



Genome Sciences Seminar

Wednesday, 5.24.23 | 3:30 | held remotely

remote viewing location: <https://depts.washington.edu/gsrestrc/remote.htm>



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<https://www.jax.org/research-and-faculty/faculty/beth-dumont>

“Laboratory Mouse Genomes: Reservoirs of mutation accumulation”

The broad objective of my research group is to understand the causes of variation in the very mechanisms that generate genetic diversity. Toward this goal, we pursue two complementary research strategies. First, we leverage the recognition that mutation rate, recombination frequency, and biased chromosome transmission are themselves complex genetic traits controlled by multiple genes and their interactions. We combine cytogenetic and genomic approaches for assaying DNA transmission with quantitative genetic analyses in order to identify the genetic and molecular causes of variation in these mechanisms. Second, through targeted investigations of loci with extreme recombination or mutation rates, we aim to illuminate the biological mechanisms that stimulate or suppress these processes. We are currently using this latter approach to investigate recombination rate regulation, patterns of genetic diversity, and the evolutionary history of the mammalian pseudoautosomal region.

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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