



# CDB SEMINAR

## Atsushi Nakano

Cardiovascular Research Center, Massachusetts General Hospital

Friday, June 6, 2008

10:00~11:00 A7F Conference Room

### **Multipotency of early and late Isl1+ cardiac progenitors**

#### **Summary**

Cardiogenesis requires the generation of cardiac, smooth muscle and endothelial cell. Using the single cell culture technique, we found that these three cell types can arise from single cardiac progenitor. Interestingly, the multipotency of cardiac progenitors is progressively restricted during cardiogenesis, while the atrial progenitors, the late subset of Isl1 progenitors, maintain their bipotency until late. I will discuss about the biological significance of the multipotency and plasticity of atrial lineage from both developmental and regenerative perspectives.

#### **Reference**

Moretti, A., Caron, L., Nakano, A., et al., (2006) Multipotent Embryonic Isl1+ Progenitor Cells Lead to Cardiac, Smooth Muscle, and Endothelial Cell Diversification. *Cell* 127, 1151-1165.

---

#### **Host:**

**Shigeo Hayashi**

Morphogenetic  
Signaling, CDB  
[shayashi@cdb.riken.jp](mailto:shayashi@cdb.riken.jp)  
Tel:078-306-3185  
(ext:1523)

**RIKEN CENTER for DEVELOPMENTAL BIOLOGY (CDB)**