M Gmail

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Regarding RADC DTI Preprocessing

Shreya K.R. <shreyakr96@gmail.com>   Thu, Aug 6, 2020 at 5:48 PM
To: payelsardar@iisc.ac.in, Varsha Sreenivasan <varsha.sreeni@gmail.com>
Cc: Sridhar Devarajan <sridharan.d@gmail.com>

Hi Guys,

The RADC NIfTI subject visit folders have been uploaded to the shared drive, to which you have been provided access.
https://drive.google.com/drive/folders/16QaAzwSfWCa0aH4rB8K5kp4bX3O10w5X?usp=sharing

This NIfTI folder contains 3 subfolders:

1. MG_NIfTI
2. UC_NIfTI
3. bfiles

The explanation for the contents of these subfolders follows:

MG_NIfTI Sub-folder

The **MG_NIfTI** subfolder consists of Subject Visit Subfolders titled **SubjectID_Visit#**, as shown below

RADC > RADC_NIfTI > MG_NIfTI > mg ▾

Name ↑

📁   00709354_04

📁   00709354_06

📁   00807897_04

📁   00807897_06

📁   01172523_04

📁   01841461_02

Within each **subject visit folder**, you'll find 2 zipped files:

RADC > ••• > mg > 02158395_02 ▾

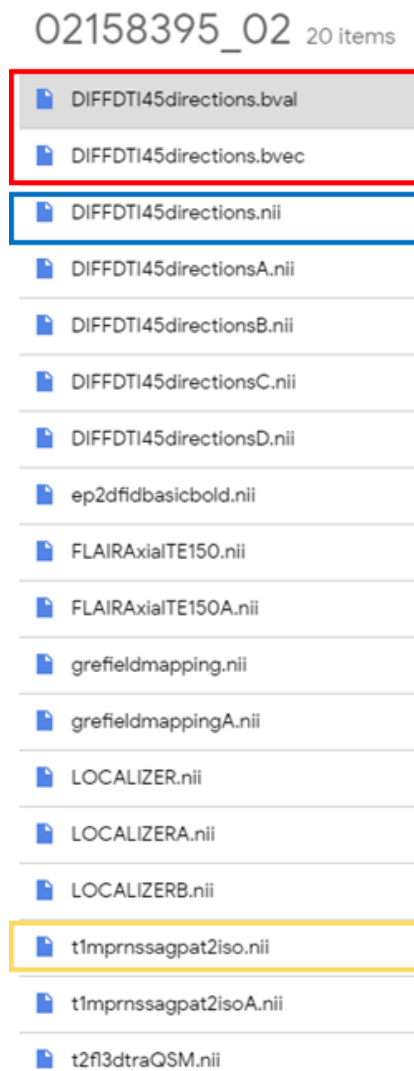| Name ↑	Last modified	File size
☰ ._02158395_02_nii.zip	Dec 14, 2017 me	4 KB
☰ 02158395_02_nii.zip	Nov 29, 2017 me	297 MB

Of this, pick the one of **larger size** and unzip it. You'll find the following contents (shown for a sample subject below):

02158395_02 20 items

	DIFFDTI45directions.bval
	DIFFDTI45directions.bvec
	DIFFDTI45directions.nii
	DIFFDTI45directionsA.nii
	DIFFDTI45directionsB.nii
	DIFFDTI45directionsC.nii
	DIFFDTI45directionsD.nii
	ep2dfidbasicbold.nii
	FLAIRAxialTE150.nii
	FLAIRAxialTE150A.nii
	grefieldmapping.nii
	grefieldmappingA.nii
	LOCALIZER.nii
	LOCALIZERA.nii
	LOCALIZERB.nii
	t1mprnssagpat2iso.nii
	t1mprnssagpat2isoA.nii
	t2fl3dtraQSM.nii

The **bvec** and **bval** files are outlined by the **red** box. The **DWI** file is outlined in **blue**, and the **T1** file is in **yellow**. These are the files the DTI preprocessing pipeline requires.

UC_NIfTI Sub-folder

The UC_NIfTI subfolder also contains a list of **subject visit subfolders**, similar to MG_NIfTI.

