Re: SPAN: TTC analysis

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Thursday, Jun 24, 8:22 AM

To: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu, **cayata@mgh.harvard.edu** I CAYATA@mgh.harvard.edu

Cc: **Jessica Lamb** I lambj@usc.edu

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

From: **Ayata, Cenk, M.D.** I CAYATA@mgh.harvard.edu   Thursday, Jun 24, 8:25 AM

To: **Karisma Nagarkatti (USC)** I nagarkat@usc.edu

Cc: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu, **Jessica Lamb (USC)** I lambj@usc.edu

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!

Cenk

From: **Karisma A Nagarkatti** | nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

From: **Ryan Cabeen** | ryan.cabeen@loni.usc.edu   Thursday, Jun 24, 12:52 PM

To: **Karisma Nagarkatti (USC)** | nagarkat@usc.edu, **Ayata, Cenk, M.D.** | CAYATA@mgh.harvard.edu

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

> From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM
>
> Thanks, Karisma.
>
> Ryan, I think we need together on with this… do you need more time to implement the online tool?
>
> Thanks!!
> Cenk

>> From: **Karisma A Nagarkatti** | nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM
>>
>> **External Email - Use Caution**

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

From: **Ayata, Cenk, M.D.** | CAYATA@mgh.harvard.edu   Thursday, Jun 24, 12:54 PM

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

Cc: **Karisma Nagarkatti (USC)** | nagarkat@usc.edu, **Jessica Lamb (USC)** | lambj@usc.edu

Sounds great.

Karisma,
Let’s send that email message to the site PIs so they identify the local staff who will do the measurements.

They should send a name and email address.

Let me know if issues…

Thanks!

Cenk

From: **Ryan Cabeen** ǀ Ryan.Cabeen@loni.usc.edu	Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California

2025 Zonal Ave.

Los Angeles, CA 90033

Tel: (323) 44-BRAIN

Email: rcabeen@loni.usc.edu

Web: cabeen.io

www.ini.usc.edu

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

External Email - Use Caution

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Thursday, Jun 24, 1:20 PM

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

Thank you very much for your help Ryan! The CC greatly appreciates your efforts!

Thank you,
Karisma

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu To: **Karisma A Nagarkatti** I nagarkat@usc.edu Thursday, Jun 24, 12:52 PM

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California

2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

Compliance HelpLine at www.massgeneralbrigham.org/complianceline . If the e-mail was sent to you in error but does not contain patient information, please contact the sender and properly dispose of the e-mail.

Please note that this e-mail is not secure (encrypted). If you do not wish to continue communication over unencrypted e-mail, please notify the sender of this message immediately. Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.

From: **Ayata, Cenk, M.D.** I CAYATA@mgh.harvard.edu   Monday, Jun 28, 4:54 AM

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

Ryan,
Can we find a time this week to go over what has been uploaded for rat, aged and obese mice? We need to bring together the MRI group next week to vet the stage 2 protocol. All you need to do is process the pilot aged and obese mice MRI using the automated segmentation, and check the quality of rat MRIs for any issues that might get in the way of automated segmentation when you retrain the neural net for rats.
Thanks,
C

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are

cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

External Email - Use Caution

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been
scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To

> *quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.*
>
> *Many thanks,*
>
> *The CC"*
>
>
>
> Thanks,
> Karisma

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Monday, Jun 28, 8:57 AM

To: **Ayata, Cenk, M.D.** | CAYATA@mgh.harvard.edu

Sounds good, maybe sometime in these windows?

Wed noon-2pm eastern
Wed 3-6pm eastern
Fri noon-6pm eastern

I've processed the cases on the IDA as of last week, and I'll see if there are any more recent cases up since then.

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.

Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

From: **CAYATA@mgh.harvard.edu**   Monday, Jun 28, 4:54 AM

Ryan,

Can we find a time this week to go over what has been uploaded for rat, aged and obese mice? We need to bring together the MRI group next week to vet the stage 2 protocol. All you need to do is process the pilot aged and obese mice MRI using the automated segmentation, and check the quality of rat MRIs for any issues that might get in the way of automated segmentation when you retrain the neural net for rats.

Thanks,

C

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the

CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

> *Many thanks,*
>
> *The CC"*

Thanks,
Karisma

From: **Ayata, Cenk, M.D.** I CAYATA@mgh.harvard.edu   Monday, Jun 28, 9:03 AM

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

Wed, noon to 2p est is great. Please send link?
tx
c

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   Monday, Jun 28, 11:57 AM

External Email - Use Caution

Sounds good, maybe sometime in these windows?

Wed noon-2pm eastern
Wed 3-6pm eastern
Fri noon-6pm eastern

I've processed the cases on the IDA as of last week, and I'll see if there are any more recent cases up since then.

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io

From: **CAYATA@mgh.harvard.edu**   Monday, Jun 28, 4:54 AM

Ryan,
Can we find a time this week to go over what has been uploaded for rat, aged and obese mice? We need to bring together the MRI group next week to vet the stage 2 protocol. All you need to do is process the pilot aged and obese mice MRI using the automated segmentation, and check the quality of rat MRIs for any issues that might get in the way of automated segmentation when you retrain the neural net for rats.
Thanks,
C

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

> From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM
>
> Thanks, Karisma.
>
> Ryan, I think we need together on with this… do you need more time to implement the online tool?
>
> Thanks!!
> Cenk
>
> > From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

From: **Ryan Cabeen** | ryan.cabeen@loni.usc.edu   Monday, Jun 28, 9:06 AM

To: **Ayata, Cenk, M.D.** | CAYATA@mgh.harvard.edu

Great, sent a calendar invite, and here's the zoom:

Topic: Ryan Cabeen's Zoom Meeting

Time: Jun 30, 2021 12:00 PM Eastern Time (US and Canada)

Join Zoom Meeting
usc.zoom.us/j/3214616632

Meeting ID: 321 461 6632
One tap mobile
+16699006833,,3214616632# US (San Jose)
+12532158782,,3214616632# US (Tacoma)

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

> From: **CAYATA@mgh.harvard.edu**   Monday, Jun 28, 9:03 AM
>
> Wed, noon to 2p est is great. Please send link?
> tx
> c
>
>
> The information in this e-mail is intended only for the person to whom it is addressed. If you believe this e-mail was sent to you in error and the e-mail contains patient information, please contact the Mass General Brigham Compliance HelpLine at www.massgeneralbrigham.org/complianceline . If the e-mail was sent to you in error but does not contain patient information, please contact the sender and properly dispose of the e-mail.
>
> Please note that this e-mail is not secure (encrypted). If you do not wish to continue communication over unencrypted e-mail, please notify the sender of this message immediately. Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.
>
> > From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Monday, Jun 28, 11:57 AM
> >
> > **External Email - Use Caution**

Sounds good, maybe sometime in these windows?

