



iPFRR23



# 7th International Patellofemoral Research Retreat

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*Research Retreat  
&  
Clinical Symposium*

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Bologna, IT

6-9<sup>th</sup> June 2023

Istituto Ortopedico Rizzoli, Bologna, Italy

# 6<sup>th</sup> June 2023 – Research Retreat

08:00 Registration, tea & coffee

08:40 Local welcome

Ing. Claudio Belvedere, Prof. Lisa Berti

Dr. Milena Fini Director of the Rizzoli Scientific Department

08:55 IPFRN welcome

iPFRN Executive Board

09:00 **Keynote Address**

*Moderator: David Bazett-Jones*

Prof. Stefano Zaffagnini & Prof. Maria Grazia Benedetti

10:00 *Discussion & questions*

10:20 Networking break

10:50 **Session 1: 8-minute Orals PF Cartilage and Post-Surgical Impacts**

*Moderator: Volga Bayrakci Tunay*

- Claudio Belvedere: Fiber Elongation in Surgically-Treated Patellar Instability. Comparison between Assessments based on Conventional and Weight-Bearing Computed Tomography
- Rudi Hansen: Do patients with patellofemoral pain have increased subchondral metabolic activity?
- Joshua Stefanik: Anterior Knee Pain is Associated with 2-year Compartment Specific Patellofemoral Cartilage Worsening: The MOST Study
- Thomas Demirjian: Patellofemoral Joint Stress in Persons Who Have Undergone ACL Reconstruction
- Michelle Boling: Is Patellofemoral Joint Loading during Gait Associated with Articular Cartilage Compositional Changes at the Patellofemoral Joint following ACL Reconstruction?
- Harvi Hart: Does Knee Flexion Moment Differ Between Females and Males with Patellofemoral Osteoarthritis, And Is It Associated with Patellofemoral Joint Related Symptoms?
- Kay Crossley: Associations of Surrogate Measures of Knee Load With Symptoms and Function, and the Effect of Patellofemoral Osteoarthritis Disease Severity

12:00 Lunch

13:00 Welcome from Alberto Leardini (ISB)

13:15 **Session 2: 8-minute Orals Biomechanics**

*Moderator: Alberto Leardini*

- Lori Bolgia: Is Patella Position or Knee Kinematics Associated with Inflammatory Biomarkers in Females with Patellofemoral Pain
- Lisa Høglund: Males with Patellofemoral Pain Have Decreased Knee Adduction Angles During Weight-Bearing Tasks
- Brian Noehren: Where do people with Patellofemoral Pain experience pain during squatting?
- Neal Glaviano: Vertical Ground Reaction Forces are Not Associated with Physical Activity Level in Individuals with and without Patellofemoral Pain
- Natanael Batista: Clinical - and Laboratory - Based Measures of Postural Control in Individuals with and without Patellofemoral Pain

14:10 Networking break

14:40 **Session 3: 8-minute Orals Systematic Reviews**

*Moderator: Sinead Holden*

- Gamze Arin Bal: Novel Assessment Technologies in Patellofemoral Pain Patients: A Scoping Review
- Sungwan Kim: Physical Activity Levels in Individuals with Patellofemoral Pain: A Systematic Review and Meta-Analysis
- Natanael Batista: Postural Control in People with Patellofemoral Pain: A Systematic Review with Meta-analysis
- David Bazett-Jones: Biomechanics during Weight-Bearing Knee Flexion Tasks in People with Patellofemoral Pain: A Systematic Review with Meta-Analysis
- Marina Cabral Waiteman: Is Posterolateral Hip Strength Testing with Portable Dynamometers Reliable and Valid? A Systematic Review with Meta-analysis
- Saleh Alsaleh: The effects of interventions on local neuromuscular characteristics in patellofemoral pain: a systematic review with meta-analysis

