

The **22<sup>nd</sup>** Annual **Gabor Racz**  
Advanced Interventional Budapest  
**Pain Conference** and Workshop  
**Budapest, Hungary**  
August 28–30, 2017



## Program Book and Syllabus



The **35<sup>th</sup>** **FIPP Exam**  
**Budapest, Hungary**  
August 31, 2017

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# GREETINGS

Dear Friends,

Welcome to the 22nd Annual Advanced Gabor Racz Interventional Budapest Pain Conference and Practical Workshops. Our workshops are now fully booked and we couldn't be more excited! Our program reflects significant changes, developments and recognizes the needs in our evolutionary trail. Traditionally over the last twenty-two years, this program developed into the best in this field. The clinical relevance is able to attract the finest speakers just like you will observe. Our emphasis is improvement with increased safety and better quality treatment for patients suffering from intractable chronic pain. Neuromodulation continues to evolve, producing more evidence, improved technology and surprising new treatments and modalities for conditions that one would never have expected.

In order to meet the high demands, we are adding additional cadaver stations so that all Participants are offered the best chance of learning all new and innovative procedures. This program has been put together following a lot of consideration by the program committee.

Effective treatment in chronic pain, central pain, neuropsychiatric disorders, peripheral and central painful conditions is becoming reality. One inescapable fact is that interventional pain works and saves lives from unnecessary misuse and overuse of opioids. The surprising long term favorable outcomes and reduction in surgical interventions in spinal disorders is coming from multiple studies, laboratory and clinical studies in the field. We are very fortunate to have Dr. Arnold Caplan, PhD with us to share his thoughts and vision on Stem Cells and Regenerative Medicine.

Ultrasound guidance is gaining wider use and greater acceptance. We are happy to see that the opportunity is here for our participants to take part in the educational process for the third year in a row.

Our Awards Ceremony not only allows us to recognize the new graduates of WIP's FIPP Examinations but also graduates of the CIPS Ultrasound Examination. I must recognize the work of Dr. Peter Staats who is the Chairman of the Board of Examination. For the third year in the row, we shall recognize five of the greats for the Trail Blazer Award. We shall be honoring Dr. David Niv, posthumously, as well as Dr. Serdar Erdine, Dr. Ricardo Ruiz-Lopez, Dr. Edit Racz and Dr. Péter Sótónyi. Why five? Because I did not wish to miss any one of them and one never knows what the future brings. It has been so great and such an incredible journey with all of you.

The FIPP Examination for the major part came out of our initial use of cadavers 35 years ago at Texas Tech University Health Sciences Center in Lubbock, Texas. The numbers of FIPP graduates is now over 1,000 and the respect and credibility together with the pride of those who successfully completed the process is spreading worldwide.

Every year we have to earn the quality stamp of approval as evidenced by the participants coming from so many countries. Budapest has the culture, climate, food, music and the ambiance where you make and keep friends. One of the hallmarks is that every single participant leaves with more knowledge for better and safer patient care.

I have to thank the local arrangement chairperson, Dr. Edit Racz, and the committee. Dr. Racz has been faithfully helping me organize 22 years of conferences along with Dr. Péter Sótónyi, with Semmelweis University, for his continued support year after year. The Scientific Program Committee with their wisdom along with the ever present vision of the late Dr. James E. Heavner, have succeeded in putting together an outstanding program. We are grateful for the leadership of Dr. Craig Hartrick, our WIP President, along with the Executive Committee, the Section Chairs and all the members who come to participate.

The Ultrasound Program has been in cooperation with Dr. Agnes Stogicza. This program reflects that the faculty themselves are leaders in their field as well as WIP. The planning of the local arrangements through the local arrangement committee and Sandra Vamos and Bea Golovanova with Congressline has always been outstanding. The WIP office staff of Dianne Willard and Mark Tolliver and the volunteers that make the process work are all appreciated, especially Paula Brashear, my long-time secretary.

We look forward to seeing you in Budapest.

**Gabor B. Racz**, MD, DABIPP, FIPP  
Grover E. Murray Professor  
Professor and Chair Emeritus Anesthesiology TTUHSC  
Founder and Past President of World Institute of Pain  
Past President of Texas Pain Society

# WIP Council

## Executive Board

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**Peter G. Courtney**, MBBS, FANZCA, FFPMANZCA, MMed(Pain), DipAAPM, FIPP - Australia  
**Pasquale De Negri**, MD, FIPP – Italy  
**Pauline Du Plessis**, MD, FRCA, FIPP – Africa  
**Mohieddin Fasihi-Harandi**, MD, FIPP - Iran  
**Juan Carlos Flores**, MD, FIPP – Latin America  
**Ludger Gerdesmeyer**, MD, FIPP – Central-Eastern Europe  
**Carlos Guerrero**, MD, FIPP – Colombia  
**Dominic Hegarty**, BSc, BMedSc, MB, MSc, PhD, FCARSCI, FFPMCOA, FIPP - Ireland  
**Kok-Yuen Ho**, MD, FIPP – SE Asia  
**Frank J.P.M. Huygen**, MD, PhD, FIPP – Benelux  
**Magdi Ramzi Iskander**, MD, FFARCS, FIPP – Middle East  
**Irene K. Kouroukli**, MD, PhD, FIPP – Mediterranean  
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**Lucian M. Macrea**, MD, FIPP – Switzerland  
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## Board of Examination

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### Psychometrician

**Gerald A. Rosen**, MA EdD

## Conference Organizers

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### Co-Directors

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**Adnan Al-Kaisy**, MB, ChB, FRCA, FFPMRCA, FIPP  
**Ira Fox**, MD, FIPP  
**Aaron Calodney**, MD, FIPP  
**Andrea Trescot**, MD, FIPP  
**Peter Staats**, MD, FIPP

### Local Arrangement Committee

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**Agnes Stogicza**, MD, FIPP, CIPS  
**Lorand Eross**, MD, PhD, FIPP

### Scientific Planning Committee

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**Aaron Calodney**, MD, FIPP, DABIPP  
**Ricardo Ruiz-Lopez**, MD, FIPP  
**Peter Staats**, MD, MBA, FIPP

### Laboratory Committee Director

**Miles Day**, MD, FIPP

### Workshop Co-Directors

**Kenneth B. Chapman**, MD, FIPP  
**Vikram B. Patel**, MD, FIPP  
**Yong-Chul Kim**, MD, PhD

### Technical Director

**D. Mark Tolliver**, MA (USA)

### Ultrasound Section, Scientific Planning Committee

**Agnes Stogicza**, MD, FIPP, CIPS (Hungary-USA)  
**Thiago Nouer**, MD, CIPS (Brazil)

## Faculty

**Adnan A. Al-Kaisy**, MB, ChB, FIPP (UK)  
**Mert Akbas**, MD, FIPP (Turkey)  
**Adnan A. Al-Kaisy**, MBCh, FRCA, FFPMRCA, FIPP (UK)  
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**Miles Day**, MD, FIPP (USA)  
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**Phillipe Hernigou**, MD (France)  
**Bert Joosten**, PhD (The Netherlands)  
**Yong-Chul Kim**, MD, PhD (Korea)  
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**Charles de Oliveira**, MD, FIPP, CIPS (Brazil)  
**Stefano Palmisani**, MD (UK)  
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**Monique Steegers**, MD, PhD, FIPP (The Netherlands)  
**Agnes Stogicza**, MD, FIPP, CIPS (USA-Hungary)  
**Andrea Trescot**, MD, FIPP (USA)  
**Jan Van Zundert**, MD, PhD, FIPP (Belgium)  
**Athina Vadalouca**, MD, PhD, FIPP (Greece)  
**Giustino Varrassi**, MD, FIPP (Italy)  
**Kris Vissers**, MD, PhD, FIPP (The Netherlands)  
**Eric Williams**, MD (USA)

## General Information

### Conference Dates and Site

**28-30 August, 2017 • Kempinski Hotel Corvinus Budapest**

H-1051 Budapest, Erzsébet tér 7-8.

### Practical Workshop Dates and Site

**28-30 August, 2017 • Semmelweis University Labs**

H-1091 Budapest, Üllői út 93.

### FIPP Exam

**31 August, 2017 • Semmelweis University Labs**

H-1091 Budapest, Üllői út 93.

### CIPS Exam

**31 August, 2017 • Semmelweis University Labs**

H-1091 Budapest, Üllői út 93.

### Conference Website

[www.congressline.hu/pain2017](http://www.congressline.hu/pain2017)

### Bus Transfer

Daily bus transfers are provided within the venues (Kempinski - Semmelweis University).

### Language

The official language of the Conference is English.

### CME Accreditation

The 22nd Annual Gabor Racz Advanced Interventional Budapest Pain Conference and Workshop is applied for accreditation at The European Accreditation Council for Continuing Medical Education (UEMS EACCME).

### Program Changes

The organisers cannot assume liability for any changes in the scientific program. Organisers will do their best to keep the participants up to date and possible changes in the program will be immediately communicated.

### Opening Hours of the Registration Desk at Hotel Kempinski

Sunday, 27 August	14.00 – 19.00
Monday, 28 August	07.00 – 13.30
Tuesday, 29 August	07.00 – 13.30
Wednesday, 30 August	07.30 – 13.30

### FIPP/CIPS Exam Registration at Hotel Kempinski

Wednesday, 30 August 16.00 – 19.00



## Hotline to the Registration Desk

+36 70/608-6806

## Registration Fee (Regular Fees after 15 July 2017)

Pain Conference & Practical Workshop WIP member	1600 Euro
Pain Conference & Practical Workshop non member	1800 Euro
Pain Conference WIP member	1150 Euro
Pain Conference non member	1350 Euro
Accompanying person fee	350 Euro
Award Ceremony Dinner	120 Euro
FIPP and CIPS Exam registration fee	2500 USD

## Meals

Coffee breaks, lunches, welcome cocktail and Award Ceremony Dinner are included in the registration fee.

## Internet

Free of charge Wi-Fi service available at the venue.

## Commercial Exhibition

The exhibition will be opened from Monday, 28 August until Wednesday, 30 August at the Hotel Kempinski "The Grand Room". Delegates will have the opportunity to meet representatives of pharmaceutical and diagnostic equipment companies at their stands to discuss new developments and receive up-to-date product information.

## Hotels

**Kempinski Hotel Corvinus Budapest \*\*\*\*\*** (Conference venue)

H-1051 Budapest, Erzsébet tér 7-8.

**Mercure Budapest City Center \*\*\***

H-1052 Budapest, Vaci utca 20.

## Official Social Events

**Faculty Dinner** (only for faculty members)

Sunday, 27 August, 2017, 19.00-21.00

Dress Code: business casual

Meeting point: Hotel Kempinski lobby at 18.30

**Welcome Cocktail** (for all registered guests)

Monday, 28 August, 2017, 20.00-22.00

Kempinski Hotel,

Programme: Csillagszemű Dance Ensemble

Dress Code: Business casual

**Award Ceremony Dinner** (for all registered guests)

Tuesday, 29 August, 2017, 19.30-23.00

Hungarian National Museum (H-1088 Budapest Múzeum krt. 14-16.)

Program: Gergely Nógradi and György Lakatos Concert, Award Ceremony and Flautett Flute Quartet

Dress Code: formal

Meeting point: Hotel Kempinski lobby at 19.00

## Useful Information

### Recommended Taxi Company

#### City Taxi

Phone: +361.211.1111

E-mail: order@citytaxi.hu



Credit card payment is available in every car of City Taxi.

Please note, that all licensed Budapest taxi companies have yellow cars and has same rates for all companies, placed clearly visible on the screens.

### Climate

The climate of Budapest is continental. In August usually nice warm weather can be expected with a max. temperature of 25-28°C, while the lowest temperature during the night ranging between 12-15 °C. Nevertheless some rainy days can be expected.

### Insurance

The registration fees do not include provision for the insurance of participants against personal accidents, illness, cancellation, theft, property loss or damage. Participants are advised to take adequate personal travel insurance.

### Currency

The Forint (HUF), the official national currency, is convertible. The exchange rates applied in Budapest banks, official exchange offices and hotels may vary. All the major credit cards are accepted in Hungary in places displaying the emblem at the entrance.

Exchange rate: 1 Euro = 310 HUF, 1 USD = 263 HUF in August, 2017

### Credit Cards

In general, VISA, EC/MC and American Express credit cards are accepted in most restaurants, cafés, shops and petrol stations.

### Stores and Shopping

The opening hours of Budapest stores are generally 10.00-18.00 on weekdays and 10.00-13.00 on Saturday. The shopping centers are open from 10.00-21.00 from Monday to Saturday and from 10.00-18.00 on Sunday.

### Pharmacies

Budapest's pharmacies (gyógyszertár in Hungarian) are well stocked and can provide medicaments for most common ailments. Each of the 23 districts has an all-night pharmacy open every day, a sign on the door of any pharmacy will help you locate the closest one.

### Electricity

The voltage in Hungary is 230V, 50 Hz AC.

## Parking

If you drive a personal or rented car, always try to park at a guarded parking lot and do not leave any valuables in the car. Please note, that Budapest is divided into paying areas, with one parking meter in each street. The maximum parking time duration is 2 hours, tariffs may vary.

## Tipping

Service charges are not added to accounts by hotels and restaurants. You may tip taxi drivers, hotel porters and restaurant waitstaff (up to about 10% of the bill) if you wish to acknowledge exceptional service. At any time, tipping is your choice.