Wed noon-2pm eastern
Wed 3-6pm eastern
Fri noon-6pm eastern

I've processed the cases on the IDA as of last week, and I'll see if there are any more recent cases up since then.

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io

From: **CAYATA@mgh.harvard.edu**   Monday, Jun 28, 4:54 AM

Ryan,
Can we find a time this week to go over what has been uploaded for rat, aged and obese mice? We need to bring together the MRI group next week to vet the stage 2 protocol. All you need to do is process the pilot aged and obese mice MRI using the automated segmentation, and check the quality of rat MRIs for any issues that might get in the way of automated segmentation when you retrain the neural net for rats.
Thanks,
C

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

> From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM
>
> Thanks, Karisma.
>
> Ryan, I think we need together on with this… do you need more time to implement the online tool?
>
> Thanks!!

Cenk

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

From: **Ryan Cabeen** I ryan.cabeen@loni.usc.edu   Tuesday, Jun 29, 4:34 PM

To: **Karisma Nagarkatti (USC)** I nagarkat@usc.edu

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

> From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 12:54 PM
>
> Sounds great.
>
> Karisma,
> Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.
> Let me know if issues…
> Thanks!
> Cenk

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu

Web: cabeen.io
www.ini.usc.edu

veryhigh

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

External Email - Use Caution

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

From: **Ayata, Cenk, M.D.** | CAYATA@mgh.harvard.edu Tuesday, Jun 29, 4:36 PM

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

Cc: **Karisma Nagarkatti (USC)** | nagarkat@usc.edu, **Jessica Lamb (USC)** | lambj@usc.edu

Thanks, Ryan, I will try and let you know.

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu Tuesday, Jun 29, 7:34 PM

External Email - Use Caution

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 12:54 PM

Sounds great.

Karisma,
Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.
Let me know if issues…
Thanks!
Cenk

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I

will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

From: **Ayata, Cenk, M.D.** I CAYATA@mgh.harvard.edu   Tuesday, Jun 29, 5:18 PM

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

Cc: **Karisma Nagarkatti (USC)** I nagarkat@usc.edu, **Jessica Lamb (USC)** I lambj@usc.edu

Works, Ryan. Would you please write an email template for Karisma to distribute to the 6 selected raters?
Great job, thanks,
Cenk

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Tuesday, Jun 29, 7:34 PM

External Email - Use Caution

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 12:54 PM

Sounds great.

Karisma,
Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.
Let me know if issues…
Thanks!
Cenk

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist

Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

External Email - Use Caution

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

> Thanks,
> Karisma
>

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Wednesday, Jun 30, 9:27 PM

To: **Ayata, Cenk, M.D.** | CAYATA@mgh.harvard.edu

Will do, and I'll wait for those additional MGH cases so they are included

Ryan P. Cabeen, PhD
Postdoctoral Scholar - Chan Zuckerberg Imaging Scientist
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

> From: **CAYATA@mgh.harvard.edu**   Tuesday, Jun 29, 5:18 PM
>
> Works, Ryan. Would you please write an email template for Karisma to distribute to the 6 selected raters?
> Great job, thanks,
> Cenk
>

unencrypted e-mail, please notify the sender of this message immediately. Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Tuesday, Jun 29, 7:34 PM

External Email - Use Caution

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 12:54 PM

Sounds great.

Karisma,

Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.

Let me know if issues…

Thanks!

Cenk

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu　　　　　　　　　Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology

Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** | nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

External Email - Use Caution

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,

> ## Karisma
>

From: **Ayata, Cenk, M.D.** l CAYATA@mgh.harvard.edu   Thursday, Jul 1, 3:01 AM

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

OK. They were sent to Karisma yesterday.

> From: **Ryan Cabeen** l Ryan.Cabeen@loni.usc.edu   Thursday, Jul 1, 12:27 AM
>
> **External Email - Use Caution**
>
> Will do, and I'll wait for those additional MGH cases so they are included
>
> Ryan P. Cabeen, PhD
> Postdoctoral Scholar - Chan Zuckerberg Imaging Scientist
> Laboratory of Neuro Imaging
> USC Stevens Neuroimaging and Informatics Institute
> Keck School of Medicine of USC
> University of Southern California
> 2025 Zonal Ave.
> Los Angeles, CA 90033

Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io

Works, Ryan. Would you please write an email template for Karisma to distribute to the 6 selected raters?
Great job, thanks,
Cenk

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Tuesday, Jun 29, 7:34 PM

External Email - Use Caution

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

http://www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist

Assistant Professor of Research Neurology

Laboratory of Neuro Imaging

USC Stevens Neuroimaging and Informatics Institute

Keck School of Medicine of USC

University of Southern California

2025 Zonal Ave.

Los Angeles, CA 90033

Tel: (323) 44-BRAIN

Email: rcabeen@loni.usc.edu

Web: http://cabeen.io

http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 12:54 PM

Sounds great.

Karisma,

Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.

Let me know if issues…

Thanks!

Cenk

The information in this e-mail is intended only for the person to whom it is addressed. If you believe this e-mail was sent to you in error and the e-mail contains patient information, please contact the Mass General Brigham Compliance HelpLine at http://www.massgeneralbrigham.org/complianceline . If the e-mail was sent to you in error but does not contain patient information, please contact the sender and properly dispose of the e-mail.

