

**PATERNAL CHANGES IN BODY WEIGHT DURING PARENTAL CARE PERIOD IN COOPERATIVELY BREEDING COMMON MARMOSETS**

I. Tatsuta<sup>1,2</sup>, N. Kutsukake<sup>1</sup>, A. Kawasaki<sup>2</sup>, C. Yokoyama<sup>2</sup>, H. Onoe<sup>2</sup>, M. Hasegawa<sup>1</sup>

<sup>1</sup>*The Graduate University for Advanced Studies, Miura-gun, Kanagawa, Japan*, <sup>2</sup>*Center of Molecular Imaging Sciences in Riken, Kobe, Hyogo, Japan*

Presenter's Email: tatsuta\_ikuko@soken.ac.jp

The cost of parental care in the common marmoset has been thought to be large because of their necessity of constant care of infants until at least weaning period (i.e., carrying comparatively heavy twin infants continuously). Unlike most other primates, adult males, especially fathers, contribute to considerable infant care which is crucial for infants' growth and survival in this species. It has been believed that the high energy cost of parental care is linked to the active role of fathers and cooperative breeding system in common marmosets. Using captive groups kept in RIKEN CMIS, Kobe, we measured changes in father's body weight and parental behaviors in order to quantify the cost of paternal care because it occupies considerable load when marmosets are kept in breeding pairs without helpers. Weight data were collected for 51 post-birth successive periods for 8 weeks on 8 fathers. We found that father's body weight decreases just after mothers' parturition (1-3 weeks post-birth), and father's body weight loss is correlated with the number of infants. These results indicate that in the common marmoset, fathers incur a certain amount of energy cost during the parental care period, especially at the early stage.

Keywords: common marmoset, cooperatively breeding, parental care, father's weight