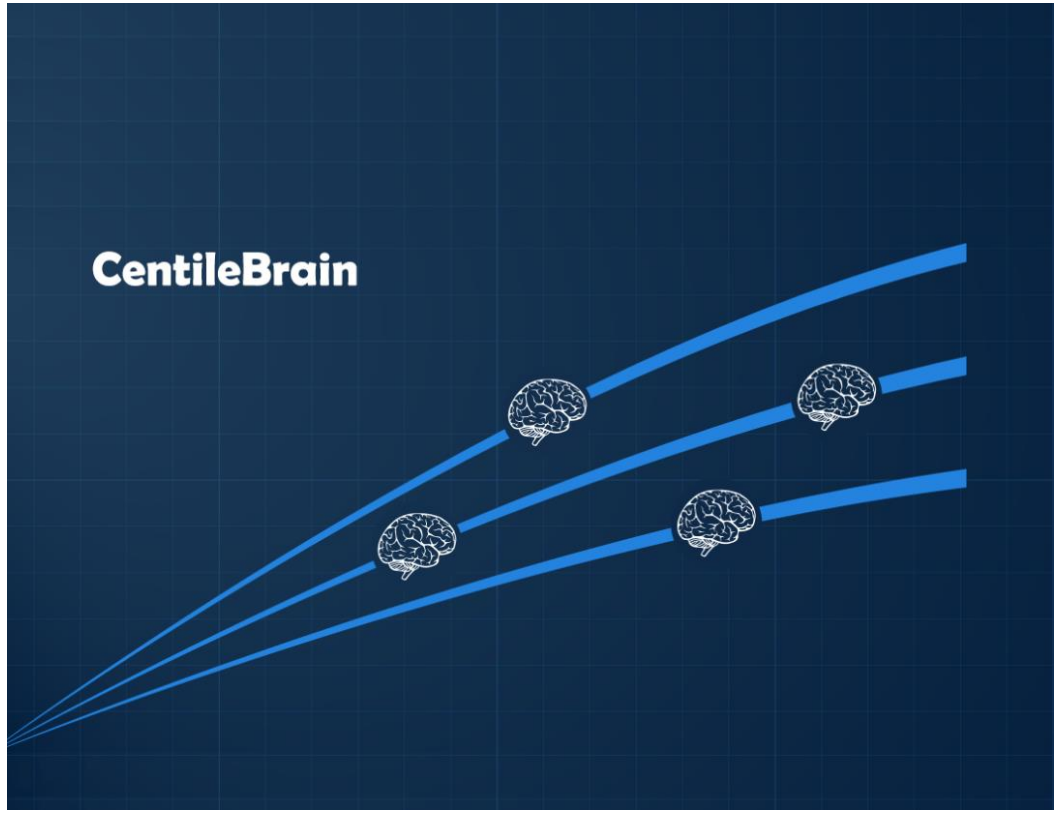
https://centilebrain.org



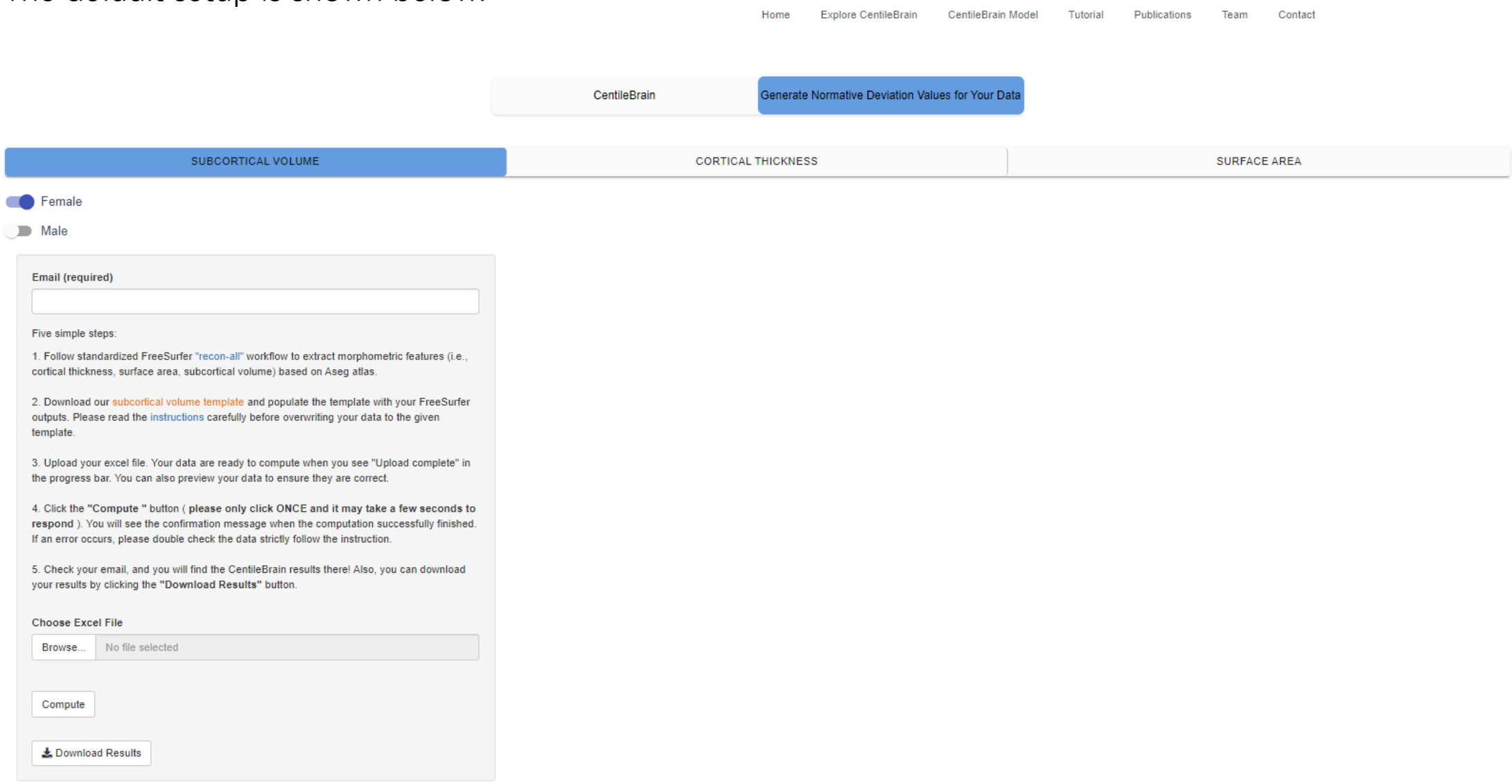
- **CentileBrain uses model parameters developed in the sample of over 40,000 healthy individuals to generate z-scores and centiles for brain regions from any sample. Please see steps 1-5**
- **No personal identifying information of any participant is used, only age, sex and FreeSurfer outputs are required.**
- **The website does not retain a copy of your data or a copy of the outputs of the computation.**
- **The website retains the email of the person submitting the data so that we can contact them in case of problems and is not shared with other parties**
- **For any issues when using this website please email ruiyang.ge@ubc.ca and sophia.frangou@gmail.com**

Step 1. Go to https://centilebrain.org, and click "**CentileBrain Model**" in the menu.

The firewall of some institutions may block this website. If this happens, please either ask your IT administrator to add this website to the safe sites list of your institution or access the website via your home network.