Please note that this e-mail is not secure (encrypted). If you do not wish to continue communication over unencrypted e-mail, please notify the sender of this message immediately. Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** l nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

External Email - Use Caution

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft

email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that
have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through
the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily
collect measurements from multiple users. Please identify one rater from your site to do
the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

From: **Ryan Cabeen** | ryan.cabeen@loni.usc.edu   Tuesday, Jul 6, 10:17 PM

To: **Karisma Nagarkatti (USC)** | nagarkat@usc.edu
Cc: **Jessica Lamb (USC)** | lambj@usc.edu, **Ayata, Cenk, M.D.** | CAYATA@mgh.harvard.edu

Hi Karisma,

Dr Ayata mentioned there might be more cases from MGH to add to the TTC analysis — if you have those handy, can they perhaps be added to the google drive? (The only ones there now are from the 2020 pilot)

Thanks,
Ryan

Ryan P. Cabeen, PhD

Chan Zuckerberg Imaging Scientist

Assistant Professor of Research Neurology

Laboratory of Neuro Imaging

USC Stevens Neuroimaging and Informatics Institute

Keck School of Medicine of USC

University of Southern California

2025 Zonal Ave.

Los Angeles, CA 90033

Tel: (323) 44-BRAIN

Email: rcabeen@loni.usc.edu

Web: cabeen.io

www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Tuesday, Jun 29, 5:18 PM

Works, Ryan. Would you please write an email template for Karisma to distribute to the 6 selected raters?
Great job, thanks,
Cenk

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Tuesday, Jun 29, 7:34 PM

External Email - Use Caution

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**	Thursday, Jun 24, 12:54 PM

Sounds great.

Karisma,
Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.
Let me know if issues…
Thanks!
Cenk

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu | Thursday, Jun 24, 3:52 PM

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

> From: **CAYATA@mgh.harvard.edu** | Thursday, Jun 24, 8:25 AM
>
> Thanks, Karisma.
>
> Ryan, I think we need together on with this… do you need more time to implement the online tool?
>
> Thanks!!

Cenk

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Wednesday, Jul 7, 8:36 AM

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

Hi Ryan,

I uploaded the TTC data that was sent by Dr. Qin on 6/30. Please see link attached drive.google.com/drive/folders/10zV1CcL0Qel15qYKA4YgN_J5mdw1x-F9?usp=sharing

Let me know if you need anything else
thanks
Karisma

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   To: **Karisma A Nagarkatti** I nagarkat@usc.edu   Tuesday, Jul 6, 10:17 PM

Hi Karisma,

Dr Ayata mentioned there might be more cases from MGH to add to the TTC analysis — if you have those handy, can they perhaps be added to the google drive? (The only ones there now are from the 2020 pilot)

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Tuesday, Jun 29, 5:18 PM

Works, Ryan. Would you please write an email template for Karisma to distribute to the 6 selected raters?
Great job, thanks,
Cenk

The information in this e-mail is intended only for the person to whom it is addressed. If you believe this e-mail was sent to you in error and the e-mail contains patient information, please contact the Mass General Brigham

Compliance HelpLine at www.massgeneralbrigham.org/complianceline . If the e-mail was sent to you in error but does not contain patient information, please contact the sender and properly dispose of the e-mail.

Please note that this e-mail is not secure (encrypted). If you do not wish to continue communication over unencrypted e-mail, please notify the sender of this message immediately. Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Tuesday, Jun 29, 7:34 PM

External Email - Use Caution

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 12:54 PM

Sounds great.

Karisma,
Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.
Let me know if issues…
Thanks!
Cenk

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist

Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** l nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

External Email - Use Caution

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

> > Thanks,
> > Karisma
>
> >

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Wednesday, Jul 7, 10:20 AM

To: **Ayata, Cenk, M.D.** I CAYATA@mgh.harvard.edu, **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu

Cc: **Jessica Lamb** I lambj@usc.edu

Hi Ryan,

Is this ready to distribute? Are you able to send a template email with instructions for the investigators. I received the final list from the site investigators who will be analyzing using the online tool and I can distribute once this is ready to send.

Thank you for your help, we really appreciate it!
Thanks,
Karisma

From: **Ayata** I CAYATA@mgh.harvard.edu   To: **Ryan.Cabeen@loni.usc.edu** I Ryan.Cabeen@loni.usc.edu   Tuesday, Jun 29, 5:17 PM

Works, Ryan. Would you please write an email template for Karisma to distribute to the 6 selected raters?
Great job, thanks,
Cenk

mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Tuesday, Jun 29, 7:34 PM

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

> From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 12:54 PM
>
> Sounds great.
>
> Karisma,
> Let’s send that email message to the site PIs so they identify the local staff who will do the

measurements. They should send a name and email address.

Let me know if issues…

Thanks!

Cenk

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC

University of Southern California

2025 Zonal Ave.

Los Angeles, CA 90033

Tel: (323) 44-BRAIN

Email: rcabeen@loni.usc.edu

Web: http://cabeen.io

http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** l nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

External Email - Use Caution

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

The information in this e-mail is intended only for the person to whom it is addressed. If you believe this

---

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   Wednesday, Jul 7, 10:44 AM

To: **Karisma A Nagarkatti** I nagarkat@usc.edu

Cc: **Ayata, Cenk, M.D.** I CAYATA@mgh.harvard.edu, **Jessica Lamb** I lambj@usc.edu

Thanks Karisma, by any cognate are there images as well? I only see the email and a spreadsheet of metrics

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Wednesday, Jul 7, 10:20 AM

Hi Ryan,

Is this ready to distribute? Are you able to send a template email with instructions for the investigators. I received the final list from the site investigators who will be analyzing using the online tool and I can distribute once this is ready to send.

Thank you for your help, we really appreciate it!
Thanks,

Karisma

Works, Ryan. Would you please write an email template for Karisma to distribute to the 6 selected raters?

Great job, thanks,

Cenk

External Email - Use Caution

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist

Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

Sounds great.

Karisma,
Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.
Let me know if issues…
Thanks!
Cenk

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

External Email - Use Caution

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available

and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Wednesday, Jul 7, 10:46 AM

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

Cc: **Ayata, Cenk, M.D.** I CAYATA@mgh.harvard.edu, **Jessica Lamb** I lambj@usc.edu

Hi Ryan,

Dr. Qin only sent me metrics but let me follow up with him, perhaps he forgot to include the images in the excel doc.

Thanks

Karisma

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   To: **Karisma A Nagarkatti** | nagarkat@usc.edu   Wednesday, Jul 7, 10:44 AM

Thanks Karisma, by any cognate are there images as well? I only see the email and a spreadsheet of metrics

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

From: **Karisma A Nagarkatti** | nagarkat@usc.edu   Wednesday, Jul 7, 10:20 AM

Hi Ryan,

Is this ready to distribute? Are you able to send a template email with instructions for the investigators. I received the final list from the site investigators who will be analyzing using the online tool and I can distribute once this is ready to send.

