Abstract Submitted
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Force generation in a regrowing eukaryotic flagellum[1] MARCO POLIN, DAMTP, University of Cambridge, BASTIEN BRUNEAU, Ecole Polytechnique, Paris, France, THOMAS JOHNSON, University of Birmingham, RAYMOND GOLDSTEIN, DAMTP, University of Cambridge — Flagella are whip-like organelles with a complex internal structure, the axoneme, highly conserved across eukaryotic species. The highly regulated activity of motor proteins arranged along the axoneme moves the flagellum in the surrounding fluid, generating forces that can be used for swimming or fluid propulsion. Although our understanding of the general mechanism behind flagellar motion is well established, the details of its implementation in a real axoneme is still poorly understood. Here we explore the inner working of the eukaryotic flagellum using a uniflagellated mutant of the unicellular green alga *Chlamydomonas reinhardtii* to investigate in detail the force and power generated by a moving flagellum during axonemal regrowth after deflagellation. These experiments will contribute to our understanding of the inner working of the eukaryotic flagellum.

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Marco Polin
DAMTP, University of Cambridge

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