## Emergency Details

In an emergency call 112 for Ambulance, Fire Service or Police.

## Lost and Found

Any found item may be turned into the Registration Desk. Enquiries about lost items can be directed to the Registration Desk also.

## Mobile phones

Please respect the speakers and presenters by ensuring that your mobile phone is switched off during the scientific sessions.

## Conference Secretariat

**CongressLine Ltd.**

**Sandra Vamos**

vamos@congressline.hu

**Bea Golovanova**

golob@congressline.hu

H-1065 Budapest, Révay köz 2.

Phone: +361 429 0146, Fax: +361 429 0147

# Detailed Program

**MONDAY, 28 AUGUST 2017**

General Lectures

Room Two & Three

- 07:10**      **Opening Remarks**  
**Gabor B. Racz**, MD, FIPP  
**Craig Hartrick**, MD, FIPP, President of WIP  
**Edit Racz**, MD, FIPP  
**Agnes Stogicza**, MD, FIPP, CIPS  
  
**Moderator: Serdar Erdine**, MD, FIPP and **Miles Day**, MD, FIPP
- 07:30**      **Long Lasting Favorable Outcome in Treatment of Back Pain Radiculopathy: Spinal Stenosis by Neuroplasty**  
**Gabor B. Racz**, MD, FIPP
- 07:50**      **Endoscopically Guided Rhizotomy for Facet and Sacroiliac Joint Mediated Pain**  
**Stefano Palmisani**, MD
- 08:10**      **Vertebral Stabilization**  
**Kenneth B. Chapman**, MD, FIPP
- 08:30**      **Facet Denervation Directions and Questions**  
**Javier de Andres**, MD, FIPP
- 08:50**      **New Evidence for Pulsed RF- Possible Future Combination of PRF-RF**  
**Jan Van Zundert**, MD, PhD
- 09:10**      **Coffee Break**  
  
**Moderator: Aaron Calodney**, MD, FIPP and **Craig Hartrick**, MD, FIPP
- 09:30**      **30 Years of Clinical Experience With Bone Marrow Aspirate Concentrate in Orthopedic Medicine**  
**Phillipe Hernigou**, MD
- 10:00**      **Mesenchymal Stem Cells Manage Pain**  
**Arnold Caplan**, PhD
- 10:30**      **Degenerative Disc Disease & Regenerative Medicine**  
**Aaron Calodney**, MD, FIPP
- 11:00**      **Questions and Answers**  
**Craig Hartrick**, MD, FIPP

- 11:30 **Ultrasound Guidance in Long Term Chronic Pain Therapy**  
Uel Alexis, MD, FIPP
- 11:50 **Evidence of Neuromodulation**  
Robert Levy, MD, FIPP
- 12:20 **Lab Instruction**  
Miles Day, MD, FIPP
- 12:45 **Lunch**
- 13:30 **Transport to Workshop at Semmelweis University**
- 14:00-16:30 **Cadaver Workshops**  
Ultrasound and Fluoroscopic-guided Procedures

## MONDAY, 28 AUGUST 2017

### Ultrasound Lectures

Room One

- 08:00 **Opening Remarks**  
Agnes Stogicza, MD, FIPP, CIPS
- 08:10 **Ultrasound anatomy and procedures of the lumbar spine and sacrum**  
Charles de Oliveira, MD, FIPP, CIPS
- 08:45 **Ultrasound anatomy and procedures of the thoracic spine**  
Agnes Stogicza, MD, FIPP, CIPS
- 09:20 **Ultrasound anatomy and procedures of the cervical spine**  
Alan Berkman, MD, FIPP, CIPS
- 10:00 **Coffee Break**
- 10:30 **Live model WORKSHOP**  
Thiago Nouer, MD, CIPS  
Michael Sommer, MD, PhD, FIPP, CIPS  
Charles de Oliveira, MD, FIPP, CIPS  
Agnes Stogicza, MD, FIPP, CIPS  
Alan Berkman, MD, FIPP, CIPS
- 12:00 **Lunch**
- 13:30 **Transport to Workshop at Semmelweis University**
- 14:00-16:30 **Cadaver Workshops**  
Ultrasound and Fluoroscopic-guided Procedures

## TUESDAY, 29 AUGUST, 2017

Room Two and Three

**Moderators:** Ira Fox, MD, FIPP and Gabor B. Racz, MD, FIPP

**7:30-8:45 Industry Technical Presentations**  
(not part of CME program; see industry section of program on Page 47.)

### General Lectures

Room Two & Three

- 9:00 MRI's: How to Look At and What You May Find**  
Andrea Trescot, MD, FIPP
- 9:20 Cancer Pain Management: Reducing Pain and Suffering through Combined Approach Therapy**  
Kris Vissers, MD, PhD, FIPP
- 9:40 Radiofrequency Innovations in Pain Management**  
Ricardo Ruiz-Lopez, MD, FIPP
- 10:00 Coffee Break**
- Moderators:** Adnan Al-Kaisy, MB ChB, FRCA, FFPMRCA, FIPP, Gabor B. Racz, MD, FIPP
- 10:30 Role of DRG in Neuropathic Pain**  
Marshall Devor, PhD
- 10:50 DRG as a Target for Electrical Neuromodulation**  
Robert Levy, MD
- 11:10 Long Term Safety and Efficacy in Novel Trans-grade DRG Stimulation for Chronic Neuropathic Pain**  
Adnan Al-Kaisy, MB ChB, FRCA, FFPMRCA, FIPP
- 11:30 Vertebral Augmentation**  
Doug Beall, MD
- 11:50 The Role of Intrathecal Drug Delivery in Chronic Back Pain**  
Richard Rauck, MD, FIPP
- 12:10 Recent Advances in Electrical Neuromodulation in Lower Back Pain**  
Peter Staats, MD, MBA, FIPP
- 12:30 Lab Instructions**  
Miles Day, MD, FIPP
- 12:15 Lunch**
- 13:30 Transport to Workshop at Semmelweis University**
- 14:00-16:30 Cadaver Workshops**  
Ultrasound and Fluoroscopic-guided Procedures

## TUESDAY, 29 AUGUST, 2017

Ultrasound Lectures

Room One

- 09:00 Ultrasound anatomy and procedures of the hip and knee**  
Michael Sommer, MD, PhD, FIPP, CIPS
- 09:30 Knee denervation, anatomy through the surgeons eyes**  
Eric Williams, MD
- 10:00 Coffee Break**
- 10:30-11:15 Ultrasound anatomy and procedures of the upper extremity**  
Thiago Nouer, MD, CIPS
- 11:15 What to expect on the CIPS exam**  
Raja Reddy, MD, FIPP, CIPS  
Thiago Nouer, MD, CIPS  
Agnes Stogicza, MD, FIPP, CIPS
- 12:15 Lunch**
- 13:30 Transport to Workshop at Semmelweis University**
- 14:00-16:30 Cadaver Workshops**  
Ultrasound and Fluoroscopic-guided Procedures



## WEDNESDAY 30 AUGUST, 2017

### General Lectures I.

Room Two & Three

**Moderator: Fabricio Dias Assis, MD, FIPP**

- 7:30 **Neuroplasty Accumulating Positive Evidence**  
Yong-Chul Kim, MD, PhD
- 7:50 **Study Design, Clinical and Animal Studies**  
Ludger Gerdesmeyer, MD, PhD, FIPP
- 08:20 **Pitfalls of Pain Models vs. Animal Models, Clinical Benefits**  
Bert Joosten, PhD, Editor of Pain Practice
- 08:50 **How to Reduce Treatment Related Complications in Trigeminal Neuralgia**  
Serdar Erdine, MD, FIPP
- 09:10 **Shortcomings of Epidural Steroid Injections**  
Craig Hartrick, MD, FIPP
- 09:30 **Private Practice Clinical Experience with Over 13,000 Cases of Lysis of Adhesions/Neuroplasty**  
Ira Fox, MD, FIPP
- 09:50 **Coffee Break**  
**Moderators: Serdar Erdine, MD, FIPP and Gabor B. Racz, MD, FIPP**
- 10:20 **Radiation Safety**  
Juan Carlos Flores, MD, FIPP
- 10:40 **Sacroiliac Joint Fusion**  
Stephan Becker, MD
- 11:00 **Chemotherapy Induced Neuropathic Pain**  
Athina Vadalouca, MD, PhD, FIPP
- 11:20 **Chronic Pain and Society: Can and Should Government Help?**  
Giustino Varrassi, MD, FIPP
- 11:40 **New Interventional Pain Techniques and Data**  
**PACIF (Percutaneous Ablation Curettage Inferior Foraminotomy)**  
Hemmo Bosscher, MD, PhD, FIPP  
**Minimally Invasive Options for Lumbar Spinal Stenosis**  
Aaron Calodney, MD, FIPP  
**New Evolutions**  
Standiford Helm, MD, FIPP
- 12:00 **Challenges in the Management of Chronic Lower Back Pain**  
Sudhir Diwan, MD, FIPP

- 12:20 **Lab Instructions**  
Miles Day, MD, FIPP
- 12:45 **Lunch**
- 13:30 **Transport to Workshop at Semmelweis University**
- 14:00-17:00 **Cadaver Workshops**  
Ultrasound and Fluoroscopic-guided Procedures

## WEDNESDAY 30 AUGUST, 2017

### General Lectures II.

Room One

**Moderators: Craig Hartrick, MD, FIPP and Uel Alexis, MD, FIPP**

- 07:30 **Systematic Reviews in Treating Spinal Stenosis by Neuroplasty/Lysis of Adhesions**  
Standiford Helm, MD, FIPP
- 07:50 **Thoracic Sympathetic T2 T3 and Splanchnic Nerve Blocks and Radiofrequency Thermocoagulation**  
Miles Day, MD, FIPP
- 08:10 **Common Low Back Pain**  
Hemmo Bosscher, MD, PhD, FIPP
- 08:40 **Surgical Options to Treat Chronic Back Pain**  
Lorand Eross, MD, PhD, FIPP
- 09:00 **Balanced Approach to Opioid Use**  
Peter Staats, MD, MBA, FIPP
- 09:20 **Rebirth of Cryotherapy Lesioning**  
Andrea Trescot, MD, FIPP
- 09:40 **Questions and Answers**
- 10:00 **Coffee Break**  
**Moderator: Miles Day, MD, FIPP**
- 10:25 **Causes of Pelvic Pain**  
Andrea Trescot, MD, FIPP
- 10:45 **Neuromodulation to Treat Pelvic Pain**  
Adnan Al-Kaisy, MB ChB, FRCA, FFPMRCA, FIPP
- 11:05 **Hydrodissection in Pelvic Pain-Long Term Favorable Outcomes Possible**  
Gabor B. Racz, MD, ABIPP, FIPP
- 11:25 **Examination for Fellowship of Pain Practice**  
Monique Steegers, MD, PhD, FIPP
- 11:45 **Peripheral Nerve Entrapments**  
Andrea Trescot, MD, FIPP

- 12:05 **Hypogastric Plexus Block**  
Mert Akbas, MD, FIPP
- 12:20 **Practical Implications of Studying Lumbar Sympathetic  
Radiofrequency and Phenol Neurolysis – RF (Racz Finch) Needle**  
Carl Noe, MD, FIPP
- 12:45 **Lunch**
- 13:30 **Transport to Workshop at Semmelweis University**
- 14:00-17:00 **Cadaver Workshops**  
Ultrasound and Fluoroscopic-guided Procedures

# FIPP and CIPS Awards Ceremony

29 August, 2017 Hungarian National Museum

## Master of Ceremonies

**Gabor B. Racz**, MD, FIPP, Founding Budapest Conference Director

## Opening Remarks

**Craig T. Hartrick**, MD, FIPP, WIP President

## David Niv Memorial Remarks

**Ricardo Ruiz-Lopez**, MD, FIPP, Founder and Past President of WIP

## Presentation of 2017 Trail Blazer Awards

**David Niv**, MD, FIPP, WIP Founder and 2nd WIP President 2002-2005, presented by **Ricardo Ruiz-Lopez** & **Marshall Devor** presented to **Mrs. Liora Niv** and son **Tamir Niv**

**Serdar Erdine**, MD, FIPP, WIP Founder and 4th WIP President 2008-2011, presented by **Miles Day**

**Ricardo Ruiz-Lopez**, MD, FIPP, WIP Founder and 5th WIP President 2011-2013, presented by **Gabor B. Racz**

**Edit Racz**, MD, FIPP, Budapest Conference Local Arrangement Chairman from 1996, First Hungarian FIPP, presented by **Gabor B. Racz** & **Agnes Stogicza**

