

24 September (Thursday)

- 8:00 - 9:00 **Registration / Badge Pick up at Hubrecht Institute (Science Park)**
- 9:00 - 12:00 **Laboratory Skills for Scientists (Hands-on Workshop A)**
Instructor: Levato Riccardo (NL) Instructor: Creemers Laura (NL) Instructor: Vonk Lucienne (DE) Instructor: van Rijen Mattie (NL)
- 09:00 - 09:30 **Instructions**
- 09:30 - 12:00 **Hands-on: Cell- & 3D Tissue Culture / Microscopy / Bioprinting / Electro-Writing / Light-Based Printing**
- Surgical Skills for Clinicians (Hands-on Workshop B)**
Instructor: Saris Daniel BF (US) Instructor: Van Egmond Nienke (NL) Instructor: Custers Roel (NL) Instructor: Smolders José (NL) Instructor: van der Wal Wybren (NL)
- 09:00 - 10:00 **Tour of Hubrecht Institute**
- 10:00 - 12:00 **Hands On: Sawbone Session (Distal Femoral Osteotomy & Proximal Tibial Osteotomy)**
Van Egmond Nienke (NL) Smolders José (NL)
- 12:00 - 12:30 **Bus Transfer to Hotel Karel V**
- 12:30 - 13:30 **Lunch (included)**
- 13:45 - 15:45 **Session 1- Bone & Cartilage Biology**
Moderator: Malda Jos (NL) Moderator: Custers Roel (NL)
- 13:45 - 14:00 **1.1 Cells in the Joint & Tissue Culture**
Vonk Lucienne (DE)
- 14:00 - 14:15 **1.2 Introduction to Cartilage, its ECM and Biomarkers**
Zaucke Frank (DE)
- 14:15 - 14:30 **1.3 Recent Innovations in Translational Biology & OA**
Weinans Harrie (NL)
- 14:30 - 14:45 **1.4 Connecting Clinics and Basic Laboratory Research**
Malda Jos (NL) Custers Roel (NL)
- 14:45 - 15:00 **1.5 Connecting Clinics and Basic Laboratory Research**
Angele Peter (DE) Docheva Denitsa (DE)
- 15:00 - 15:15 **1.6 US/EU Regulation for Translation of Stem Cell/Device from Bench to Bedside**
- 15:15 - 15:30 **1.7 Recent Innovations in Translational Biology & IVD regeneration**
Ito Keita (NL)
- 15:30 - 15:45 **Q&A**
- 15:45 - 16:30 **Coffee Break / Exhibition**
- 16:30 - 18:00 **Session 2 - Three ICRS Presidents**
- 16:30 - 17:30 **2.1 Discussion with Three ICRS Presidents**
Brittberg Mats (SE) Saris Daniel BF (US) Erggelet Christoph (CH)
- 17:30 - 18:00 **2.2 Inspirational Talk: Knee Repair is Brain Repair**
Scherder Erik (NL)
- 18:00 - 19:00 **Welcome Drinks**

