

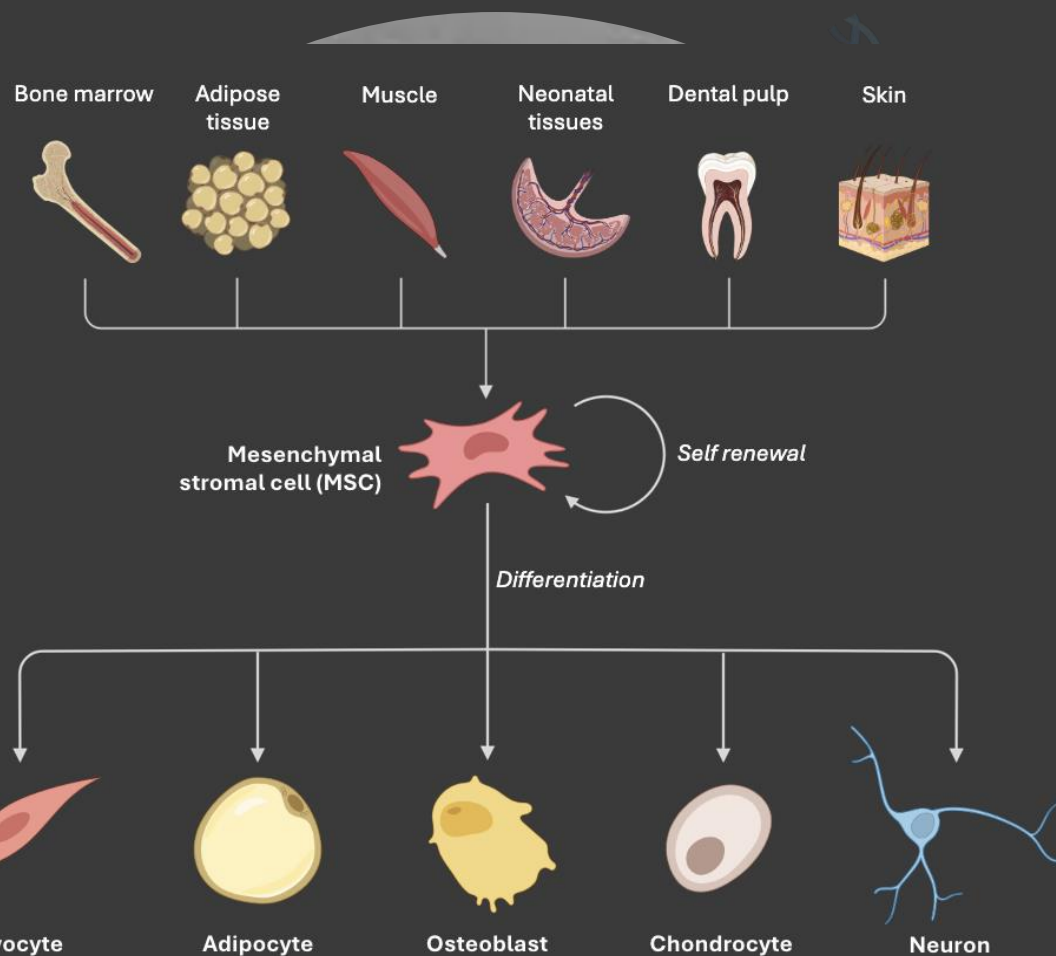
Development of an Optical Tweezers-based Assay for ECM Viscoelastic Characterization in Decellularized MSC Spheroids