**Péter Sótónyi**, MD, PhD, DSc, presented by **Lorand Eross**

## Presentation of Certificates

Comments by **Peter Staats**, MD, FIPP, Chair, WIP Board of Examination

**FIPP (Fellow of Interventional Pain Practice) honorees from Budapest 2016, Miami 2017, and Nijmegen 2017**

**CIPS (Fellow of Interventional Pain Practice) honorees from Miami 2017 and Nijmegen 2017**

## Budapest 32nd FIPP (Fellow of Interventional Pain Practice) Examination September 1, 2016

948	Ahmad Abdulridha, MD, FIBMS(Anesth), EDAIC, FIPP	Unit Arab Emirates
949	Gustavo Aquino, MD, FIPP	Brazil
950	Roberto Arcioni, MD, FIPP	Italy
951	Rohedi Yosi Asmara, MD, FIPP	Indonesia
952	Kathleen Beckers, MD, FIPP	Belgium
953	Pavan Kumar Bichal, MD, FIPP	India
954	Mieke De Cang, MD, FIPP	Belgium
955	Cornelius Du Toit, MD, FIPP	Australia
956	László Entz, MD, PhD, FIPP	Hungary
957	Paul E. Ferris, MBBS, FIPP	Australia
958	Mohamed Fathy Mohamed Hassanain, MBBch, MSc, FCAI, DPMCAI, EDAIC, EDIC, EDRA, FIPP	Ireland
959	Hyun Seung Jin, MD, FIPP	South Korea
960	Won-Joong Kim, MD, PhD, FIPP	South Korea
961	Rammurthy Kulkarni, MD, FIPP	India
962	Sandra Martinez Rodriguez, MD, FIPP	Spain
963	Ramji Swaminathan, MD, FIPP	United Arab Emirates
964	Karolina Szadek, MD, FIPP	The Netherlands
965	Andrea Tinnirello, MD, FIPP	Italy
966	José Manuel Trinidad Martín-Arroyo, MD, FIPP	Spain
967	Alessio Valente, MD, PhD, FIPP	Italy
968	Martial Van de Vorst, MD, FIPP	Belgium

## Miami 33rd FIPP (Fellow of Interventional Pain Practice) Examination January 16, 2017

969	Yongjae Yoo, MD, FIPP	South Korea
970	Dennis Agbazue, MBBS, Dip PEC, FRCS, FC, FIPP	South Africa
971	Karen Santos Braghiroli, MD, FIPP	Brazil
972	Adel Elmallah, MD, FIPP	Kuwait
973	Gaurav Jain, MD, FIPP	USA
974	Ravi Krishna Kalathur, MD, FIPP, CIPS	India
975	Adrian Lafert, MD, FIPP	Argentina
976	Breno José Santiago Bezerra de Lima, MD, MSc, PhD, FIPP	Brazil
977	Ana Carolina Braz Lima, MD, FIPP	Brazil
978	Chih-Peng Lin, MD, PhD, FIPP, CIPS	Taiwan
979	Wen-Ying Lin, MD, FIPP	Taiwan
980	Alexandra Raffaini, MD, FIPP	Brazil
981	Manikandan Rajarathinam, MD, FIPP	Canada
982	Said Shofwan, MD, FIPP	Indonesia
983	Przemyslaw Strulak, MD, FIPP	Austria
984	Yeong-Ray Wen, MD, FIPP	Taiwan
985	Ernesto Alejandro Benencia, MD, FIPP	Argentina
986	Ignacio Huenchullan, MD, FIPP	Chile
987	Miguel Eduardo Mateos Cruz, MD, FIPP	Mexico
988	Leonardo Morales, MD, FIPP	Argentina
989	Antonio Ojeda, MD, FIPP	Spain
990	Juan Pablo Paladino, MD, FIPP	Argentina
991	Gustavo Sabalza, MD, FIPP	Argentina

## Nijmegen 34th FIPP (Fellow of Interventional Pain Practice) Examination June 10, 2017

992	Karin Arish, MD, FIPP	Israel
993	Mohammad Amin Atbaei, MD, MBA, FIPP	UAE
994	Hannie Braems, MD, FIPP	Belgium
995	Joke De Buck, MD, FIPP	Belgium
996	Quentin De Landtsheer, MD, FIPP	Belgium
997	Seppe Dehaene, MD, FIPP	Belgium
998	Rodrigo Díez Tafur, MD, MSc, EBPMR, FIPP	Peru
999	Kim Evers, MD, FIPP	The Netherlands
1000	SSara Arango Uribe, MD, FIPP	Spain
1001	C. J. G. Jans-Pfrommer, MD, FIPP	The Netherlands
1002	Changsoon Lee, MD, FIPP	South Korea
1003	Bart Liebrand, MD, FIPP	The Netherlands
1004	Rajashree Madabushi, MD, FIPP	India
1005	Maria Madariaga Muñoz, MD, FIPP	Spain
1006	Maurizio Marchesini, MD, FIPP	Italy
1007	Milan V. Mehta, MD, FIPP	India
1008	LL. Nagaraju Morubagal, MBBS, DA, FCARCSI, DPMCAI, FIPP	India
1009	Mona Mubarak, MBChB, FCARCSI, EDRA, EDAIC, MSc(Anaesth.), DipHSM, ICM, DipPain (CAI), FIPP	Australia
1010	Theresia Chandra Tania Novy, MD, MS, FIPP, CIPS	Indonesia
1011	Kyoung ho Shin, MD, FIPP	South Korea
1012	Louis Smit, MBChB, DA (SA), Dip Obst (SA), PDD, FIPP	South Africa
1013	Bart Jorrit Snel, MD, FIPP	The Netherlands
1014	Katrin Stoecklein, MD, DESA, MBA, FIPP	The Netherlands
1015	W. ter Woerds, MD, FIPP	The Netherlands
1016	Athmaja Thottungal, MBBS, FRCA, FFPMRCA, EDRA, FIPP, CIPS	UK
1017	Nuj Tontisirin, MD, FIPP	Thailand
1018	Selina Van der Wal, MD, MSc, PhD, FIPP	Belgium
1019	Adriënné van Ginkel, MD, FIPP	The Netherlands
1020	Astrid Van Lantschoot, MD, FIPP	Belgium
1021	Mark van Ooijen, MD, MBA, FIPP	The Netherlands
1022	Thibaut Vanneste, MD, FIPP	Belgium
1023	Dorien Vrinten, MD, FIPP	The Netherlands

## Miami 5th CIPS (Certified Interventional Pain Sonologist)

Examination January 16, 2017

35	Sami Moustafa Abdelmaksoud, MS.c, DPHE, MD, FIPP, CIPS	Qatar
36	Ke-Vin Chang, MD, CIPS	Taiwan
37	Choong Leong Tong, MBBS, FRCS, Masters, CIPS	Malaysia
38	Elaine Gomes Martins, MD, CIPS	Brazil
39	Ketut Ngurah Gunapriya, MD, FIPM, FIPP, CIPS	Indonesia
40	Mohamed Fathy Mohamed Hassanain, MBBCh, MSc, FCAI, DPMCAI, EDAIC, EDIC, EDRA, FIPP, CIPS	Ireland
41	Injong Kim, MD, FIPP, CIPS	South Korea
42	Won-Joong Kim, MD, PhD, FIPP, CIPS	South Korea
43	Pranab Kumar, MD, FFPMRCA, FIPP, CIPS	United Kingdom
44	Chih-Peng Lin, MD, PhD, FIPP, CIPS	Taiwan
45	Jesús De Santiago Moraga, MD, CIPS	Spain
46	Daniel Phang, M.Med, CIPS	Singapore
47	Yusak M. T. Siahaan, MD, PhD, FIPP, CIPS	Indonesia

## Nijmegen 6th CIPS (Certified Interventional Pain Sonologist)

Examination June 10, 2017

48	Ezio Amorizzo, MD, CIPS	Italy
49	Rahul H. Bhansali, MBBS, DA, FCAI, DPM (IRE), CIPS	UK
50	Chien-Hsing Chen, MD, CIPS	Taiwan
51	(Wesley) Chih Chun Chen, MD, CIPS	Taiwan
52	R. D. H. de Boer, MD, FIPP, CIPS	The Netherlands
53	María Begoña Díaz García, MD, CIPS	The Netherlands
54	Lucio Cesar Hott Silva, MD, FIPP, CIPS	Brazil
55	King Hei Stanley Lam, MBBS, FHKIMM, MScSEM (Bath), MScSM&EH (CUHK), PGDip MSM (Otago), RMSK, CIPS	Hong Kong
56	Fabrizio Micheli, MD, CIPS	Italy
57	Theresia Chandra Tania Novy, MD, MS, FIPP, CIPS	Indonesia
58	Felice Ochigrossi, MD, CIPS	Italy
59	Emanuele Piraccini, MD, CIPS	Italy
60	Scott G. Pritzlaff, MD, CIPS	USA
61	Raja Varadapura Reddy MD, FRCA, FFPMRCA, FIPP, CIPS	UK
62	Shaw-Gang Shyu, MD, CIPS	Taiwan
63	Athmaja Thottungal, MBBS, FRCA, FFPMRCA, EDRA, FIPP, CIPS	UK
64	Anita van Domselaar, MD, CIPS	Belgium
65	Yi-Chian Wang, MD, CIPS	Taiwan
66	Chueh-Hung Wu, MD, CIPS	Taiwan
67	Wei-ting Wu, MD, CIPS	Taiwan

## Syllabus

**GABOR B. RACZ, MD, DABPM, ABIPP, FIPP**

### BIOGRAPHICAL SKETCH

Grover Murray Professor and TTUHSC Endowed Chair. Professor and Chairman Emeritus Department of Anesthesiology. Dr. Racz graduated from The University of Liverpool Medical School, completed his residency at State University of New York and served on staff there until 1978. At Texas Tech University Health Sciences Center in Lubbock, Texas he is Grover Murray Professor, Professor and Chair Emeritus in Department of Anesthesiology and Co-Director of Pain Services. Dr. Racz is Director of the Annual Advanced Pain Conference and Practical Workshop in Budapest since the first conference in 1996. He is a Founder and Past President of WIP, currently serving on the WIP Executive Board as well as Executive Board of American Society of Interventional Pain Physicians.

He is a Founder and first President of Texas Pain Society and Director of the annual TTUHSC Pain Symposium from 1983-2012. He is widely published in book chapters, journal articles and three books describing his techniques in spinal cord and peripheral nerve stimulation, neurolysis, radiofrequency thermocoagulation and other interventional procedures, and he travels around the world lecturing and instructing workshops. His latest book published in 2016 is a second edition of Techniques of Neurolysis, edited with Dr. Carl E. Noe. He has received numerous recognitions and awards from organizations around the world including Distinguished Professor Award for Lifetime Achievement from Texas Tech University Health Sciences Center and the Lifetime Achievement Award(s) from American Society of Interventional Pain Physicians. He will receive the Lifetime Achievement Award in October from National Spine & Pain Center in Washington DC.

### LECTURE

## LONG LASTING FAVORABLE OUTCOME IN TREATMENT OF BACK PAIN RADICULOPATHY: SPINAL STENOSIS BY NEUROPLASTY

**JAVIER DE ANDRES, MD, FIPP**

### BIOGRAPHICAL SKETCH

Dr. Javier De Andrés Ares is currently Coordinator of Pain Unit at Hospital Universitario La Paz-Madrid-Spain. He is also Head of Clínica del Dolor de Toledo.

He graduated from Universidad Complutense Madrid and completed his residency in Anesthesia at Complejo Hospitalario de Toledo. He is Board certified Anesthesiologist since 1996. Fellowship in Pain Treatment 1998. FIPP Fellow of Interventional Pain Practice Budapest 2008 being the first Hassenbusch Award 2008. He is coordinator of the Spanish Radiofrequency Group (Sociedad Española del Dolor), and Chair of WIP Iberian Section.

Dr. De Andrés Ares performs and teaches Interventional Pain Techniques, and has special interest in Orofacial and Spinal Pain.

### LECTURE

## FACET DENERVATION DIRECTIONS AND QUESTIONS

### Objectives

- The rationale for facet denervation.
- Anatomy of Medial Branch and how it innervates Zygoapophyseal Joints.
- The importance of the Mamillo Accesory Ligament and Medial Branch Anatomy.
- How Facet Denervation was previously performed.
- Errors of Facet Denervation in the 80s and 90s.
- Importance of Diagnostic Blocks.



- Importance of material in facet denervation.
- Expected outcomes using fluoroscopy. Unexpected outcomes
- Importance of parallel placement of cannulae.
- Future directions.

#### Key Points

- Importance of Fluoroscopy for Facet Denervation.
- The rationale for performing Facet Denervation, with previously Diagnostic Blocks.
- Mamillo Accessory Ligament protects and prevents proper Medial Branch denervation.
- Parallel placement of cannulae provides a better denervation.
- Big active tips and lower gauge cannulae (thicker) provide better denervation.

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## JAN VAN ZUNDELT, MD, PHD, FIPP

#### BIOGRAPHICAL SKETCH

Jan Van Zundert is anesthesiologist and since 2005 head of the Multidisciplinary Pain Centre of the Hospital Oost-Limburg, Genk/Lanaken, Belgium. He has a scientific affiliation with the Maastricht University Medical Centre, Maastricht, The Netherlands, where he obtained 2005 his PhD "The use of pulsed radiofrequency in the treatment of chronic pain". He published more than 80 papers in PubMed indexed journals and 35 book chapters. He is editor of the handbook "Evidence-Based interventional pain management, according to clinical diagnoses". He is member of the scientific committee of the European Society of Anesthesiology (ESA) and past- chair of the subcommittee 'Acute and chronic pain management and palliative medicine'. He is treasurer of the executive board of the World Institute of Pain (WIP) and past-chairman of the Benelux section of World Institute of Pain.

#### LECTURE

### NEW EVIDENCE FOR PULSED RF- POSSIBLE FUTURE COMBINATION OF PRF-RF

Referring the article „Pulsed radiofrequency in chronic pain“ by Thibaut Vanneste, Astrid Van Lantschoot, Koen Van Boxem, and Jan Van Zundert

Purpose of review: The increasing number of publications on pulsed radiofrequency (PRF) treatment of chronic pain reflects the interest for this technique. We summarize the literature for PRF in five indications: radicular pain, trigeminal neuralgia (TN), occipital neuralgia, shoulder and knee pain.

