

## Dr Sheetal Inamdar

MEng, PhD

School of Engineering and Materials Science  
Queen Mary University of London  
Mile End Road  
London E1 4NS

tel: +44 (0)20 7882 8732

email: s.r.inamdar@qmul.ac.uk web: www.sems.qmul.ac.uk/s.r.inamdar

---

### 2021

**Reversible changes in the 3D collagen fibril architecture during cyclic loading of healthy and degraded cartilage.**

Inamdar SR, Prévost S, Terrill NJ, Knight MM and Gupta HS. *Acta Biomaterialia* vol. 136, 314-326. Elsevier.

**Activation of TRPV4 by mechanical, osmotic or pharmaceutical stimulation is anti-inflammatory blocking IL-1 mediated articular cartilage matrix destruction.**

Fu S, Meng H, Inamdar S, Das B, Gupta H, Wang W, Thompson C and Knight M. *Osteoarthritis and Cartilage*. Block JA. Elsevier.

**Chapter 2 Synchrotron X-ray Imaging Combined with Multiscale Modeling Applied to Biological Soft Tissues.**

Gupta HS, Barbieri E, Inamdar SR and Mo J. *Soft Matter For Biomedical Applications 34-60*. Royal Society of Chemistry (Rsc).

### 2019

**Proteoglycan degradation mimics static compression by altering the natural gradients in fibrillar organisation in cartilage.**

Inamdar SR, Barbieri E, Terrill NJ, Knight MM and Gupta HS. *Acta Biomaterialia* vol. 97, 437-450. Elsevier.

### 2017

**The Secret Life of Collagen: Temporal Changes in Nanoscale Fibrillar Pre-Strain and Molecular Organization During Physiological Loading of Cartilage.**

Inamdar SR, Knight DP, Terrill NJ, Karunaratne A, Cacho-Nerin F, Knight MM and Gupta HS. *Acs Nano*.

### 2012

**Cell mechanics, structure, and function are regulated by the stiffness of the three-dimensional microenvironment.**

Chen J, Irianto J, Inamdar S, Pravin Kumar P, Lee DA, Bader DL and Knight MM. *Biophys J* vol. 103, (6) 1188-1197.