Step 2. “CentileBrain Model” page

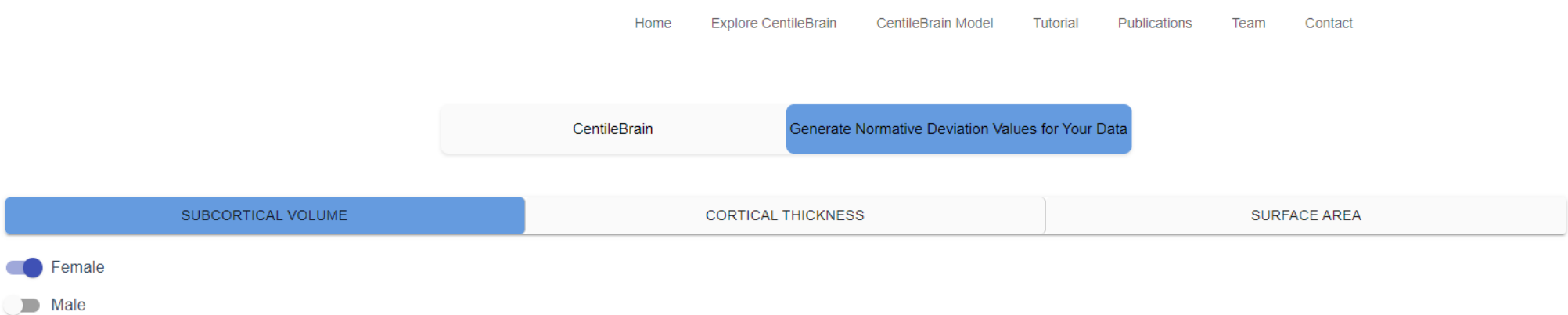
On the “CentileBrain Model” page, click the “**Generate Normative Deviation Values for Your Data**” tab. The default setup is shown below.



Step 3. “Generate Normative Deviation Values for Your Data” page

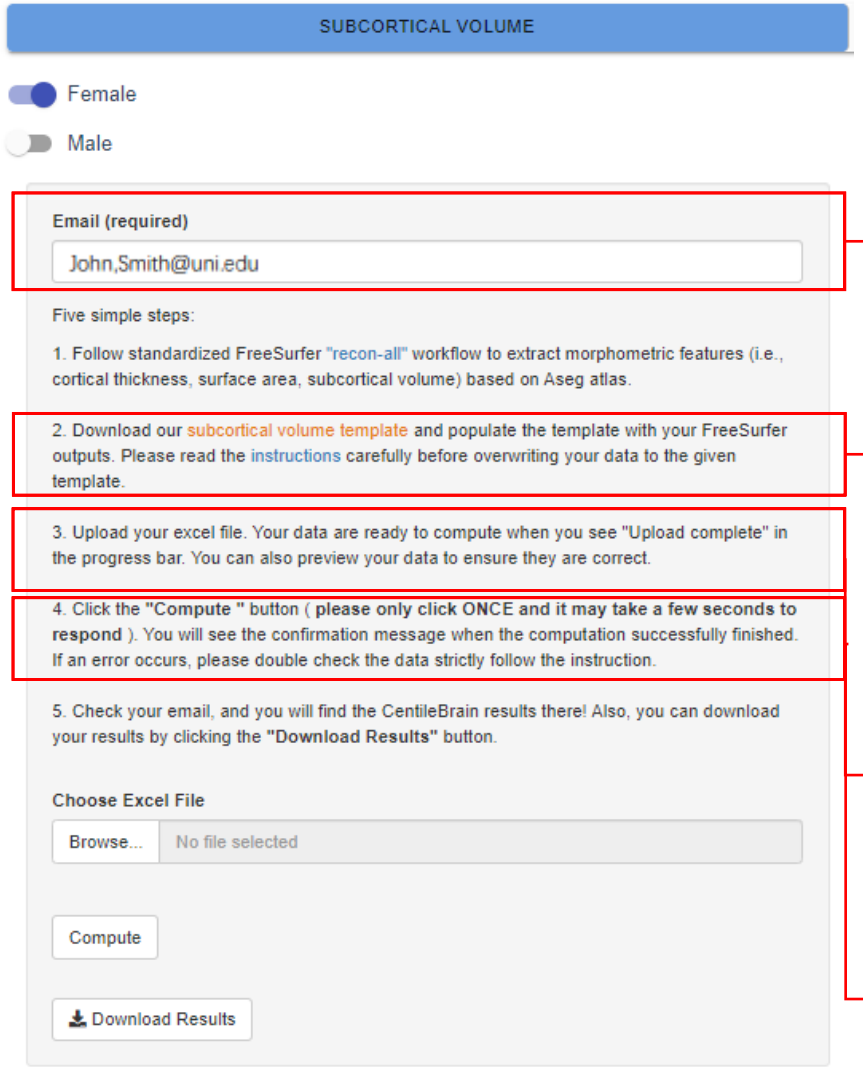
3a. Choose a brain phenotype by clicking the corresponding tab.
In the example below, the “subcortical volume” is chosen, and the chosen tab changed colour from gray to blue. You can choose multiple brain phenotypes but one at a time.

