

# Effect of gestational and postnatal environmental temperature on metabolic rate in the altricial rodent, *Phyllotis darwini*

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1. In the altricial rodent, *Phyllotis darwini*, we found higher body temperatures and faster developmental rates of the thermoregulatory capacity in neonates born from cold- than warm-acclimated mothers. 2. This difference could be explained by maternal effects on the litter, such as high levels of catecholamines and thyroxin levels, high concentration of the uncoupled protein and larger quantity of brown adipose tissue as a consequence of cold acclimation. 3. The exposition of mothers and the maintenance of cold condition during the early development might be responsible of the high metabolism and better thermoregulatory capacity of newborns. © 2009

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