RIKEN Center for Developmental Biology (CDB)

2-2-3 Minatojima minamimachi, Chuo-ku, Kobe 650-0047, Japan

Shigeru Kuratani appointed Group Director

June 20, 2005 – Shigeru Kuratani (Laboratory for Evolutionary Morphology) has been appointed Group Director for a new term of research beginning in June 2005. Kuratani joined the RIKEN CDB (Kobe, Japan) as a Team Leader in the first round of program appointments, and has been actively engaged in studying the role of developmental mechanisms and how their modification affects the evolution of animal body forms. His lab's research involves molecular-level examination of the ways in which seemingly



minute variations in developmental programs can give rise to major changes in gross anatomy and the organization of internal structures, as exemplified in such phenomena as the rise of the vertebrate jaw and the abrupt appearance of the carapace in turtle evolution. A growing body of his and others' work now indicates that these sudden and significant modifications in animal morphology may be attributable to changes in the timing and patterns of gene expression, which may help to solve some of the most enduring questions in evolutionary biology.

In his upcoming term, Kuratani plans to expand his lab's remit to include investigations into the evolution of moth wing patterns. "Moth wing

patterns are not only extremely variegated and beautiful, they are in fact much more deftly realized than even the surface designs of butterfly wings, suggesting that evolution has had an active hand in their refinement," says Kuratani. "We'll be studying problems such as the means by which the patterns on the moth's front and back wings evolve as independent modules, and broadening our scope to include population and environmental aspects, complementing our current cell and molecular approach."