



# 13<sup>th</sup> INTERNATIONAL CADAVER WORKSHOP INNSBRUCK 2019



**US-APPLICATION IN REGIONAL  
ANAESTHESIA AND PAIN MEDICINE  
APRIL 26 – 27, 2019  
INNSBRUCK, AUSTRIA**

Division of Clinical and Functional Anatomy  
Medical University of Innsbruck (MUI)  
Innsbruck, Austria

# Program Overview

## Friday, April 26, 2019

- 08:00** Registration: Raised ground floor of Department, follow SIGNS!
- 08:45** Welcome and opening remarks: "INTRO": Lecture Hall 2<sup>nd</sup> Floor, LH (Moriggl)
- 09:00** Introductory affairs:
- 09:00 Anatomy and US: "DEATHLESS ALIFE": LH (Moriggl)
- 09:15 The teaching model: "AS GOOD AS IT GETS": LH (Moriggl)
- 09:30 **Live demonstration and dialogue:** "LIFELESS MEETS LIVING": LH (Moriggl/Behr/Reithmeier/Fichtner/Neumüller/Reddy/Eichenberger/Greher)
- 10:20** Morning BREAK: Cafeteria – visit Exhibitors: Dissection Room East, DRE
- 10:50** Start climbing the stairs: (Chair: Hardman/Thottungal)
- 10:50 Organizing remarks: "STEADY, GET READY": LH (Moriggl/Stofferin)
- 11:10 **Workshop I:** "NO FEAR, GET NEAR": Dissection Room Central, DRC (Workshop tutors: all Faculty; Supervisor: Moriggl)
- 13:00** LUNCH: Cafeteria - also visit DRE
- 14:00** Continue the matter! Supervisor: Moriggl
- 14:00 **Workshop II:** "DON'T BE SHY, JUST TRY!": DRC (all Faculty)
- 15:45 **Workshop III:** "GO AHEAD WITH THE DEAD": DRC (all Faculty)
- 17:00** DRINK with bites: (Intro by Gonzalez) give feedback, put questions, get answers: DRE
- 19:30** Social evening: ALL join together in ULTRA-cosy atmosphere for a SOUND and unforgettable event

## Saturday, April 27, 2019

- 08:00** Final effort, even better! Supervisor: Moriggl
- 08:00 **Workshop IV:** "BLOCK AROUND THE CLOCK.....": DRC (all Faculty)
- 10:45** Kind of BRUNCH: Cafeteria – visit DRE
- 11:15** Time to say good bye! (Chair: Wirthmüller/Lorenzana)
- 11:15 **Ultimate lecture:** "AN OPTIMUM VIATICUM": Anatomical Theatre (Børglum)
- 12:00 **Closing** remarks, farewell: "NO PAIN IN VAIN" (Moriggl/Litz)

**BEGINNER:** Instructions for a “step by step approach” to and with the teaching model during Workshop sessions I – IV (**two teams per table**)

## Friday, April 26, 2019

### 11.10 – 13.00 WORKSHOP I after morning break

#### step A: Get familiar and scan it, “NO FEAR, GET NEAR!”

PURPOSE: both teams are meant to **learn peculiarities** in *scanning cadavers* for nerve location; **see** the **differences** to the living and **overcome difficulties** in order to be *prepared for further steps* to come. Try to image (in proposed sequence):

- **Median, ulnar** and **radial nerves** at *elbow level*
- Median and ulnar nerves in *forearm*
- Median, ulnar, radial and **musculocutaneous** nerves *near or within axilla*
- *roots of brachial plexus interscalene*
- **Femoral nerve** *subinguinal* and **sciatic nerve** *from dorsal* (the latter throughout different levels of thigh: *subgluteal to popliteal*)

### 13.00 ENJOY YOUR LUNCH

(Use additional place in “Dissection Room EAST, DRE” at stand-up tables) and VISIT INDUSTRY (DRE) and SPECIMENS (“Dissection Room WEST”, DRW)

### 14.00 – 15.45 WORKSHOP II after LUNCH

#### step B: Do single shots where easy, “DON’T BE SHY, JUST TRY!”

**!!STRICTLY AVOID BRINGING ANY AIR INSIDE THE MODEL!!**

PURPOSE: to learn **needle-guidance** towards the target (nerve), place needle the nearest possible using both techniques (in plane, IP, and out of plane, OOP), **watch** and control **spread of “LA” (fluid)**. Do scans in *two planes!*

- **Median, ulnar** (and radial) nerves from cubital region *distally!!*
- *Tibial* (and common fibular) nerve at proximal *lower leg*
- (*Sciatic proximal* [according to Raj] if leg flexibility allows easy access)

**Please note:**

**Both mentioned steps A and B may be trained on both sides of the cadaver. However, there may be differences in image quality between sides in which case we kindly ask the two teams for their generosity (please alternate with each other). Thanks!**

## 15.45 – 17.00 WORKSHOP III continued

**step C**: Gain additional confidence, “GO AHEAD WITH THE DEAD”

PURPOSE: to **experience special sonoanatomy** and **topography** at *classic sites* (also try movements and note sonomorphological changes pending different positions! You will be helped by our students!)

