



Yale SCHOOL OF MEDICINE

GENETICS DEPARTMENT SEMINAR SERIES

Conserved and divergent functions of SOX10 in neural crest development across species

Neural crest cells are vertebrate-specific, pluripotent, embryonic stem cells that give rise to more than 30 different adult cell and tissue types including pigment cells, craniofacial bone and cartilage, and the peripheral and enteric nervous systems. Much of what we know about the mechanisms that regulate neural crest development is from a handful of model organisms, but we lack confirmation of the functional conservation of proteins across species including their targets, partners, and roles in development. We have identified both conserved and divergent developmental timing and mechanisms by comparing spatiotemporal expression of genes and proteins that control neural crest cell development in quail (*Coturnix japonica*), chick (*Gallus gallus*), and peafowl (*Pavo cristatus*) embryos. Using functional perturbation of the commonly used neural crest marker, SOX10, we identified its differential roles in the progression of neural crest differentiation and migration in chick and quail embryos. Our results demonstrate potentially different roles for SOX10 at different stages of development in two closely related organisms.



Dr. Crystal Rogers, PhD

Assistant Professor

Department of Anatomy, Physiology, and Cell Biology

University of California Davis, School of Veterinary Medicine

Host: Dr. Valentina Greco, PhD

Carolyn Walch Slayman Professor of Genetics

YSM Department of Genetics

Tuesday, May 3, 2022

11:30am - 12:30pm

TAC N107 – 300 Cedar Street

Zoom Link

pw: 473124

The Genetics Calendar of Events can be viewed on-line at
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