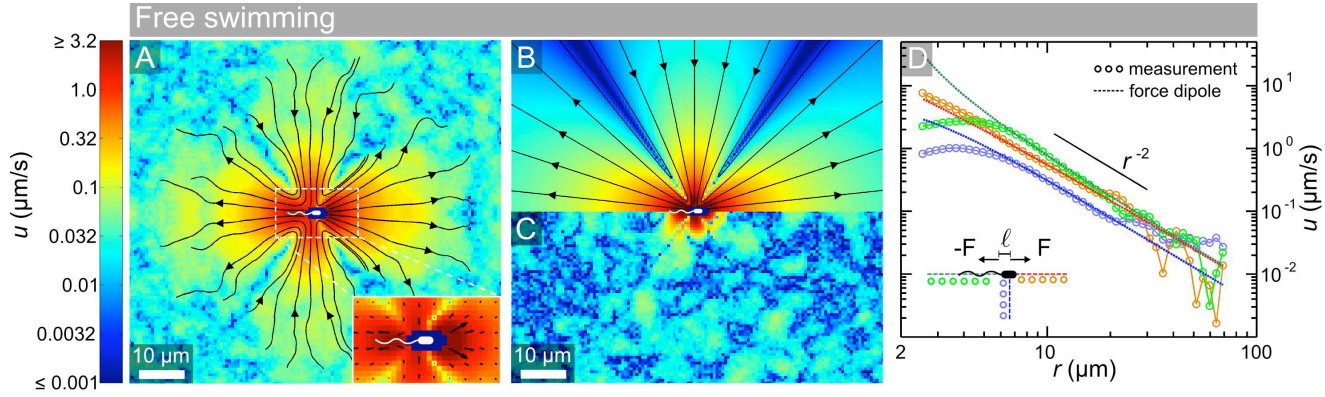

Free swimming
A
B
C
D
10 μm
10 μm
u (μm/s)
≥ 3.2
1.0
0.32
0.1
0.032
0.01
0.0032
≤ 0.001
measurement
force dipole
r -2
-F
F
ℓ
r (μm)
2
10
100
10 1
10 0
10 -1
10 -2
u (μm/s)