RADC > RADC_NIfTI > UC_NIfTI > uc ▾

Name ↑

📁 00228190_00

📁 00228190_02

📁 03326467_03

📁 05708713_00

📁 06129174_08

The **contents of each subject visit folder** look as follows:

The bvec and bval files to be chosen are outlined by the **red** box. These are the ones that do not start with an underscore.
Similarly, unzip the zip file titled '**nifti**', outlined in **blue** (again, file name doesn't start with an underscore)

RADC > ••• > uc > 34317953_04 ▾

Name ↑	Last modified	File size
📄 ._34317953_04.bval	Dec 15, 2017 me	4 KB
📄 ._34317953_04.bvec	Dec 15, 2017 me	4 KB
▼ ._niftii.zip	Dec 15, 2017 me	4 KB
📄 34317953_04.bval	Dec 2, 2017 me	203 bytes
📄 34317953_04.bvec	Dec 2, 2017 me	2 KB
▼ niftii.zip	Dec 2, 2017 me	116 MB

The Unzipped '**nifti**' folder contains the following:

‹ niftii 13 items

📄 AgingProtocol_160802_04_34317953_WIP_DTI_SENSE_3_1.nii

📄 AgingProtocol_160802_04_34317953_WIP_EPI_CLEAR_7_1.nii

📄 AgingProtocol_160802_04_34317953_WIP_FLAIR_SENSE_5_1.nii

📄 AgingProtocol_160802_04_34317953_WIP_MPRAGE_SENSE_2_1.nii

📄 AgingProtocol_160802_04_34317953_WIP_SE_EPI_A_CLEAR_9_1.nii

📄 AgingProtocol_160802_04_34317953_WIP_SE_EPI_P_CLEAR_8_1.nii

📄 AgingProtocol_160802_04_34317953_WIP_Survey_CLEAR_1_1.nii

📄 AgingProtocol_160802_04_34317953_WIP_T2_map_5_echoes_SENSE_4_1x1.nii

📄 AgingProtocol_160802_04_34317953_WIP_T2_map_5_echoes_SENSE_4_1x2.nii

📄 AgingProtocol_160802_04_34317953_WIP_T2_map_5_echoes_SENSE_4_1x3.nii

📄 AgingProtocol_160802_04_34317953_WIP_T2_map_5_echoes_SENSE_4_1x4.nii

📄 AgingProtocol_160802_04_34317953_WIP_T2_map_5_echoes_SENSE_4_1x5.nii

📄 AgingProtocol_160802_04_34317953_WIP_T2_map_5_echoes_SENSE_4_1x6.nii

The **DWI** file is outlined in **blue**, and the **T1** file is in **yellow**.

Bfiles Sub-folder

Some subject visits from the MG Center might have **bvec and bval files missing**. These files, for those subjects, can be found in the Bfiles subfolder.

We have these missing bfiles for the **MG center**. If you see that some bfiles for the **UC Center** are missing, the way to resolve this would be to find that subject in the DICOM sub-folder (which is still getting uploaded, run it through dcm2niix and use the bvec and bval files it extracts.

RADC > RADC_NIfTI > bfiles > mg ▾

Name ↑

📁 00709354_04

📁 00709354_06

📁 00807897_04

📁 00807897_06

📁 01172523_04

📁 01841461_02

📁 01841461_04

📁 01841461_06

I have also attached the complete set of RADC subject visits - https://docs.google.com/spreadsheets/d/1z832fRxvmqtQf4yaHn6ouRS7ZpB9fwfPlI_hO8zT-bc/edit?usp=sharing
The subject visits with data available in both NIfTI and DICOM format have not been filled in. Those with data **only in the NIfTI format** are highlighted in **yellow**, and the ones with **only DICOMs** have been highlighted in **blue**.

For the ones which are available only in DICOM, you'll have to run the DICOM folder through dcm2niix, and extract the DWI, T1, bvec and bval files. DICOM files are still being uploaded.

Do let me know if you have any further queries!

Best,
Shreya

On Wed, Aug 5, 2020 at 5:07 PM Shreya K.R. <shreyakr96@gmail.com> wrote:

Just a quick correction to the previous email:

2291/3629 total files of the MG NIfTI folder, not subject visits.

Best,
Shreya

[Quoted text hidden]