Recent findings: The efficacy and safety of PRF adjacent to the dorsal root ganglion was documented

on cervical and on lumbar level. PRF has been used for the treatment of TN. The observed duration of effect is shorter than that of conventional radiofrequency, but no neurological complications are reported with PRF. PRF of the nervi occipitales is superior to steroid injections in occipital neuralgia. Several studies showed that PRF of the nervus suprascapularis may relieve shoulder pain and can improve mobility of the shoulder joint. For the treatment of knee pain, different nerves have been targeted for PRF treatment.

Summary: PRF treatment has progressively gained a place in the management of chronic pain syndromes. The concept is appealing because long-lasting effects are reported without complications. Future research is needed with high quality randomized controlled trials and identification of the optimal parameters of PRF in clinical practice.

Keywords: knee pain, occipital neuralgia, pulsed radiofrequency, radicular pain, shoulder pain, trigeminal neuralgia.

## PHILLIPE HERNIGOU, MD

#### LECTURE

### 30 YEARS OF CLINICAL EXPERIENCE WITH BONE MARROW ASPIRATE CONCENTRATE IN ORTHOPEDIC MEDICINE

Bone marrow mesenchymal stem cells (BMMSCs) have powerful self-proliferation ability and multi-potential differentiation capacity and can undergo osteogenesis through induction. Adult MSCs represent usually a heterogeneous population of cells, with a positive immunophenotype for STRO-1, CD73, CD146, and CD106 and a negative one for CD11b, CD45, CD34, CD31, and CD117 (6-10). MSCs act via multifaceted pathways that are not completely understood to date to augment regeneration, including mechanisms that mediate homing of administered MSCs to sites of injury. However, two main inherent functions of MSCs can be distinguished. The first is the secretory or "trophic" function of MSCs, which includes the secretion of a wide spectrum of factors with immunomodulatory, anti-inflammatory, anti-apoptotic, proangiogenic, proliferative, or chemo-attractive capacities, among others. Second, administered MSCs are thought to orchestrate the differentiation process together with differentiated or undifferentiated resident cells for functional tissue restoration. Abnormalities of mesenchymal stem cells are present in the bone marrow of some of these diseases as osteonecrosis and osteoarthritis. As a consequence, intramedullary vascularity is altered and this may be a predisposing factor for local osteonecrosis since changes in the bone marrow and bone remodelling are linked. Another consequence is the lack of osteogenic cells, which could influence two different events in the pathogenesis of disease, the occurrence of disease itself and the bone repair which should occur. The rationale for the use of cytotherapy in orthopedic surgery, as well as the different descriptions of the technique of implantation of osteogenic progenitor cells (autologous or allogenic), was evaluated and began as research program in 1985 by the author. This has led to new breakthroughs for the treatment of several disease in orthopedic surgery as osteonecrosis, osteoarthritis, nonunion and pathologies of tendon.

The aim of this presentation is to describe: the rationale for use of autologous bone marrow concentrate grafting in several diseases; the technique to get autologous concentrated bone marrow; the effects both on tissue repair and on pain; the possibility of using ex vivo expanded autologous bone marrow derived stem cells.

## ARNOLD CAPLAN, PHD

#### BIOGRAPHICAL SKETCH

Dr. Caplan is Professor of Biology and the Director of the Skeletal Research Center at Case Western Reserve University. Dr. Caplan received his B.S. in Chemistry at the Illinois Institute of Technology, Chicago, Illinois; and his Ph.D. from The Johns Hopkins University School of Medicine, Baltimore,

Maryland. Dr. Caplan did a Postdoctoral Fellowship in the Department of Anatomy at The Johns Hopkins University, followed by Postdoctoral Fellowships at Brandeis University, Waltham, Massachusetts with Dr. N. O. Kaplan and Dr. E. Zwilling. He came to Case Western Reserve University as Assistant Professor of Biology in 1969 and rose through the ranks to become Professor in 1981. He has taken three sabbatical leaves: one in 1973 as a Visiting Professor in the Department of Biochemistry and Biophysics at the University of California at San Francisco Medical School with Brian McCarthy and William Rutter; one in 1976 in the Institute de Chimie Biologique at the Faculty of Medicine de Strasbourg in the Laboratory of Pierre Chambon; and lastly, the Edna and Jacob Michael Visiting Professor of the Department of Biophysics with Nathan Sharon at the Weizmann Institute of Science in Rehovot, Israel in 1984. He has received a number of awards including the Elizabeth Winston Lanier Award given by the American Academy of Orthopaedic Surgeons as part of their 1990 Kappa Delta Awards Program, the 1999 Marshall R. Urist Award for Excellence in Tissue Regeneration Research given by the Orthopaedic Research Society and the Genzyme Lifetime Achievement Award given by the International Cartilage Repair Society in 2007. He has trained over 150 researchers, has over 450 published papers and manuscripts and has long been supported by the National Institutes of Health and other non-profit and for-profit agencies for his efforts in trying to understand the development, maturation and aging and regeneration of cartilage, bone, skin and other mesenchymal tissues and for his pioneering research on Mesenchymal Stem Cells (MSCs). Since the 1970's, he has published works on the embryonic development and tissue engineered repair of bone, cartilage, muscle, tendon, dermis and other tissues as a component of his interests in Regenerative Medicine. More recently he and his collaborators have helped define the immuno-regulatory and tropic activities of MSCs as manifested by the secretion of a complex array of bioactive molecules at sites of tissue injury or inflammation. With the identification of MSCs as perivascular cells, or pericytes he has proposed how MSCs function in vivo at sites of tissue regeneration and, thus, defined the logics for self-repair within the context of Regenerative Medicine. He recently suggested as the secretory source of bioactive agents that the MSC be renamed as the Medicinal Signaling Cell because of its controlling role in the regeneration of damaged tissue.

#### LECTURE

### MESENCHYMAL STEM CELLS: THE NEW MEDICINE FOR PAIN

In the late 1980's, I named cells isolated from human bone marrow, Mesenchymal Stem Cells, MSCs, because we could not only obtain huge numbers in cell culture, but we could induce them to form bone, cartilage, fat or other mesodermal cells in vitro. These cells are now being used by tissue engineers with the proper scaffolds to form replacement tissues. More importantly, these cells are now listed in nearly 800 clinical trials on [clinicaltrials.gov](http://clinicaltrials.gov).

MSCs in vivo originate as perivascular cells and do not function as multipotent progenitors in vivo. Rather when released from broken and inflamed blood vessels, the perivascular cells develop into MSCs which fabricate and secrete site-specific molecules that protect the tissue from the interrogation by the immune system and to control the regeneration of the injured tissue. These site-specific secreted drugs not only help orchestrate the regeneration of the injured tissue, but control the injury response system to protect the injury site from being further compromised by scarring. I have renamed MSCs as Medicinal Signaling Cells and will provide data which indicates that MSCs are drug stores for sites of injury including secretion of molecules for pain management.

### AARON CALODNEY, MD, FIPP

#### BIOGRAPHICAL SKETCH

Aaron Kenneth Calodney, MD is Past President of the Texas Pain Society. He currently is President of the American Society of Interventional Pain Physicians (ASIPP). He has served on the board of the International Spine Intervention Society for many years and was Director of Education. Dr. Calodney is board certified in Anesthesiology and carries subspecialty certification in Pain Management through the American Board of Anesthesiology.

Dr. Calodney earned his medical degree from the University of Missouri School of Medicine and completed a family medicine internship at St Joseph's Hospital in Syracuse, New York. His residency in anesthesiology and subsequent interventional pain management fellowship was completed at the University of Texas Health Science Center at Houston. He subsequently completed a fellowship in pediatric anesthesia at the Denver Children's Hospital.

With particular interest in Spine and special interests including Neuromodulation and Intrathecal Drug Delivery, Biological treatment of the painful degenerative disc, Peripheral nerve injury, and Radio-frequency ablation, Dr. Calodney has presented and published many articles and textbook chapters. He is actively involved in clinical research and has delivered over 250 invited lectures in the US and abroad.

Dr. Calodney is a member of the American Society of Anesthesiologists, American Society of Regional Anesthesia and Pain Medicine, and many other professional societies.

He is an author of the first Evidenced Based Treatment Guidelines in Interventional Pain and Evidenced Based Guidelines for the Use of Opioids published in the Pain Physician journal and on the National Guideline Clearinghouse. Dr. Calodney previously was appointed by the governor of Texas to serve on the Advisory Committee on the Regulation of Controlled Substances Act.

#### LECTURE

### DEGENERATIVE DISC DISEASE & REGENERATIVE MEDICINE

### CRAIG HARTRICK, MD, FIPP

#### BIOGRAPHICAL SKETCH

Craig T. Hartrick, MD, FIPP is the current President of the World Institute of Pain. He is a former Professor of Biomedical Sciences (Pharmacology) and Professor of Anesthesiology (retired) at Oakland University William Beaumont School of Medicine. He currently remains a Clinical Professor of Health Sciences at Oakland University in Rochester, Michigan. He recently completed 12 years of service as Editor-in-Chief of Pain Practice. His research interests have included both basic and clinical science, with over 70 studies as principal investigator. He is well published, with over 200 peer-reviewed articles, abstracts, and textbook chapters. As President and Co-founder of Caventure Drug Discovery, Inc., his current investigations are devoted to novel analgesic discovery.

### ROBERT LEVY, MD, FIPP

#### BIOGRAPHICAL SKETCH

Robert M. Levy, M.D., Ph.D. is the Director of the Marcus Neuroscience Institute and Chairman of the Sandler Department of Neurosurgery and Professor at Florida Atlantic University in Boca Raton, Florida. His medical degree was earned at Stanford University Medical School, where he also received his doctorate in neurosciences and completed a postdoctoral fellowship. He performed a postdoctoral fellowship and residency in neurological surgery at the University of California-San Francisco, with mentors including Drs. Howard Fields, Dr. Charles Wilson and Dr. Yoshio Hosobuchi. He then served as Professor of Neurological Surgery, Physiology, and Radiation Oncology at the Feinberg School of Medicine of Northwestern University. He then was Professor and Chairman, Department of Neurological Surgery and Co-Director of the UF Health Jacksonville Neuroscience Institute at the University of Florida College of Medicine in Jacksonville, FL. Dr. Levy has authored several textbooks and published over 200 journal articles. He has been the recipient of many national and international honors and awards and has been listed in the Best Doctors in America since its inception. Dr. Levy is currently on the Board of Directors of the International Neuromodulation Society and he serves as Editor-in-Chief of the journal Neuromodulation: Technology at the Neural Interface. His current research involves novel applications of neurostimulation and targeted drug delivery to the brain.

## LECTURE EVIDENCE OF NEUROMODULATION

### CHARLES DE OLIVEIRA, MD, FIPP, CIPS

#### BIOGRAPHICAL SKETCH

Dr. Charles de Oliveira is an Interventional Pain Physician at Singular Pain Center, Campinas-SP, Brazil.

## LECTURE ULTRASOUND ANATOMY AND PROCEDURES OF THE LUMBAR SPINE AND SACRUM

### AGNES STOGICZA, MD, FIPPS, CIPS

#### BIOGRAPHICAL SKETCH

Dr. Agnes Stogicza is a board-certified anesthesiologist and pain physician with 15 years of experience in interventional pain management. She completed her pain fellowship at the University of Washington, where she was on faculty for the last 7 years. As a clinician-educator she treats pain patients and teaches minimally invasive interventional pain procedures, regional anesthesia techniques and medication management for medically challenging chronic pain patients to pain fellows and residents.

She is a member of the World Institute of Pain (WIP) Education Committee, the World Academy of Pain Medicine Ultrasonography (WAPMU) Education Committee, Vice-Chair of the Hungarian Section of WIP and serves as an examiner for the FIPP (Fellow of Interventional Pain Practice) and CIPS (Certified Interventional Pain Sonologist) Board Certification.

She regularly lectures and teaches minimally invasive pain management procedures in the US, Europe, South America and Africa for the American Society of Interventional Pain Physicians (ASIPP), WIP, WAPMU, Singular and other societies.

## LECTURE ULTRASOUND ANATOMY AND PROCEDURES OF THE THORACIC SPINE

#### LEARNING OBJECTIVES

- Describe anatomy and ultrasound anatomy of the thoracic spine
- Describe the ultrasound guided procedures of the thoracic spine
  - Intercostal nerve injection and cryoablation or pulsed radiofrequency treatment
  - Thoracic median branch block and radiofrequency ablation
  - Facet intra-articular injection
  - Paravertebral injection
- Discuss relevant literature of each procedures
- Discuss safety of each procedure

### ALAN BERKMAN, MD, FIPP, CIPS

#### BIOGRAPHICAL SKETCH

Originally from South Africa he moved to Canada in 1990 completing residency training at UBC and obtaining the FRCPC in Anesthesia in 1995.

In 1998 he developed an interventional Pain Program at the Nanaimo Regional General Hospital and then assisted in developing the Vancouver Island Multidisciplinary Pain Program.

He completed the FIPP in 2014 and CIPS exam in 2016 set by the World Institute of Pain (WIP). He moved to Vancouver in 2015 to work at St. Paul's Hospital and Changepain (a community based pain program) as an interventional pain specialist.