- **Interscalene** space (compare with contralateral side) **down to** the **trunks** (*supraclavicular*)
- Clavipectoral triangle (*infraclavicular fossa*) and *axilla*: analyse the changing **CORDS** (**big nerves**) – **artery - topography**
- **Special topography of femoral trigone and popliteal fossa**

**Please note:**

**Step C again may be trained on both sides of the cadaver. However, see above!**

**Thanks again!**

**17.00 ENJOY DRINKS and bites in DRE: visit INDUSTRY and SPECIMENS (DRW)**

**Saturday, April 27, 2019**

**08.00 – 10.45 WORKSHOP IV in the morning**

**step D:** Go for classic blocks (single shot and catheter techniques),

**“BLOCK AROUND THE CLOCK”**

**!!STRICTLY AVOID BRINGING ANY AIR INSIDE THE MODEL!!**

PURPOSE: To *simulate selected blocks*, evaluate *success* or *failure* under direct *vision* (correct if necessary and repeat)

**Please note:** due to practicability not all of the blocks can be done on both sides (tutors will assist you in finding the optimal side for the respective block). **Please use relatively small volumes of fluid first!**

ONE SIDE:

- *Anterior interscalene block*
- *VIB (Vertical Infraclavicular Block)*
- *“Axillary block” (similar to multistimulation technique; preferably IP technique)*

OTHER SIDE:

- *Supraclavicular approach*
- *Axillary block (classic); try both techniques to experience pros and cons!*

BOTH SIDES:

- *Femoral nerve block and lateral distal sciatic nerve block*
- *PECs and SAP block*

**10.45 ENJOY kind of BRUNCH before we listen to the “ULTIMATE LECTURE”**

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**Simulation of other blocks depending on time, equipment and request**

**ADVANCED:** Instructions for a “step by step approach” to and with the teaching model during Workshop sessions I – IV (**two teams per table**)

**Please note: one of the tables (cadavers) may also be used by the pain group in which case we kindly ask the “Advanced teams” for their generosity (please alternate with pain RA colleagues if needed). Thanks!**

**Friday, April 26, 2019**

**11.10 – 13.00 WORKSHOP I after morning break**

**step A: Get familiar and scan it, “NO FEAR, GET NEAR!”**

PURPOSE: both teams are meant to **learn peculiarities** in scanning cadavers for nerve location; **see** the **differences** to the living and **overcome difficulties** in order to be prepared for further steps to come. Try to image (in proposed sequence):

- **Musculocutaneous** nerve at *distal upper arm*
- **Branches** of the “**three BIG ones**” any level (e.g. “superficial radial”)
- **Median nerve** in (and *distal* to) *carpal tunnel*
- **Ilioinguinal**, **ILI**, and **iliohypogastric**, **ILH**, nerves
- **Obturator** and **LFCN nerves** (start *distal* to ASIS for the latter!); **saphenous**
- **Sciatic** nerve *from ventral*; **tibial** and both **fibular** nerves in (*distal*) *lower leg*
- **Median**, **ulnar** and **radial nerves** at *elbow level*

**13.00 ENJOY YOUR LUNCH**

**(Use additional place in “Dissection Room EAST, DRE” at stand-up tables) and VISIT INDUSTRY (DRE) and SPECIMENS (“Dissection Room WEST”, DRW)**

**14.00 – 15.45 WORKSHOP II after LUNCH**

**step B: Do single shots where easy, “DON’T BE SHY, JUST TRY!”**

**!!STRICTLY AVOID BRINGING ANY AIR INSIDE THE MODEL!!**

PURPOSE: to improve **needle-guidance** towards the target (nerve), place needle the nearest possible using both techniques (IP and OOP), **watch** and control **spread of “LA” (fluid)**. Do scans in *two planes*!