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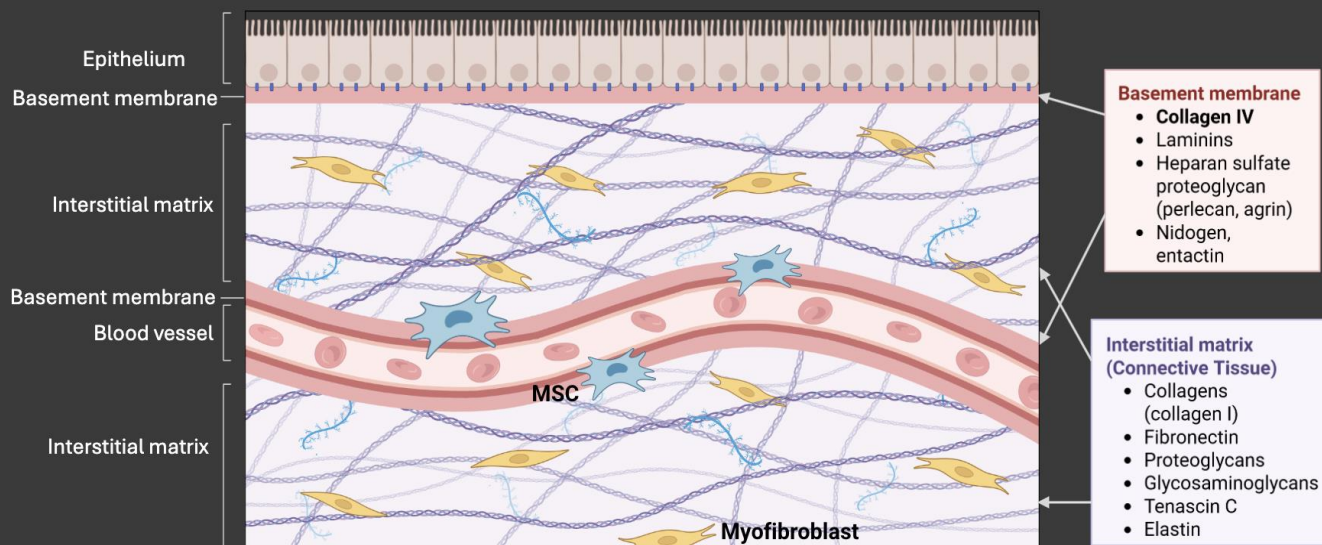


Applications

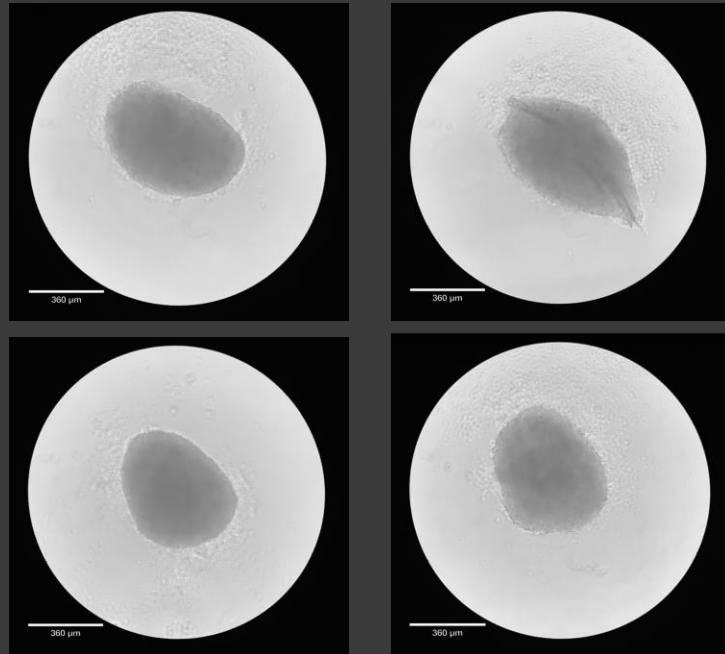