15:40 Stretch Break

16:00 **Group session 1 Evidence & Gap Map**

Marchetti conference hall, Sala de Federalismo, LABMOV Meeting Room

16:00 Consensus exercises in patellofemoral pain Karim Khan (on behalf of Paul Blazey)

16:10 Explanation of transition from consensus to E&G map Marienke van Middelkoop

16:20 *Discussion & questions*

17:30 Welcome Drinks

◆ **7<sup>th</sup> June 2023 – Research Retreat** ◆

07:30 Tea & coffee

08:00 **Session 4: 8-minute Orals Clinical Outcomes**

*Moderator: Saleh Alsaleh*

- Sinead Holden: Outcome Measures as Indicators of Health-related Domains measured in People with Patellofemoral Pain: A Preliminary Report of a Scoping Review
- Kay Crossley: Are There Clinical Differences Between People with Unilateral and Bilateral Patellofemoral Pain?
- Timothy Gilgallon: Physical Activity Levels are Moderately Associated with Pain Self-Efficacy in Individuals with Patellofemoral Pain
- Ronaldo Briani: Is Self-Reported Symptom Duration in Individuals with Patellofemoral Pain an Accurate Measure?
- Henrik Riel: Development of a clinical support tool for better Management of Adolescent knee Pain (The MAP-Knee Tool)

08:50 Stretch break

09:10 **Session 5: 8-minute Orals Patient Experience and Psychological Outcomes**

*Moderator: Henrik Riel*

- Liliam Del Priore: Perspectives about the first knee pain experience. A qualitative longitudinal study
- David Bazett-Jones: Relationships of Pressure Pain Thresholds, Kinesiophobia, and Quadriceps Strength with Sagittal Plane Knee Biomechanics During Squatting in People with Patellofemoral Pain
- Brian Eckenrode: Change in Behavioral and Psychological Traits and Their Relationship to Pain Sensitivity in Females with Chronic Patellofemoral Pain
- Ronaldo Briani: Do Physical and Psychological Outcomes of Patellofemoral Pain Change Over 15+ Months in Those Whose Pain Does Not? A Prospective, Natural History Investigation
- Harvi Hart: Sex-Related Differences in Fear of Movement and Knee Confidence and Their Associations with Pain, Function and Quality of Life in Patellofemoral Osteoarthritis

10:00 Stretch break

10:20 **Group session 2 Break-out sessions, E&G exercise**

Marchetti conference hall, Sala de Federalismo, LABMOV Meeting Room

12:20 Lunch

13:30 **Keynote Address**

*Moderator: Erin Macri*

Dr. Mel Holden & Dr. Adele Higginbottom

14:30 *Discussion & questions*

14:50 Halfway point - review plans for afternoon/evening

Claudio Belvedere

15:00 Free Time - Bologna tour/walk

19:00 Dinner Banquet

◆ **8<sup>th</sup> June 2023 – Research Retreat** ◆

07:30 Tea & coffee

08:00 **Session 6: 8-minute Orals Adolescents**

*Moderator: Jenevieve Roper*

- Rosemarijn van Paassen: Semi-automatic segmentation of the knee on MR images of 13-year old children
- Guido van Leeuwen: The Incidence and Management of Patellofemoral Pain in Children and Adolescents in Dutch General Practice

- Chris Djurtoft: How do we explain Patellofemoral Pain and other non-traumatic knee conditions to adolescents? A multiple-method study to develop credible explanations.
- Sinead Holden: Exploring the pain and disability continuum in adolescents with patellofemoral pain: A mediation analysis using individual participant data of prospective studies.
- Michael Skovdal Rathleff: From adolescence to adulthood: 10-year follow-up of patellofemoral and other types of knee pain – a prospective cohort study
- Natalie Mazzella: The immediate effects of a flat, flexible school shoe on patellofemoral joint loads and pain during walking and running in adolescents with patellofemoral pain
- Michael Skovdal Rathleff: Good short-term effect of self-management rehabilitation is associated with a long-term successful outcome in adolescents with Patellofemoral Pain and Osgood-Schlatter

