Overview of Reconstruction Data Sources

Table 1. NeuroMorpho.Org Reconstruction Data: Golgi cells

Cell Type	Region	Species	Archive Name	File Name
Golgi cells	Cerebellum	*Giraffa*	Jacobs	185-4-4dw
Golgi cells	Cerebellum	*Giraffa*	Jacobs	186-4-7dw
Golgi cells	Cerebellum	*Giraffa*	Jacobs	187-4-1dw
Golgi cells	Cerebellum	*Homo Sapiens*	Jacobs	189-1-21dw
Golgi cells	Cerebellum	*Homo Sapiens*	Jacobs	189-1-25dw
Golgi cells	Cerebellum	*Homo Sapiens*	Jacobs	189-1-29dw
Golgi cells	Cerebellum	*Loxodonta africana*	Jacobs	155-1-2Gol
Golgi cells	Cerebellum	*Loxodonta africana*	Jacobs	155-2-6Gol
Golgi cells	Cerebellum	*Loxodonta africana*	Jacobs	155-4-5Gol
Golgi cells	Cerebellum	*Megaptera novaeangliae*	Jacobs	202-2-18nj
Golgi cells	Cerebellum	*Megaptera novaeangliae*	Jacobs	202-2-21nj
Golgi cells	Cerebellum	*Megaptera novaeangliae*	Jacobs	202-2-44nj
Golgi cells	Cerebellum	*Neofelis nebulosa*	Jacobs	195-4-8nj
Golgi cells	Cerebellum	*Pan troglodytes*	Jacobs	205-2-16nj
Golgi cells	Cerebellum	*Pan troglodytes*	Jacobs	205-2-21nj
Golgi cells	Cerebellum	*Pan troglodytes*	Jacobs	205-2-31nj
Golgi cells	Cerebellum	*Panthera tigris*	Jacobs	194-4-19nj
Golgi cells	Cerebellum	*Panthera tigris*	Jacobs	194-4-22nj
Golgi cells	Cerebellum	*Panthera tigris*	Jacobs	194-4-4nj
Golgi cells	Cerebellum	*Mus musculus*	Vervaeke	210710C0
Golgi cells	Cerebellum	*Mus musculus*	Vervaeke	240710C0
Golgi cells	Cerebellum	*Mus musculus*	Vervaeke	Golgi-cell-051108-C0-cell1

A table detailing the identity and sources of the Golgi cell reconstruction data extracted from the online database NeuroMorpho.Org. The standardized Morphology Files were used and manipulated based on the methods described in the main text in order to extract the radius and length scaling ratio distributions.

Table 2. NeuroMorpho.Org Reconstruction Data: Purkinje cells

Cell Type	Region	Species	Archive Name	File Name
Purkinje cells	Cerebellum	*Cavia porcellus*	Dendritica	v_e_purk1
Purkinje cells	Cerebellum	*Cavia porcellus*	Dendritica	v_e_purk2
Purkinje cells	Cerebellum	*Cavia porcellus*	Dendritica	v_e_purk3
Purkinje cells	Cerebellum	*Mus musculus*	Hess	180524_E4_KO
Purkinje cells	Cerebellum	*Mus musculus*	Dusart	Purkinje-slice-ageP35-1
Purkinje cells	Cerebellum	*Mus musculus*	DeMunter	SDM_Purkinje_WT3
Purkinje cells	Cerebellum	*Mus musculus*	Martone	e1cb4a5
Purkinje cells	Cerebellum	*Rattus*	Buffo	1-2-2_18
Purkinje cells	Cerebellum	*Rattus*	Buffo	1-2-8_6
Purkinje cells	Cerebellum	*Rattus*	Martone	alxP
Purkinje cells	Cerebellum	*Rattus*	Dendritica	p19
Purkinje cells	Cerebellum	*Rattus*	Dendritica	p20

A table detailing the identity and sources of the Purkinje cell reconstruction data extracted from the online database NeuroMorpho.Org. The standardized morphology files were used and manipulated based on the methods described in the main text in order to extract the radius and length scaling ratio distributions.

