

## **Rhythmic Brain Activities Controlled by Sub-cellular Signaling Pathways**

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Several successful examples on modelling subcellular signalling pathways and neuronal network activities are introduced , based upon our own experimental data. These examples are:

1. oxytocin release and network synchronization (see related BBC news[1]),
2. nonsynaptic learning in controlling central pattern generator (movement)[2],
3. and how learning alters theta-nested gamma in face discriminations.

[1] <http://news.bbc.co.uk/1/hi/health/7513267.stm>

[2] Current Biology, vol. 18: 1221-1226, 2008