Thank you for your help, we really appreciate it!
Thanks,
Karisma

From: **Ayata** | To: **Ryan.Cabeen@loni.usc.edu** | Tuesday, Jun 29, 5:17
CAYATA@mgh.harvard.edu   Ryan.Cabeen@loni.usc.edu   PM

Works, Ryan. Would you please write an email template for Karisma to distribute to the 6 selected raters?
Great job, thanks,
Cenk

The information in this e-mail is intended only for the person to whom it is addressed. If you believe this e-mail was sent to you in error and the e-mail contains patient information, please contact the Mass General Brigham Compliance HelpLine at www.massgeneralbrigham.org/complianceline . If the e-mail was sent to

you in error but does not contain patient information, please contact the sender and properly dispose of the e-mail.

Please note that this e-mail is not secure (encrypted). If you do not wish to continue communication over unencrypted e-mail, please notify the sender of this message immediately. Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   Tuesday, Jun 29, 7:34 PM

External Email - Use Caution

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 12:54 PM

Sounds great.

Karisma,
Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.
Let me know if issues…
Thanks!
Cenk

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist

Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

External Email - Use Caution

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

> Thanks,
> Karisma
>

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Wednesday, Jul 7, 10:47 AM

To: **Karisma A Nagarkatti** | nagarkat@usc.edu

Cc: **Ayata, Cenk, M.D.** | CAYATA@mgh.harvard.edu, **Jessica Lamb** | lambj@usc.edu

Sounds good, thank you!

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

From: **Karisma A Nagarkatti** | nagarkat@usc.edu   Wednesday, Jul 7, 10:46 AM

Hi Ryan,

Dr. Qin only sent me metrics but let me follow up with him, perhaps he forgot to include the images in the excel doc.

Thanks
Karisma

Thanks Karisma, by any cognate are there images as well? I only see the email and a spreadsheet of metrics

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

From: **Karisma A Nagarkatti** | nagarkat@usc.edu

Wednesday, Jul 7, 10:20 AM

Hi Ryan,

Is this ready to distribute? Are you able to send a template email with instructions for the investigators. I received the final list from the site investigators who will be analyzing using the online tool and I can distribute once this is ready to send.

Thank you for your help, we really appreciate it!
Thanks,
Karisma

From: **Ayata** |
CAYATA@mgh.harvard.edu

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

Tuesday, Jun 29, 5:17
PM

Works, Ryan. Would you please write an email template for Karisma to distribute to the 6 selected raters?
Great job, thanks,
Cenk

e-mail.

Please note that this e-mail is not secure (encrypted). If you do not wish to continue communication over unencrypted e-mail, please notify the sender of this message immediately. Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   Tuesday, Jun 29, 7:34 PM

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 12:54 PM

Sounds great.

Karisma,
Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.
Let me know if issues…
Thanks!
Cenk

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then

letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

External Email - Use Caution

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

> *The CC"*
>
> > Thanks,
> > Karisma
>
> > The information in this e-mail is intended only for the person to whom it is addressed. If you believe this e-mail was sent to you in error and the e-mail contains patient information, please contact the Mass General Brigham Compliance HelpLine at http://www.massgeneralbrigham.org/complianceline . If the e-mail was sent to you in error but does not contain patient information, please contact the sender and properly dispose of the e-mail.
>
> > Please note that this e-mail is not secure (encrypted). If you do not wish to continue communication over unencrypted e-mail, please notify the sender of this message immediately. Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Wednesday, Jul 7, 10:57 AM

   To: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu
   Cc: **Ayata, Cenk, M.D.** I CAYATA@mgh.harvard.edu, **Jessica Lamb** I lambj@usc.edu

Hi Ryan,

Dr. Qin uploaded them into the google drive link, the files were too large to send via email.
Please see link below:

drive.google.com/drive/folders/10zV1CcL0QeI15qYKA4YgN_J5mdw1x-F9?usp=sharing

Thanks,
Karisma

> From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu To: **Karisma A Nagarkatti** I nagarkat@usc.edu   Wednesday, Jul 7, 10:47 AM
>
> Sounds good, thank you!
>
> Ryan P. Cabeen, PhD
> Chan Zuckerberg Imaging Scientist
> Assistant Professor of Research Neurology
> Laboratory of Neuro Imaging
> USC Stevens Neuroimaging and Informatics Institute
> Keck School of Medicine of USC

University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

Hi Ryan,

Dr. Qin only sent me metrics but let me follow up with him, perhaps he forgot to include the images in the excel doc.

Thanks
Karisma

Thanks Karisma, by any cognate are there images as well? I only see the email and a spreadsheet of metrics

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

Hi Ryan,

Is this ready to distribute? Are you able to send a template email with instructions for the

investigators. I received the final list from the site investigators who will be analyzing using the online tool and I can distribute once this is ready to send.

Thank you for your help, we really appreciate it!
Thanks,
Karisma

From: **Ayata** |
CAYATA@mgh.harvard.edu

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

Tuesday, Jun 29, 5:17 PM

Works, Ryan. Would you please write an email template for Karisma to distribute to the 6 selected raters?
Great job, thanks,
Cenk

The information in this e-mail is intended only for the person to whom it is addressed. If you believe this e-mail was sent to you in error and the e-mail contains patient information, please contact the Mass General Brigham Compliance HelpLine at www.massgeneralbrigham.org/complianceline . If the e-mail was sent to you in error but does not contain patient information, please contact the sender and properly dispose of the e-mail.

Please note that this e-mail is not secure (encrypted). If you do not wish to continue communication over unencrypted e-mail, please notify the sender of this message immediately. Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.

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

Tuesday, Jun 29, 7:34 PM

External Email - Use Caution

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

> From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 12:54 PM
>
> Sounds great.
>
> Karisma,
> Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.
> Let me know if issues…
> Thanks!
> Cenk
>
>
> > From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM
> >
> > **External Email - Use Caution**
> >
> > Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The

last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**	Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** l nagarkat@usc.edu	Thursday, Jun 24, 11:22 AM

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Wednesday, Jul 7, 11:11 AM

To: **Karisma A Nagarkatti** | nagarkat@usc.edu
Cc: **Ayata, Cenk, M.D.** | CAYATA@mgh.harvard.edu, **Jessica Lamb** | lambj@usc.edu

Great, I'll update the website to include these and then send along the links to circulate to the raters

Thanks
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

From: **Karisma A Nagarkatti** | nagarkat@usc.edu   Wednesday, Jul 7, 10:57 AM

Hi Ryan,

Dr. Qin uploaded them into the google drive link, the files were too large to send via email.
Please see link below:

drive.google.com/drive/folders/10zV1CcL0Qel15qYKA4YgN_J5mdw1x-F9?usp=sharing

Thanks,
Karisma

From: **Ryan Cabeen** | To: **Karisma A Nagarkatti** | Wednesday, Jul 7, 10:47
Ryan.Cabeen@loni.usc.edu   nagarkat@usc.edu   AM

Sounds good, thank you!

