Re: Rat MCAo

From: **Patrick Lyden** | plyden@usc.edu   Friday, Jun 4, 3:43 PM

To: **Naomi Sta Maria** | nstamari@usc.edu, **Russell E. Jacobs** | jacobsr@usc.edu

Cc: **Padmesh Rajput** | prajput@usc.edu, **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu

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Room 245
MC2821
1501 San Pablo Street
Los Angeles, CA 90089-2821
plyden@usc.edu

From: **Russell E. Jacobs** | jacobsr@usc.edu   Friday, Jun 4, 4:37 PM

To: **Patrick Lyden** | plyden@usc.edu, **Naomi Sta Maria** | nstamari@usc.edu

Cc: **Padmesh Rajput** | prajput@usc.edu, **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu

As I recall, we setup diffusion scans to replicate SPAN – z direction with b values of 0, 500 & 1000. If you can send me the scan numbers, I can check.

rj

From: **Patrick Lyden** | plyden@usc.edu   To: **Naomi Sta Maria** | nstamari@usc.edu   Friday, Jun 4, 3:42 PM

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From: **Russell E. Jacobs** I jacobsr@usc.edu   Friday, Jun 4, 7:55 PM

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From: **Ryan Cabeen** | ryan.cabeen@loni.usc.edu   Tuesday, Jun 8, 10:03 AM

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

Cc: **Padmesh Rajput** | prajput@usc.edu, **Russell E. Jacobs** | jacobsr@usc.edu, **Naomi Sta Maria** | nstamari@usc.edu

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OK – rats it is.

I checked the schedule and you're down for 8am-1pm.
BUT starting at 10am would be much better. I'd like to do a quick early run, then we can take our time with your animals.

rj

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Otherwise, I found the image quality from the stage 2 rat imaging on IDA to be much better than mice, particularly the diffusion scan. There will be some work to translate the analysis, but nothing problematic. Let me know if it would be helpful to go any images or process these new scans.

Ryan P. Cabeen, PhD

Chan Zuckerberg Imaging Scientist

Assistant Professor of Research Neurology

Laboratory of Neuro Imaging

USC Stevens Neuroimaging and Informatics Institute

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Email: rcabeen@loni.usc.edu

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From: **Patrick Lyden** | plyden@usc.edu   Monday, Jun 7, 3:52 PM

I would appreciate any tweaking that you can do. We have 3 good cases from today that will be ready for imaging on Wednesday. Love to see the diffusion sequences working by then.

Ryan, any advice from the rat imaging you are doing in the Stage 2 pilot??

Thanks

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I checked and it is a DWI with the attached btable. Table indicates that there are three "sub scans" with b-values 1000, 0 & 500 with weighting in z direction. SNR is pretty marginal – we'll have to look into that issue.

rj

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Thanks for your help,

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Professor of Neurology
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Room 245
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1501 San Pablo Street
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plyden@usc.edu

From: **Patrick Lyden** | plyden@usc.edu   Tuesday, Jun 8, 10:36 AM

Ok, terrific. We will mosey on down around 9:30 and see about starting scanning by 10am. Thanks for the help.

From: **Russell E. Jacobs** | jacobsr@usc.edu   To: **Patrick Lyden** | plyden@usc.edu   Tuesday, Jun 8, 10:35 AM

OK – rats it is.

I checked the schedule and you're down for 8am-1pm.
BUT starting at 10am would be much better. I'd like to do a quick early run, then we can take our time with your animals.

rj

Russell E. Jacobs, PhD

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Office: 323-865-1668   Lab: 323-442-2096

email: jacobsr@usc.edu

From: **Patrick Lyden** | plyden@usc.edu   To: **Russell E. Jacobs** | jacobsr@usc.edu   Tuesday, Jun 8, 10:32 AM

rats

From: **Russell E. Jacobs** | jacobsr@usc.edu   To: **Patrick Lyden** | plyden@usc.edu   Tuesday, Jun 8, 10:30 AM

Bleeds show up pretty well in T2* sequences (e.g. FLASH). We can give it a go.

Please confirm – tomorrow is mice or rats?

rj

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From: **Patrick Lyden** I plyden@usc.edu   To: **Russell E. Jacobs** I jacobsr@usc.edu   Tuesday, Jun 8, 10:22 AM

Thank you Russel and Naomi. We have time on the magnet tomorrow, starting at 10am. It looks like all 3 mice are doing well. We expect to see large infarcts and it would be very nice to have the diffusion working really well.

One new thing: the drug we are currently studying is likely to cause bleeding. Ryan briefly worked on a protocol to detect hemorrhage, which in clinical imaging usually is a form of susceptibility weighting. I wonder if you have in house a protocol that is good for imaging hemorrhage in the brain?

Many thanks

PL

From: **Russell E. Jacobs** I jacobsr@usc.edu   To: **Ryan.Cabeen@loni.usc.edu**   Tuesday, Jun 8, 10:07 AM

No problem to change the order of b-values. In the future they will be 0, 500, 1000.
rj

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rj

From: **Patrick Lyden** | plyden@usc.edu   To: **Naomi Sta Maria** | nstamari@usc.edu   Friday, Jun 4, 3:42 PM

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From: **Russell E. Jacobs** | jacobsr@usc.edu   Wednesday, Jun 9, 12:00 PM

   To: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu, **Patrick Lyden** | plyden@usc.edu

   Cc: **Padmesh Rajput** | prajput@usc.edu, **Naomi Sta Maria** | nstamari@usc.edu

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With 1000/0/500 the scan runs fine.   So regrets, but we'll have to run the sequence 1000, 0 then 500.

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To: **Patrick Lyden** I plyden@usc.edu, **Russell E. Jacobs** I jacobsr@usc.edu
Cc: **Padmesh Rajput** I prajput@usc.edu, **Naomi Sta Maria** I nstamari@usc.edu

Thanks Russ for trying, we should be able to make it work that way with some additional scripting.

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