



SEBES Seminar for Evolutionary Biology and Environmental Studies

Host MHC and genomic diversity retards experimental evolution of viral virulence

Speaker: **Prof. Wayne Potts**
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<https://www.bioscience.utah.edu/faculty/potts/potts.php>

Date: Thursday, 2018-11-15
Time: 15:00 to 16:00
Place: Y24-G-55/UZH Irchel
Winterthurerstr. 190; 8057 Zürich

Access: only intern

Host: Prof. Dr. Barbara König

Abstract: Experimental evolution of a mouse-specific retrovirus in various host genotypes reveals increases in fitness and virulence by 70- and 20-fold respectively. The virus adapts to specific host genotypes as indicated by its' reduced ability to infect other host genotypes, including those that differ only at histocompatibility loci. Full genome sequencing of these evolved viral lines reveal surprising results where no mutations have become fixed despite strong selection operating over 200 generations. Three round serial passages where the host genotype is alternated once, dramatically reduces viral fitness and virulence compared to control passages through identical host genotypes.

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