



This summer, thanks to the financial support of the SSM I had the great opportunity to attend the **2nd ASM conference on Experimental Microbial Evolution**, from august 4 to august 7 in Washington DC.

Approximately 150 people came from over 17 states of America, Canada, New Zealand and 7 European nations converged to this amazing event.

The keynote session opening the conference was led by Richard Lenski, the brilliant designer of the long term evolution experiment in *E. coli*. With charisma and clarity, he brought the audience through the characterization of the mode and tempo of 12 *E. coli* populations evolution over 65000 generations (~28 years). The day after, been awake since 5 am because of the thrill (or because of the jetlag), I prepared myself to follow the 10 sessions covering a broad range of topics: (1) Evolutionary Dynamics, (2) The Fitness Landscape, (3) Genome Evolution, (4) Co-evolutionary Arms Races, (5) Epistasis and Coevolution, (6) Pleiotropy and Trade-offs, (7) Symbiosis and the Evolution of Cooperation, (8) Cooperation on the Verge of a Major Evolutionary Transition, (9) Evolution of Drug Resistance, (10) Experimental Evolution Meets Systems Biology. All talks highlighted the major discoveries made recently on several organisms, from bacteria to yeast, viruses and flies. Different experimental designs and mathematical model were presented, to estimate the frequency of mutations through generations and evaluated fitness, adaptation, interactions, development of drug resistance and so on. Definitely the most exciting conference I have attended so far.

This conference was also a good opportunity for me to present my own data performed in the group of Prof. Greub on the evolution of Lausannevirus and *E. lausannensis* in amoeba during one year (panel B), which attracted the interest of some participants.