3b. Choose the sex by checking the toggle button. This is important as our models are sex-specific and therefore data from females and males must be submitted separately.
In the example below, the female sex is chosen



Step 4. “Generate Normative Deviation Values for Your Data” page

Focus on the left panel shown below



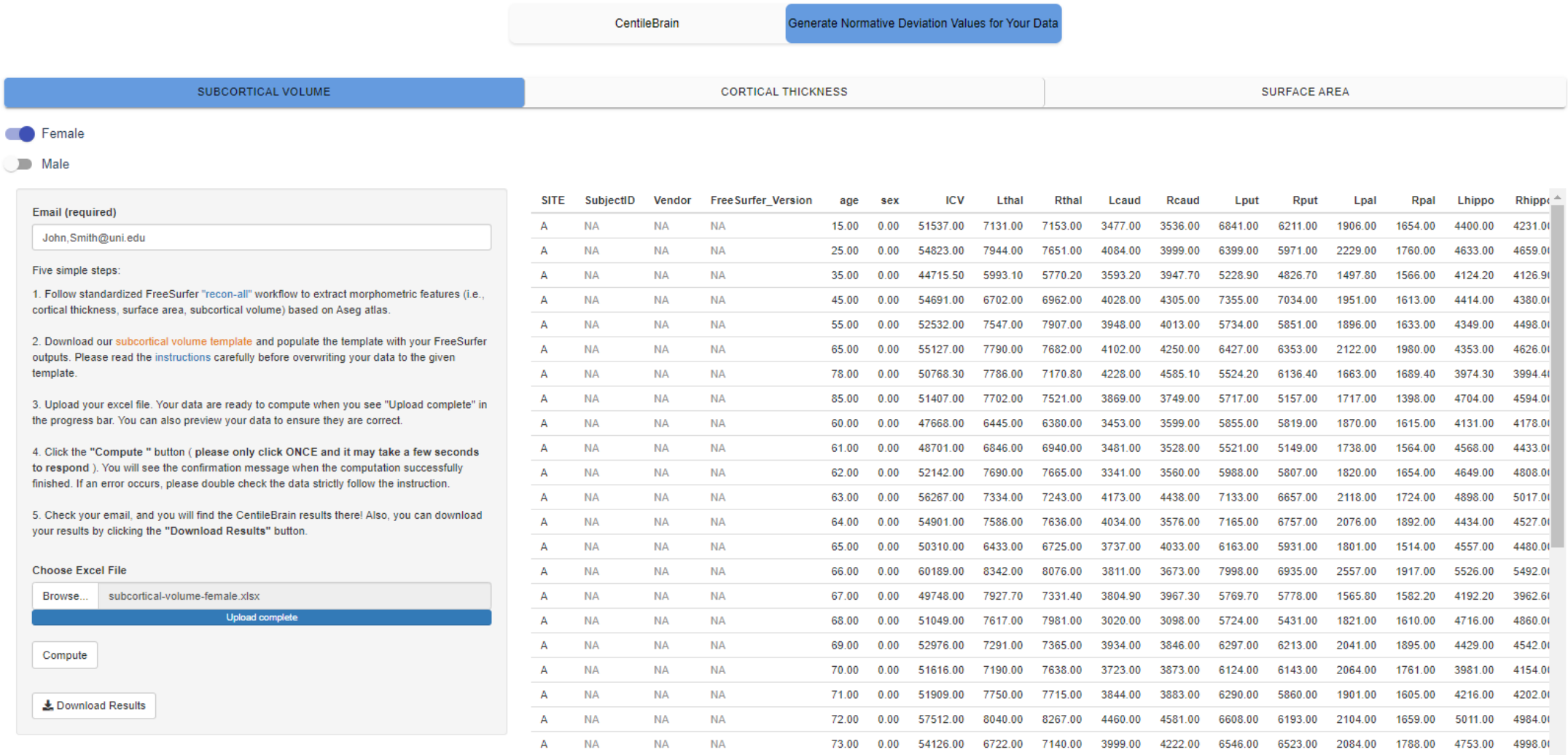
4a. Enter your email address.
Our model uses FreeSurfer (version 5.0 or higher) extracted parcellations based on the Desikan-Killiany atlas (cortical thickness and surface area) and Aseg atlas (subcortical volume). Please ensure your data are compliant.