Table 3. NeuroMorpho.Org Reconstruction Data: Motoneurons

Cell Type	Region	Species	Archive Name	File Name
Motoneurons	Spinal Cord	*Danio rerio*	Morsch	1_180107_mnx1_mVenus_taken160715
Motoneurons	Spinal Cord	*Danio rerio*	Morsch	2_180107_mnx1_mKO2CX_taken160808
Motoneurons	Spinal Cord	*Danio rerio*	Morrice	NeuronStudio_VehicleControl_48hpf1
Motoneurons	Spinal Cord	*Felis Catus*	Burke	v_e_moto1
Motoneurons	Spinal Cord	*Felis Catus*	Burke	v_e_moto4
Motoneurons	Spinal Cord	*Felis Catus*	Burke	v_e_moto5
Motoneurons	Spinal Cord	*Mus musculus*	Leroy	04-04-MN9
Motoneurons	Spinal Cord	*Mus musculus*	Leroy	06-04-MN4
Motoneurons	Spinal Cord	*Mus musculus*	Leroy	06-09-MN
Motoneurons	Spinal Cord	*Oryctolagus cuniculus*	Quinian	KQa11-12-2015-tracing
Motoneurons	Spinal Cord	*Oryctolagus cuniculus*	Quinian	KQa29-3-2016$_3$60
Motoneurons	Spinal Cord	*Oryctolagus cuniculus*	Quinian	KQa8-4-2016-tracing
Motoneurons	Spinal Cord	*Rattus*	Alvarez	Alvarez-Control-Cell-2
Motoneurons	Spinal Cord	*Rattus*	Alvarez	Alvarez-Control-Cell-3
Motoneurons	Spinal Cord	*Rattus*	Alvarez	Alvarez-Regen-Cell-4
Motoneurons	Spinal Cord	*Testudines*	Chmykhova	2T-CMOT
Motoneurons	Spinal Cord	*Testudines*	Chmykhova	5Tmn1
Motoneurons	Spinal Cord	*Testudines*	Chmykhova	5Tmn2

A table detailing the identity and sources of the motoneuron reconstruction data extracted from the online database NeuroMorpho.Org. The standardized morphology files were used and manipulated based on the methods described in the main text in order to extract the radius and length scaling ratio distributions.

Table 4. NeuroMorpho.Org Reconstruction Data: Axons

Cell Type	Region	Species	Archive Name	File Name
Target-Selective Descending	Ventral Nerve Cord	*Anisoptera*	Peng	C150
Target-Selective Descending	Ventral Nerve Cord	*Anisoptera*	Peng	C168
Target-Selective Descending	Ventral Nerve Cord	*Anisoptera*	Peng	C201
Columnar	Optic Lobe	*Brachyura*	Bengochea	Me-LoP_columnar_Type1_3
Columnar	Optic Lobe	*Brachyura*	Bengochea	Me-LoP_columnar_Type1_5
Columnar	Optic Lobe	*Brachyura*	Bengochea	Me-LoP_columnar_Type2_3
Uniglomerular projection	Antennal lobe	*Drosophila melanogaster*	Jefferis	12070404c1
Uniglomerular projection	Antennal lobe	*Drosophila melanogaster*	Jefferis	CT12T2
Uniglomerular projection	Antennal lobe	*Drosophila melanogaster*	Jefferis	LHC6R
Shepherd's crook neuron	Mesencephalon	*Gallus gallus domesticus*	Marin	IMc
Shepherd's crook neuron	Mesencephalon	*Gallus gallus domesticus*	Marin	IPc
Shepherd's crook neuron	Mesencephalon	*Gallus gallus domesticus*	Marin	ShCr_Soma
Undefined	Neocortex	*Rattus*	Almeida	cm-ctx-e
Undefined	Neocortex	*Rattus*	Almeida	cm-ctx-f
Undefined	Neocortex	*Rattus*	Almeida	ctr-ctx-3-b

A table detailing the identity and sources of the axon reconstruction data extracted from the online database NeuroMorpho.Org. The standardized morphology files were used and manipulated based on the methods described in the main text in order to extract the radius and length scaling ratio distributions.

Table 5. NeuroMorpho.Org Reconstruction Data: Peripheral Nervous System Neurons

Cell Type	Region	Species	Archive Name	File Name
Dendritic arborization	Peripheral Nervous System	*Drosophila melanogaster*	Ye	021804-2b_ddaC-3-cd8_ch00
Dendritic arborization	Peripheral Nervous System	*Drosophila melanogaster*	Ascoli,Cox	11CL-IVxAnk2IR_ddaC
Dendritic arborization	Peripheral Nervous System	*Drosophila melanogaster*	Bellemer	36775-3
Sensory	Peripheral Nervous System	*Mus musculus*	Canavesi	control-contact-2
Sensory	Peripheral Nervous System	*Mus musculus*	Canavesi	control-noncontact-1
Sensory	Peripheral Nervous System	*Mus musculus*	Canavesi	diabetic-contact-4
Sensory	Peripheral Nervous System	*Mus musculus*	Yorek	image002
Sensory	Peripheral Nervous System	*Mus musculus*	Yorek	image008
Sensory	Peripheral Nervous System	*Mus musculus*	Yorek	image025_1
Somatic	Peripheral Nervous System	*Mus musculus*	Badea	Badea2012Fig6A-C-R
Somatic	Peripheral Nervous System	*Mus musculus*	Badea	Badea2012Fig6B
Somatic	Peripheral Nervous System	*Mus musculus*	Badea	Badea2012Fig6E-I-R
Touch receptor	Peripheral Nervous System	*Mus musculus*	Lumpkin	01-09-TD4
Touch receptor	Peripheral Nervous System	*Mus musculus*	Lumpkin	1-09-TD1-v3
Touch receptor	Peripheral Nervous System	*Mus musculus*	Lumpkin	1-09-TD4-v2

A table detailing the identity and sources of the Peripheral Nervous System neuron reconstruction data extracted from the online database NeuroMorpho.Org. The standardized morphology files were used and manipulated based on the methods described in the main text in order to extract the radius and length scaling ratio distributions.