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu

Web: cabeen.io

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Wednesday, Jul 7, 10:46 AM

Hi Ryan,

Dr. Qin only sent me metrics but let me follow up with him, perhaps he forgot to include the images in the excel doc.

Thanks
Karisma

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   To: **Karisma A Nagarkatti** I nagarkat@usc.edu   Wednesday, Jul 7, 10:44 AM

Thanks Karisma, by any cognate are there images as well? I only see the email and a spreadsheet of metrics

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Wednesday, Jul 7, 10:20 AM

Hi Ryan,

Is this ready to distribute? Are you able to send a template email with instructions for the investigators. I received the final list from the site investigators who will be analyzing using the online tool and I can distribute once this is ready to send.

Thank you for your help, we really appreciate it!
Thanks,

Karisma

Works, Ryan. Would you please write an email template for Karisma to distribute to the 6 selected raters?
Great job, thanks,
Cenk

External Email - Use Caution

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 12:54 PM

Sounds great.

Karisma,
Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.
Let me know if issues…
Thanks!
Cenk

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data

up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**	Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti**	nagarkat@usc.edu	Thursday, Jun 24, 11:22 AM

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

From: **Ryan Cabeen** | ryan.cabeen@loni.usc.edu   Thursday, Jul 8, 11:22 PM

To: **Karisma A Nagarkatti** | nagarkat@usc.edu
Cc: **Ayata, Cenk, M.D.** | CAYATA@mgh.harvard.edu, **Jessica Lamb** | lambj@usc.edu

Hi all,

I've updated the annotation website to use the new cases, so I think we are ready to share with the raters! Copied below please find a draft template email, which can be updated as you all see fit:

<quote>
Dear <name>,

We are writing to kindly ask for your help in validating our image analysis pipeline by providing manual segmentations of brain and lesion extent from our TTC-stained tissue images. We have built an online tool for drawing outlines, and there are about 140 images that we ask each site to help annotate. You can follow the link below and use the given username and password to login:

<url> <username>:<password>

There is an instructional video on the site that describes and demonstrates how to use the tool. Please use your own best judgement in defining the brain and lesion outlines. If there is no lesion, you can skip that label, but every image should have at least a brain label. You may also label any other features that you find relevant using a custom label. Your work will be saved automatically to the server, so you won't have to worry about sending results back to us. Please let the coordinating center know when you are finished with the task. It should take 30 seconds to 1 minute per image, so the task should take less than two hours. If you leave the site, you can return and find your previous work, but you will need to skip ahead to the image where you left off.

If you have any questions you can email Ryan Cabeen at rcabeen@loni.usc.edu. Your help with this is very much appreciated!

Best wishes,
the CC
</quote>

Then, here are the unique url/username/password that can be pasted in for each of the six raters:

www.spinhub.io/span-colab-10081 span:Q2lvwmxwQjs0RLLa www.spinhub.io/span-colab-11183 span:5qzSAV3lzDEzR4QU www.spinhub.io/span-colab-19588 span:c8S4gqC2UI62R35j www.spinhub.io/span-colab-22859 span:AhiuEUR0gIBb4MdO www.spinhub.io/span-colab-24842 span:q1KdsT4nYt8dCFih www.spinhub.io/span-colab-25078 span:MiEDHXEc5oQ5Upl0

Please let me know if you need anything else.

Cheers,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist

Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Wednesday, Jul 7, 11:11 AM

Great, I'll update the website to include these and then send along the links to circulate to the raters

Thanks
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

From: **Karisma A Nagarkatti** | nagarkat@usc.edu   Wednesday, Jul 7, 10:57 AM

Hi Ryan,

Dr. Qin uploaded them into the google drive link, the files were too large to send via email.
Please see link below:
drive.google.com/drive/folders/10zV1CcL0Qel15qYKA4YgN_J5mdw1x-F9?usp=sharing

Thanks,
Karisma

From: **Ryan Cabeen** | To: **Karisma A Nagarkatti** | Wednesday, Jul 7, 10:47

Sounds good, thank you!

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Wednesday, Jul 7, 10:46 AM

Hi Ryan,

Dr. Qin only sent me metrics but let me follow up with him, perhaps he forgot to include the images in the excel doc.

Thanks
Karisma

From: **Ryan Cabeen** I   To: **Karisma A Nagarkatti** I   Wednesday, Jul 7, 10:44
Ryan.Cabeen@loni.usc.edu   nagarkat@usc.edu   AM

Thanks Karisma, by any cognate are there images as well? I only see the email and a spreadsheet of metrics

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033

Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Wednesday, Jul 7, 10:20 AM

Hi Ryan,

Is this ready to distribute? Are you able to send a template email with instructions for the investigators. I received the final list from the site investigators who will be analyzing using the online tool and I can distribute once this is ready to send.

Thank you for your help, we really appreciate it!
Thanks,
Karisma

From: **Ayata** I   To: **Ryan.Cabeen@loni.usc.edu** I   Tuesday, Jun 29, 5:17
CAYATA@mgh.harvard.edu   Ryan.Cabeen@loni.usc.edu   PM

Works, Ryan. Would you please write an email template for Karisma to distribute to the 6 selected raters?
Great job, thanks,
Cenk

The information in this e-mail is intended only for the person to whom it is addressed. If you believe this e-mail was sent to you in error and the e-mail contains patient information, please contact the Mass General Brigham Compliance HelpLine at www.massgeneralbrigham.org/complianceline . If the e-mail was sent to you in error but does not contain patient information, please contact the sender and properly dispose of the e-mail.

Please note that this e-mail is not secure (encrypted). If you do not wish to continue communication over unencrypted e-mail, please notify the sender of this message immediately. Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   Tuesday, Jun 29, 7:34 PM

External Email - Use Caution

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video,

some fixes, and a system for archiving the annotations. Here's an example that is live:

www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

> From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 12:54 PM
>
> Sounds great.
>
> Karisma,
> Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.
> Let me know if issues…
> Thanks!
> Cenk
>

mail.