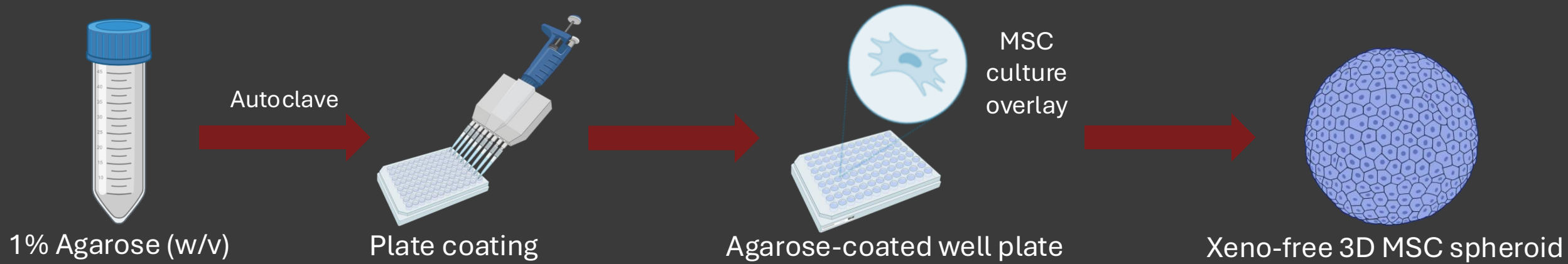
- Bone and cartilage regeneration.
- Treatment of liver, kidney and cardiovascular diseases.
- Wound healing.

