



Society For Connective Tissues CMA J.E. Purkyně & Society for Prosthetics and Orthotics CMA J.E. Purkyně  
& Czech Medical Association J.E. Purkyně & Medical University of Lublin & Vincent Pol University in Lublin &  
Children's Rehabilitation Center of Orthopaedics and Traumatology "Ogonyok", St. Petersburg

invite you for

# THE 23<sup>RD</sup> PRAGUE-LUBLIN-SYDNEY- -ST PETERSBURG SYMPOSIUM

**Locomotor Apparatus Adaptation II – Interdisciplinary Aspects**

The Symposium will be held under the auspices  
of the president of the Czech Medical Association (CMA) J.E. Purkyně

**Professor Štěpán Svačina, MD, DSc.**

&

the honorary president of the Society for Connective Tissues CMA J.E. Purkyně

**Professor Josef Hyánek, MD, DSc.**

The Symposium will be held at the

**Medical House, Sokolská 31, 120 26 Prague 2, Czech Republic, in November 20, 2021**

This event belongs to education actions integrated into the life training system of physicians  
according to professional statute No. 16 of the General Medical Council.



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# PROGRAMME

## SATURDAY, NOVEMBER 20, 2021

8.00–9.00 REGISTRATION OF PARTICIPANTS

9.00 OPENING OF THE CONFERENCE

### WELCOME SPEECHES

**Professor Ivo Marik, MD, PhD**

President of the Society for Connective Tissues, Czech Medical Association J.E. Purkyně

**Professor Tomasz Karski, MD, PhD**

Honorary member of the Society for Connective Tissues, Czech Medical Association J.E. Purkyně

9.20–12.20 | MORNING SESSIONS

### 9.20 | SESSION I: ADAPTATION OF LOCOMOTOR APPARATUS 1

**Chairmen:** Mařík Ivo, Karski Tomasz, Zwip Hans

**Toes flexions test to recognize the functional status of the foot:**

**Examples of pathology: Knowledge since 1971**

**Test ohýbání prstů k rozpoznání funkčního stavu nohy:**

**Příklady patologie: Poznatky od roku 1971**

Karski Jacek<sup>1</sup>, Karski Tomasz<sup>2</sup>, Beata Slowinska<sup>3</sup>, Bartosz Boryga<sup>3</sup> (Lublin, Poland)

<sup>1</sup> *Dr med. Karski Jacek, Medical University in Lublin, Poland, jkarski@vp.pl*

<sup>2</sup> *Prof. Karski Tomasz, Vincent Pol University in Lublin, Poland, tmkarski@gmail.com*

<sup>3</sup> *Mgr Beata Słowińska & Mgr Bartosz Boryga, Rehabilitation Center in Military Hospital in Lublin, Poland, beataslowinska2016@gmail.com, b.boryga@wp.pl*

Hudáková Olga, MD, PhD

**Introduction of Professor Dr. Hans Zwipp (Dresden, Germany)**

Hudáková Olga, MD, PhD

**Introduction of Dr. Piet van Loon (Deventer, Netherlands/**

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## **Classification of Sequelae of Foot and Ankle Syndromes in Adults, Adolescents and Children**

### **Klasifikace následků syndromů nohy a kotníku u dospělých, dospívajících a dětí**

Zwipp Hans (Dresden, Germany)

*Orthopedic and Traumatology Department of the University in Dresden, Germany*

## **Influence of the weight of the transtibial prosthesis on postural stability and locomotion – final results**

### **Vliv hmotnosti transtibiální protézy na posturální stabilitu a lokomoci – konečné výsledky**

Krawczyk Petr<sup>1</sup>, Marik Ivo<sup>2</sup>, Zemkova Daniela<sup>2</sup>, Uchytíl Jaroslav<sup>3</sup>, Jandacka Daniel<sup>3</sup>, Buzga Marek<sup>5</sup>, Sykora Ales<sup>1</sup> (Ostrava, Prague & Pilsen; Czech Republic)

<sup>1</sup> *PROTEOR CZ I.L.c., Ostrava, Czech Republic*

<sup>2</sup> *Centre for Defects of Locomotor Apparatus I.L.c., Prague, Czech Republic*

<sup>3</sup> *Diagnostic Centre of Human Movement PdF, Ostrava University, Czech Republic*

<sup>4</sup> *Faculty of Medical Studies, West Bohemia University, Pilsen, Czech Republic*

