

Intra-Articular Application of Mesenchymal Stem Cell Therapy for Osteoarthritis — The Next Step

Optimization of Therapeutic Capacity and Applicability.

- 1) Intra-articular admission of Mesenchymal Stem Cells is safe. *(this thesis)*
- 2) A successful strategy to cure osteoarthritis would consist of long-term simultaneously reducing inflammation and promoting tissue regeneration by slow-release systems. *(this thesis)*
- 3) The intra-articular arthritic environment affects mesenchymal stem cells and thereby their therapeutic function. *(this thesis)*
- 4) Techniques to label injected cells and cell constructs enable longitudinal imaging to monitor construct integrity and the effectiveness of the cell therapy. *(this thesis)*
- 5) By encapsulating allogeneic cells in alginate, we are closer to off the shelf therapy with mesenchymal stem cells. *(this thesis)*
- 6) Systemic metabolic and inflammatory changes in obesity do not always lead to cartilage damage. *Wu Wei*
- 7) It is not the strongest, nor the most intelligently developed implant that survives. It is the implant that best adapts to the anatomy of the individual patient. *Adapted from Charles Darwin, "It is neither the strongest of the species to survive nor the most intelligent to survive. It is the one most adaptable to change"*
- 8) No creature was more miserable than man, for that all other creatures are content with those bounds that nature set them, only man endeavours to exceed them. *Desiderius Erasmus*
- 9) One must not neglect the body and let it become deformed (this is the basic principle of orthopaedics). *Nicolas Andry de Bois-Regard*
- 10) COVID 19 is a global common enemy that has brought the scientific community together with efforts never seen before.
- 11) For the strength of the pack is the wolf, and the strength of the wolf is the pack. *Rudyard Kipling, The Jungle Book*