He has been appointed as of February 2017, the Physician Lead, Complex Pain Center, St. Paul's Hospital.

His appointments have included Head of Anesthesia NRGH, Regional Chief of Anesthesia, Central Island, Site Director Anesthesia Residency Training and Medical Student Training, NRGH, Director VIHA Pain Program, Nanaimo site, Board member UBC Pain Residency Training Program, Secretary, Canada Section, WIP, now Chairman of the Canada Section WIP, and board member of the Canadian Neuromodulation Society. He is a consultant in pain management and program development for the Northern Health Authority. His pain interests include neuromodulation, interventional pain procedures for chronic non-malignant and malignant pain and developing a community based pain program for managing pain in the community.

## LECTURE ULTRASOUND ANATOMY AND PROCEDURES OF THE CERVICAL SPINE

#### Learning Objectives

- Describe anatomy and ultrasound anatomy of the cervical spine
- Describe the ultrasound guided procedures of the cervical spine
  - TON (Third Occipital Nerve) block
  - GON (Greater Occipital Nerve) block at C2 Lamina
  - Cervical medial branch block and radiofrequency ablation
  - Cervical selective nerve root block
  - Superficial cervical plexus block
  - Interscalene block
  - Cervical sympathetic trunk (CST) block
- Discuss relevant literature of each procedures
- Discuss safety of each procedure

### ANDREA TRESBOT, MD, FIPP

#### BIOGRAPHICAL SKETCH

Andrea Trescot, MD is chair of the education committee of the World Institute of Pain (WIP), past president of the American Society of Interventional Pain Physicians (ASIPP), past president and current director at large of the Florida Society of Interventional Pain Physicians (FSIPP), current president of the Alaska Society of Interventional Pain Physicians (AKSIPPA former professor at the University of Washington in Seattle, Washington, and previous director of the pain fellowship programs at the University of Washington and the University of Florida. She graduated from the Medical University of South Carolina, with internship and residency in anesthesia at Bethesda Naval Hospital and a fellowship in pediatric anesthesia at National Children's Hospital in Washington. She is a Diplomate of the American Board of Anesthesiology (with special qualifications in pain and critical care), a Diplomate of the American Board of Interventional Pain Physicians, and a Fellow of Interventional Pain Practice. She was a pain clinic director in private practice for 15 years before she moved to academics. She has returned to private practice, where she splits her time between Alaska and Florida. Dr. Trescot has authored more than 100 peer-reviewed articles and textbook chapters, and she is the editor and senior author of a new 900 page pain textbook (Peripheral Nerve Entrapments – Clinical Diagnosis and Management). She is also co-author of PainWise – A Patient's Guide to Pain Management, as well as co-editor of the three-volume pain review textbook Pain Medicine & Interventional Pain Management – A Comprehensive Review. She speaks nationally and internationally on topics of pain medicine and interventional pain management.



## LECTURE

### WHAT SHOULD A PAIN DOCTOR LOOK FOR ON A LUMBAR MRI?

Most interventional pain doctors have relied on the radiology reports of the MRIs that they and others have ordered. However, there are many issues seen on MRI that the radiologist may not notice or report on that can have profound effects on the care of that patient. Prudent interventionalists, therefore, should strongly consider looking at their own MRI images prior to injections. This lecture introduces an approach to the systematic review of lumbar MRIs.

## KRIS VISSERS, MD, PHD, FIPP

### BIOGRAPHICAL SKETCH

K. Vissers is anesthesiologist, professor in Pain and Palliative Medicine and chairman of the Radboud Expertise Center of Pain and Palliative Medicine of the Radboud University Nijmegen Medical Centre in the Netherlands. As a principal investigator his research program is connected to the Health Care Improvement Science program of Radboud University.

He obtained his graduation in Medical Sciences at the University of Antwerp (Belgium) and his graduation as an Anesthesiologist at the University of Antwerp and the Catholic University of Leuven (Belgium). He specialized in pain medicine in Leuven (B) and Nijmegen (NL), with Prof. Dr. H. Adriansen, Prof. Dr. H. van Aken, Prof. Dr. L. Booij and Prof. Dr. B. Crul. As of 1995 he was staff member of the University affiliated Hospital East-Limburg, Genk, Belgium where he founded the Multidisciplinary Pain Center in 1995. He was visiting consultant for the palliative care unit and hospital team. He was responsible consultant for the home care organization in Palliative Care "Pallium".

He obtained the degree of doctor in the medical sciences Ph.D. in 2004 at Radboud University Nijmegen Medical Center, The Netherlands. He graduated as Fellow in Interventional Pain Practice in 2004.

Since 2005, he is Professor in Pain and Palliative Medicine at the Radboud University Nijmegen.

He is ex officio board member of the Benelux Chapter of the World Institute of Pain and the first chairman of the Dutch Society of Multidisciplinary Palliative Care Professionals, chapter of the European Association of Palliative Care (EAPC) and current president of the Pain Alliance in the Netherlands, chapter of the IASP. He is Immediate Past President of the World Institute of Pain.

His main research interests are (1) translational approach and research on neuropathic pain, (2) practical and ethical application of palliative sedation, (3) proactive care and identification of patients in a palliative trajectory, (4) quality indicators of the organization and practice of pain and palliative medicine, (5) e-health and telemedicine in transmurals care programs (6) decision making in palliative care and end-of-life and (7) the description of competences and performances for the education and training in pain and palliative medicine.

He succeeded in getting external funding resources for major research projects in pain and palliative care (Europall, 7th framework, ZonMw, NWO, KWF).

He is author of more than 200 publications in international peer reviewed journals and contributed to more than 20 textbooks. He contributes to local and national education with regular articles in Belgian and Dutch journals for physicians and for the lay public. He is frequently asked as speaker during national and international congresses and teaching courses. He is promotor of 26 PhD students in his topics of interest. He organized 10 international congresses and workshops. He was member of several scientific committees of congresses.

## LECTURE

### CANCER PAIN MANAGEMENT: REDUCING PAIN AND SUFFERING THROUGH COMBINED APPROACH THERAPY

## RICARDO RUIZ-LÓPEZ, MD, FIPP

### BIOGRAPHICAL SKETCH

President, Founder and CEO of CLINICA VERTEBRA, Barcelona Spine & Pain Surgery Center, (1987) Barcelona, Spain

Executive Member of the Board of Directors of HOSPITAL DELFOS, (since 1997) Barcelona, Spain  
Founder (1993) and President (2011-2013) of the WORLD INSTITUTE OF PAIN, USA

## LECTURE

### RADIOFREQUENCY INNOVATIONS IN PAIN MANAGEMENT

## MARSHALL DEVOR, MD

### BIOGRAPHICAL SKETCH

Prof. Marshall Devor is the Alpert Professor of Pain Research at the Hebrew University of Jerusalem (HUJI). He was born in Toronto, Canada in 1949. His AB and PhD degrees were from Princeton University (1970) and MIT (1975). He was a postdoctoral fellow with the pain research pioneer Prof. P.D. Wall at University College London and later at HUJI. He joined the HUJI faculty as Research Associate in 1977 and rose to the rank of Professor in 1988. He served as Department Chairman (3 terms) and in a number of other University, national and international roles. He has contributed considerably to the understanding of the physiological basis of neuropathic pain and more recently to mechanisms involved in loss of consciousness and pain-free surgery. He is author of ~300 publications (H index = 69).

## LECTURE

### ROLE OF DRG IN NEUROPATHIC PAIN

Chronic pain is a frequent sequel of nerve injury. Ever since Tinel reported that dysesthesias and pain can be evoked by percussion over a site of nerve injury it has been clear that afferent axons at injury sites can become electrically hyperexcitable and ectopic pain drivers. However, pain sometimes persists despite attempts to block the nerve central to the injury site. This presentation will consider evidence that the dorsal root ganglion (DRG) constitutes a second peripheral neuropathic pain generator, one that is potentially active in chronic pain states including postherpetic neuralgia, radicular low back pain, trigeminal neuralgia and phantom limb pain. Long-term suppression of ectopic discharge originating in the DRG using dilute membrane stabilizing drugs has promise for selectively suppressing pain in these conditions without affecting sensory or motor function and without generating background paresthesias.

## ADNAN AL-KAISY, MB, CHB, FRCA, FFPMRCA, FIPP

### BIOGRAPHICAL SKETCH

Dr Al-Kaisy is currently Clinical Lead and Consultant at the Pain Management and Neuromodulation Centre Guy's and St Thomas Hospital. He trained in Chronic Pain Medicine at The Walton Centre, Liverpool for Neurology and Neurosurgery. He has a fellowship in Chronic Pain Management at University of Toronto Hospital, Canada.

He has a number of publications and research in a variety of categories in pain management.

He is the chair of the London Spine Forum, vice chair of the World Institution of Pain UK and Ireland and chair of the Hands on Workshop and London Spine Pain Symposium at Guy's and St. Thomas' Hospital.

His interest is in the management of spine and neuropathic pain. He has extensive experience in Neuromodulation: Spinal Cord Stimulation for Failed Back Surgery Syndrome, Intractable Angina,



Nerve Lesion, and Sacral Nerve Stimulation for Urinary Incontinence, Interstitial Cystitis and Bowel Incontinence. He is a clinical pioneer of High Frequency Stimulation. He is the P.I of a number of researches looking into efficacy of High Frequency Stimulation in the management of various pain conditions including headache. Most recently he pioneered a new technique to stimulate the Dorsal Root Ganglion in the management of neuropathic pain using a transgrade approach.

#### LECTURE

### LONG TERM SAFETY AND EFFICACY IN NOVEL TRANS-GRADE DRG STIMULATION FOR CHRONIC NEUROPATHIC PAIN

#### DOUG BEALL, MD

##### BIOGRAPHICAL SKETCH

Douglas P. Beall, MD, attended medical school at Georgetown University School of Medicine in Washington, DC, and completed his residency at The Johns Hopkins Hospital in Baltimore, Maryland. Following completion of his residency, he was Chief of Interventional Services at Sheppard Air Force Base in Wichita Falls, Texas. He then completed a fellowship in Musculoskeletal Radiology at Mayo Clinic in Rochester, Minnesota, where he was trained in interventional spine techniques before returning to the US Air Force as Division Chief of Musculoskeletal Radiology.

In addition to his expertise in musculoskeletal imaging and interventional spine care, Dr. Beall is a Diplomate of the American Academy of Pain Management and is actively involved in teaching and research. He is board-certified in Diagnostic Radiology, has an added fellowship in Musculoskeletal Radiology, and is in private practice focused on interventional musculoskeletal radiology. Dr. Beall has published more than 200 articles in peer-reviewed journals, authored three textbooks and 11 textbook chapters, and given more than 200 invited lectures and scientific presentations. He is currently the Chief of Radiology Services for Clinical Radiology of Oklahoma as well as Director of Fellowship Programs.

#### LECTURE

### VERTEBRAL AUGMENTATION

In the Current State of Vertebral Augmentation, Dr. Beall will describe the history of vertebral augmentation as it relates to today's practice and will reveal certain practice techniques that can help to improve the volume and the quality of your spine fracture referrals. We will also discuss and show the most recent development in vertebral augmentation.

#### PETER STAATS, MD, MBA, FIPP

##### BIOGRAPHICAL SKETCH

Peter S. Staats, MD, MBA was the founder of the Division of Pain Medicine at Johns Hopkins University School of Medicine in 1994 and served as its director for 10 years. He has trained fellows and residents from around the world in the areas of pain management and neuromodulation. He is currently a founder and managing partner of Premier Pain Centers, and on the board of directors of electrocore medical.

He is currently the Past President of the American Society of Interventional Pain Physician (ASIPP), Southern Pain Society, NJ society of Interventional Pain Physicians and the North American Neuromodulation Society.

Dr. Staats continues to serve as Adjunct Associate Professor at Johns Hopkins in the Department of Anesthesiology and Critical Care Medicine.

He is also a fellow of the World Institute of Pain and the North American Neuromodulation Society (WIP). He is currently Chair of the Board of Examination for WIP. He is the author of over 300 hundred articles, abstracts and book chapters regarding pain management and neuromodulation.

He has written or co-edited 10 books on the science and clinical practice of interventional pain medicine. He remains active with patients and clinical research in a variety of areas related to pain and neuromodulation.

Dr. Staats patents have resulted in novel drug treatment strategies that are commercially available. His work has been featured numerous times in local and national media of all kinds, including the Discovery Channel, Good Morning America, the BBC, along with multiple journals JAMA the lancet among others. He has won numerous awards, from local to national and international, including New Jersey Top Doctor since 2007 through present and Americas Top Doctor since 2001 and has received the physician of the year award from NY, NJ and West Virginia pain societies and the Presidents distinguished service award from the Southern Pain Society and "the state society award" from ASIPP (2014).

#### LECTURE

### RECENT ADVANCES IN ELECTRICAL NEUROMODULATION IN LOWER BACK PAIN

#### MICHAEL SOMMER, MD, PHD, FIPP, CIPS

##### BIOGRAPHICAL SKETCH

Micha Sommer moved to Maastricht University Medical Centre, The Netherlands, in 2002 and became a fellow in chronic interventional pain medicine. Since then, he has been working in this field along with anaesthesiology, mainly, paediatric anaesthesia.