09:10 Stretch break

09:20 **Session 7: 8-minute Orals Neuromuscular Outcomes**

*Moderator: Ronaldo Briani*

- Saleh Alsaleh: Building, and reliability testing, a local neuromuscular deficits-detection protocol from meta-analysis: a proposed method
- Natanael Batista: Altered neuromuscular function of the quadriceps and gluteal musculature in individuals with patellofemoral pain
- David Selkowitz: Comparison of Electromyographic Activity between the Gluteal Muscles and Tensor Fascia Lata in Persons with Patellofemoral Pain: Evaluation of Selected, Hip-Focused Exercises Using Indwelling Fine-Wire Electrodes
- Miguel Farraj: Hip Abductors Strength and Endurance in Individuals with Recent and Long-standing Patellofemoral Pain
- Sungwan Kim: MRI Analysis of Superficial and Deep Lower Extremity Muscle Volume in Women with Unilateral or Bilateral Patellofemoral Pain

10:10 Networking break

10:30 **Group session 3 Reconvene, share and develop group E&G map protocols**

Marchetti conference hall, Sala de Federalismo, LABMOV Meeting Room

12:30 Lunch

13:30 **Session 8: 8-minute Orals Best Pandemic Paper Prize**

*Moderator: Karim Khan*

- Ronaldo Briani: Exacerbating patellofemoral pain alters trunk and lower limb coordination patterns and hip-knee mechanics patterns and hip-knee mechanics
- Bradley Neal: Six treatments have positive effects at 3 months for people with patellofemoral pain: a systematic review with meta-analysis

**Award announced**

15:30 **Session 9: 8-minute Orals Management/Interventions**

*Moderator: Marina Cabral Waiteman*

- Bradley Neal: A best practice guide for patellofemoral pain: synthesising systematic review with meta-analysis, the patient voice, and expert clinical reasoning
- Chan Yoon: Multidisciplinary Digital Therapeutics for Patellofemoral Pain Syndrome Versus Usual Care: a randomized controlled study
- Natalie Mazzella: A randomised, assessor-blinded, parallel group feasibility trial of flat, flexible school shoes for adolescents with patellofemoral pain.
- Jenevieve Roper: An Examination of Predicted Running Performance After Gait Retraining in Runners With Patellofemoral Pain
- Brian Eckenrode: Effects of High Frequency Strengthening on Pain Sensitivity and Function in Female Runners with Chronic Patellofemoral Pain
- Rudi Hansen: Quadriceps or Hip Exercises for Patellofemoral Pain? A Randomized Controlled Equivalence Trial

