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[\[Brain Research\] Drosophila Brain Map Unfolded, Human Brain Decoding Is Dawning](#)

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CAN (2010/12/20) An interdisciplinary research team at National Tsing Hua University led by Professor Ann-Shyn CHIANG, Chief of NTHU Brain Research Center, has succeeded in indexing 16,000 of the 100,000 neuron cells of the drosophila, released NTHU on December 20. The result of the research has not only been published on Current Biology on December 2 but also reported by New York Times on December 14.

NTHU points out, a similar parallel between the basic structure of human brain and that of the drosophila brain, namely, highly interconnected left and right hemisphere, and both share 6 identical neurotransmitter molecules. The team believes the unfolding of the complete map of drosophila brain is the initial step toward understanding human brain.

Ann-Shyn CHIANG says, drosophila brain has a mixture structure between super computer and grid computer, which indicates the complication of the brain structure. Counting on the more and more evidence indicating the highly parallel features of the genetic blueprint controlling brain development and operation among different species, it is likely that human brain may also share similar basic operation unit.

CHIANG continues, among a bunch of the laboratory animal models, nematode is the one whose neuron system is most exhaustively surveyed, which is, however, only in possession of 302 neuron cells and could barely be accounted as brain. Human brain has 100 billion neuron cells, while drosophila brain 100,000 ones, so this model could be a very purposive starting point for human brain mapping.

Reference:

[CNA 2010/12/20](#) (Chinese)

[National Science Council International Cooperation Sci-Tech Newsbrief](#)

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