Dendrite differentiation

Gaia Tavosanis

Members of the laboratory

Name	Position	Email	Telephone	Fax
Gaia Tavosanis, PhD	PhD Research Associate	gaia@neuro.mpg.de	+49 (89) 8578-3167 +49 (89) 8578-3203/ 04	+49 (89) 8578-3152
Svetla Dimitrova	PhD Student	svetla@neuro.mpg.de	+49 (89) 8578-3203	+49 (89) 8578-3152
Ewa Koper	PhD Student	ewcia@neuro.mpg.de	+49 (89) 8578-3203/ 04	+49 (89) 89950130
Andre Reissaus	PhD Student	reissaus@neuro.mpg.de	+49 (89) 8578-3203/ 04	+49 (89) 8578-3152
Marlies Mürnseer		marlies@neuro.mpg.de	+49 (89) 8578-3203	+49 (89) 8578-3152
Madhuri Shivalkar	PhD Student	madhuri@neuro.mpg.de	+49 (89) 8578-3203/ 04	+49 (89) 8578-3152
Jana Kretzschmar	Technical Assistant	kretzschmar@neuro.mpg.de	+49 (89) 8578-3203/ 04	+49 (89) 89950134

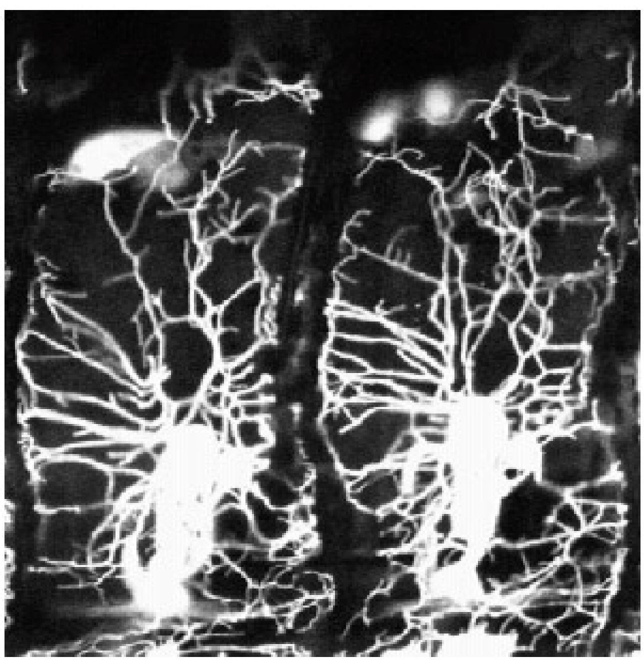

Fig.1 Dendritic arborization neurons in the peripheral nervous system of Drosophila embryos.

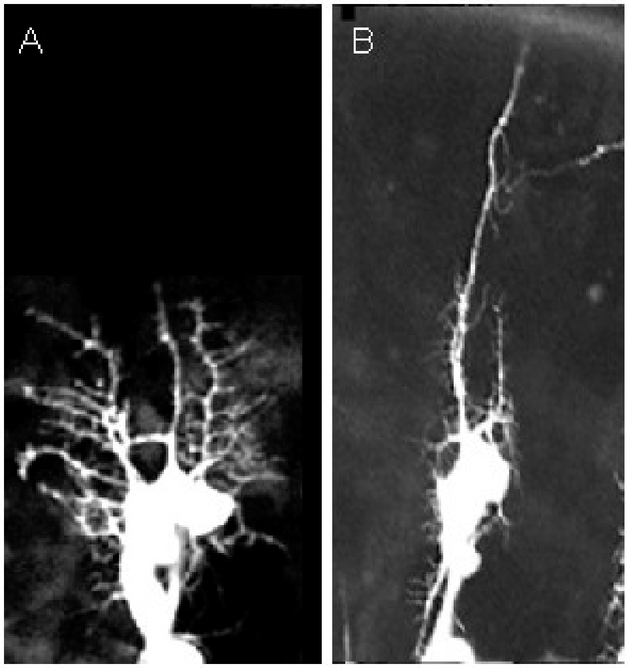

Fig.2: Overgrowth mutant. Dendrites bundle and grow much longer in the mutant (Fig.2B) than in wild-type embryos (Fig.2A).

Dendrites collect the input signals for neurons, to which aim they form remarkably sophisticated structures. The complex morphology of dendrites allows neurons to respond to stimuli in a cell-type specific manner within a neuronal circuit: the dimensions of the dendritic arbor reflect the area from which the neuron receives synaptic input; the level of arborization reflects the number of synaptic inputs received; the morphology of dendrites, furthermore, affects how a cell responds to multiple stimuli.

We are interested in understanding how the complex and cell-specific dendrite morphology is achieved.

To address dendrite formation and morphology by genetic, molecular and cell biological means we use *Drosophila*. We are currently carrying out the functional and molecular characterization of several mutants in which the morphology of dendrites in *Drosophila* embryos is affected. This analysis should lead to the identification of novel key players in dendrite formation.

Publications

Link to publication list

Contact

Gaia Tavosanis, PhD
gaia@neuro.mpg.de

We are currently looking for postdocs, and PhD students.