

Ecoimmunology in degus: interplay among diet, immune response, and oxidative stress

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© 2018, Springer-Verlag GmbH Germany, part of Springer Nature. The relationships between immunity, oxidative stress, and diet have not often been studied together. Despite this, it has been shown that dietary proteins can have effects on the functioning of the immune system and the oxidative status of animals. Here we evaluated the effects of dietary proteins on the response to an antigen and oxidative status of *Octodon degus* (Rodentia). We acclimated adult individuals to high-protein and low-protein diets and evaluated several aspects of the acute phase response and variables associated with oxidative status. After the immune challenge, animals acclimated to the high-protein diet had more inflammatory proteins and body mass losses than the group acclimated to a low-protein diet. Overall, the immune challenge increased the production of inflammatory proteins, total antioxidant capacity, lipid peroxidation, and duration of rest periods. In contrast, we did not find an interaction between