His special interest is focused on sonography in interventional pain medicine. He attended numerous workshops in Toronto, Canada, at the Mayo Clinic in Rochester, USA, and in Füssen, Germany.

He is an instructor of sonography in pain medicine at the WAPMU workshops, the LSORA pain workshops in London, the IPMN workshop in Warsaw, at the Dutch pain association, and for private companies.

In the department of chronic pain medicine Maastricht, he was the first to start interventional pain management with ultrasound guidance. Meanwhile, the department performs around 900 ultrasound-guided procedures a year.

#### LECTURE

### ULTRASOUND ANATOMY AND PROCEDURES OF THE HIP AND KNEE

#### ERIC WILLIAMS, MD

##### BIOGRAPHICAL SKETCH

Eric H. Williams MD is a Plastic Surgeon and Peripheral Nerve Surgeon from Baltimore, Maryland. After completing a general surgical residency and a plastic surgical residency, he completed one more year of a peripheral nerve fellowship with A. Lee Dellon MD PhD. He has specialized in peripheral nerve surgery for the past 10 years where he currently works in Baltimore, MD in private practice at the Dellon Institute for Peripheral Nerve Surgery where most of his clinical work is spent on the treatment of patients with chronic neuropathic pain. He developed an interest in the use of ultrasound for diagnostic and procedural techniques for chronic neuropathic pain. He is a member of the WAPMU, and has an interest in helping bridge the gaps in communication between the surgical and procedural fields of peripheral nerve specialists and chronic pain. His expertise includes the

surgical care of upper and lower extremity chronic neuropathic syndromes, CRPS, nerve entrapments,

occipital neuralgia, and neuropathic post-surgical and post-traumatic pain.

#### LECTURE

### **KNEE DENERVATION, ANATOMY THROUGH THE SURGEONS EYES**

The goal of this lecture is to demonstrate the anatomy of innervation to the knee joint as understood by peripheral nerve surgeons and as described by work performed by A. Lee Dellon MD and his co-authors. The second goal is to demonstrate techniques use for surgical partial knee denervation for patients with refractory knee pain after knee replacement or other no repairable knee injuries. The final goal is to invite a friendly discussion with the interventional pain teams to compare their understanding of the innervation of the knee joint and their approach for partial knee denervation, and to determine if we are actually addressing the same anatomy or different anatomy, and to ultimately discuss methods to improve either surgical or minimally invasive partial knee joint denervation.

### **RAJA REDDY, MD FRCA FPMRCA EDRA FIPP CIPS**

#### BIOGRAPHICAL SKETCH

Dr Reddy trained as a specialist registrar in anaesthesia, intensive care and pain medicine from the London South East Thames School of Anaesthesia. He further completed the advanced pain medicine fellowship training from Guys & St. Thomas' and King's College Hospitals and was appointed as a Consultant in anaesthesia and pain medicine at the Medway NHS Foundation Trust in 2010. Dr Reddy is currently the clinical lead for chronic pain management and regional anaesthesia services. He is also the clinical & educational supervisor for advance training fellowship programmes in pain medicine & regional anaesthesia.

Dr Reddy is the Gen Sec for WIP UK and Co Chairman for WAPMU UK.

Dr Reddy's special interest is ultrasound guided interventional pain procedures & regional anaesthesia. As a faculty member he helps conducts regular ultrasound workshops for The Royal College of Anaesthetists (RCOA), The Royal College of Physicians (RCoP), World Institute of Pain (WIP UK), World Academy of Pain Medicine Ultrasonography (WAPMU), London Society of Regional Anaesthesia & Pain (LSORA), Society for Ultrasound in Anaesthesia & Pain (SUA), Spinal Sonography Workshop (ESA), RA-UK, International Cadaver workshop (Innsbruck) & IASP (India).

### **YONG-CHUL KIM, MD, PHD**

#### BIOGRAPHICAL SKETCH

##### PRESENT POSITION:

PROFESSOR, Dept. of Anesthesiology and Pain Medicine, Seoul National University School of Medicine

DIRECTOR, Pain Management Center, Seoul National University Hospital

PRESIDENT, The first International Congress on the Spinal Pain (ICSP2016)

PRESIDENT and FOUNDER, The International Spinal Pain Society ([www.spinemeeting.org](http://www.spinemeeting.org))

PAST-PRESIDENT, The Korean Pain Society ([www.painfree.or.kr/eng](http://www.painfree.or.kr/eng))

PRESIDENT-ELECT, The Korean Society of Thermology ([www.thermology.or.kr](http://www.thermology.or.kr))

PRESIDENT-ELECT, The Korean Spinal Pain Society ([www.spinalpain.or.kr](http://www.spinalpain.or.kr))

VICE PRESIDENT, The Korean Spinal Endoscopy Society (KOSES)

##### PROFESSIONAL AND TEACHING EXPERIENCE:

Visiting Professor, Spine Center, Stanford University Medical Center, USA

Visiting Professor, Pain Center, Duke University Hospital, USA

Visiting Professor, Clinical Medical School of Yangzhou University, China

Editorial Board of the Pain Clinic

Ex-Editor-in-Chief of the International Journal of Pain

National Academy of Medicine of Korea (Member)

Board Member, Center for New Health Technology Assessment, Ministry of Health & Welfare of KOREA

Committee, Central Pharmaceutical Affairs Center, Korea Food & Drug Administration (KFDA) and Ministry of Health & Welfare of KOREA

The 2008 International Pain Clinic Congress of the World Society of Pain Clinicians (WSPC) (Secretary General)

#### PUBLICATION

18 textbooks including Minimally Invasive Spine Techniques (Elsevier-Saunders, Co., 2010)

182 papers on the pain management

#### LECTURE

### **NEUROPLASTY ACCUMULATING POSITIVE EVIDENCE**

Percutaneous epidural adhesiolysis (PEA) or percutaneous epidural neuroplasty (PEN) was developed for the treatment of failed back surgery syndrome and refractory spinal stenosis, as well as disc-related axial and radicular pain syndromes. Dr. Gaber B, Racz suggested that epidural adhesion caused by surgery or inflammation may irritate nerve roots and obstruct the effective spread of injectate into lesion during epidural or caudal block. PEA/PEN is known for alleviating irritation of nerve root or sinuvertebral nerve, as a consequence of mechanical and chemical adhesiolysis followed by better injectate distribution.

The success of PEA/PEN depends on 1) accurate catheter placement, 2) sufficient injectate volume, and 3) effective agents breaking-up epidural scar tissue. Numerous researches have been performed to get consistent improvement and to get better outcome. Some essential questions about PEA/PEN have been brought up on the pathophysiology, mechanism, effectiveness, and safety.

- Could the epidural adhesion be a pain source?
- Does removal of epidural adhesion improve pain?
- Can PEA catheters remove epidural adhesion effectively?
- Does advanced PEN devices, such as steerable catheters and epiduroscopy-guided catheters guarantee better outcome? Are they cost-effective?
- Does different regimen cause differences in outcome?
- What is the most recommended indication for PEA/PEN?
- Is it safe now? What is its contraindication? Which fatal cases have been reported?

In this lecture, we're going to talk about current positive evidences of PEA/PEN, and then answer to above basic questions.

### **LUDGER GERDESMEYER, MD, PHD, FIPP**

#### BIOGRAPHICAL SKETCH

Chairman of the Orthopaedic/Trauma Department of the University of Kiel, Germany

#### LECTURE

### **STUDY DESIGN, CLINICAL AND ANIMAL STUDIES**

### **BERT JOOSTEN, PHD, EDITOR OF PAIN PRACTICE**

#### BIOGRAPHICAL SKETCH

Prof.Experimental Anesthesiology and Pain Management, MUMC+ Maastricht the Netherlands (as of 2012)

Hon Prof.Dept Anesthesiology, Hong-Kong-University (as of 2014)

Editor-in-Chief Pain Practice (as of 2017)

## LECTURE

### PITFALLS AND CHALLENGES IN TRANSLATIONAL PAIN RESEARCH: SPINAL CORD STIMULATION AND CHRONIC NEUROPATHIC PAIN AS AN EXAMPLE.

The lecture will start from addressing the question why so many animal studies (on pain management) do not make it to the clinic. What criteria should be used to classify experimental animal studies and what is needed. Latest developments on criteria and approaches used (see NIH-criteria) to improve the quality of experimental studies will be discussed. On the other hand the question is addressed to what clinical studies need for optimal translation of findings. In this lecture spinal cord stimulation (SCS) in treatment of chronic neuropathic pain will be used as an example.

As of today various SCS paradigms are applied for the treatment of chronic neuropathic pain disorders. In this lecture the first experimental fMRI-data on selective activation of various brain areas as related to use of SCS-paradigms will be presented. These data will be discussed in view of the underlying mechanism of SCS and pain relief in chronic neuropathic pain.

## SERDAR ERDINE, MD, FIPP

### BIOGRAPHICAL SKETCH

#### Education

1965-72: High School

1972-78: Medical Faculty of İstanbul University, graduated in 1978

1978-82: Resident in the Department of Anesthesiology, Medical Faculty of İstanbul Univ.

1985: Associate Professor in Anesthesiology

1991: Professor in Anesthesiology

2002: Professor of Algology

2012: Specialist in Algology,

Current Position: Chair, İstanbul Pain Institute

#### Previous activities

Founder and Immediate Past President of Turkish Society of Algology

Founder and Former President of Turkish Society of Regional Anesthesia

Former Turkish Representative in European Society of Regional Anesthesia

Former Member of the executive Board of Neuromodulation Society

Treasurer of EFIC, 1996-1999

Honorary Secretary of EFIC, 1999-2002

President Elect of EFIC, 2002-2005

President of EFIC, 2005-2008

Founding member of World Institute of Pain-WIP,1994

General Secretary of WIP,1994-1999

Vice President of WIP,1999-2002

President Elect of WIP, 2005-2008

President of WIP, 2008-2011

Former CEO,World Institute of Pain Foundation 2010-2014

Chair of Board of Examination – WIP,2005-2008

Member of the WHO Advisory Expert Panel on Drug Dependence.2007-2011,2011-2014

#### Awards

Awarded as the Young leader in medicine/Turkish Jaysees,1991

Awarded by İstanbul Medical Chamber:Life time achievement award for establishing Algology,Pain

Medicine in Turkey 2012

Awarded by World Institute of Pain,Center of Excellence in Pain Practice Award for Comprehensive

Multidisciplinary Pain Practice in 2013

Honorary Member of European Pain Federation

Honorary President of Turkish Pain Society

Invited speaker in 120 lectures on international level

Invited speaker in 200 lectures on national level

Author of 27 books in Turkish

Editor-co editor of 8 books in English

(Recent: Pain Relieving Procedures,Illustrated Guide,Wiley Blackwell 2012

Author of 100 articles in international or national level mainly on interventional pain management.

Organizer of 15 National Congresses on Pain Medicine in Turkey

Organizer of World Congress of World Society of Pain Clinicians ,İstanbul,1996

Organizer of the Annual Congress of European Society of Regional Anesthesia , İstanbul,1999

Organizer of 3rd World Congress of World Institute of Pain, İstanbul,2001

Organizer of the Pain in Europe V, triennial Congress of EFIC, İstanbul,2006

## LECTURE

### RECENT ADVANCES FOR THE TREATMENT OF TRIGEMINAL NEURALGIA

Percutaneous transovale approach to the Gasserian Ganglion using absolute alcohol was first defined by Hartel in 1912. In the evolution of the treatment, radiofrequency lesioning for this ganglion was described by Sweet in 1965 ,retrogasserian glycerol injection by Hakanson in 1981,and percutaneous baloon compression by Mullan and Lichtor in 1978 and published in 1983.

#### PATIENT SELECTION

Besides idiopathic trigeminal neuralgia,secondary neuralgic pain due to facial pain resulting from terminal cancer or multiple sclerosis may also be treated with these approaches.

Percutaneous procedures are thought to be well-suited for elderly patients or those with multiple medical comorbidities for whom MVD would present a greater risk, or younger patients who wish to minimize their risk of postoperative facial numbness.

However, age alone is not an absolute contraindication for craniotomy,because MVD has been shown to be well tolerated in patients older than 75 years.(1)

There are three percutaneous techniques for the treatment of trigeminal neuralgia

a. Radiofrequency thermocoagulation of the branches of the trigeminal nerve

b. Retrogasserian glycerol injection

c. Baloon compression

a. Radiofrequency thermocoagulation of the branches of the trigeminal nerve

Radiofrequency thermocoagulation is the thermal ablation of one or more branches of the trigeminal nerve .

Anesthesia dolorosa,keratitis,oculomotor and abduccens palsy,minor masticatory weakness may be observed.

b. Retrogasserian Glycerol injection

Retrogasserian glycerol injection is delivering 0.1-0.5 ml of glycerol to the trigeminal cistern.

Paresthesia,dysesthesia,anesthesia dolorosa,corneal hypesthesia or anesthesia,diminished corneal reflex,keratitis,masticatory weakness may be observed.

c. Percutaneous Baloon Compression;

Percutaneous baloon compression is introducing a 4 G fogarty catheter through a 14 G needle, passing the foramen ovale and inflating the baloon of the fogarthy catheter for 1-6 minutes.

Significant masseter weakness hypesthesia,dysesthesia,anesthesia dolorosa,balloon failure,heamatoma on the cheek,may be observed.

There are advantages and disadvantages of every technique.