16:30 Conference Closing Comments

iPFRN Executive Board & Local Planning Committee

# 9<sup>th</sup> June 2023 – Clinical Symposium

08:00	Registration	
08:30	Welcome	Lisa Berti – Claudio Belvedere
<b>Session 1</b>	<b>Status report on PFP</b>	<i>Moderators: Volga Bayrakci Tunay - Lisa Berti</i>
08:40	Epidemiology: Causes, Risk factors, Prevention	Maria Grazia Benedetti Rizzoli Orthop. Inst., Bologna, IT
08:55	Historical overview, Passive and Active approaches	Christopher Powers USC, Los Angeles, CA-USA
09:15	Biomechanical influences on the PF joint	David M Bazett-Jones University of Toledo, OH-USA
09:35	Gait retraining in PFP patients	Irene Davis Univ. of S. Florida, Tampa, FL-USA
09:55	Pain, psychosocial aspects and quality of life in PFP	Volga Bayrakci Tunay Hacettepe University, Ankara, TR
10:15	Evidence and Gap Map in PFP	Marienke van Middelkoop Erasmus MC University Medical Center, Rotterdam, NL
10:35	<i>Panel Discussion &amp; questions</i>	
11:00	Morning Break	
<b>Session 2</b>	<b>Evaluation</b>	<i>Moderators: Irene Davis – Maria Grazia Benedetti</i>
11:20	PFP incidence in sport	Francesco Della Villa Isokinetic Med. Center, Bologna, IT
11:35	Clinical and functional evaluation in PFP: Subjective Examination, Objective Examination, Outcome Measures	Lisa Berti Rizzoli Orthop. Inst., Bologna, IT
11:50	New technologies for Instrumental-based clinical and functional evaluation in PFP	Gamze Arin Bal Hacettepe University, Ankara, TR
12:05	<i>Panel Discussion &amp; questions</i>	
12:20	Lunch	
<b>Session 3</b>	<b>Treatment</b>	<i>Moderators: David Bazett Jones – Francesco Della Villa</i>
13:30	Muscular strengthening for PFP	Luciana Labanca Rizzoli Ortho. Inst., Bologna, IT
13:45	Physical therapy	Clizia Guerrini Rizzoli Ortho. Inst., Bologna, IT
14:00	Orthoses and external devices for PFP Orthopaedic Technici	Lucia Calbucci Rizzoli Ortho. Inst., Bologna, IT
14:15	Regenerative Medicine	Luca Andriolo-Stefano Zaffagnini Rizzoli Ortho. Inst., Bologna, IT
14:30	Surgery: traditional surgery and innovative procedures	Luca Andriolo-Stefano Zaffagnini Rizzoli Ortho. Inst., Bologna, IT
14:45	<i>Panel Discussion &amp; questions</i>	
15:00	Afternoon Break	
<b>Session 4</b>	<b>Clinical Cases</b>	<i>Moderators: Christopher Powers – Luca Andriolo</i>
15:15	Interactive session on the presentation of clinical cases based on real patients with primary, sports and postoperative interventions, as well as presentation of data from clinical archive	Local and international clinicians & PTs, iPFRN Board
<b>Session 5</b>	<b>Panel Discussion &amp; Concluding remarks</b>	
17:00	What is most important in managing PFP patients & from the patient perspective? Viewpoints from clinical experts	Local clinicians & PT; iPFRN Board
17:20	Closing	
17:30	Italian ECM	

With compliments of:



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## Registration

<https://www.korilu.it/wp/en/ipfr-2023-en/>

## Location:

Marchetti conference hall  
Centro di ricerca Codivilla-Putti  
Via di Barbiano 1/10, 40136 Bologna, IT

## ECM

7,6 Credit CME only for italian people

## How to arrive:



## Local Planning Team:

Claudio Belvedere, IRCCS Istituto Ortopedico Rizzoli, Bologna, IT  
Lisa Berti, University of Bologna & IRCCS Istituto Ortopedico Rizzoli, Bologna, IT  
Alberto Leardini, IRCCS Istituto Ortopedico Rizzoli, Bologna, IT  
Volga Bayrakçı Tunay, Hacettepe University, Ankara, Turkey  
Maria Grazia Benedetti, University of Bologna & IRCCS Istituto Ortopedico Rizzoli, Bologna, IT

## iPFRN Executive Board:

David Bazett-Jones, University of Toledo, Toledo, OH, USA  
Natalie Collins, University of Queensland, Brisbane, Australia  
Erin Macri, Erasmus MC University Medical Center Rotterdam-NL  
Marienke van Middelkoop, Erasmus MC University Med. Center Rotterdam-NL  
Michael Skovdal Rathleff, Aalborg University, Aalborg, DK

The 7th International Patellofemoral Research Retreat (event n. **EMT33064**) is compliant with **Ethical MedTech's standards**

## Organizing secretariat and ECM provider:

Korilù srl  
Via Belmeloro 5, 40126 Bologna  
Tel 051385328 – 051387615  
[congressi@korilu.it](mailto:congressi@korilu.it)



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