Discovering neuronal interactions, models and properties by browsing microcircuits in multiple spatial scales

INCF booth

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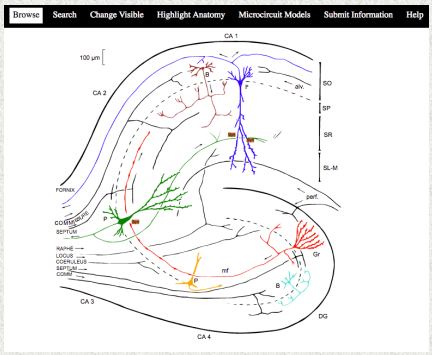
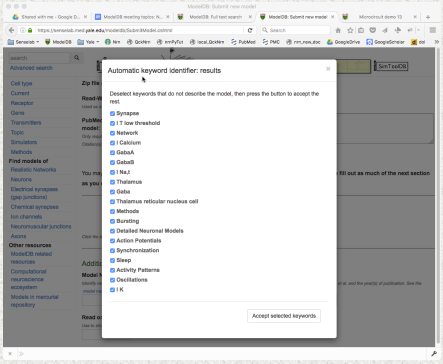
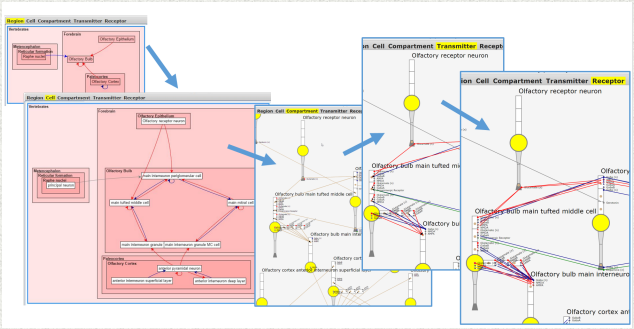
Neuroinformatics and olfactory research developments



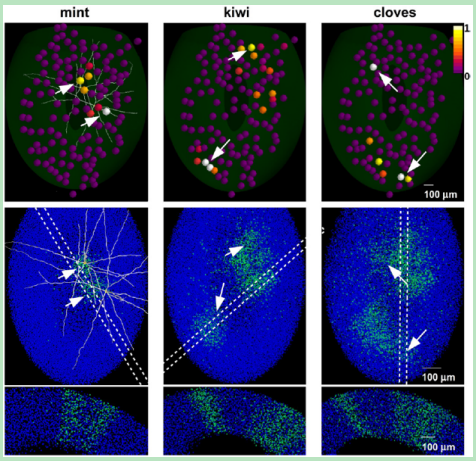
A microcircuit browser enables a Neuroscientist to explore experimental investigations and models of neural networks, cells, and ion channels and receptors.



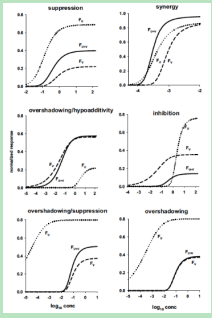
A new tool helps modelers by suggesting keywords for a model they are contributing to modeldb by detecting related phrases in the abstract.



A multiscale diagram viewer produces views of brain regions, or cells within regions or properties (transmitters, receptors, ion channels) within cells (excitatory - red, inhibitory - blue).



A 3D olfactory bulb model using experimentally observed odor responses as inputs to stimulations with learning rules were found to create columns similar to those previously observed with histology.



A new method predicts, when given an olfactory sensory neuron's response to two or more odors, what the mixture of arbitrary concentrations of these odors would produce in that olfactory sensory neuron.

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