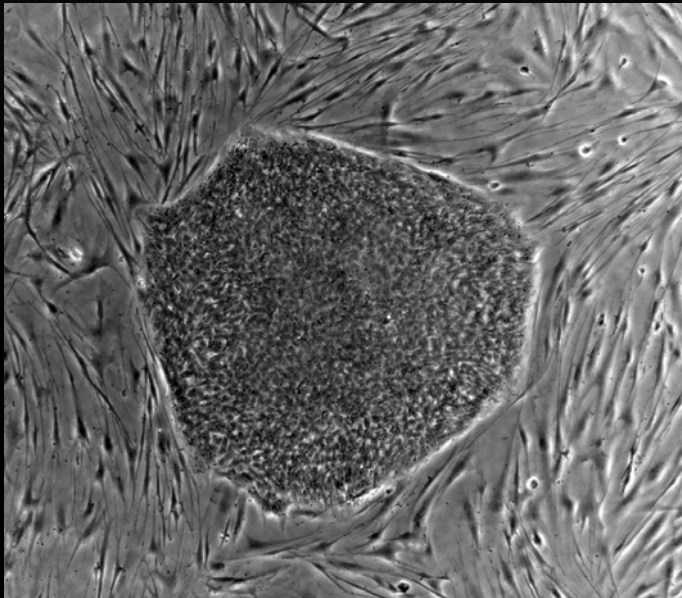


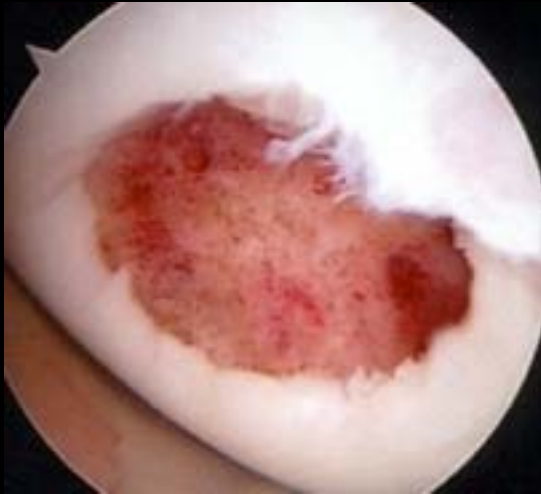
Stem Cells for the Orthopaedic Surgeon



Orthopedic stem cell applications

- Follow successes in other fields
 - Cardiac
 - Wound Healing
 - Retina
- Address unsolved problems

Orthopedic stem cell applications





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Why do we need stem cells?

Limitations of current solutions

- Limited efficacy
- Donor site morbidity
- Cost

Road Map



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Goals

- Gain insight into current translational research and clinical applications
- Interact with our faculty

Issues

- What is the current research focus?
- What are the benefits?
- What are the limitations?
- What is our clinical experience?
- Are there better alternatives?

Moderator

- Mark Lee, MD
 - Orthopaedic traumatologist UC Davis
 - Lower extremity periarticular fractures
 - Segmental defect reconstruction
 - Research focus on translational stem cell applications in fracture repair and bone regeneration in segmental defects
 - Small animal model experience with BDMSC and ADMSC and nonunions
 - Clinical experience with MNC concentration techniques

Faculty

- Jan Nolta, PhD

- 20 years research experience
- Director stem cell program UCD and Institute for Regenerative Cures
 - 145 faculty members
- focuses on “bench to the bedside” research
 - numerous clinical trials of gene and cell therapy
- published over 100 manuscripts in the stem cell field and has authored 15 book chapters
- served on over 60 review panels for the National Institutes of Health, is Associate Editor for the Journal “Stem Cells”



Faculty

- Ray Linovitz, MD

- Orthopedic residency at UCSD
 - private practice in the San Fernando Valley where he was Director of the Spinal Injury Service at Northridge Hospital from 1976 to 1982
- Spinal Fellowship at the Robert Jones and Agnes Hunt Orthopaedic Hospital in Oswestry, England
- currently the Medical Director of Research and Education at CORE Orthopaedics as well as serving the same role in private industry
- current clinical research and development work is predominantly in the area of adult allogeneic stem cells for spinal fusion and fracture repair

Faculty

- Safdar Khan, MD
 - Chief resident UCD
 - Accomplished and nationally recognized clinician scientist
 - extensive background in tissue engineering research including preclinical and clinical models of fracture healing and spinal fusion
 - author of over 40 peer reviewed publications, eight book chapters and has previously been a recipient of the COA best paper award, among other national awards including OREF, OTA and WOA
 - resident-at-large position in the prestigious Biologic Implants Committee of the AAOS

And now, the answers.