Please note that this e-mail is not secure (encrypted). If you do not wish to continue communication over unencrypted e-mail, please notify the sender of this message immediately. Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io

http://www.ini.usc.edu

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

External Email - Use Caution

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

From: **Ayata, Cenk, M.D.** | cayata@mgh.harvard.edu   Friday, Jul 9, 4:04 AM

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

Cc: **Karisma Nagarkatti (USC)** | nagarkat@usc.edu, **Jessica Lamb (USC)** | lambj@usc.edu

Minor revision below in red, so they do not freak out …

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Friday, Jul 9, 2:22 AM

External Email - Use Caution

Hi all,

I've updated the annotation website to use the new cases, so I think we are ready to share with the raters! Copied below please find a draft template email, which can be updated as you all see fit:

<quote>
Dear <name>,

We are writing to kindly ask for your help in validating our image analysis pipeline by providing manual segmentations of brain and lesion extent from our TTC-stained tissue images. We have built an online tool for drawing outlines, and there are about 140 single coronal slices stained with TTC that we ask each site to help annotate. You can follow the link below and use the given username and password to login:

<url> <username>:<password>

There is an instructional video on the site that describes and demonstrates how to use the tool.Some slices may be poorly stained or have missing parts. Please use your ~~own~~ best judgement in defining the brain and lesion outlines, like when you are measuring infarct volumes for your own projects. Whatever rules you follow when outlining the slices, please apply to all brains. If there is no lesion, you can skip that label, but every image should have at least a brain label. You may also label any other features that you find relevant using a custom label. Your work will be saved automatically to the server, so you won't have to worry about sending results back to us. Please let the coordinating center know when you are finished with the task. It should take 30 seconds to 1 minute per image, so the task should take less than two hours. If you leave the site, you can return and find your previous work, but you will need to skip ahead to the image where you left off.

If you have any questions you can email Ryan Cabeen at rcabeen@loni.usc.edu. Your help with this is very much appreciated!

Best wishes,
the CC
</quote>

Then, here are the unique url/username/password that can be pasted in for each of the six raters:

www.spinhub.io/span-colab-10081 span:Q2lvwmxwQjs0RLLa www.spinhub.io/span-colab-11183 span:5qzSAV3lzDEzR4QU www.spinhub.io/span-colab-19588 span:c8S4gqC2UI62R35j www.spinhub.io/span-colab-22859 span:AhiuEUR0gIBb4MdO www.spinhub.io/span-colab-24842 span:q1KdsT4nYt8dCFih www.spinhub.io/span-colab-25078 span:MiEDHXEc5oQ5Upl0

Please let me know if you need anything else.

Cheers,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Wednesday, Jul 7, 11:11 AM

Great, I'll update the website to include these and then send along the links to circulate to the raters

Thanks
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io

> From: **Karisma A Nagarkatti** | nagarkat@usc.edu   Wednesday, Jul 7, 10:57 AM
>
> Hi Ryan,
>
> Dr. Qin uploaded them into the google drive link, the files were too large to send via email.
> Please see link below:
> https://drive.google.com/drive/folders/10zV1CcL0Qel15qYKA4YgN_J5mdw1x-F9?usp=sharing
>
> Thanks,
> Karisma
>
> > From: **Ryan Cabeen** | To: **Karisma A Nagarkatti** | Wednesday, Jul 7, 10:47
> > Ryan.Cabeen@loni.usc.edu   nagarkat@usc.edu   AM
> >
> > Sounds good, thank you!
> >
> > Ryan P. Cabeen, PhD
> > Chan Zuckerberg Imaging Scientist
> > Assistant Professor of Research Neurology
> > Laboratory of Neuro Imaging
> > USC Stevens Neuroimaging and Informatics Institute
> > Keck School of Medicine of USC
> > University of Southern California
> > 2025 Zonal Ave.

Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io

From: **Karisma A Nagarkatti** | nagarkat@usc.edu   Wednesday, Jul 7, 10:46 AM

Hi Ryan,

Dr. Qin only sent me metrics but let me follow up with him, perhaps he forgot to include the images in the excel doc.

Thanks
Karisma

From: **Ryan Cabeen** | To: **Karisma A Nagarkatti** | Wednesday, Jul 7, 10:44
Ryan.Cabeen@loni.usc.edu   nagarkat@usc.edu   AM

Thanks Karisma, by any cognate are there images as well? I only see the email and a spreadsheet of metrics

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io

From: **Karisma A Nagarkatti** | nagarkat@usc.edu   Wednesday, Jul 7, 10:20 AM

Hi Ryan,

Is this ready to distribute? Are you able to send a template email with instructions for the investigators. I received the final list from the site investigators who will be analyzing using the online tool and I can distribute once this is ready to send.

Thank you for your help, we really appreciate it!

Thanks,

Karisma

Works, Ryan. Would you please write an email template for Karisma to distribute to the 6 selected raters?

Great job, thanks,

Cenk

External Email - Use Caution

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

http://www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**	Thursday, Jun 24, 12:54 PM

Sounds great.

Karisma,
Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.
Let me know if issues…
Thanks!
Cenk

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu	Thursday, Jun 24, 3:52 PM

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

External Email - Use Caution

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

Hi Ryan,

Thanks for sending this just to be clear the username for all raters is 'span' and then the passwords and urls are unique correct?

For example

Username 1: span

Password 1: Q2lvwmxwQjs0RLLa

URL 1: www.spinhub.io/span-colab-10081

Thanks for your help,

Karisma

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   To: **Karisma A Nagarkatti** | nagarkat@usc.edu   Thursday, Jul 8, 11:22 PM

Hi all,

I've updated the annotation website to use the new cases, so I think we are ready to share with the raters! Copied below please find a draft template email, which can be updated as you all see fit:

<quote>
Dear <name>,

We are writing to kindly ask for your help in validating our image analysis pipeline by providing manual segmentations of brain and lesion extent from our TTC-stained tissue images. We have built an online tool for drawing outlines, and there are about 140 images that we ask each site to help annotate. You can follow the link below and use the given username and password to login:

<url> <username>:<password>

There is an instructional video on the site that describes and demonstrates how to use the tool. Please use your own best judgement in defining the brain and lesion outlines. If there is no lesion, you can skip that label, but every image should have at least a brain label. You may also label any other features that you find relevant using a custom label. Your work will be saved automatically to the server, so you won't have to worry about sending results back to us. Please let the coordinating center know when you are finished with the task. It should take 30 seconds to 1 minute per image, so the task should take less than two hours. If you leave the site, you can return and find your previous work, but you will need to skip ahead to the image where you left off.