Spheroids are 3D models of tissue

Healing Tissue



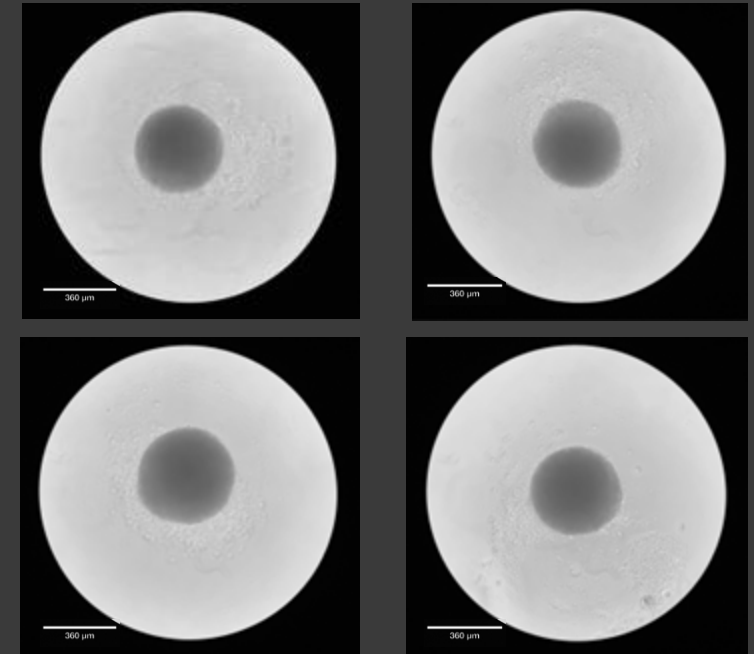
