

## **Program**



**IBRA Master Training Course** 

# Realistic Treatment of Wrist and Elbow Fractures

June 16 – 18, 2016 Institute of Anatomy University of Cologne, Germany



Chairmen:

Prof. Dr. Lars P. Müller Prof. Dr. Hermann Krimmer

#### Foreword

#### Dear colleagues,

Within the last decade, a number of "new" potential OR indications have been developed for pathologies around the elbow joint. These include arthroscopic and (hemi)-prosthetic options. Considering short-term results especially of the partial and full prosthetic treatments of elbow pathologies, it is obvious that our ultimate goal should be the anatomical and biological reconstruction of the bony and ligamentous injury. Artificial joint elements should be avoided if possible.

Besides the new developments in the field of osteosynthesis techniques, the reconstruction of soft tissue injuries, especially the ligamentous injuries, play a major role with regard to the elbow joint.

In the context of the current course concept with fracture production on the soft tissue intact specimens, we address the bony stabilization techniques and possibilities of soft tissue reconstruction.

We look forward to welcoming you in Cologne to practically oriented days full of interesting discussions with pre-fractured specimens.



Prof. Dr. med. Lars P. Müller



PD Dr. med. Klaus Burkhart



Dr. med. Kilian Wegmann

#### Foreword

Dear colleagues,

Complex articular fractures of the distal radius still remain challenging. Despite the technical progress with the fixed angle devices, inadequate fixation or secondary dislocation are common risks for failure. Decision making for treatment requires precise analysis of the fracture by x-ray and CT-scan.

The Master Training Courses in Cologne are focused on exercises in a realistic clinical setting. An intensive theoretical part will be followed by a practical part with pre-fractured specimens. Based on CT and X-ray images the participants discuss in small groups the best treatment strategy including tips and tricks given by their instructors. Afterwards internal fixation of the fracture is done with active exchange between participants and instructors.

Finally all groups will present their cases and discuss it in common, which allows to profit from the experiences made by each other.

I look forward to welcoming you in Cologne to a memorable, interactive event.



Prof. Dr. med. Hermann Krimmer IBRA Past President

# Faculty (In alphabetical Order)

Wrist	Chairman: Prof. Dr. Hermann Krimmer
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Dr. Frank Nienstedt	Bozen IT info@handservice.it
Prof. Dr. Adam C. Watts	Wrightington UK adamcharleswatts@gmail.com

# Faculty (In alphabetical Order)

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Dr. Jason Harvey	Richmond AUS jharvey@osv.com.au
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Prof. Dr. Lars P. Müller	Cologne DE lars.mueller@uk-koeln.de
or. Kilian Wegmann	Cologne DE kilian.wegmann@uk-koeln.de
Prof. Dr. Adam C. Watts	Wrightington UK adamcharleswatts@gmail.com

# Friday – June 17, 2016

7:30	Bus transfer from art'otel to the Institute of Anatomy		
7:45 – 8:00	Registration		
8:00 – 8:05	Welcome	Lars P. Müllei Hermann Krimmei	
8:05 – 9:35	Radius Fractures Theoretical Part	Hermann Krimmer	
8:05 – 8:15	Fracture simulator – a story from Cologne	Kilian Wegmann	
8:15 – 8:25	Anatomy and Biomechanics – what's important?	Wolfgang Hintringer	
8:25 – 8:35	Classification: The good, the bad and the ugly	Adam C. Watts	
8:35 – 8:45	Locking plates – technical overview	Medartis	
8:45 – 8:55	Locking plates – clinical relevance	Rainer Meffer	
8:55 – 9:05	Palmar approach: tips and tricks	Hermann Krimmer	
9:05 – 9:15	Dorsal approach: when and how?	Emmanouil Skouras	
9:15 – 9:25	Management of complex distal radius fractures	Frank Niensted	
9:25 – 9:35	Concomitant injuries (SL ligament and broken ulnar styloid) – when do they need treatment?	Jason Harvey	
9:35 – 10:15	Break		

# Friday – June 17, 2016

10:15 – 17:00	Radius Fractures Practical Part	Hermann Krimmer
10:15 – 10:30	Medartis Implants and Instruments	Medartis
10:30 – 12:00	Case 1: All groups (instructor and 4 participants) receive a fractured specimen and x-ray CT and elaborate the case in the group	All
12:00 – 13:00	Presentation und Discussion Case 1	Groups
13:00 – 14:00	Lunch	
14:00 – 15:30	Case 2: All groups (instructor and 4 participants) receive a fractured specimen and x-ray/ CT and elaborate the case in the group	Al
15:30 – 16:30	Presentation und Discussion Case 2	Groups
16:30 – 17:00	Summary and adjourn	Hermann Krimmer
17:00	Transfer to the hotel	
19:30	Dinner Brauerei Gilden im Zims	