<sup>5</sup> *Faculty of Medicine, University of Ostrava*

## **The effect of gait school on functional mobility in patients after unilateral transfemoral lower limb amputation due to dysvascular causes**

### **Vliv školy chůze na funkční mobilitu pacientů po jednostranné transfemorální amputaci dolní končetiny z dysvaskulární příčiny**

Šorfová Monika, Vitnerová Tereza (Prague; Czech Republic)

*Department of Anatomy and Biomechanics, Faculty of physical education and sport, Charles University in Prague, Czech Republic*

## DISCUSSION AFTER EACH LECTURE

10.40–11.00 COFFEE BREAK

## **10.40 | SESSION I: ADAPTATION OF LOCOMOTOR APPARATUS 2**

**Chairmen:** Kraus Josef, Karski Jacek, Krawczyk Petr

## **Detection of mild cognitive impairment during locomotion after stroke**

### **Detekce mírné kognitivní poruchy během lokomoce po cévní mozkové příhodě**

Hereitová Iva<sup>1,2</sup>, Krobot Alois<sup>1</sup> (Olomouc & Pilsen; Czech Republic)

<sup>1</sup> *Neurology Clinic of the Faculty of Medicine, Palacky University and University Hospital Olomouc*

<sup>2</sup> *Faculty of Health Care Studies, West Bohemia University in Pilsen, Czech Republic*

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## **Gait adaptation in children with spastic cerebral palsy Adaptace chůze u dětí s DMO spastickou diparézou**

Kraus Josef (Prague; Czech Republic)

*Dept. of children neurology, University Hospital Motol, Prague, Czech Republic*

## **Physiotherapy in geothermal water. Information on water resources in Poland. Knowledge for doctors and patients**

### **Fyzioterapie v geotermální vodě. Informace o vodních zdrojích v Polsku. Znalosti pro lékaře a pacienty**

Karski Tomasz<sup>1</sup>, Karski Jacek<sup>2</sup>, Domagała Marian<sup>3</sup>, Karska Klaudia<sup>4</sup>, Zimny Jacek<sup>5</sup>, Struś Mieczysław<sup>6</sup>, Szczotka Krzysztof<sup>7</sup> (Lublin & Łaszczów & Kraków & Wrocław, Poland)

<sup>1</sup> Prof. Tomasz Karski, Vincent Pol University, Lublin, tmkarski@gmail.com

<sup>2</sup> Jacek Karski, PhD, Medical University in Lublin, jkarski@vp.pl

<sup>3</sup> Dr Marian Domagała, Medical Centre in Łaszczów near Tomaszów Lubelski, mariandomagala1213@yahoo.pl

<sup>4</sup> Dr Karska Klaudia, Medical University in Lublin, clodvia@o2.pl

<sup>5</sup> Prof. Eng. Jacek Zimny, AGH, University of Science and Technology in Kraków, Prof. J. Sokolowski's Geothermal Poland Association, zimny@agh.edu.pl

<sup>6</sup> Prof. Eng. Mieczysław Struś, Technical University, Wrocław, mieczyslaw.strus@pwr.edu.pl

<sup>7</sup> Dr Eng. Krzysztof Szczotka, AGH, University of Science and Technology in Kraków, szczotka@agh.edu.pl

## **Evaluation of functional properties of connective tissues based on monitoring of collagen and elastin crosslinks by HPLC analysis**

### **Hodnocení funkčních vlastností pojivových tkání na základě sledování příčných vazeb kolagenu a elastinu pomocí HPLC analýzy**

Braun Martin<sup>1</sup>, Šupová Monika<sup>1</sup>, Suchý Tomáš<sup>1, 2</sup>

<sup>1</sup> Department of Composites and Carbon Materials, Institute of Rock Structure and Mechanics, Czech Academy of Sciences, V Holešovičkách 41, Prague 8, 182 09, Czech Republic

<sup>2</sup> Faculty of Mechanical Engineering, Czech Technical University in Prague, Technická 4, Prague 6, 166 07, Czech Republic

TIME FOR LECTURE INCLUDING DISCUSSION IS 20 MIN.

DISCUSSION AFTER EACH LECTURE.