Among these techniques radiofrequency lesioning has still the highest rate of initial pain relief although facial numbness may be annoying for the patient.Lesioning of the first branch is not always easy. The method can be repeated in case of recurrence.

RFT is not appropriate for patients who cannot tolerate an awake procedure or who are unable to cooperate with localization.



RFT can be used for more precise lesion creation than GR and PBC. Because of the supposed fiber-selective nature of PBC, many advocate the use of PBC for isolated first-division pain. Retrogasserian glycerol injection is also an effective method but the initial pain relief and duration of pain relief is less than radiofrequency lesioning. It may easily be applied when radiofrequency facilities are absent. Partial sensorial loss may also develop with this technique. Fibrosis may develop at the entrance of foramen ovale enhancing further injections.

Percutaneous balloon compression causes mild sensory loss in the majority of cases. However it is not possible to restrict compression to a single division. It is not as frequently used as other techniques. There is a greater risk of the trigeminal depressor response and hypotension and bradycardia seen with PBC, making it less appropriate for some patients with cardiovascular disease.(2)

#### **Comparative Treatment Efficacy**

No randomized, controlled study comparing the 3 percutaneous therapies has been performed to date, and the few studies that do exist comparing outcomes across modalities are most often single institution and retrospective.(3,4)

In a review of 28 studies of surgical treatments for TN, PBC had the highest rates of durable RFT was associated with high rates of pain recurrence and complications, and GR was associated with relatively lower rates of initial pain relief and shorter pain-free intervals.(5)

Their results also conflict with those of Lopez and colleagues.

In a 2011 Cochrane Systematic Review of surgical interventions, the authors concluded that the quality of evidence that existed for each treatment modality was too low to provide any meaningful comparisons. Randomized, prospective trials are needed to evaluate percutaneous rhizotomy, MVD, and SRS.(6)

#### **Conclusion**

All these techniques are less morbid and more cost effective than open surgical techniques. However each technique must be applied in precise indications, in well equipped centers with experienced hands.

Percutaneous rhizotomy, in all its forms, offers pain relief for TN that is immediate with varying durability and a generally favorable side effect profile.

However, treatment selection remains an inexact science in the absence of high quality outcomes data. In addition to incorporating these technical advances, future studies must overcome the patient heterogeneity, procedural variation, and nonstandard outcomes that limit interpretation of the existing literature.(8)

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## **CRAIG HARTRICK, MD, FIPP**

### **BIOGRAPHICAL SKETCH**

Craig T. Hartrick, MD, FIPP is the current President of the World Institute of Pain. He is a former Professor of Biomedical Sciences (Pharmacology) and Professor of Anesthesiology (retired) at Oakland University William Beaumont School of Medicine. He currently remains a Clinical Professor of Health Sciences at Oakland University in Rochester, Michigan. He recently completed 12 years of service as Editor-in-Chief of Pain Practice. His research interests have included both basic and clinical science, with over 70 studies as principal investigator. He is well published, with over 200 peer-reviewed articles, abstracts, and textbook chapters. As President and Co-founder of Cavature Drug Discovery, Inc., his current investigations are devoted to novel analgesic discovery.

### **LECTURE**

## **SHORTCOMINGS OF EPIDURAL STEROID INJECTION**

Despite longstanding off-label use, the safety and long-term efficacy of epidural corticosteroid injections remain the topic of considerable debate. Confounding of studies by natural history, selection bias, lack of adequate control, and wide disparity in both disease definition and technique of administration continues to plague the relevant literature. These effects are well-known and have been well-documented. Yet there may be still other, less obvious, reasons for the continued uncertainty: reasons that might relate to the diversity in underlying mechanisms of chronic radicular pain and the promiscuous cellular behavior of glucocorticoids. The ability to predict which patients will benefit from epidural steroids will likely hinge upon better understanding the specific etiology of each individual patient's pain complaint and a detailed understanding of steroid behavior, within the context of that specific pathophysiology, at the cellular level.

## **IRA FOX, MD, FIPP**

### **BIOGRAPHICAL SKETCH**

After completing his residency in anesthesiology and pain at Monmouth Medical Center in New Jersey, Ira B. Fox, MD, DABPM, FIPP, ABIPP founded Anesthesia Pain Care Consultants. The former chief anesthesia resident has spent more than 30 years treating patients with acute and chronic pain. Dr. Fox maintains five board certifications: American Board of Interventional Pain Physicians (ABIPP); World Institute of Pain (WIP) – Fellow of Interventional Pain Practice (FIPP); American Board of Pain Medicine (DABPM); and the American Board of Anesthesiology with added certification in Pain Management. He also serves as an examiner for the FIPP Board Certification and ABIPP Interventional Practical Examination. As chairman of the World Institute of Pain (WIP) Committee on Project Development, Dr. Fox has used his medical knowledge to help patients across the world find solutions to ease their suffering. In addition, he is a past chairman of the Advisory Board, Honorary Treasurer, and has been a member of the Executive Board since 2011. He also served as a trustee for the World Institute of Pain Foundation and is the current president of the World Society of Pain Clinicians. A lifetime member of the American Society of Interventional Pain Physicians, Dr. Fox holds the distinction of being the Inaugural Executive Examiner at the WIP and American Academy of Pain Medicine Ultrasonography (AAPMU) 1st Annual WAPMU International Congress. On both a national and international level, Dr. Fox has conducted Comprehensive Review Courses and Cadaver Workshop conferences. He currently leads an annual conference in Miami that is bi-lingual and attracts physicians from throughout the US and southern hemisphere. Dr. Fox is focused on expanding the field of interventional pain management across the world to offer pain relief to citizens of less developed countries by helping train local physicians. That's why he has organized and sponsored the Anesthesia Pain Care Consultants annual Pro/Am Charity Golf Tournament for six years running, thousands of needed dollars to provide scholarships to these dedicated physicians.



Since 1996, Dr. Fox and his dedicated staff of interventional pain management physicians and paraprofessionals have been committed to providing continuing education for area physicians, healthcare clinicians and workers' compensation professionals. This will be Anesthesia Pain Care Consultants' 20th year conducting the APCC Pain Symposium, which features leaders in the field of pain management, which provides continuing education in the area of interventional pain. The hard work and commitment Dr. Fox and the APCC team devote to helping those who suffer from acute and chronic pain has not gone unnoticed. He was elected "America's Top Physician" by the Pain Management Consumers' Research Council of America, and is listed as a Top Doctor in Broward County by Castle Connolly Medical Ltd. every year for more than a decade. Anesthesia Pain Care Consultants won the South Florida Business Journal Award for Excellence in Health Care in 2008. He has been published extensively and is frequently called on as an expert by print, television and online media reporters and editors. He lectures internationally and has had numerous media appearances which can be seen on the Anesthesia Pain Care Consultants website at [www.AnesthesiaPainCare.com](http://www.AnesthesiaPainCare.com).

#### LECTURE

### PRIVATE PRACTICE CLINICAL EXPERIENCE WITH OVER 13,000 CASES OF LYSIS OF ADHESIONS/NEUROPLASTY

- Patient Data on number of Lysis procedures performed
- Overview of ODG – Official Disabilities Guidelines
- Objectives of Epidural Neuroplasty
- Technique for Epidural Neuroplasty
- Review of possible complications
- Targeting L5 for SI Joint pain
- References and Studies for further information

## JUAN CARLOS FLORES, MD, FIPP

#### BIOGRAPHICAL SKETCH

Prof Dr Juan Carlos Flores is Director of CAIDBA (EPP Award) Pain Center; Professor of Anatomy of La Plata School of Medicine Buenos Aires Province, Argentina; Fellow Interventional Pain Practice; Chairman Latin American Section World Institute of Pain; Chief of Pain Medicine of Clínica San Camilo; Director del Workshop Universitario CAIDBA sobre Técnicas Intervencionistas para Tratamiento del Dolor Refractario 2015/2016; Autor Textbook: Medicina del Dolor, Perspectiva Internacional. JC Flores Elsevier. Prof Flores works from 2005 with World Institute of Pain globally and specially in the Latin American Section very close with educational objectives in cadaver workshops and examination activities.

From May of 2001 when Dr Racz visited Buenos Aires Dr Flores is giving Cadaver Workshop every year.

Director Centro de Atención Integral del Dolor Buenos Aires CAIDBA [www.caidba.com](http://www.caidba.com) EPP Award 2011-2015

Director del Workshop Universitario CAIDBA sobre Técnicas Intervencionistas para Tratamiento del Dolor Refractario 2014/2016. Workshop with Ultrasonography and Fluoroscopy under Cadaveric and Hybrid Human Simulators

Profesor Asociado de Anatomía Cátedra Prof Galli Universidad Nacional de La Plata, Buenos Aires, Argentina

Director of Laboratories of Unit Anatomico-Clinic of Pain Cathedra of Anatomy Prof Galli UNLP (La Plata School of Medicine)

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#### LECTURE

### RADIATION SAFETY

## ATHINA VADALOUCA, MD, PHD, FIPP

#### BIOGRAPHICAL SKETCH

Associate Professor of Anaesthesia, Pain Relief & Palliative Care

University of Athens, GREECE

President of The Hellenic Society of Pain Management and Palliative Care

Honorary Secretary of WIP

Member of ExB of WIP

Vice President of EULAP

ESRA Past President

President of Organizing and Scientific Committee of 9 International & European Congresses and of 7 National Congresses in the field of Regional Anesthesia, Pain Management and Palliative Care  
Invited Speaker( 100) European and World Congresses on Regional Anaesthesia and Pain Management Chair or Co-Chair person of Round Tables in European and International Congresses  
Author or Co-author of over 150 free papers and posters in Congress Proceedings and publications in international journals

#### LECTURE

### CHEMOTHERAPY INDUCED NEUROPATHIC PAIN

## GIUSTINO VARRASSI, MD, FIPP

#### LECTURE

### CHRONIC PAIN AND SOCIETY: CAN AND SHOULD GOVERNMENT HELP?

Giustino Varrassi, Alba Piroli, Ida Marsili, Antonella Paladini

Chronic pain represents one of the most diffuse chronic diseases, in all the industrialized countries. Its prevalence has resulted around 20% in the general population, and over 50% in elderly people. Its impact on the health care systems is extremely important and significant, especially from the economical point of view.

More recently, also the social impact of pain has been brought in evidence. This is because of the observation of its influence on absenteeism from work, but also for the necessity of changing or losing job for many chronic pain patients. Useless to say all the consequences of these problems on the insurance systems, both private and public.

Starting from the '90s, many scientists have tried to sensitize the political forces toward this important health care systems and social plague: chronic pain. During this presentation, any efforts will be done to remind all the awareness campaigns organized starting from the end of the '90s, and which results have been obtained. For sure, the sensibility of the politics at the moment

is largely different from what was 20 years ago. They have finally understood that more care for chronic pain patients may strongly contribute to reduce the sufferance, but also have less social damages from that chronic disease.

## **SUDHIR DIWAN, MD, FIPP**

### BIOGRAPHICAL SKETCH

Dr. Sudhir Diwan, nationally and internationally recognized as a key opinion leader in the field of pain management, is the Executive Director of Manhattan Spine & Pain Medicine, Associate Clinical Professor at Albert Einstein College of Medicine, New York. Dr. Diwan was the former Director of the Tri-Institutional Pain Fellowship Program and Division of Pain Medicine at Ivy League Weill Medical College of Cornell University for 10 years, where he also served as associate professor of clinical anesthesiology, and on the faculty at the world renowned New York Presbyterian Hospital.

Dr. Diwan has published extensively in prestigious peer-reviewed medical journals and medical books on a variety of pain management topics. He is on the Editorial Board for the Pain Physician - an official journal of the American Society of Pain Physicians (ASIPP) since 2008, and Pain Practice – official journal of World Institute of Pain (WIP) since 2009. He was invited Guest Editor for Journal of Techniques in Regional Anesthesia and Pain Management 2009. Dr. Diwan is the Examiner for the Certification Board for American Board of Interventional Pain Physicians (ABIPP) and Fellow of Interventional Pain Practice (FIPP) offered by the World Institute of Pain. Dr. Diwan is Co-Editor for Intrathecal Drug Delivery for Pain and Spasticity, Vol 2, Timothy Deer, Series Editor, Elsevier-Saunders 2012, and Co-Editor for Diwan-Staats's Atlas of Pain Medicine Procedures, McGraw Hill Education 2015. In addition to his busy pain management practice in New York City, Dr. Diwan lectures extensively and interacts regularly with experts in the field of pain medicine nationally and internationally. He has been guest speaker for many noteworthy organizations including the American Society of Interventional Pain Physicians, WVSIPP – Pain Meetings, American Cancer Society, the American Society of Anesthesiology, the American Society of Regional Anesthesia and Pain Medicine, the World Institute of Pain, and numerous pain specialty societies and congresses in Europe, Brazil and Mexico. Currently he is CEO of NYSIPP and Course Co-Director of the Annuals NYSIPP/NJSIPP Pain Medicine Symposium, and First Executive Vice President, ASIPP.

