



# CDB SEMINAR

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Monday, May 21, 2007

16:00~17:00 A7F CDB Conference Room

## The Role of '*Time*, in Mammalian Neurogenesis

### Summary

The relationship between cell cycle regulation and differentiation of somatic stem cells has long been debated. We observed that in the embryonic mouse brain neural progenitors cells switching from proliferative to neuron-generating divisions selectively lengthen the G1 phase of their cell cycle. In addition, an artificial lengthening of the G1 phase of neural progenitors cells alone is sufficient to induce a premature switch from proliferative to neurogenic divisions. Altogether our data indicate that lengthening of G1 may alone be a cause, rather than a consequence, of neurogenesis. We propose a model (the *cell cycle length hypothesis*) that mechanistically explains how '*Time*, (cell cycle length) may influence cell fate change of somatic stem cells.

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### Host:

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