Isolating the ECM

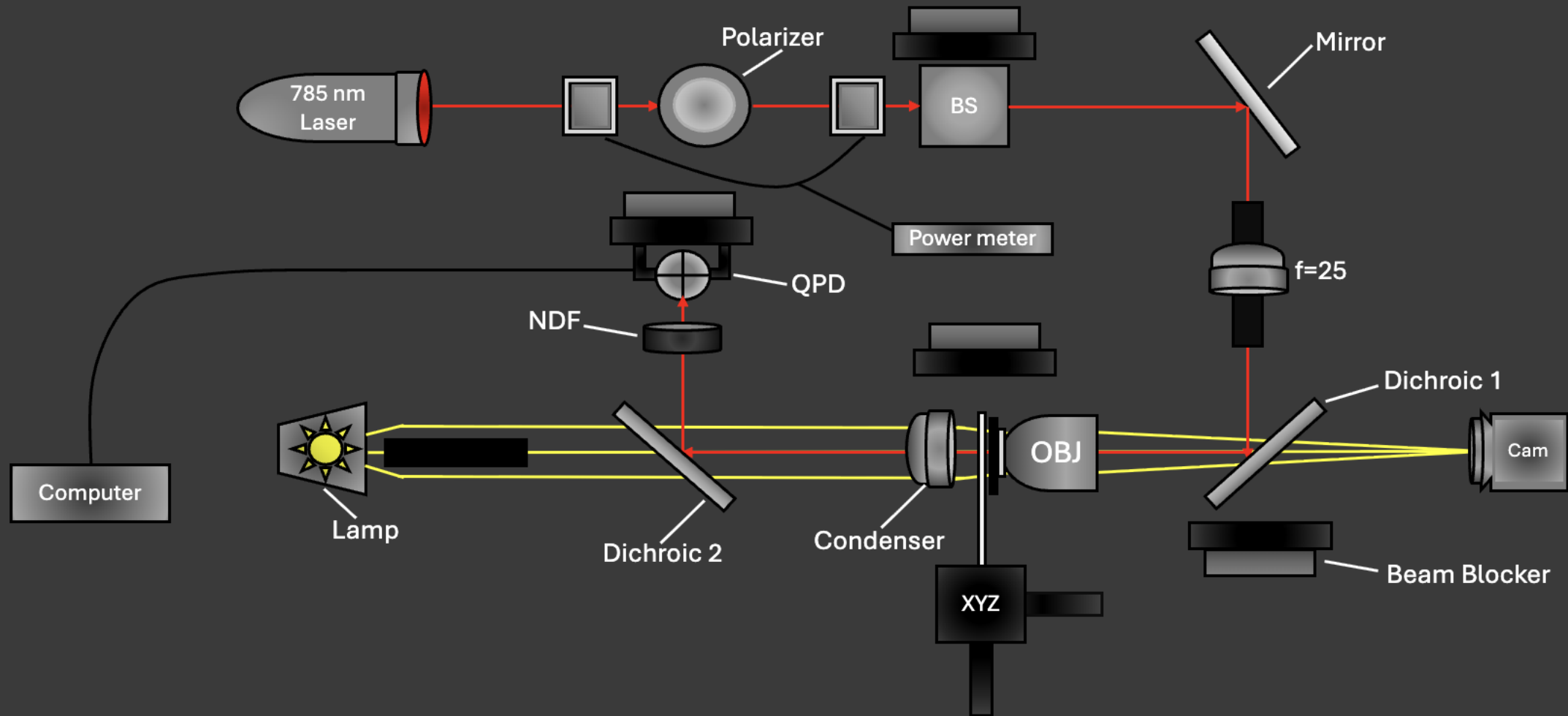


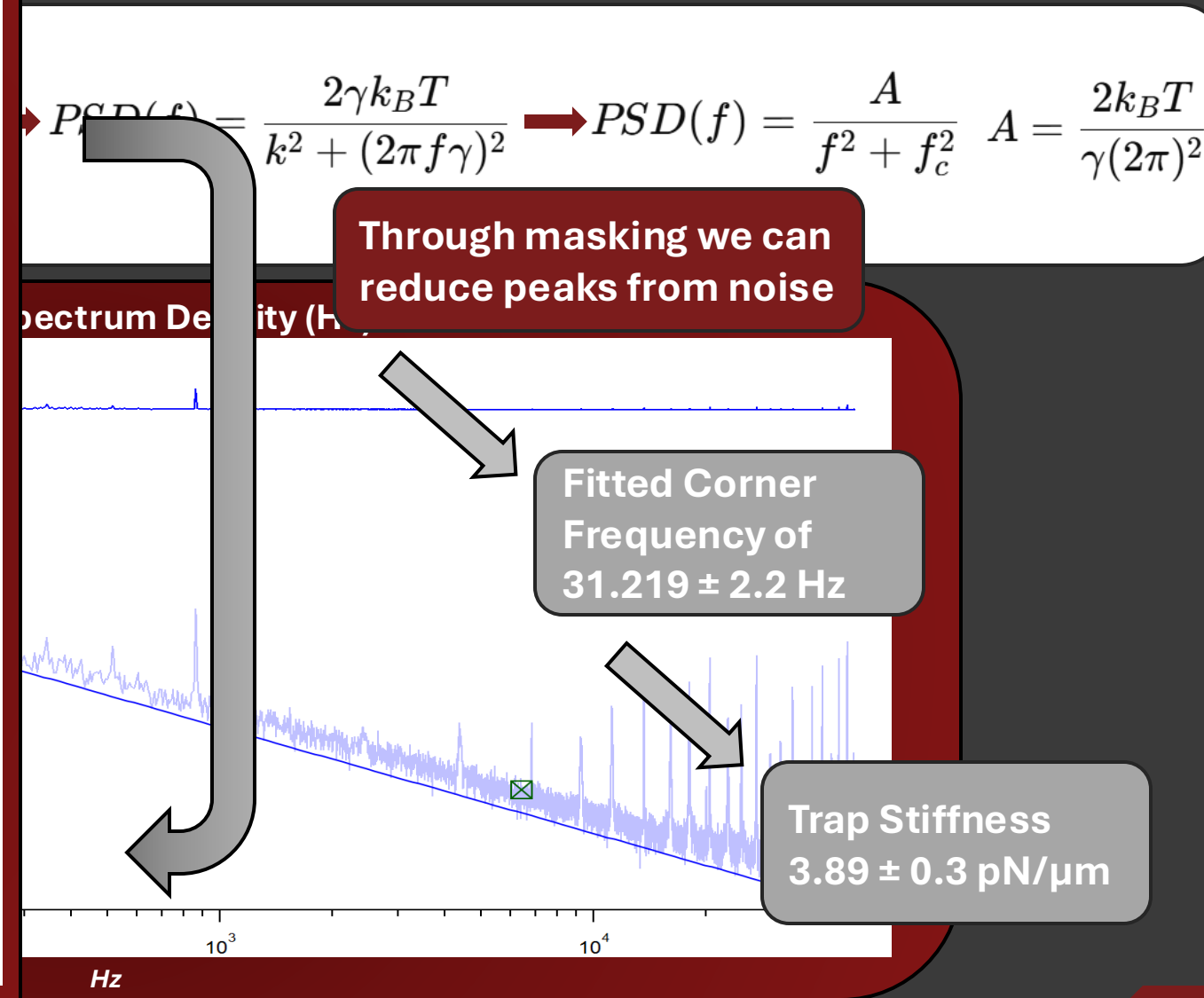