If you have any questions you can email Ryan Cabeen at rcabeen@loni.usc.edu. Your help with this is very much appreciated!

Best wishes,
the CC

</quote>

Then, here are the unique url/username/password that can be pasted in for each of the six raters:

www.spinhub.io/span-colab-10081 span:Q2lvwmxwQjs0RLLa www.spinhub.io/span-colab-11183 span:5qzSAV3lzDEzR4QU www.spinhub.io/span-colab-19588 span:c8S4gqC2UI62R35j www.spinhub.io/span-colab-22859 span:AhiuEUR0gIBb4MdO www.spinhub.io/span-colab-24842 span:q1KdsT4nYt8dCFih www.spinhub.io/span-colab-25078 span:MiEDHXEc5oQ5Upl0

Please let me know if you need anything else.

Cheers,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Wednesday, Jul 7, 11:11 AM

Great, I'll update the website to include these and then send along the links to circulate to the raters

Thanks
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033

Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

Hi Ryan,

Dr. Qin uploaded them into the google drive link, the files were too large to send via email.
Please see link below:

drive.google.com/drive/folders/10zV1CcL0Qel15qYKA4YgN_J5mdw1x-F9?usp=sharing

Thanks,
Karisma

From: **Ryan Cabeen** I   To: **Karisma A Nagarkatti** I   Wednesday, Jul 7, 10:47
Ryan.Cabeen@loni.usc.edu   nagarkat@usc.edu   AM

Sounds good, thank you!

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Wednesday, Jul 7, 10:46 AM

Hi Ryan,

Dr. Qin only sent me metrics but let me follow up with him, perhaps he forgot to include the
images in the excel doc.

Thanks
Karisma

From: **Ryan Cabeen** I   To: **Karisma A Nagarkatti** I   Wednesday, Jul 7, 10:44

Thanks Karisma, by any cognate are there images as well? I only see the email and a spreadsheet of metrics

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

From: **Karisma A Nagarkatti** | nagarkat@usc.edu   Wednesday, Jul 7, 10:20 AM

Hi Ryan,

Is this ready to distribute? Are you able to send a template email with instructions for the investigators. I received the final list from the site investigators who will be analyzing using the online tool and I can distribute once this is ready to send.

Thank you for your help, we really appreciate it!
Thanks,
Karisma

From: **Ayata** | To: **Ryan.Cabeen@loni.usc.edu** | Tuesday, Jun 29,
CAYATA@mgh.harvard.edu   Ryan.Cabeen@loni.usc.edu   5:17 PM

Works, Ryan. Would you please write an email template for Karisma to distribute to the 6 selected raters?
Great job, thanks,
Cenk

The information in this e-mail is intended only for the person to whom it is addressed. If you believe this e-mail was sent to you in error and the e-mail contains patient information, please contact the Mass General Brigham Compliance HelpLine at

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   Tuesday, Jun 29, 7:34 PM

External Email - Use Caution

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
[Email: rcabeen@loni.usc.edu](mailto:rcabeen@loni.usc.edu)
Web: cabeen.io
www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 12:54 PM

Sounds great.

Karisma,
Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.
Let me know if issues…
Thanks!
Cenk

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** I nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

External Email - Use Caution

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us to easily collect measurements from multiple users. Please identify one rater from your site to do the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

From: **Karisma A Nagarkatti** | nagarkat@usc.edu   Friday, Jul 9, 9:19 AM

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

Never mind just tested it out thanks for your help!

From: **Karisma A Nagarkatti** | nagarkat@usc.edu

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

Friday, Jul 9, 9:18 AM

Hi Ryan,
Thanks for sending this just to be clear the username for all raters is 'span' and then the passwords and urls are unique correct?

<u>For example</u>
Username 1: span
Password 1: Q2lvwmxwQjs0RLLa
URL 1: www.spinhub.io/span-colab-10081

Thanks for your help,
Karisma

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   To: **Karisma A Nagarkatti** | nagarkat@usc.edu   Thursday, Jul 8, 11:22 PM

Hi all,

I've updated the annotation website to use the new cases, so I think we are ready to share with the raters! Copied below please find a draft template email, which can be updated as you all see fit:

<quote>
Dear <name>,

We are writing to kindly ask for your help in validating our image analysis pipeline by providing manual segmentations of brain and lesion extent from our TTC-stained tissue images. We have built an online tool for drawing outlines, and there are about 140 images that we ask each site to help annotate. You can follow the link below and use the given username and password to login:

<url> <username>:<password>

There is an instructional video on the site that describes and demonstrates how to use the tool. Please use your own best judgement in defining the brain and lesion outlines. If there is no lesion, you can skip that label, but every image should have at least a brain label. You may also label any other features that you find relevant using a custom label. Your work will be saved automatically to the server, so you won't have to worry about sending results back to us. Please let the coordinating center know when you are finished with the task. It should take 30 seconds to 1 minute per image, so the task should take less than two hours. If you leave the site, you can return and find your previous work, but you will need to skip ahead to the image where you left off.

If you have any questions you can email Ryan Cabeen at rcabeen@loni.usc.edu. Your help with this is very much appreciated!

Best wishes,
the CC
</quote>

Then, here are the unique url/username/password that can be pasted in for each of the six raters:

www.spinhub.io/span-colab-10081 span:Q2lvwmxwQjs0RLLa www.spinhub.io/span-colab-11183 span:5qzSAV3lzDEzR4QU www.spinhub.io/span-colab-19588 span:c8S4gqC2UI62R35j www.spinhub.io/span-colab-22859 span:AhiuEUR0gIBb4MdO www.spinhub.io/span-colab-24842 span:q1KdsT4nYt8dCFih www.spinhub.io/span-colab-25078 span:MiEDHXEc5oQ5Upl0

Please let me know if you need anything else.

