



Genome Sciences Seminar

Tuesday, 4.9.24 | 3:30 | Foege Auditorium

remote viewing option: <https://depts.washington.edu/gstrestrc/remote.htm>



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<https://mcb.berkeley.edu/labs/rokhsar/home>

“The Past Has Left Its Traces On The World, And We Only Have To Know How To Read Them”*

Animals arose more than five hundred million years ago, and by the end of the Cambrian had diversified into today's phylum-level forms. This early history is obscured by the fact that the first animals were soft-bodied and left only enigmatic fossils. Here we take a comparative genomic approach to inferring the early evolutionary history of early animals and the subsequent events that gave rise to vertebrates. We show that, with a few notable exceptions, animal chromosomes are remarkably stable and evolved slowly over hundreds of millions of years, and that some gene linkages extend even further back to before the first animals. We then use these deeply conserved aspects of genome organization to (1) show that ctenophores rather than sponges are the earliest branching lineage of living animals, which has implications for the evolution of nervous systems, and (2) decipher the history of Paleozoic polyploidy and promiscuity in our vertebrate lineage.

* Ted Chiang, Exhalation

Questions? Contact Brian Giebel at bgiebel@uw.edu or visit the Seminar website at <http://www.gs.washington.edu/news/seminars.htm>

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