- **Try the above**, in addition:
- **TAP** and **rectus sheath** blocks.
- **Intercostal block** (from lateral)

- **Please note:**

**Both mentioned steps A and B may be trained on both sides of the cadaver. However, there may be differences in image quality between sides in which case we kindly ask the two teams for their generosity (please alternate with each other). Thanks!**

### 15.45 – 17.00 WORKSHOP III continued

**step C: Gain additional confidence, “GO AHEAD WITH THE DEAD”**

PURPOSE: to **experience** special **sonoanatomy** and **topography** at different sites

- **Intercostal spaces** between *spine* and *costal angles* (try identifying IC nerves)
- (Thoracic) **Paravertebral space** sonoanatomy (use *different techniques* and *probes*)
- **Lumbar paravertebral** sonoanatomy, **lumbar EDS** visualisation
- **Deep gluteal** region (compare with contralateral side) from **piriform outlets** down to **gluteal sulcus** (also try rotation of leg and note piriformis [and quadratus femoris muscle] movements! You will be helped by our students!); [*subgluteal*: **PFCN**]

**Please note:**

**Step C again may be trained on both sides of the cadaver. However, see above!**  
**Thanks again!**

**17.00 ENJOY DRINKS and bites in DRE: visit INDUSTRY and SPECIMENS (DRW)**

Saturday, April 27, 2019

08.00 – 10.45 WORKSHOP IV in the morning

step D: Go for classic blocks (single shot and catheter techniques),  
“BLOCK AROUND THE CLOCK”

**!!STRICTLY AVOID BRINGING ANY AIR INSIDE THE MODEL!!**

PURPOSE: To *simulate selected blocks*, evaluate *success* or *failure* under direct *vision* (correct if necessary and repeat)

**Please note: due to practicability not all of the blocks can be done on both sides (tutors will assist you in finding the optimal side for the respective block). Please use relatively small volumes of fluid first!**

ONE SIDE:

- *Intercostal block* at *different levels*
- *Sciatic nerve transgluteal* (train *different techniques*)

OTHER SIDE:

- *Paravertebral block*
- *ESP block*
- *Parasacral block* (*sacral plexus*)

BOTH SIDES:

- *Psoas Compartment block, also: new approaches (e.g. Shamrock, “thumb up”)*!
- *QL blocks*
- *Lumbar EDS*
- *Ankle blocks*

10.45 ENJOY kind of BRUNCH before we listen to the “ULTIMATE LECTURE”

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**Simulation of other blocks depending on time, equipment and request**



**PAIN:** Instructions for a “step by step approach” to and with the teaching model during Workshop sessions I – IV (two teams per table)

**Please note:** one of the tables (cadavers) may also be used by the advanced RA group in which case we kindly ask the “Pain teams” for their generosity (please alternate with advanced RA colleagues if needed). Thanks!

## Friday, April 26, 2019

### 11.10 – 13.00 WORKSHOP I after morning break

**step A:** Get familiar and scan it, “NO FEAR, GET NEAR!”

PURPOSE: both teams are meant to **learn peculiarities** in scanning cadavers for nerve (target) location; **see** the **differences** to the living and **overcome difficulties** in order to be prepared for further steps to come. Try to image:

- **Ilioinguinal, ILI**, and **iliohypogastric, ILH**, nerves superior and posterior to ASIS
- **LFCN** (start *distal* to ASIS for the latter!)
- **Suprascapular nerve** (both ventro-lateral and dorsal)
- **Cervical ventral rami** and **Cervical plexus** (superficial branches if possible)
- **Cervical sympathetic trunk, CST**

### 13.00 ENJOY YOUR LUNCH

(Use additional place in “Dissection Room EAST, DRE” at stand-up tables) and VISIT INDUSTRY (DRE) and SPECIMENS (“Dissection Room WEST”, DRW)

### 14.00 – 15.45 WORKSHOP II after LUNCH

**step B:** Do single shots where easy, “DON’T BE SHY, JUST TRY!”

**!!STRICTLY AVOID BRINGING ANY AIR INSIDE THE MODEL!!**

PURPOSE: to improve **needle-guidance** towards the target (nerve), place needle the nearest possible using both techniques (IP and OOP), **watch** and control **spread of “LA” (fluid)**. Do scans in *two planes!*

- **Try** (a selection of ) **the above**, in addition:
- **Scan and block: GON** as well as
- **Intercostal nerves** and **pudendal nerve; [axillary nerve from posterior, anterior]**

**Please note:**

**Both mentioned steps A and B may be trained on both sides of the cadaver. However, there may be differences in image quality between sides in which case we kindly ask the two teams for their generosity (please alternate with each other). Thanks!**

### **15.45 – 17.00 WORKSHOP III continued**

**step C: Gain additional confidence, “GO AHEAD WITH THE DEAD”**

PURPOSE: to **experience** special **sonoanatomy** and **topography** at different sites

