Function of Galectin-1 in Adult Neural Stem Cells

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Neural Stem cells (NSCs) reside in adult mammalian brain and generate functional neurons throughout life. Elucidating mechanisms of adult neurogenesis will not only contribute to clarify the intrinsic plasticity in adult brain, but also to develop therapeutic strategies for neurological diseases. Recently, we reported that Galectin-1 is expressed in the adult NSCs and promotes their proliferation (Sakaguchi et al., *PNAS*, 2006). Here, we studied the possible binding partners of Galectin-1. Our data suggest that carbohydrate-structures play crucial roles in adult neurogenesis and CNS regeneration.