### LECTURE

## **CHALLENGES IN THE MANAGEMENT OF CHRONIC LOWER BACK PAIN**

## **STANDIFORD HELM, MD, FIPP**

### BIOGRAPHICAL SKETCH

Dr. Helm is the medical director of The Helm Center for Pain Management, a comprehensive, multidisciplinary pain management center located in Orange County, California. Dr. Helm has been a Fellow of Interventional Pain Practice since 2003. He has subspecialty certification in Pain Medicine from the American Board of Anesthesiology. He is a diplomate of the American Board of Interventional Pain Physicians and the American Board of Pain Medicine. Dr. Helm went to Harvard College and to Tufts University School of Medicine. He did an Internal Medicine internship at Boston City Hospital and did his Anesthesia training at UCLA. Dr. Helm has been practicing interventional pain management in 1982. Dr. Helm is a past President of the American Society of Interventional Pain Physicians. He has published and lectured extensively on a variety of interventional pain management topics.

### LECTURE

## **SYSTEMATIC REVIEWS IN TREATING SPINAL STENOSIS BY NEUROPLASTY/LYSIS OF ADHESIONS**

### OBJECTIVES

Upon completion of this presentation attendees will be able to discuss

- The role of neuroplasty in the treatment of spinal stenosis
- The controversy as to whether call the procedure neuroplasty or percutaneous adhesiolysis
- The current understanding of the mechanical factors in neuroplasty
- The interaction between fibroblasts and hypertonic saline and bupivacaine
- New approaches to neuroplasty

## **MILES DAY, MD, FIPP**

### BIOGRAPHICAL SKETCH

Dr. Miles Day is the Traweek/Racz Endowed Professor in Pain Research in the Department of Anesthesiology and Pain Medicine at Texas Tech University Health Sciences Center in Lubbock, Texas. He is the Medical Director of the Pain Center at Grace Clinic and is the Pain Medicine Fellowship Director at Texas Tech University Health Sciences Center. As an academician and educator, he has trained over 85 pain medicine fellows over the past 18 years. He lectures regionally, nationally, and internationally on a variety of pain medicine topics, but has a special interest in the treatment of chronic facial pain. He has authored several original articles and numerous book chapters.

### LECTURE

## **THORACIC SYMPATHETIC T2 T3 AND SPLANCHNIC NERVE BLOCKS AND RADIOFREQUENCY THERMOCOAGULATION**

The thoracic sympathetic chain is an important anatomical target for the treatment of sympathetically mediated pain of the upper extremity and abdominal visceral pain. Patients who have failed to receive analgesia in the affected upper extremity after stellate ganglion blocks can benefit from T2,3 sympathetic blocks as sometimes the Kuntz fibers are missed. Splanchnic nerve blocks are beneficial for benign and malignant abdominal visceral pain up to the splenic flexure. If the celiac plexus is inaccessible secondary to anatomical variations from surgery or cancer, the splanchnic nerves given their location along the vertebral body can usually be reached. There are a few low-level evidence articles in the literature showing efficacy of T2,3 blocks and radiofrequency thermocoagulation. The evidence is stronger for splanchnic nerves blocks and radiofrequency thermocoagulation (1).

1. Day M. Sympathetic Blocks: the evidence. Pain Prac 2008;8(2):98-109.

## **HEMMO BOSSCHER, MD, PHD, FIPP**

### BIOGRAPHICAL SKETCH

Hemmo Alexander Bosscher was born January 25th 1959 in Amersfoort, The Netherlands. He completed his medical school at the Vrije Universiteit in Amsterdam obtaining his medical degree in 1988. He did an internship in internal medicine at the Veteran Administration, Georgetown University, in Washington D.C. and residency in Anesthesiology at the University of Massachusetts in Worcester. He received additional fellowship training in pediatric anesthesiology at the Hospital for Sick Children in Toronto, Canada and cardiac anesthesiology at the Antonius Hospital in Nieuwegein, The Netherlands. In 1997 Dr. Bosscher took a position as assistant professor in anesthesiology at Texas Tech University in El Paso, Texas. However, interest in the treatment of chronic pain changed his career path. After completing a pain management fellowship at Texas Tech University in Lubbock, Texas, he started a successful private pain management practice in Lubbock, but has kept a clinical appointment at Texas Tech University and is currently associate professor there. Since 2014, his practice is part of the Grace Health System in Lubbock.

Dr. Bosscher's ongoing research involves the endoscopic evaluation of the spine in patients with low

back pain. With the late Dr. James E. Heavner, DVM, FIPP, he published a series of papers and has given a number of presentations on the topic. He is currently a member of the American Society of Anesthesiologists, World Institute of Pain, and American Society of Anatomists. He is also active as a workshop instructor and examiner for the Federation of Interventional Pain Physicians and the Texas Pain Society.

In 2017, along with Professor/Dr. Kris Vissers, Dr. Bosscher received his PhD degree in Medical Sciences from Radboud University in Nijmegen, the Netherlands.

Hemmo and his wife, Karen, of twenty-five years have two children, Michelle and Jennifer and a grandson Jayden and Jude. Hemmo's interests outside the realm of pain management are music, mathematics and golf.

## LECTURE COMMON LOW BACK PAIN

### LORAND EROSS, MD, PHD, FIPP

#### BIOGRAPHICAL SKETCH

Dr. Lorand Eross is the head of the Functional Neurosurgical Department and Center of Neuromodulation at the National Institute of Clinical Neuroscience in Budapest. He is the director of the Epilepsy Program at the institute. He got his PhD degree at Semmelweis University in 2010 in epilepsy surgery. His main interest is epilepsy surgery, movement disorder surgery, neurosurgical treatment of pain, spasticity and neuromodulation. He has an active research group in the field of epilepsy, chronic pain. He developed new intraoperative localisation method for invasive recordings in epilepsy surgery. His activity includes research and development of in vitro and in vivo electrophysiological and optical investigation methods. He is lecturer at the Medical faculty of the Semmelweis and the Szeged Universities and at the Pazmany Peter Catholic University, Faculty of Information Technology in bionical sciences.

## LECTURE NEUROSURGICAL APPROACHES TO CHRONIC PAIN MANAGEMENT

#### Objectives

Upon completion of this presentation attendees will be able to discuss

- What sets neurosurgical approaches from other interventional pain therapies
- The difference between ablative and neuromodulative procedures
- Barriers to the use of ablative and neuromodulative approaches in clinical practice
- Expected outcomes
- Future direction of neurosurgical pain therapies

#### Key Points

- Selective ablative procedures rarely used today in neurosurgical clinical practice for pain
- Microsurgical DREZotomy, percutan cervical cordotomy, thalamotomy for nociceptive pain, and more often percutan Gasserian ganglion thremocoagulation for Trigeminal neuralgia left nowadays in the minimal invasive neurosurgical practice in pain surgery.
- Barriers to the use of these procedures in clinical practice include limited training opportunities, and the procedure is technically demanding.
- Invasive neuromodulation or neural network surgery includes primary motor cortex, DBS, SCS, periferial nerve and field stimulation for neuropathic pain.
- Accumulating evidence in SCS indicates neuromodulation is safe, clinically effective, and a cost effective procedure in failed beck surgery synfdroma and CRPS.
- MCS is the most effective in thalamic pain. Multitarget DBS can help for central neuropathic pain after spinal cord injury. Periferial nerve stimulation effective in cervicogenic headache, migraine and Cluster headache, but we need more clinical evidences for these procedures.

- Neural network surgery offers a range of opportunities in basic and translational research seeking to improve management of neuropathic pain.

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### MERT AKBAS, MD, FIPP

#### BIOGRAPHICAL SKETCH

Mert AKBAS is an associative professor of Anesthesiologist and Pain management physician at Akdeniz University, School of Medicine in Turkey. He joined the Akdeniz University faculty in 1993. He is the associative proffesor and clinical instructor at division of Algology. He earned his medical degree at Akdeniz University, School of Medicine in 1999. He completed his anesthesia residency in Akdeniz University, Antalya, and started his pain management fellowship program first as an observer doctor at Texas Tech University Health Sciences Center in Pain Management Clinic, Lubbock/TX-USA and later on as an clinical doctor in Istanbul University Faculty of Medicine, Division of Algology, Istanbul/TURKEY between the years 2004 and 2006. He is Algology Board certified and pain specialist in Turkey is since 2007, and FIPP since 2006. His areas of clinical interest are neuromodulation and decompressive neuroplasty. Dr. Akbas is the current chair of WIP Turkish Section and a member of WIP, INS and Turkish Society of Algology.

## LECTURE HYPOGASTRIC PLEXUS BLOCKADE

- Anatomy
- Indications
- Contraindications

Absolute

Relative

#### TECHNIQUE

- PARAMEDIAN TRANSDISCAL APPROACH
- POSTEROMEDIAN TRANSDISCAL APPROACH
- Conclusion: it may be an alternative to the classical approach.

#### COMPLICATIONS

As conclusion; knowledge of relevant anatomy is a must to perform a succesful block and also necessary to decrease the potential complications.

Choice of the technique depends the doctors experience.

Efficacy has been shown with numerous studies and more need to be performed.



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# INDUSTRY TECHNICAL PRESENTATIONS

TUESDAY, 29 August, 2017

Moderators: **Gabor B. Racz**, MD, FIPP, **Ira Fox**, MD, FIPP

- 07:30 Epimed International**  
**Chad Diebold**, European Sales Manager
- 07:45 Boston Scientific**  
**Richard Rauck**, MD, FIPP, President, Carolinas Pain Institute, Pain Fellowship Director, Wake Forest Baptist Health
- 08:00 Stimwave Technologies, Inc.**  
Wireless Neuromodulation. The new frontier  
**Apostolos Chatzikalfas**, MD, University of Dusseldorf
- 08:15 Nevro**  
Neuromodulation: What Matters Now & What Comes Next?  
**Andra Jones**, Director of International Marketing
- 08:30 Ziehm Imaging GmbH**  
**Wolfgang Keller**, Clinical Application Specialist



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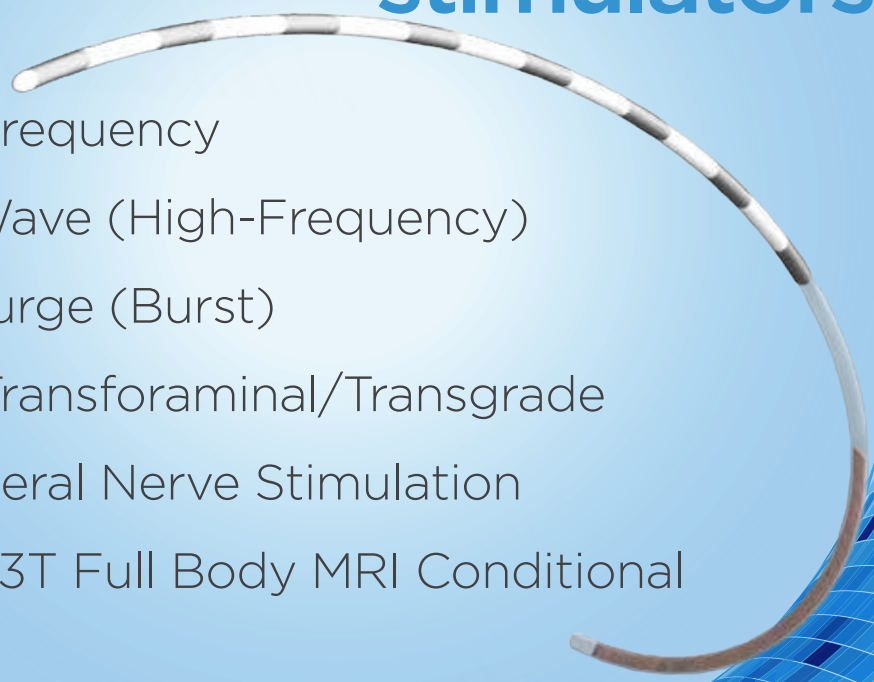
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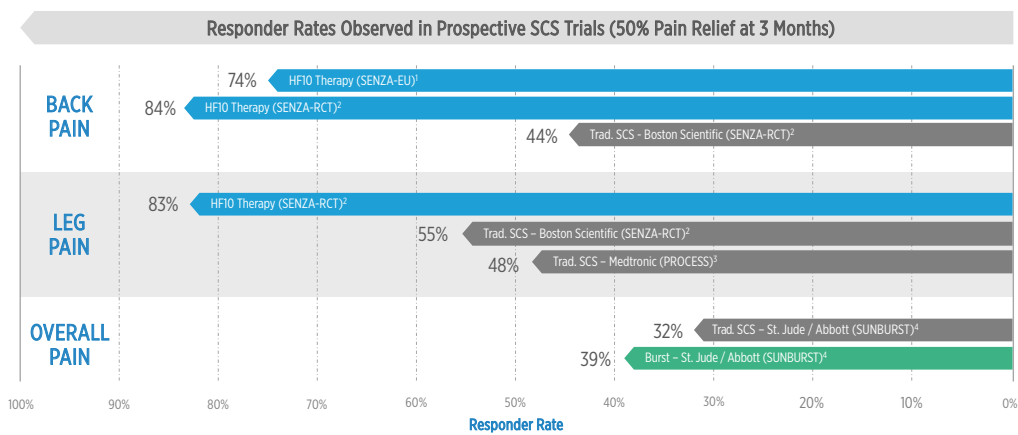
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All patients do not respond the same way to spinal cord stimulation (SCS) and experiences may vary. Patients should consult a physician to understand the potential benefits and risks of treatment with SCS.

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H-1065 Budapest, Révay köz 2.

**Contact person:** Sandra Vamos

**Phone:** +361 429 0146

**Fax:** +361 429 0147

**Email:** [vamos@congressline.hu](mailto:vamos@congressline.hu)

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