All information and online registration at:
https://www.curso-ortobiomsk.com/

SCIENTIFIC PROGRAM

Thursday, February 4th, 2027

IV Cadaver Lab
Hands-on Workshops on Ultrasound-Guided Interventional Procedures on Cadavers

Instituto Anatómico de la Facultad de Medicina, Universidad de Sevilla
First group: 9:00 AM – 1:15 PM / Second group: 3:00 PM – 7:15 PM
Limited places; allocated in strict order of registration

1. **Shoulder**
2. **Knee**
3. **Hand and Wrist**
4. **Foot and Ankle**
5. **Elbow**
6. **Hip and Thigh**
7. **Spine**

WORKSHOPS:
- Liposuction and micro-fat (15 min)
- Bone marrow aspiration (15 min)
- Prolotherapy for instability (15 min)

Friday, February 5th, 2027

VI Curso Internacional Ortobiomsk

08:30 - 08:45 h **WELCOME TO ORTOBIOMSK 2027**
Why are we doing a VI Edition?
What has changed and needs to change now?
Dr. Pedro Bernáldez Domínguez
Course Director

08:45 – 10:00 h

TABLE 1: FROM PATIENT TO OUTCOME
Essential principles to improve Orthobiologic results

Moderator: Dr. Pedro Bernáldez Domínguez
Specialist in Orthopedic Surgery and Sports Traumatology
Spain

08:45 - 09:00 h **A Systems Approach to Orthobiological Medicine: From Clinical Assessment to Outcomes**
Dra. Mary A. Ambach
Specialist in Physical Medicine, Rehabilitation and Pain Medicine
USA

09:00 - 09:15 h **From anatomical diagnosis to biological phenotype. Orthopaedics 3.0**
Dr. José Miguel Catalán Larracoechea
Specialist in Orthopaedic Surgery and Sports Traumatology
Spain

09:15 - 09:30 h **The Personalized Patient Journey in Orthobiology**
How I assess, indicate, treat, and follow my regenerative medicine patients
Dr. Iván Ardines Caicoya
Specialist in Orthopedic Surgery and Sports Traumatology
Spain

09:30 – 09:45 h **What makes a therapeutic biologic of high quality?**
Preparation · Standardization · Characterization · Quality control
Dra. Alicia Rinaldi
Specialist in Regenerative Medicine
Argentina

09:45 – 10:00 h **FIRE-CROSS DEBATE**

10:00 – 11:45 h

TABLE 2: PRP 2027: BEYOND "PRP ONLY".
Dosage · Composition · Tissue · Technique · Indication

Moderator: Dra. Almudena Fernández-Bravo Rueda
Specialist in Physical and Rehabilitation Medicine
Spain

10:00 - 10:15 h — **Beyond PRP: The Potential Role of PRF in Orthobiologics**
From liquid formulation to autologous scaffolding
Dra. Alicia Rinaldi
Specialist in Regenerative Medicine
Argentina

10:15 - 10:30 h — **Does dosage really matter? Is hyper-concentrated PRP better?**
Concentration vs. total dose of platelets. Leukocytes, erythrocytes, and the concept of a single dose
Dr. José Miguel Catalán Larracoechea
Specialist in Orthopaedic Surgery and Sports Traumatology
Spain

10:30 – 10:45 h — **Ligaments, Muscle and Fascia: From Ultrasound Diagnosis to Targeted Biological Treatment**
Dr. Pedro Bernáldez Domínguez
Specialist in Orthopedic Surgery and Sports Traumatology
Spain

10:45 – 11:00 h — **Chronic tendinopathy: What comes next when first-line treatment fails?**
A practical step-by-step algorithm
D. Suresh Sudula
Consultant Physiotherapist; Musculoskeletal Ultrasound and Ultrasound-Guided Interventions
United Kingdom

11:00 – 11:15 h — **Orthobiological Augmentation in Rotator Cuff Repair: Clinical Results from a Randomized Controlled Trial**
Dr. Karun Jain
Specialist in Orthopaedic Surgery
India

11:15 – 11:30 h — **Combination of Orthobiologicals + Ozone Therapy: Why and when do I combine them?**
Dr. José Fabio Lana
Specialist in Orthopedic Surgery and Sports Traumatology
Brazil

11:30 – 11:45 h — **PRP CONTROVERSIES – FIRE-CROSS**

11:45 – 12:15 h — **COFFEE BREAK**
Exhibition area · Industry · Technology · Networks

12:15 – 13:15 h

TABLE 3: ADVANCED REGENERATIVE MEDICINE
Bone marrow · BMAC · Adipose tissue · MSCs

Moderator: Dr. Iván Ardines Caicoya
Specialist in Orthopedic Surgery and Sports Traumatology
Spain