4b. Download our xls template, and populate it with your data.
It is essential that (a) you click on the “**instructions**” link first to read the full the details of the process; (b) you use the template provided because the algorithms will read the labels in the precise order given in the template.

4c. Upload the template populated with your data. Choose “**Browse**” to select it from your drive. When the upload is completed, your data will be displayed on the right panel (see next slide).

4d. Click “**Compute**”. This function generates 4 excel files: (1) z-scores; (2) centiles; (3) mean absolute error values; and (4) predicted values.

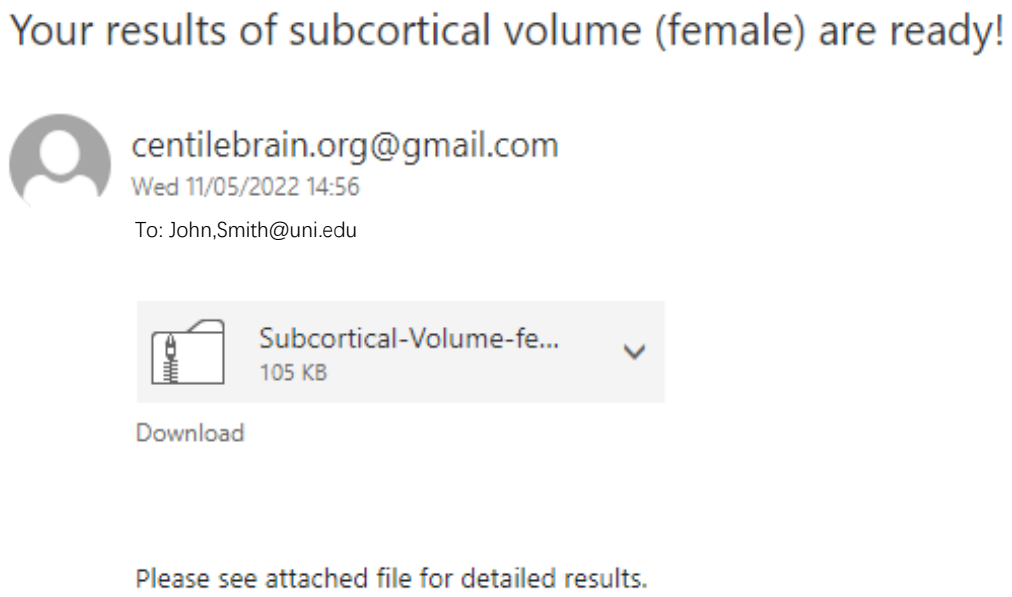
This is an example of how your data will be displayed after uploading. Please check for errors before clicking "**Compute**".



