PROJECT RESUME

Caudal autotomy (tail shedding) is a characteristic of lizards and their closest relatives. It involves a specialised morphology in which zones of weakness in some or all tail vertebrae, coupled with a unique arrangement of the tail musculature, allow the tail to be dropped if grabbed by a predator. The tail regenerates although its external scalation and internal morphology are radically altered, given the loss of segmental (somitic) signals.

As part of a wider project on osteoderms (mineralisations within the skin), we will examine osteoderm structure, development, and redevelopment in the original and regenerated tails of geckos of the genus Tarentola. Imaging will be at macro- (3D CT scanning) and micro- (histology, SEM) scales.

Our objective is to document differences in osteoderm structure and pattern between original and regenerated tails, and to relate differences to unresolved questions as to osteoderm formation, and the sources and patterning of component tissues.

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