12:15 - 12:30 h — **From bone marrow aspiration to clinical outcomes: what 40 years have taught us**
Aspiration technique, dilution, cell populations and clinical indications
Dr. Philippe Hernigou
Specialist in Orthopedic Surgery and Traumatology
France

12:30 – 12:45 h **Aspirated Bone Marrow and BMAC: What Are We Really Injecting?**
Aspiration technique, dilution, cell populations and clinical indications
Dr. Pedro Bernáldez Domínguez
Specialist in Orthopedic Surgery and Sports Traumatology
Spain

12:45 – 13:00 h **BMAC for Partial Rotator Cuff Tears: Eight-Year Clinical Follow-Up**
Dr. Don Buford
Specialist in Orthopedic Surgery and Sports Traumatology
Expert in Musculoskeletal Ultrasound and Orthobiologics
USA

13:00 - 13:15 h **Microfragmented adipose tissue in osteoarthritis**
Stromal vascular niche, pericytes, scaffolding effect and clinical applications
Dr. Manuel Martínez Castillo
Orthobiologic Interventions. Expert in Regenerative Medicine
Honduras

13:15 - 13:30 h **MFAT for Knee OA: Procedure Basics**
Dra. Mary Ambach
Specialist in Physical Medicine, Rehabilitation and Pain Medicine
USA

13:30 - 13:45 h **MSCs or medicinal signalling cells?**
Nomenclature, paracrine activity, immunomodulation and clinical protocols
Dr. Matías Fernández Viña
Expert in Regenerative Medicine and Advanced Therapies
Argentina

13:45 – 14:00 h **FIRE CROSS PRP vs BMAC vs MFAT: Which patient for which biological?**

14:00 – 14:30 h

ORTOBIOMSK & AEMR CEREMONY
From education to clinical practice

14:00 – 14:10 h Award-Winning Clinical Case Presentation – III AEMR Promotion

14:10 – 14:20 h Award Certificates & III Promotion of the AEMR

14:20 – 14:30 h Official presentation: DEBA Protocol – Dr. Pedro Bernáldez

14:30 h
Photoshoot (Participants and Speakers)

14:30 – 16:00 h **WORKING LUNCH AND NETWORKING**

16:00 – 17:00 h

TABLE 4: THE DURATION OF MUSCULOSKELETAL HEALTH

From biological age to integrative medicine, muscle, metabolism and regeneration

16:00 – 16:20 h — **What is a medical longevity clinic?**
How to measure biological age and turn data into a personalized Healthspan prescription
Dr. Vicente Mera
Specialist in Regenerative Medicine
Spain

16:20 – 16:40 h — **Integrative Medicine, Metabolic Health and Integrative Health**
Building the Biological Environment for Healthy Aging and Regeneration
Dr. Miguel Guillermo Garber
Specialist in Cardiology, Hyperbaric Medicine, and Regenerative Medicine
Spain

16:40 – 17:00 h — **Exercise as a biological adjuvant**
What to prescribe, measure and progress in muscle, tendons and osteoarthritis
Dr. Gustavo Santángelo Magrini
Specialist in Sports Medicine and Musculoskeletal Ultrasound
Spain

17:00 – 18:15 h

TABLE 5: 5 WHAT REALLY ADDS VALUE BEFORE OR AFTER ORTHOBIOLOGICALS?

Moderator: Dr. José Miguel Catalán Larracoechea
Specialist in Orthopedic Surgery and Sports Traumatology
Spain

17:00 – 17:15 h — **Shockwave Therapy + Orthobiological**
Mechanotransduction, protocols and future research
Dra. Karin Freitag
Rheumatology Specialist
Spain

17:15 – 17:30 h — **HILT and other physiotherapies after orthobiology**
Beyond Pain Relief: Can We Modulate the Biological Response?
Dr. Luis Gallego Burguillo
Specialist in Orthopedic Surgery and Sports Traumatology
Spain

17:30 – 17:45 h — **Advances in prolotherapy**
Patient selection, ultrasound-guided technique and decision making in chronic tendon and ligament pathology
Dr. Gonzalo Mora Gasque
Specialist in Orthopedic Surgery and Sports Traumatology
Spain

17:45 – 18:00 h — **After the injection: rehabilitation is part of the treatment**
Load, neuromodulation, mechanobiology, domestic protocols and return-to-activity chronologies
Dra. Miriam Girón Mariñas
Specialist in Physical Medicine and Rehabilitation
Spain

18:00 – 18:15 h — **FIRE-CROSS Are we improving biology... or just doing too much?**

18:15 – 18:45 h **COFFEE AND INDUSTRIAL NETWORKING**

18:45 – 19:45 h

MESA 6: PAIN, SPINE, AND NERVES. BEYOND THE JOINT

Moderator: Dra. Almudena Fernández-Bravo Rueda
Specialist in Physical Medicine and Rehabilitation
Spain