SITE	SubjectID	Vendor	FreeSurfer_Version	age	sex	ICV	Lthal	Rthal	Lcaud	Rcaud	Lput	Rput	Lpal	Rpal	Lhippo	Rhipp
A	NA	NA	NA	15.00	0.00	51537.00	7131.00	7153.00	3477.00	3536.00	6841.00	6211.00	1906.00	1654.00	4400.00	4231.0
A	NA	NA	NA	25.00	0.00	54823.00	7944.00	7651.00	4084.00	3999.00	6399.00	5971.00	2229.00	1760.00	4633.00	4659.0
A	NA	NA	NA	35.00	0.00	44715.50	5993.10	5770.20	3593.20	3947.70	5228.90	4826.70	1497.80	1566.00	4124.20	4126.9
A	NA	NA	NA	45.00	0.00	54691.00	6702.00	6962.00	4028.00	4305.00	7355.00	7034.00	1951.00	1613.00	4414.00	4380.0
A	NA	NA	NA	55.00	0.00	52532.00	7547.00	7907.00	3948.00	4013.00	5734.00	5851.00	1896.00	1633.00	4349.00	4498.0
A	NA	NA	NA	65.00	0.00	55127.00	7790.00	7682.00	4102.00	4250.00	6427.00	6353.00	2122.00	1980.00	4353.00	4626.0
A	NA	NA	NA	78.00	0.00	50768.30	7786.00	7170.80	4228.00	4585.10	5524.20	6136.40	1663.00	1689.40	3974.30	3994.4
A	NA	NA	NA	85.00	0.00	51407.00	7702.00	7521.00	3869.00	3749.00	5717.00	5157.00	1717.00	1398.00	4704.00	4594.0
A	NA	NA	NA	60.00	0.00	47668.00	6445.00	6380.00	3453.00	3599.00	5855.00	5819.00	1870.00	1615.00	4131.00	4178.0
A	NA	NA	NA	61.00	0.00	48701.00	6846.00	6940.00	3481.00	3528.00	5521.00	5149.00	1738.00	1564.00	4568.00	4433.0
A	NA	NA	NA	62.00	0.00	52142.00	7690.00	7665.00	3341.00	3560.00	5988.00	5807.00	1820.00	1654.00	4649.00	4808.0
A	NA	NA	NA	63.00	0.00	56267.00	7334.00	7243.00	4173.00	4438.00	7133.00	6657.00	2118.00	1724.00	4898.00	5017.0
A	NA	NA	NA	64.00	0.00	54901.00	7586.00	7636.00	4034.00	3576.00	7165.00	6757.00	2076.00	1892.00	4434.00	4527.0
A	NA	NA	NA	65.00	0.00	50310.00	6433.00	6725.00	3737.00	4033.00	6163.00	5931.00	1801.00	1514.00	4557.00	4480.0
A	NA	NA	NA	66.00	0.00	60189.00	8342.00	8076.00	3811.00	3673.00	7998.00	6935.00	2557.00	1917.00	5526.00	5492.0
A	NA	NA	NA	67.00	0.00	49748.00	7927.70	7331.40	3804.90	3967.30	5769.70	5778.00	1565.80	1582.20	4192.20	3962.6
A	NA	NA	NA	68.00	0.00	51049.00	7617.00	7981.00	3020.00	3098.00	5724.00	5431.00	1821.00	1610.00	4716.00	4860.0
A	NA	NA	NA	69.00	0.00	52976.00	7291.00	7365.00	3934.00	3846.00	6297.00	6213.00	2041.00	1895.00	4429.00	4542.0
A	NA	NA	NA	70.00	0.00	51616.00	7190.00	7638.00	3723.00	3873.00	6124.00	6143.00	2064.00	1761.00	3981.00	4154.0
A	NA	NA	NA	71.00	0.00	51909.00	7750.00	7715.00	3844.00	3883.00	6290.00	5860.00	1901.00	1605.00	4216.00	4202.0
A	NA	NA	NA	72.00	0.00	57512.00	8040.00	8267.00	4460.00	4581.00	6608.00	6193.00	2104.00	1659.00	5011.00	4984.0
A	NA	NA	NA	73.00	0.00	54126.00	6722.00	7140.00	3999.00	4222.00	6546.00	6523.00	2084.00	1788.00	4753.00	4998.0

Step 5. Get the Results

Results will be automatically emailed to the address specified during data upload. As example of the email sent is shown below.



Results can also be downloaded by clicking the "Download Results" button.