

ORTHOPAEDIC BIOMECHANICS

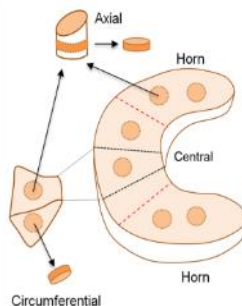


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Our research mission is to develop novel strategies to treat/and or prevent OSTEOARTHRITIS and LOW BACK PAIN. We characterize the effects of mechanical loading, tissue structure, and degeneration on tissue transport and electromechanical properties as well as cellular viability and behavior.



Osteoarthritis and Meniscus Pathology



Measure effects of loading, degeneration, structure on:

- Nutrient Transport
- Electromechanics
- Pathobiology

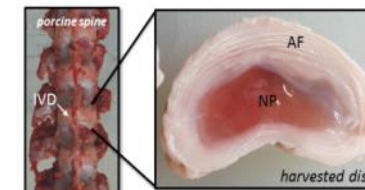
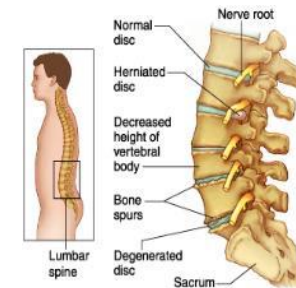
How can we prevent the breakdown of orthopaedic soft tissues and related pain?

How do mechanical and nutritional factors contribute to tissue pathology?



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Low Back Pain and Disc Degeneration



Determine how cellular viability and activity are affected by:

- Nutrient supply
- Mechanical loading