12.20–13.00 | LUNCH

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13.00–17.00 | AFTERNOON SESSIONS

**13.00 | SESSION II: RICKETS AND GENETIC RICKETS.  
ETIOPATHOGENESIS OF SKELETON ADAPTATION**

**Chairmen:** Kutílek Štěpán, Šumník Zdeněk, Mařík Ivo

**Not all rickets are the same  
Všechny křivice nejsou stejné**

Kutílek Štěpán (Klatovy, Czech Republic)

*Dept. of Paediatrics; Hospital Klatovy; Klatovy, Czech Republic*

**Growth of Czech patients with hypophosphatemic rickets (XLH)  
on conventional therapy  
Růst českých pacientů s hypofosfatemickou křivicí (XLH) na konvenční terapii**

Zemková Daniela<sup>1,2</sup>, Mařík Ivo<sup>1,3,4</sup> (Prague; Czech Republic)

<sup>1</sup> *Centre for Defects of Locomotor Apparatus I.L.c.; Prague*

<sup>2</sup> *Dept. of Paediatrics; University Hospital Motol; Prague*

<sup>3</sup> *Faculty of Health Care Studies, West Bohemia University; Pilsen, Czech Republic*

**Experience with Burosumab treatment in children with XLH: a case report  
Zkušenosti s léčbou Burosumabem u dětí s XLH – kasuistika**

Šumník Zdeněk (Prague; Czech Republic)

*Dept. of Paediatrics; University Hospital Motol; Prague, Czech Republic*

**Stress fracture in a 33-year-old patient treated since preschool age with  
vitamin D3, phosphates d surgery – a case report  
Přestavbová zlomenina tibie u 33letého pacienta léčeného od předškolního  
věku vitaminem D3, fosfáty a chirurgicky – kasuistika**

Mařík Ivo<sup>1,2,4</sup>, Zemková Daniela<sup>1,3</sup>, Myslivec Radek<sup>4,1</sup> (Prague, Pilsen & Píbram; Czech Republic)

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<sup>4</sup> *Orthopaedic and Traumatology Department, Hospital Píbram; Píbram Czech Republic*

TIME FOR LECTURE INCLUDING DISCUSSION IS 20 MIN.

DISCUSSION AFTER EACH LECTURE.

14.20–14.30 | COFFEE BREAK

**Chairmen:** Zemková Daniela, Krulišová Veronika, Mařík Ivo

### **Differential diagnosis of Czech dysplasia Diferenciální diagnostika České dysplazie**

Zemková Daniela<sup>3</sup>, Mařík Ivo<sup>2,4</sup>, Hudáková Olga<sup>1</sup>, Mortier Geert R<sup>4</sup>, Kozłowski Kazimierz (Prague, Pilsen; Czech Republic & Antwerp; Belgium & Sydney; Australia)

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<sup>3</sup> Dept. of Paediatrics; University Hospital Motol; Prague; Czech Republic

<sup>4</sup> Department of Medical Genetics, Antwerp University Hospital and University of Antwerp; Antwerp; Belgium

<sup>5</sup> Department of Medical Imaging, Children's Hospital at Westmead, Sydney, Australia

### **Exome Sequencing as Diagnostic Tool in Locomotor Apparatus Diseases Sekvenování exomu jako diagnostický nástroj u vrozených onemocnění pohybového aparátu**

Paszeková Helena<sup>1</sup>, Michalovská Renáta<sup>1</sup>, Hrušková Lucie<sup>1</sup>, Krulišová Veronika<sup>1</sup>, Vlčková Zdenka<sup>1</sup>, Zemková Daniela<sup>2,3</sup>, Mařík Ivo<sup>2,4</sup> (Prague, Pilsen; Czech Republic)

<sup>1</sup> GHC Genetics

<sup>2</sup> Centre for Defects of Locomotor Apparatus I.I.c.; Prague

<sup>3</sup> Dept. of Paediatrics; University Hospital Motol; Prague

<sup>4</sup> Faculty of Health Care Studies, West Bohemia University; Pilsen, Czech Republic

### **Molecularly genetically verified multiple epiphyseal dysplasia, type 4 and type 5: comparison of clinical findings and radiographic features**

### **Molekulárně geneticky ověřená mnohočetná epifyzární dysplazie, typ 4 a typ 5: srovnání klinických nálezů a radiografických znaků**

Vážná Anna<sup>1,6</sup>, Zemková Daniela<sup>1,3</sup>, Krulišová Veronika<sup>5</sup>, Vlčková Zdenka<sup>5</sup>, Malíková Marcela<sup>4</sup>, Hrušková Lucie<sup>5</sup>, Michalovská Renáta<sup>5</sup>