# Saturday – June 18, 2016

8:00 – 8:05	Welcome	Lars P. Müller
8:05 – 9:50	Elbow Fractures Theoretical Part	Lars P. Müller
8:05 – 8:20	Landmarks in diagnostics and approaches	Kilian Wegmann
8:20 – 8:35	Distal humerus fractures	Rainer Meffert
8:35 – 8:50	Proximal ulna fractures	Klaus Burkhart
8:50 – 9:05	Transolecranon fracture dislocation	Adam Watts
9:05 – 9:20	Radial head fractures	William Geissler
9:20 – 9:35	Coronoid fractures	Lars P. Müller
9:35 – 9:50	Terrible Triad	Jason Harvey
9:50 – 10:15	Break	

# Saturday – June 18, 2016

.0:15 – 17:00	Elbow Fractures Practical Part	Lars P. Müller
0:15 – 10:30	Medartis Implants and Instruments	Medartis
0:30 – 12:00	Case 1: All groups (instructor and 4 participants) receive a fractured specimen and x-ray/ CT and elaborate the case in the group	Al
2:00 – 13:00	Presentation und Discussion Case 1	Groups
3:00 – 14:00	Lunch	
4:00 – 15:30	Case 2: All groups (instructor and 4 participants) receive a fractured specimen and x-ray/ CT and elaborate the case in the group	Al
5:30 – 16:30	Presentation und Discussion Case 2	Groups
6:30 – 17:00	Summary and adjourn	Lars P. Müller
0 – 15:30 0 – 16:30	Case 2: All groups (instructor and 4 participants) receive a fractured specimen and x-ray/ CT and elaborate the case in the group  Presentation und Discussion Case 2	Group

#### Chairmen:

Prof. Dr. Lars P. Müller, Cologne DE, Host

Prof. Dr. Hermann Krimmer, Ravensburg DE, IBRA Past President

#### Organized by

IBRA - International Bone Research Association, Basel/Switzerland

#### Registration & Information

IBRA Administration Office

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info@ibra.ch, Website: www.ibra.ch

To register ordine.

please visit
our website
www.ibra.ch

#### **Registration Fees**

1	Wrist & Elbow	Wrist Part	Elbow Part
IBRA Member	EUR 1200	EUR 620	EUR 620
Non-Member	EUR 1350	EUR 700	EUR 700

#### **Registration Deadline**

June 6th, 2015

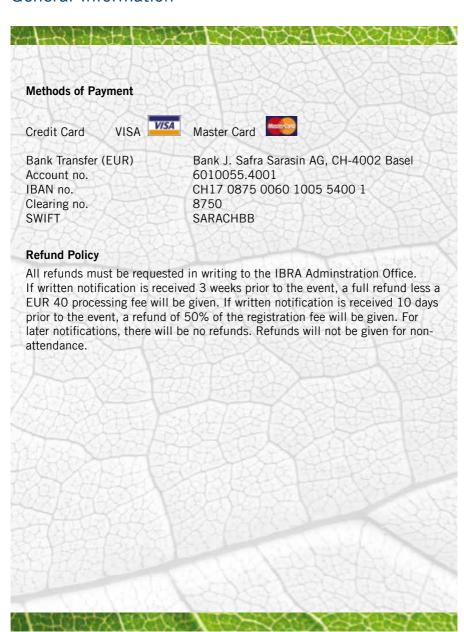
#### Accommodation

art'otel cologne Holzmarkt 4 D-50676 Cologne

Rooms (for single use) incl. breakfast are available at EUR 105 per person per night. Bookings can be done via the registration website at: www.ibra.ch

#### **Cancellation policy**

For rooms that are canceled after 13.5.2016 the full price will be charged.



#### Course Format

Since 2011, a multidisciplinary team of trauma surgeons from the University hospital of Cologne, biomechanics from the German Sport University and engineers has been specialised in creating realistic limb injuries of specimens in order to offer surgical training. Together with the University hospital of Cologne the team offers surgeons and orthopaedics practical training courses in which the participants get training on specimens with realistic bony and ligamentous injury patterns. To create these realistic osteoligamentous injuries with intact soft tissues, the team has designed a complex test-bench with multiple technical adaptations.



Compared to established courses on artificial bones or intact specimens, this new concept is designed to challenge advanced surgeons as well.

Before starting the treatment, the participants have to analyse the injury with the help of X-Ray and

CT imaging. After the fracture classification, the surgeons discuss the approach and realise the surgical treatment. X-Ray images help to analyse the result of the treatment of the individual case and it can be discussed by the entire group.

For the indicated body parts elbow and hand, this team is able to create defined, realistic injuries. Further body parts such as shoulder and lower extremities, the team is working constantly to analyse individual sequences of injuries in order to design technical methods and to create realistic injuries.

Team members: Univ.-Prof. Dr. L. P. Müller, PD Dr. K. Burkhart, Dr. K. Wegmann, Univ.-Prof. Dr. G.-P. Brüggemann, Dipl. Ing (FH) K. Engel, M. Ebinger (M.Sc.), Robert Holz (M.Sc.).