Cheers,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist

Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io
www.ini.usc.edu

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Wednesday, Jul 7, 11:11 AM

Great, I'll update the website to include these and then send along the links to circulate to the raters

Thanks
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

From: **Karisma A Nagarkatti** | nagarkat@usc.edu   Wednesday, Jul 7, 10:57 AM

Hi Ryan,

Dr. Qin uploaded them into the google drive link, the files were too large to send via email.
Please see link below:
drive.google.com/drive/folders/10zV1CcL0Qel15qYKA4YgN_J5mdw1x-F9?usp=sharing

Thanks,
Karisma

From: **Ryan Cabeen** | To: **Karisma A Nagarkatti** | Wednesday, Jul 7, 10:47

Sounds good, thank you!

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

From: **Karisma A Nagarkatti** | nagarkat@usc.edu   Wednesday, Jul 7, 10:46 AM

Hi Ryan,

Dr. Qin only sent me metrics but let me follow up with him, perhaps he forgot to include the images in the excel doc.

Thanks
Karisma

From: **Ryan Cabeen** | To: **Karisma A Nagarkatti** | Wednesday, Jul 7, 10:44
Ryan.Cabeen@loni.usc.edu   nagarkat@usc.edu   AM

Thanks Karisma, by any cognate are there images as well? I only see the email and a spreadsheet of metrics

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033

Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: cabeen.io

Hi Ryan,

Is this ready to distribute? Are you able to send a template email with instructions for the investigators. I received the final list from the site investigators who will be analyzing using the online tool and I can distribute once this is ready to send.

Thank you for your help, we really appreciate it!
Thanks,
Karisma

From: **Ayata** I   To: **Ryan.Cabeen@loni.usc.edu** I   Tuesday, Jun 29,
CAYATA@mgh.harvard.edu   Ryan.Cabeen@loni.usc.edu   5:17 PM

Works, Ryan. Would you please write an email template for Karisma to distribute to the 6 selected raters?
Great job, thanks,
Cenk

The information in this e-mail is intended only for the person to whom it is addressed. If you believe this e-mail was sent to you in error and the e-mail contains patient information, please contact the Mass General Brigham Compliance HelpLine at www.massgeneralbrigham.org/complianceline . If the e-mail was sent to you in error but does not contain patient information, please contact the sender and properly dispose of the e-mail.

Please note that this e-mail is not secure (encrypted). If you do not wish to continue communication over unencrypted e-mail, please notify the sender of this message immediately. Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.

From: **Ryan Cabeen** I Ryan.Cabeen@loni.usc.edu   Tuesday, Jun 29, 7:34 PM

External Email - Use Caution

Hi all,

Just wanted to follow up on this — I have a test site up and running, now with a training video, some fixes, and a system for archiving the annotations. Here's an example that is live:

www.spinhub.io/span-colab-72950
username: span
password: Epsmb6tBCURMGCIW

So we should be ready to share this with the sites soon, but I think the last thing we need is a final test run. Perhaps one of you could try loading it up and drawing on a few images and letting me know if it seems to work? Then, I'll check to see that everything was archived properly on my end. It shouldn't take more than a few minutes, and it would be very helpful!

Thanks,
Ryan

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
[Email: rcabeen@loni.usc.edu](mailto:rcabeen@loni.usc.edu)
Web: cabeen.io
www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 12:54 PM

Sounds great.

Karisma,
Let’s send that email message to the site PIs so they identify the local staff who will do the measurements. They should send a name and email address.
Let me know if issues…
Thanks!
Cenk

The information in this e-mail is intended only for the person to whom it is addressed. If you believe this e-mail was sent to you in error and the e-mail contains patient information, please contact the Mass General Brigham Compliance HelpLine at http://www.massgeneralbrigham.org/complianceline . If the e-mail was sent to you in error but does not contain patient information, please contact the sender and properly dispose of the e-mail.

From: **Ryan Cabeen** | Ryan.Cabeen@loni.usc.edu   Thursday, Jun 24, 3:52 PM

External Email - Use Caution

Thanks Karisma! Yes, I'll need a bit more time to polish and test things, but it's nearly there. The last remaining pieces I see on my end are: to create a training video, to split the data up for each rater, and then do a final test session. I'll circle back after that, should be a few more days. By the way, here's a link to the current version:

http://www.spinhub.io
username: span
password: v45nLSXrTYFBmqoX

If you'd like to experiment with the test site above and have any feedback, I'm all ears. The first two images are cartoons I'll use for the tutorial (to be removed before sharing with the sites), and otherwise all of the TTC images are online there now, some of which have annotations that I made.

What I'm imagining is that I can create a separate unique version of this website for each rater, and then the CC can email each rater/site their assigned website url/credentials. Then, I'll be able to access their annotations from the server myself, so their only task would be the labeling and then letting the CC know when they are done. How does that sound?

Ryan P. Cabeen, PhD
Chan Zuckerberg Imaging Scientist
Assistant Professor of Research Neurology
Laboratory of Neuro Imaging
USC Stevens Neuroimaging and Informatics Institute
Keck School of Medicine of USC
University of Southern California
2025 Zonal Ave.
Los Angeles, CA 90033
Tel: (323) 44-BRAIN
Email: rcabeen@loni.usc.edu
Web: http://cabeen.io
http://www.ini.usc.edu

From: **CAYATA@mgh.harvard.edu**   Thursday, Jun 24, 8:25 AM

Thanks, Karisma.

Ryan, I think we need together on with this… do you need more time to implement the online tool?

Thanks!!
Cenk

From: **Karisma A Nagarkatti** | nagarkat@usc.edu   Thursday, Jun 24, 11:22 AM

Hi Drs. Ayata and Cabeen,

I wanted to follow up on Dr. Ayata's announcement last week that sites will be provided with a online tool to outline some TTC scans. Please let me know when this is available and I will send it out with the instructions that you provide. Dr. Lyden has made a draft email below, please edit as needed. Thanks for your help!

"Dear Colleagues
The CC would like to follow up on the MRI validation plan. As you know, we have 20 subjects
that have been scanned with MRI and subject to TTC imaging. Now we will run the MRI scans
through the LONI pipeline. To quantify the TTC images, we will use an online tool that allows us
to easily collect measurements from multiple users. Please identify one rater from your site to do
the TTC outlining. Each rater will get 12 or so brains to analyze.

Many thanks,

The CC"

Thanks,
Karisma

Continuing to send or respond to e-mail after receiving this message means you understand and accept this risk and wish to continue to communicate over unencrypted e-mail.