- **Cervical spine** sonoanatomy (bony contours, joint gaps; also use *curvilinear* probe for overview)
- **Paravertebral space** sonoanatomy (use *different techniques* and *probes*)
- **Lumbar spine** sonoanatomy and **EDS** visualisation
- **Sacrum** and **SIJ**

**Please note:**

**Step C again may be trained on both sides of the cadaver. However, see above!**  
**Thanks again!**

### **17.00 ENJOY DRINKS and bites in DRE: visit INDUSTRY and SPECIMENS (DRW)**

**Saturday, April 27, 2019**

**08.00 – 10.45 WORKSHOP IV in the morning**

**step D: Go for classic blocks (single shot and catheter techniques),  
“BLOCK AROUND THE CLOCK”**

**!!STRICTLY AVOID BRINGING ANY AIR INSIDE THE MODEL!!**

PURPOSE: To *simulate selected blocks*, evaluate *success or failure* under direct *vision* (correct if necessary and repeat)

**Please note: due to practicability not all of the blocks can be done on both sides (tutors will assist you in finding the optimal side for the respective block). Please use relatively small volumes of fluid first!**

ONE SIDE: supine or lateral decubitus

- **“SGB”(CSTB)**
- **TON**
- **C-facets lateral approach**

OTHER SIDE: lateral decubitus or prone

- **Cervical medial branches**
- **C-facets posterior approach**

BOTH SIDES: (YOU MAY also USE cadaver on separate table in SITTING position!  
Especially for: GON, TPV, LED and SSN from supero-posterior)

- **Paravertebral blocks**
- **L-facets and Lumbar medial branches**
- **Lumbar EDS**
- **SIJ injection and trans-sacral blockade**
- **MSK applications**

**10.45 ENJOY kind of BRUNCH before we listen to the “ULTIMATE LECTURE”**

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**Simulation of other blocks depending on time, equipment and request**

## **Faculty**

AVILA GONZALEZ Carla Alessandra, MD – Hessing Klinik für Anästhesie und Intensivmedizin, Augsburg, DE

BEHR Astrid, MD – Anesthesiology and Intensive Care Unit, University of Padua, IT

BØRGLUM NEIMAN Jens, MD – University of Copenhagen, DK

EICHENBERGER Urs, MD – Der Balgrist, Universitätsklinik f. Orthopädie, Zürich, CH

FICHTNER-BENDTSEN Thomas, MD – Department of Clinical Medicine – Anaesthesiology, Aarhus, DK

GREHER Manfred, MD - Herz-Jesu Hospital, Vienna, AT

HARDMAN David, MD - University of North Carolina at Chapel Hill, Chapel Hill, US

LITZ Rainer, MD -, Hessing Klinik für Anästhesie und Intensivmedizin, Augsburg, DE

LORENZANA David, MD – Luzerner Kantonspital, CH

MORIGGL Bernhard, MD – Medical University of Innsbruck, Innsbruck, AT

NEUMÜLLER Marcus, MD – Landeskrankenhaus Steyr, Steyr, AT

REDDY Raja, MD – Medway Maritime Hospital, Kent, United Kingdom

REITHMEIER Eberhard, MD – Landeskrankenhaus Feldkirch, Feldkirch, AT

STOFFERIN Hannes, MD - Medical University of Innsbruck, Innsbruck, AT

THOTTUNGAL Athmaja, MD – Kent and Canterbury Hospital, Canterbury, GB

WIRTHMÜLLER Beat, MD – University Hospital of Bern, Bern, CH

## **Supporting Faculty – Pain-associated MSK Ultrasound**

CHANG Ke-Vin, MD - National Taiwan University Hospital, Bei-Hu Bransch, Taipei, TWN

LIN Chia-Shiang – Mackay Memorial Hospital, Taiei, TWN

LIN Chih-Peng, MD - National Taiwan University Hospital, Taipei, TWN

PAN Jen-Li – PAN Regenerative Pain Clinic, Taipei, TWN

## **Workshop Manager**

A.Univ.-Prof. Dr.med.univ. FIACA Bernhard Moriggl

Education Director of the Special Interest Group (SIG) Ultrasound in Pain Medicine (USPM) of the ASRA

Chair of Scientific Committee of WAPMU

## **Workshop Venue**

Department of Anatomy, Histology and Embryology

Division of Clinical and Functional Anatomy

Müllerstraße 59

6020 Innsbruck

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KONICA MINOLTA

**esaote**

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**Social Evening Friday April 26, 2019**



**VILLA BLANKA**  
INNSBRUCK

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