Epigenetics in Comparative Physiology

Warren Burggren

University of North Texas



Many of us tend to focus on our own discipline, and while we may appreciate burgeoning areas of research such as "Epigenetics", we often ignore the direct relevance to our own research. But, the epigenetic train is leaving the station, and we had best be on it, or at least closely follow its journey. Consider, for example, the lesson drawn from human epidemiology, documenting that the nutritional state of your grandparents affect your own cardiovascular health via non-genetic inheritance! As comparative physiologists, we often wonder why there is so much unexplained variation in our data - why "outliers" confound our data sets. Yet, unless we study (boring) laboratory animals whose provenance is well documented, we are unlikely to know the previous history of wild-caught animals, let alone the history of their parents. Against this backdrop, this lecture attempts to clear up the semantic confusion regarding the word "epigenetics", and to show examples of epigenetic inheritance of morphological and physiological phenotypes in comparative biology.



Friday January 27th 2017 at 10.30'ish Seminar room at zoophysiology