

【Biological Sciences】

Title of Project	Molecular mechanisms of chromosome assembly mediated by condensins
Principal Investigator Name	Tatsuya Hirano, RIKEN Chromosome Dynamics Laboratory , Chief Scientist
Abstract of Research Project	The long-term goal of this study is to understand the molecular mechanisms of chromosome assembly and segregation with a major focus on the role of condensins in these processes. We will examine the spatial and temporal regulation of two condensin complexes in vertebrate cells, and explore a potential functional link between chromosome duplication and condensation. We will also study the molecular architecture and activities of condensins to understand how this class of sophisticated molecular machines might work at a mechanistic level. The proposed study will directly be relevant to our understanding of human health because chromosome aberrations are often associated with tumor development or birth defects.
Number of Researchers :8	
Term of Project: 2008-2012	