#### **Welcome Dinner**

Thursday June 16, 2016

#### Time

20:00 h

art'otel cologne Holzmarkt 4, D-50676 Cologne http://www.artotels.com/cologne



For all participants - costs included in the course fee

#### **Course Location**

Institut II für Anatomie der Universität Köln Gebäude 35 Joseph-Steltzmann-Straße 9 50937 Köln

(for taxi, please indicate house no. 65)





The level-1 trauma center is led by Prof. Dr. med. Lars P. Müller, a national and international renowned trauma surgeon with specialty in upper extremity surgery.

Annually more than 250 surgeries focus on the pathologies of the elbow-joint.

Specific indications for elective procedures of the elbow joint are:

- Acute and chronic instability of the elbow (e.g. after dislocation or chronic overuse)
- · Fracture dislocation
- Malunion
- · Septic joint disease
- Rheumatic disease of the elbow
- · Primary and secondary arthritis of the elbow
- · Prosthetic replacement of the elbow joint / Total elbow replacement
- · Prosthetic replacement of the radial head
- Temporary stabilization with external fixators and dynamic external fixators
- Reconstruction of the medial and lateral collateral ligament with autologous and allogenic transplant
- Congenital deformities
- Post-traumatic correction of deformities and nerve injuries

The institution has established its own cadaver laboratory, which offers the possibility to undertake macro-anatomic and biomechanical studies. Regularly research projects are conducted also in cooperation with external renowned institutes. For example, in cooperation with the Technical University Jülich, 3-D imaging and finite element analyses of the upper extremity and the spine are conducted to investigate biomechanical questions.

Moreover, the institution is part of the "CCMB", the Cologne Center for Mucoskeletal Biomechanics. The Center was founded in 2013 as a scientific cooperation between the Medical Faculty of the University of Cologne and the German Sport University Cologne and is an interface between basic and clinical research with the purpose of a pragmatic translational research ("From bench to bedside and back"). The research focuses of the CCMB are musculoskeletal injuries and diseases. The center is composed of different institutes from both universities in order to concentrate expertise and to create synergies. The research of the diverse disciplines on musculoskeletal injuries and diseases will be collated complementing each other.

At the department we welcome fellows and exchange scientists on a regular basis. Research fellows from all over the world fulfill their doctorate and commit themselves to further research projects.

The young history of the institution is marked by patient oriented care, high-level surgical procedures and innovative as well as relevant research projects.



**IBRA** is a financially independent, internationally oriented non-profit organization, for specialized clinicians and research scientists. IBRA's core activity is the future-oriented advancement of bone-tissue research and management focusing particularly on:

- Bone biology, including osteointegration, bone generation and soft tissue reaction
- Maxillofacial and orthopaedic rehabilitation
- · Materials research including hardware development
- Biomechanics
- Tissue engineering
- Surgical procedures & clinical management

IBRA encourages the development of innovative solutions in a friendly, loyal atmosphere. Future-oriented open-mindedness and international acceptance form the basis for first-rate assistance in realizing modern research projects and promoting individual careers. As an international forum reaching across geographic and cultural borders, IBRA offers an up-todate network for the exchange of experience and knowledge in applied bone and tissue research.

#### History

IBRA was founded in Zurich, Switzerland on September 25, 2004 at the initiative of eighteen forward-looking clinicians. Its primary aims are the exchange of professional knowledge, promotion of new scientific developments, engineering of the musculoskeletal system, coordinated multi-centre research and highly specialized advanced training.

#### Research Support

IBRA offers financial support for research projects dealing with bone biology and the improvement or development of internal fixation devices for maxillofacial and limbs surgery. With the emphasis on innovation and suitability for practical application, 95% of the research budget goes towards applied research and clinical studies and 5% towards basic research.

#### Education

IBRA's education area offers clinicians special courses on the application of specific methods of treatment. IBRA's particular concern is to train tomorrow's highly qualified research scientists. IBRA enhances its members' qualifications through a scholarship program.

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## Notes





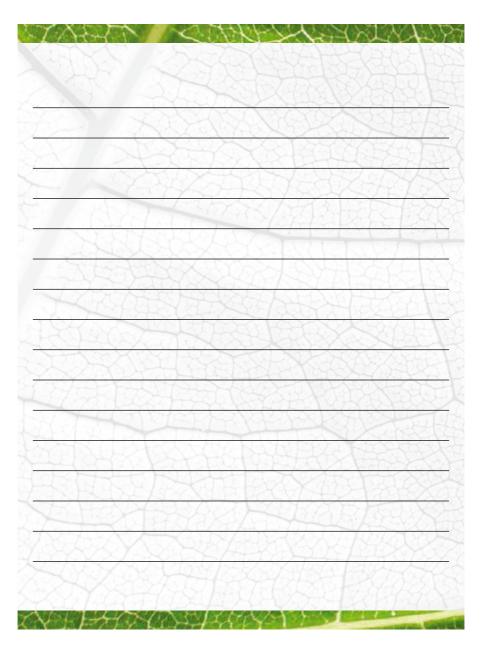
# NEW

# The Ideal Solution For Each Indication



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## Notes







APTUS® Elbow System 2.0, 2.8

- Anatomical plate design for radial head, olecranon and distal humerus
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IBRA International Bone Research Association

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