6. Supplementary figures

³⁹² This section contains supplementary informations referenced in the paper.



Bootstrap Analysis of Stable Clusters (BASC) (64 regions) - Anatomical

Fig. 8. BASC results (*functional parcellation*) - MNI brain space On two MNI coordinates, we show the (Row 1) labels of the template where each brain region is color-coded by its mean value for (Row 2) cortical thickness, (Row 3) veins density, (Row 4) arteries density, (Row 5) mean veins diameter and (Row 5) mean arteries diameter.



Freesurfer ipsilateral aseg+aparc (42 regions) - Anatomical

Fig. 9. Freesurfer results (*anatomical parcellation***) - MNI brain space** On two MNI coordinates, we show the (Row 1) labels of the template where each brain region is color-coded by its mean value for (Row 2) cortical thickness, (Row 3) veins density, (Row 4) arteries density, (Row 5) mean veins diameter and (Row 5) mean arteries diameter.



Multi-Subject Dictionnary Learned atlas (MSDL) (39 regions) - Functional

Fig. 10. MSDL results (*functional parcellation*) - MNI brain space On two MNI coordinates, we show the (Row 1) labels of the template where each brain region is color-coded by its mean value for (Row 2) cortical thickness, (Row 3) veins density, (Row 4) arteries density, (Row 5) mean veins diameter and (Row 5) mean arteries diameter.

Harvard-Oxford (48 regions) - Anatomical



Fig. 11. Harvard-Oxford results (*anatomical parcellation*) - MNI brain space On two MNI coordinates, we show the (Row 1) labels of the template where each brain region is color-coded by its mean value for (Row 2) cortical thickness, (Row 3) veins density, (Row 4) arteries density, (Row 5) mean veins diameter and (Row 5) mean arteries diameter.



Fig. 12. BASC results (*functional parcellation***) - pair-to-pair Pearson correlations** The vascular proportions and cortical thickness of all regions are shown as distributions across networks. The diagonal represents the normalized distribution density of each statistic, which are then correlated to each other below. The significant correlations are colored in green (p < 0.05), whereas the highly significant are colored in yellow (p < 0.0001), with the shaded areas representing the 95% interval of confidence of the linear fit. Overall, all veins and arteries statistic correlates significantly, while the cortical thickness seems proportional to arteries diameters and veins density only.



Fig. 13. Freesurfer results (*anatomical parcellation***) - pair-to-pair Pearson correlations** The vascular proportions and cortical thickness of all regions are shown as distributions across networks. The diagonal represents the normalized distribution density of each statistic, which are then correlated to each other below. The significant correlations are colored in green (p < 0.05**)**, whereas the highly significant are colored in yellow (p < 0.0001), with the shaded areas representing the 95% interval of confidence of the linear fit.



Fig. 14. MSDL results (*functional parcellation***) - pair-to-pair Pearson correlations** The vascular proportions and cortical thickness of all regions are shown as distributions across networks. The diagonal represents the normalized distribution density of each statistic, which are then correlated to each other below. The significant correlations are colored in green (p < 0.05), whereas the highly significant are colored in yellow (p < 0.0001), with the shaded areas representing the 95% interval of confidence of the linear fit. Overall, all veins and arteries statistic correlates significantly, while the cortical thickness seems proportional to arteries diameters, total vasculature and veins density only.



Fig. 15. Harvard-Oxford results (anatomical parcellation) - pair-to-pair Pearson correlations The vascular proportions and cortical thickness of all regions are shown as distributions across networks. The diagonal represents the normalized distribution density of each statistic, which are then correlated to each other below. The significant correlations are colored in green (p < 0.05), whereas the highly significant are colored in yellow (p < 0.0001), with the shaded areas representing the 95% interval of confidence of the linear fit.