Data set: 3D reconstructions of oligodendrocyte precursor cells

Fulton, D. 2015. Institute of Inflammation and Ageing, University of Birmingham, UK.

Data utilised in the following publication: Fannon, J., Tarmier, W. and Fulton, D. (2015), Neuronal activity and AMPA-type glutamate receptor activation regulates the morphological development of oligodendrocyte precursor cells. Glia, 63: 1021–1035. http://dx.doi.org/10.1002/glia.22799

Files are in swc. format and can be opened in NeuronStudio, Amira, and other 3D image analysis software.

Reconstruction related information			
Subject	Species		Mouse
	Scientific name (species)		
	Strain		50% C57BL6/J 50% CBA
	Gender		
	Developmental stage		Neonatal
	Age		P7-11
	Weight		
Anatomy	Brain (sub)region of soma location		Cerebellar, with cells sampled from all regions including white matter, molecular and granule cell layer, but location for individual cells not recorded
	Cell type		Oligodendrocyte precursor cells identified by expression of NG2 and characteristic morphology
Experiment and Reconstruction	Experimental protocol		Culture - organotypic cerebellar slice cultures, 7-9 DIV
	Experimental condition		Control, TTX and GYKI treated
	Fixation method		PFA (4%)
	Stain		farnesylated GFP (membrane targeted) delivered by recombinant Semliki Forest Virus SFVA7(74)
	Slice thickness		Oringally 350 µm
	Slicing direction		sagittal
	Tissue shrinkage		unknown
	Reconstruction software		Neuron Studio
	Objective type		Oil
	Objective magnification		40x
Data	Number of data files		78 files in total - there are 3 groups: A = TTX treated (28 files) , B = GYKI treated (26 files), C = control (24 files)
	Numerical units		Microns
	Format of data files		swc