Highlights from ExoticsCon 2015-Reptiles

Nicola Girolamo and Paolo Selleri, **"On What Evidence Are Reptile Formularies Based?"**
The authors reviewed the citations supporting drug doses in two exotic animal formularies and found that 38% of recommendations derived from primary research articles and only 15% were supported by pharmacokinetic studies. This study highlights the importance of critically evaluating the source for dosage recommendations in exotic animal formularies.

Colin T McDermott *et al.*, **"Cloacal Prolapses in Anurans: A Ten-Year Retrospective Review"**
This retrospective study reviewed 97 cases of cloacal prolapses in frogs in an aquarium collection. The results revealed a 66% survival rate at 2 months. Repeat prolapse within 60 days was found to be a negative prognostic indicator. Concomitant disease processes identified included a variety of gastrointestinal and urinary tract diseases.

Claire Vergneau-Grosset *et al.*, "**Prevalence and Risk Factors of Ophthalmic Disease in Leopard Geckos"**
This retrospective study reviewed the medical records of 112 leopard geckos presented to UC Davis, of which 47% had ophthalmic disease. Risk factors included lack of supplemental heat and failure to provide Vitamin A supplementation. Necropsy of several specimens submitted for necropsy revealed conjunctival squamous metaplasia. While there is currently debate regarding the most appropriate type of Vitamin A supplementation (Vitamin A vs precursors), this study suggests that hypovitaminosis A may be a contributing factor in ophthalmic diseases of leopard geckos.

Adolf Maas and Carolyn Cray, **"Hematology and Biochemistry Analyses of Russian Tortoise (*Testudo horsfieldi*)"**
This study compared hematology and chemistry values of apparently healthy Russian tortoises, focusing on differences between sexes and seasons. This study agreed with previous reports of marked seasonal and sex-related variations in blood values. It also found several clinically significant differences between unsedated tortoises and those that were sedated with alfaxalone for venipuncture.

Nicola Di Girolamo *et al*. **"Evaluation of a Bench-Top Chemistry Analyzer in Hermann's Tortoises (Testudo hermanni)"**
This study compared chemistry values obtained on an Abaxis Vetscan II with values from a clinical laboratory analyzer and found a number of clinically-significant differences, suggesting that results from this point-of-care analyzer should be interpreted with caution, and development of species- and machine-specific reference ranges is indicated.

Bonnie Gatson *et al*. **"Effects of Parenteral Epinephrine and GV-26 Stimulation on Inhalant Anesthesia Recovery Time in Two Orders of Reptiles"**
This study used American alligators and snapping turtles to evaluated the effects of parenteral epinephrine or stimulation of the acupuncture point GV-26 on recovery from inhalant anesthesia. The results suggest that administration of epinephrine and/or stimulation of GV-26 may result in decreased recovery times in aquatic reptiles.

Amelia Gould *et al.* **"Evaluating the Clinical Effects of Short Duration Ultraviolet B Radiation Exposure in Leopard Geckos (*Eublepharis macularius*)"**
Much of the lay literature on leopard gecko husbandry reports that UVB supplementation is not required for this crepuscular species, as their life history results in minimal exposure to sunlight. Previous studies in leopard geckos have demonstrated that they are capable of photobiosynthesis of Vitamin D in response to UVB exposure, however geckos in the study developed markedly increased shedding that was considered to potential negative effect. This study evaluated short periods of UVB exposure (1 hour at dawn and dusk) and found clinically significant increases in Vitamin D levels, suggesting that UVB supplementation may be beneficial to reduce the incidence of nutritional secondary hyperparathyroidism in this species.

Kelly Rockwell *et al*. **"Evaluation of the Mineral Content of Gut-loaded Crickets (Acheta domesticus) Fed a Commercial Cricket Diet"**
This study evaluated the calcium and phosphorus content of crickets fed with Mazuri Better Bug gut loading diet for up to 10 days after a two day fast. They found that phosphorus content increased over the two day fast. Maximal content was achieved after 48 hour of gut loading, after which it gradually declined back to baseline, even though the gut loading diet was still

available. This study suggests that gut loading can be use to achieve an appropriate calcium:phosphorus ratio in crickets, but only with careful adherence to an appropriate gut-loading schedule, which may be difficult for many owners.