**PROJECT RESUME**

**TITLE**: Towards understanding the myotendinous and osteotendinous interfaces: A biomaterial perspective

The musculoskeletal system is an integral part of the entire body anatomy that, apart from providing species-specific body shape, makes locomotion possible. Tendons, rich in dense fibrous tissue (such as collagen I–IV), are a key component of this system that links the muscles to the bones. By such linking, tendons stabilise the force exerted on bones due to muscular contraction and enable diverse joint movements (e.g., flexion, extension, abduction, and adduction). This project strives to (microscopically) identify and understand the anatomy of tendons from a biomaterial and biomechanical perspective especially the musculotendinous and osteotendinous interfaces that are otherwise oblivious to the naked eyes while dealing with gross anatomy. To elucidate, a detailed microscopic investigation on both (H&E) stained and unstained tendinous tissue specimens harvested from (canine) hindlimb gastrocnemius (Achilles tendon) and (forelimb) superficial digital flexor muscles will be carried out, followed by both 2D and 3D visualisation and modelling.

File: USVRS – Project Resume 202324 BHATTACHARJEE