Abstract Submitted
for the MAR13 Meeting of
The American Physical Society

The effect of flagellar motor-rotor complexes on twitching motility in *P. aeruginosa* KUN ZHAO, ANDREW UTADA, MAXSIM GIBIANSKY, WUJING XIAN, GERARD WONG, University of California, Los Angeles — *P. aeruginosa* is an opportunistic bacterium responsible for a broad range of biofilm infections. In order for biofilms to form, *P. aeruginosa* uses different types of surface motility. In the current understanding, flagella are used for swarming motility and type IV pili are used for twitching motility. The flagellum also plays important roles in initial surface attachment and in shaping the architectures of mature biofilms. Here we examine how flagella and pili interact during surface motility, by using cell tracking techniques. We show that the pili driven twitching motility of *P. aeruginosa* can be affected by the motor-rotor complexes of the flagellar system.

Kun Zhao
University of California, Los Angeles

Date submitted: 14 Nov 2012 Electronic form version 1.4