# Ontogeny and Individual Variation in the Adrenocortical Response of Zebra Finch (*Taeniopygia guttata*) Nestlings

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hypothesis. For instance, precocial chickens and turkeys show an adrenocortical response to heat stress before hatching (Jacobs 1996). However, heat and/or cold stress does not elicit a response again until 2 d post-hatch, indicating that the SHRP lasts for ▫48 h (Freeman and Flack 1980; Freeman 1982; Freeman and Manning 1984). Among a couple of semialtricial species studied, nestlings show a gradual increase in the magnitude of the adrenocortical response during the nestling period (Love et al. 2003; Walker et al. 2005*a*). In contrast to altricial birds, Magellanic penguin (*Spheniscus magellanicus*) hatchlings show

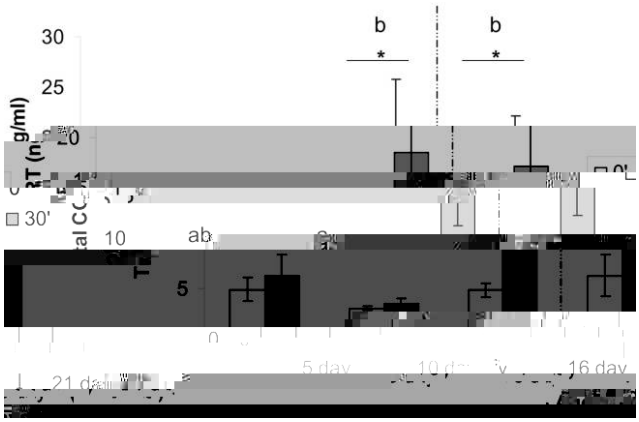


Figure 2. Changes in total corticosterone (CORT) secretion in response to handling stress, by age. An asterisk denotes a significant adrenocortical response within the age group ($P$ ! 0.05). Different letters in-

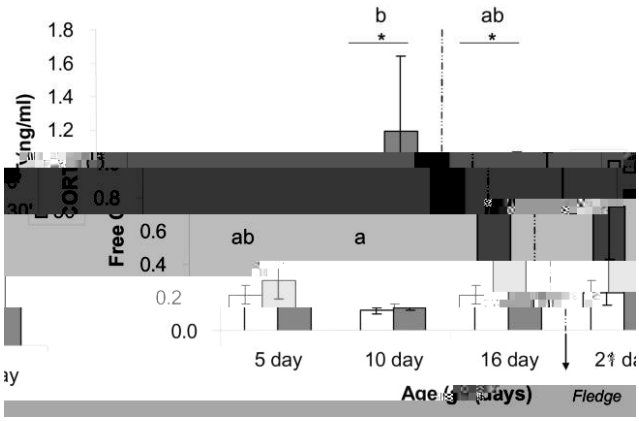


Figure 4. Age-specific adrenocortical responses in free corticosterone