18:45 – 19:00 h **Orthobiologicals for Spinal Pain: What Works, What Might Work, and What We Don't Know Yet**
Dra. Mary Ambach
Specialist in Physical Medicine, Rehabilitation, and Pain Medicine
USA

19:00 – 19:15 h **Ultrasound-guided spine procedures I perform in my practice**
Dr. David Smith
Expert in Interventional Regenerative Medicine and Cellular Medicine
USA

19:15 – 19:30 h **Integrative Medicine for Chronic Pain Diseases**
From Modern Interventions to Traditional Medicine, Lifestyle and Whole-Person Care
Dr. Kiran Shete
Orthopedic Surgery Specialist
India

19:30 – 19:45 h **Entrapment Neuropathies: My Pearls Ultrasound-Guided Hydrodissection Practices**
Dr. Philippe Mouly
Sports Medicine Specialist
France

19:45 – 20:00 h **FIRE-CROSS Where does evidence end and innovation begin?**

20:30 h **OrthoDinner**

Saturday, February 6th, 2027

08:30 – 09:00 h

INDUSTRY NETWORKING

08:30 – 08:45 h **Polyacrylamide Hydrogel for Knee Osteoarthritis: A New Player in the Injectable Treatment Algorithm?**
D. Suresh Sudula
Musculoskeletal Specialist and Consultant Physiotherapist
United Kingdom

08:45 – 09:00 h **Photobiomodulation Synergies to Enhance Biological Signals**

09:00 – 10:45 h

TABLE 7: ULTRASOUND-GUIDED INTERVENTIONS
"Show me how it's done"

Moderator: Dr. Gustavo Santángelo Magrini
Specialist in Sports Medicine and Musculoskeletal Ultrasound
Spain

09:00 – 09:15 h	**Ultrasound-guided blocks in the upper extremity for pain-free orthobiological procedures** **Dra. Almudena Fernández-Bravo Rueda** Specialist in Physical Medicine and Rehabilitation Spain
09:15 – 09:30 h	**Ultrasound-guided blocks in the lower extremities for pain-free orthobiological procedures** **Dr. David Smith** Expert in Interventional Regenerative Medicine and Cellular Medicine USA
09:30 – 09:45 h	**Upper Limb: My Ultrasound-Guided Techniques – Video Session** **Dr. Pedro Bernáldez Domínguez** Specialist in Orthopedic Surgery and Sports Traumatology Spain
09:45 – 10:00 h	**Lower limb: My ultrasound-guided techniques – Video session** **Dr. Francisco José Lara Pulido** Specialist in Orthopedic Surgery and Sports Traumatology Spain
10:00 – 10:15 h	**High-dose intraosseous PRP under ultrasound guidance and local anesthesia** **Dr. Fabio Lana** Specialist in Orthopedic Surgery and Sports Traumatology Brazil
10:15 - 10:35 h	**Beyond the Picture: 3 Pathologies That Change Clinical Decision-Making** **D. Ryan Martin** Physiotherapist, Musculoskeletal Ultrasound Specialist USA
10:35 – 10:45 h	**FIRE-CROSS Where does evidence end and innovation begin?**

10:45 – 11:45 h

MESA 8: THE ORTHOBIOLOGICAL BATTLE
The same patient. Different experts. What would you do?

Moderator: Dr. Pedro Bernáldez Domínguez
Specialist in Orthopedic Surgery and Sports Traumatology
Spain

4 real cases, 10 minutes + 5 minutes Discussion

10:45 - 11:00 h **Knee OA joint**
PRP vs BMAC vs MFAT vs hydrogel vs exercise
Dr. Alberto Schek
Specialist in Orthopedic Surgery and Sports Medicine
Germany

11:00 – 11:15 h **Chronic tendinopathy**
Exercise vs ESWT vs PRP vs prolotherapy
D. Suresh Sudula
Musculoskeletal Specialist and Consultant Physiotherapist
United Kingdom

11:15 – 11:30 h **Hip Preservation in Avascular Necrosis: Current Concepts and Emerging Regenerative Strategies**
Dr. Karun Jain
Orthopedic Surgery Specialist
India

11:30 – 11:45 h **Bone marrow injury / Subchondral**
Disease Intra-articular treatment vs intraosseous biologics vs surgery
Dr. Pedro Bernáldez Domínguez
Specialist in Orthopedic Surgery and Sports Traumatology
Spain

11:45 – 12:15 h **COFFE BREAK**
Exhibition Area · Industry · Technology · Networking