25 September (Friday)

- 8:30 - 10:00 **Session 3 - Regenerative Cartilage Therapies I**
Moderator: Karperien Marcel (NL)
- 08:30 - 08:45 **3.1 From Cartilage Defects to Early OA**
Erggelet Christoph (CH)
- 08:45 - 09:00 **3.2 Cell-Based Cartilage Therapies**
Brittberg Mats (SE)
- 09:00 - 09:15 **3.3 Allografts in the EU**
Emans Pieter (NL)
- 09:15 - 09:30 **3.4 USA vs. EU, Best of Both Worlds?**
Saris Daniel BF (US)
- 09:30 - 09:45 **3.5 Evidence for One-Step Non-Cellular Cartilage Repair**
Niemeyer Philipp (DE)
- 09:45 - 10:00 **Q&A**
- 10:00 - 10:45 **Coffee Break / Exhibition**
- 10:45 - 12:15 **Session 4 - Regenerative Cartilage Therapies II**
Moderator: Saris Daniel BF (US) Docheva Denitsa (DE)
- 10:45 - 11:00 **4.1 The Need for Osteotomies in Regenerative Therapies**
Niemeyer Philipp (DE)
- 11:00 - 11:15 **4.2 Distraction Therapy**
Mastbergen Simon C (NL)
- 11:15 - 11:30 **4.3 Mobility Clinic, an Optimal Multidisciplinary Clinical Approach?**
Backx Frank (NL)
- 11:30 - 11:45 **4.4 Distraction / Osteotomy / UKA / TKA?**
van Heerwaarden Ronald (NL)
- 11:45 - 12:15 **Q&A**
- 12:15 - 13:30 **Lunch Break / Industry Symposium**
- 13:30 - 15:00 **Session 5 - Next Generation Joint Repair Treatments**
Moderator: Brittberg Mats (SE) Moderator: Kelly Daniel (IE)
- 13:30 - 13:45 **5.1 Extracellular Vesicles for Joint Repair**
Vonk Lucienne (DE)
- 13:45 - 14:00 **5.2 Bioprinting Approaches for Cartilage Repair**
Kelly Daniel (IE)
- 14:00 - 14:15 **5.3 The Dutch (Osteo)chondral Treatment Algorithm**
Custers Roel (NL)
- 14:15 - 14:30 **5.4 Induced Pluripotent Stem Cells (iPSCs)**
Lindahl Anders (SE)
- 14:30 - 14:45 **5.5 IMPACT for Cartilage and Meniscus Treatment**
Saris Daniel BF (US)
- 14:45 - 15:00 **Q&A**
- 15:00 - 15:30 **Coffee Break/ Exhibition**

- 15:30 - 16:30 **Session 6 - In Vitro/ Ex Vivo/ In Vivo Models**
Moderator: Vonk Lucienne (DE) Moderator: Van Weeren René (NL)
- 15:30 - 15:45 **6.1 In Vivo: The Horse, a Translational Model or a Patient?**
Van Weeren René (NL)
- 15:45 - 16:00 **6.2 Ex Vivo: Osteochondral Defect Model**
Ito Keita (NL)
- 16:00 - 16:15 **6.3 In Vitro: Knee Joint on a Chip**
Karperien Marcel (NL)
- 16:15 - 16:30 **6.4 Autologous Minced Cartilage Techniques**
Salzmann Gian (CH)
- 16:30 - 16:45 **Closing Remarks & Take-Home Points**
Speaker: Vonk Lucienne (DE) Speaker: Van Weeren René (NL)
- 19:00 - 22:00 **Faculty/Course Dinner**

26 September (Saturday)

- 8:00 - 12:30 **Laboratory Skills Track for Scientists (Hands-on Workshop C)**
Instructor: Levato Riccardo (NL) Instructor: Creemers Laura (NL) Instructor: Vonk Lucienne (DE) Instructor: Malda Jos (NL)
- 08:00 - 10:00 **Histology, Biomarkers Detection, GAG and DNA Assays**
- 10:00 - 10:30 **Coffee Break / Exhibition**
- 10:30 - 12:30 **Bioreactors, Explant Cultures and Joint-on-Chip Models**
- Surgical Skills for Clinicians (Wet Lab on Human Specimen Workshop D)**
Instructor: Saris Daniel BF (US) Instructor: Van Egmond Nienke (NL)
Instructor: Custers Roel (NL) Instructor: van Heerwaarden Ronald (NL)
Instructor: Brittberg Mats (SE) Instructor: Niemeyer Philipp (DE) Instructor: van der Wal Wybren (NL) Instructor: Erggelet Christoph (CH)
- 08:00 - 09:00 **Cartilage Procedures**
- 09:00 - 10:00 **Knee Joint Distraction**
- 10:00 - 10:30 **Coffee Break**
- 10:30 - 11:30 **Proximal Tibial Osteotomy**
- 11:30 - 12:30 **Distal Femoral Osteotomy**
- 12:30 - **Course End**