

Advancing tendon-to-bone enthesis repair

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PROPOSITIONS

accompanying the dissertation

Advancing Tendon-to-Bone Enthesis Repair: From Biomimetic Materials to microRNA Modulation

by

Carlos Julio Peniche Silva

1. To understand the injured tissue we must first understand the healthy one (Chapter 3)
2. Rodents continue to be not the ideal, but the best animal model we have to research musculoskeletal diseases and injuries (this Thesis)
3. The currently available Tissue Engineering approaches to treat enthesis injuries can only improve the quality of the healing rather than regenerate the native tissue (Carlos Peniche)
4. Heterotopic ossification at the tendon-to-bone enthesis is, at least for now, inevitable (this Thesis)
5. miRNA-mediated RNAi is still in its infancy. Further research will expand the potential applications of this technology beyond the treatment of injuries and into the prevention of injuries (Carlos Peniche)
6. Genes tell only half of the story during tendon-to-bone enthesis healing. Epigenetic regulation makes up a significant part of the remaining half (Chapter 5)
7. Biomaterial research could benefit from less diversification of biomaterial candidates and deeper exploration of the ones we already have (Carlos Peniche)
8. The incidence of entheses and tendon injuries will with all certainty increase in the future, thus clinicians and researchers must work closer together to meet the upcoming need for better treatments for injured tendons and entheses (Carlos Peniche)
9. La educación empieza con la vida, y no acaba sino con la muerte... la mente cambia sin cesar, y se enriquece y perfecciona con los años (José Martí, 1853-1895, Político y escritor Cubano)
Education commences at birth and ends only with death... the mind changes incessantly, and is enriched and perfected with the years (José Martí, 1853-1895, Cuban politician and writer)