12:15 – 12:45 h

INTERNATIONAL KEYNOTE / MASTERCLASS

Beyond the Joint: My Most Advanced Ultrasound-Guided Techniques for Treating Pain
Nerve hydrodissection · advanced interventions · interradical orthobiological (On-line)
Dr. Stanley Lam
Specialist in Musculoskeletal Medicine, Sports Medicine and Pain
Korea

12:45 – 13:45 h

KEYNOTE / INTERNATIONAL MASTERCLASS

Applications of AI to optimize my consultations, my courses and congresses and satisfaction with my patients
In a simple and very practical way
Dr. David Smith
Expert in Interventional Regenerative Medicine and Cellular Medicine
USA

13:15 – 14:15 h

TABLE 9: INTERNATIONAL CONSENSUS ON ORTHOBIOLOGY

ModeraTor: Dr. Pedro Bernáldez Domínguez
Specialist in Orthopedic Surgery and Sports Traumatology
Spain

Panel: Ambach · Lana · Catalan · Jain · Sheck. Sudula. Gatta. Fdez-Viña

Academies and Face-to-Face Study Groups: What Do We Agree on in Regenerative Medicine in 2027?

| 8 min

ROUND 1 — WHERE ARE WE IN 2027?

1. *What has been the most important advance in regenerative musculoskeletal medicine in the last five years?*
2. *What is currently the main problem of our specialty: evidence, regulation, standardization, training or marketing?*
3. *Do we continue to use the term "Regenerative Medicine" correctly or do we promise more regeneration than we can demonstrate?*
4. *Which orthobiological treatment has the strongest clinical evidence today?*

| 12 min

ROUND 2 — PRP: SEEKING A REAL CONSENSUS

1. *Should we stop simply talking about "PRP" and start defining dose, concentration and cellular composition?*
2. *Should it be mandatory to know the basal platelet count and the final product?*
3. *Is there already enough evidence to talk about a minimum therapeutic dose of platelets?*
4. *LP-PRP vs. LR-PRP: Can we establish different indications depending on the joint, tendon, muscle, or ligament?*
5. *One infiltration versus three infiltrations: can we really establish a universal protocol? 6. Exosomes: Clinical Reality, Promising Research or Marketing Before Evidence?*
6. *Should we require ultrasound for most musculoskeletal orthobiological procedures?*
7. *Intraosseous PRP: Consolidated procedure, selected or still experimental indication?*

| 12 min

ROUND 3 — BMAC, ADIPOSE & ADVANCED THERAPIES

1. *BMAC: Do we really know what we're managing when we don't do cell characterization?*
2. *Which patient would you use BMAC on instead of PRP? A specific indication*
3. *BMAC vs. Microfragmented Adipose Tissue: Are They Competitors or Complementary Tools?*

4. *Should we abandon the term "stem cell therapy" when using BMAC or minimally manipulated adipose tissue?*
5. *Expanded mesenchymal cells: which musculoskeletal indication do you currently consider the most promising?*
6. *Exosomes: Clinical Reality, Promising Research or Marketing Before Evidence?*
7. *Is there currently any scientific justification for using biologics whose exact composition is unknown to the doctor?*

| 10 min

ROUND 4 — THE PATIENT MATTERS AS MUCH AS THE PRODUCT

1. *Are we too focused on the product and too little on the patient who receives it?*
2. *Should we optimize exercise, strength, sleep, nutrition, and metabolic health before and after an orthobiological procedure?*
3. *Should obesity, insulin resistance, and sarcopenia modify our biological indication or protocol?*
4. *Exercise is medicine: should we consider exercise a true "biological adjuvant" to orthobiologicals?*
5. *What three physical or metabolic parameters would you measure before starting an advanced regenerative medicine program?*
6. *Does it make sense to start integrating longevity and musculoskeletal health concepts within our regenerative medicine units?*

| 10 min

ROUND 5 — CROSSFIRE: "YES / NO / DEPENDS"

The moderator asks the question and everyone has to raise a letter: YES — NO — DEPENDS

1. *PRP for knee osteoarthritis?*
2. *PRP for hip osteoarthritis?*
3. *Intraligamentous PRP in selected ACL injuries?*
4. *Orthobiological to complement a surgical repair?*
5. *BMAC for advanced osteoarthritis before indicating a prosthesis?*
6. *MFAT for osteoarthritis?*
7. *Expanded cells in musculoskeletal clinical practice?*
8. *Exosomes in 2027?*
9. *Intraosseous PRP?*
10. *Should an orthobiological procedure always be performed under images?*
11. *Should we measure the biological product we infiltrate?*
12. *Can a true regenerative medicine unit exist without a structured exercise and rehabilitation program?*

14:15 h **CLOSING SESSION**
Dr. Pedro Bernáldez & Scientific Committee

TAKEAWAY MESSAGE:
If everything remains the same on Monday, it probably wasn't education. It was just information