CHARLES UNIVERSITY
Faculty of science

Prague, September 30th, 2024

Collaboration on project "On the Genomic Origins of the Neurocognitive Substrate in Birds "

Dear Dr. George Antunes Pacheco,

I am writing to confirm my eagerness to collaborate with you on the project indicated above. In my lab, we have determined the numbers of neurons and glial cells in major brain divisions of 300 bird species representing all major bird lineages. This unique data set allowed us to establish and compare cellular scaling rules among major bird clades and between birds, mammals and reptiles. Brains of birds belonging to distantly related clades differ in relative structure sizes, neuronal densities, neuronal numbers and allocation of neurons into brain compartments. While the relative proportions of major brain structures seem to reflect behavioral and perceptual specializations, neuronal scaling rules are rather conservative and strongly phylogeny-dependent. Since I sincerely believe that it will be most interesting to analyze genetic modifications underlying these changes in brain organization, I am more than happy to share unpublished data with you and, if needed, also analyze the cellular composition of brains in additional avian species.

I look forward to a fruitful collaboration on this exciting project.

Best Wishes,

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