



PhD and Post-doc positions - start early 2021

Functional morphology & biological materials  
in shark feeding



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**Project:** Sharks feed in impressive and diverse ways, from eating large prey to feeding on very hard foods to filter feeding on massive scales. The architectures and materials of their tissues influence these ecologies: our HFSP-funded project focuses on the anatomy and mechanics of feeding structures through a multi-lab and multidisciplinary collaboration, using lab and field work, physical and digital simulation, and robotics.

**Lab:** We are a research group in comparative skeletal biology starting in the Zoology Dept at Trinity College. Our group mixes zoology, engineering/biomaterials, marine science and design approaches to study biology (e.g. using microCT, microscopy, material characterization, 3D printing). The funded work will involve collaboration with physiologists, roboticists and designers at other institutions, while benefitting from the organismal biology experience of the diverse and innovative Zoology department.

### 1 Phd candidate and 1 Post-doc, to start in early 2021

We seek enthusiastic, kind, open, and curious candidates, who enjoy interdisciplinary interactions and can be friendly, reliable, approachable and supportive members of a diverse research group. Proficiency in 3D visualization/rendering and a programming language (e.g. R/Python) for data analysis are a plus. Project specifics are adjustable to candidate strengths, but general desirable qualifications are as follows:

**Phd candidate** with anatomy/phys, materials science and/or biomechanics training, and strong experimental / visual skills. Full fees+annual stipend for an EU student for 4 years.

**Post-doc position** with physics, fluid mechanics, aquatic locomotion and/or design training. Funded for 2 years (IUA salary guidelines - <https://tinyurl.com/y44qqgu6>).

**Apply:** Submit a letter of research interests and current CV to [mason.dean@mpikg.mpg.de](mailto:mason.dean@mpikg.mpg.de)