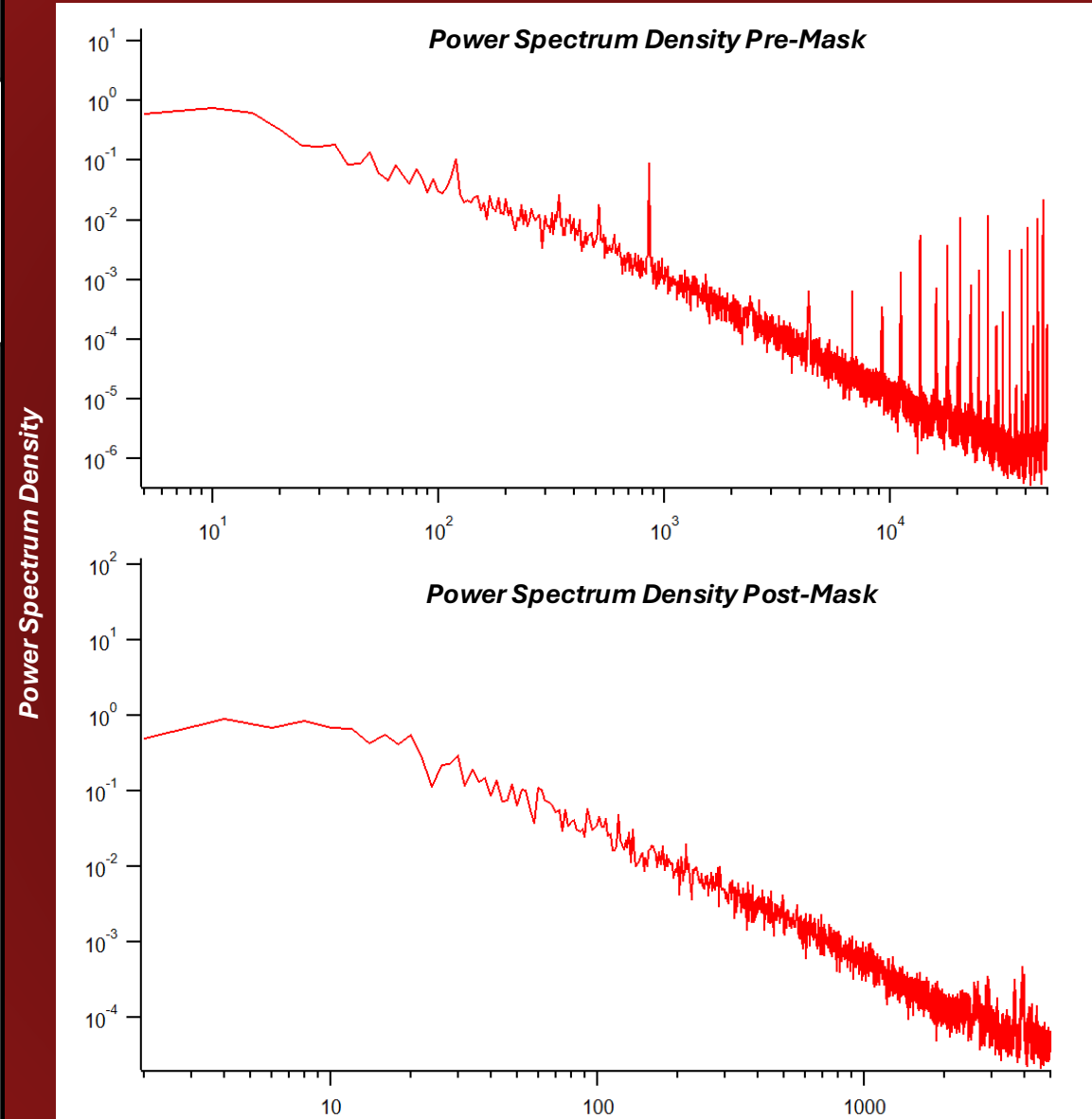
20 mM NH_4OH , 0.5% Triton X-100 plus protease inhibitors

