshs.org)'** | Andre.Rogatko@cshs.org

Ryan,

We approached some expert rodent behavioralists about the fact that some of our subjects exhibit forced turning to the left, and others to the right. It turns out—and I should have remembered this—if the stroke involves the striatum the animals will turn away from the stroke, but if it involves the cortex it will turn toward the stroke. So its going to be interesting to quantify striatum and cortex separately. I know you did some compartment segmentation for the RHAPSODY study scans. Would it be overly time consuming to attempt to segment the mice into cortex and striatum? I guess we have to count white matter too.

Thanks for considering this,

PL

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From: **Ryan Cabeen** | ryan.cabeen@loni.usc.edu

Friday, Apr 23, 10:38 PM

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Cc: **Jessica Lamb** | lambj@usc.edu, **Karisma A Nagarkatti** | nagarkat@usc.edu, **Diniz, Marcio A** | Marcio.Diniz@cshs.org, **'Andre Rogatko (Andre.Rogatko@cshs.org)'** | Andre.Rogatko@cshs.org

Fascinating! I think we can possibly iron that out in the pipeline, and I'll start doing some experiments to see how it goes.

As a starting point, we can perhaps estimate how much of the lesion overlaps with the cortex and striatum based on atlas-defined labels. We could include other regions while I'm at it, e.g. hippocampus and thalamus, if you think they might be useful down the road too.

Ryan P. Cabeen, PhD  
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Saturday, Apr 24, 2:45 PM

To: **Ryan Cabeen** | [Ryan.Cabeen@loni.usc.edu](mailto:Ryan.Cabeen@loni.usc.edu)

Cc: **Jessica Lamb** | [jlambj@usc.edu](mailto:jlambj@usc.edu), **Karisma A Nagarkatti** | [nagarkat@usc.edu](mailto:nagarkat@usc.edu), **Diniz, Marcio A** | [Marcio.Diniz@cshs.org](mailto:Marcio.Diniz@cshs.org),  
**'Andre Rogatko (Andre.Rogatko@cshs.org)'** | [Andre.Rogatko@cshs.org](mailto:Andre.Rogatko@cshs.org)

Depending on how much it impedes your other work, it would be fantastic to have. Be mindful, however, that the Day2 scans have edema, while the Day 30 scans have atrophy. Registering the images into an Atlas based on the usual landmarks will involve some stretching and distortion. I know that LONI is basically the best lab in the world at this sort of thing, so I think it could be amazing in terms of explaining the odd ball behavioral results we are seeing.

Thanks

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From: **Ryan Cabeen** | [ryan.cabeen@loni.usc.edu](mailto:ryan.cabeen@loni.usc.edu)

Tuesday, Apr 27, 9:58 AM

To: **Patrick Lyden** | [plyden@usc.edu](mailto:plyden@usc.edu)

Cc: **Jessica Lamb** | [jlambj@usc.edu](mailto:jlambj@usc.edu), **Karisma A Nagarkatti** | [nagarkat@usc.edu](mailto:nagarkat@usc.edu), **Diniz, Marcio A** | [Marcio.Diniz@cshs.org](mailto:Marcio.Diniz@cshs.org),  
'**Andre Rogatko (Andre.Rogatko@cshs.org)**' | [Andre.Rogatko@cshs.org](mailto:Andre.Rogatko@cshs.org)

Sounds like it's worth a try! I'll do some experiments to see how things work out.

Thanks,  
Ryan

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