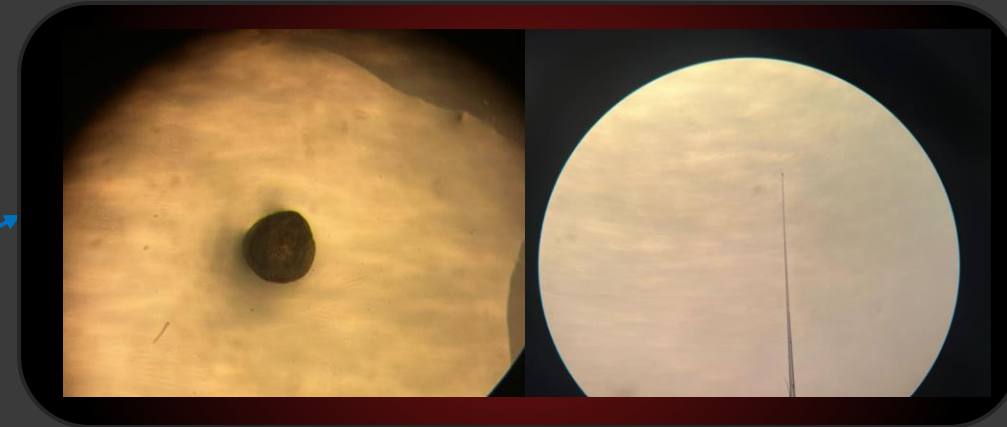
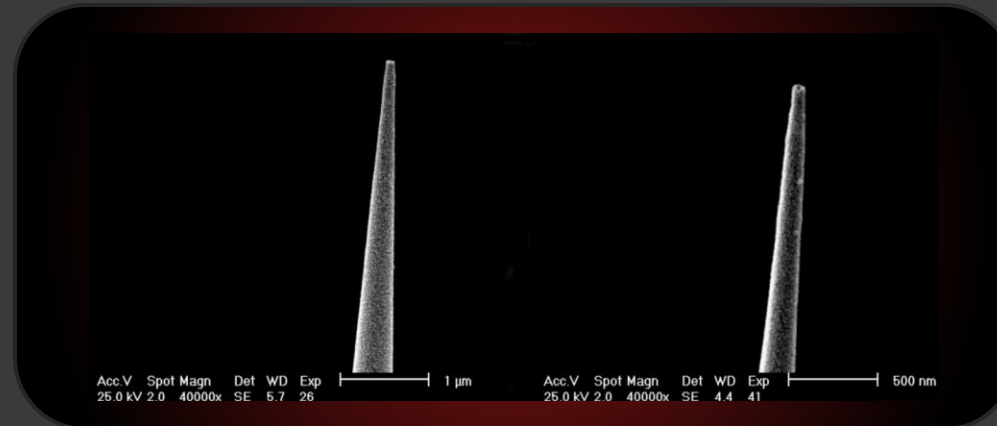
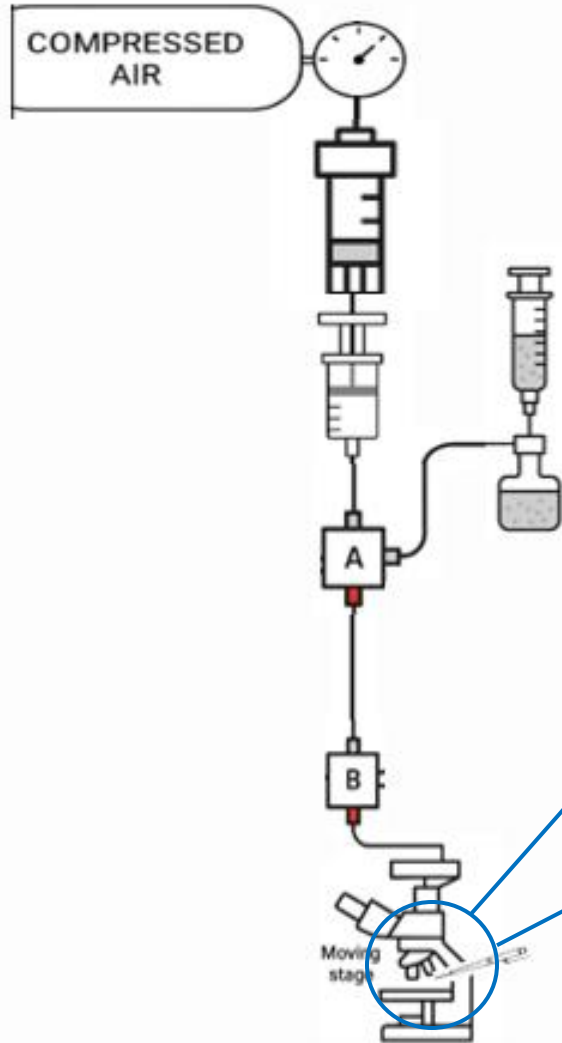
Decellularization

Followed by DNase I treatment (50 KU)









Now we move to extract the viscoelastic properties of MSCs

Acknowledgements



The Braid Lab

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