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<sup>5</sup> GHC Genetics; Prague; Czech Republic

<sup>6</sup> Department of Anthropology and Human Genetics, The Faculty of Science, Charles University; Prague; Czech Republic

### **Register of achondroplasia 2015–2021 Registr Achondroplazie 2015–2021**

Peší Matin, Vereščáková H., Kotrylová J., Krejčí Pavel (Brno, Czech Republic/hondrolali)

Fakultní nemocnice u sv. Anny v Brně, Brno, Czech Republic

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TIME FOR LECTURE INCLUDING DISCUSSION IS 20 MIN.

DISCUSSION AFTER EACH LECTURE.

15.50–16.00 | COFFEE BREAK

## 15.40 | SESSION IV: BIOMECHANICS & PATHOBIOMECHANICS – ADAPTATION OF LOCOMOTOR APPARATUS

**Chairmen:** Povýšil Ctibor, van Loon Piet, Miroslav Petrtýl

### **Macroductyly – etiopathogenesis and therapy: a case report** **Makrodaktylie – etipatogenese a léčení: kasuistické sdělení**

Mařík Ivo<sup>1,2</sup>, Zemková Daniela<sup>1,3</sup>, Krawczyk Petr<sup>4</sup>, Smrčka Václav<sup>5</sup>, Povýšil Ctibor<sup>6</sup> (Prague, Pilsen & Ostrava; Czech Republic)

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<sup>4</sup> PROTEOR CZ I.I.c., Ostrava, Czech Republic

<sup>5</sup> ESME I.I.c., Prague, Czech Republic

<sup>6</sup> Institute of Pathology, 1<sup>st</sup> Faculty of Medicine and General University Hospital, Prague, Czech Republic

### **Sitting as the unspoken accelerator of the “OsteoNeural Pandemic.** **Staggering fresh data and evidence in (Dutch) youth in the light** **of classic Orthopedics** **Stání jako nevyslovený urychlovač „osteoneurální pandemie“.** **Ohromující čerstvé údaje a důkazy u (nizozemské) mládeže ve světle** **klasické ortopedie**

van Loon Piet JM<sup>1</sup>, Grotenhuis Andre J<sup>2</sup>, Soeterbroek Andre M<sup>3</sup> (Deventer, Nijmegen & Oosterbeek, Netherlands)

<sup>1</sup> Orthopedic surgeon, Posture Network Netherlands, Proktovar Hengelo

<sup>2</sup> Em. Professor, neurosurgery Radboud University Nijmegen

<sup>3</sup> Analyst, chairman Posture Network, Netherlands

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**Neuroradiologic treasures on MRI in discongruent Osteoneural Growth Relations  
Consequent findings on MRI in case of malalignment of the skeleton (posture  
and deformities) and the lack of contemporary research**

**Neuroradiologické poklady na MRI u diskongruentních osteoneurálních  
růstových vztahů. Následné nálezy na MRI v případě "malalignment" skeletu  
(špatného držení těla a deformity) a nedostatek současného výzkumu**

van Loon Piet JM<sup>1</sup>, Grotenhuis Andre J<sup>2</sup>, Soeterbroek Andre M<sup>3</sup> (Deventer, Nijmegen & Oosterbeek, Netherlands)

<sup>1</sup> Orthopedic surgeon, Posture Network Netherlands, Proktovar Hengelo

<sup>2</sup> Em. Professor, neurosurgery Radboud University Nijmegen

<sup>3</sup> Analyst, chairman Posture Network Netherlands

TIME FOR LECTURE INCLUDING DISCUSSION IS 20 MIN.

DISCUSSION AFTER EACH LECTURE.

17.00 | CLOSING OF THE SYMPOSIUM AND PLANNING

**Ivo Marik & Petr Krawczyk & Tomasz Karski & Piet van Loon**

The 24<sup>th</sup> Prague-Lublin-Sydney-St. Petersburg Symposium

18.00 | DINNER

**ORGANIZERS OF THE SYMPOSIUM**

**Professor Ivo Mařík, MD, PhD & Petr Krawczyk, MD & Martin Braun, RNDr., PhD**

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Participants will receive the Programme and Certificate of Attendance

Abstracts of lectures will be published in Supplement 2 of the journal Locomotor System, vol. 28, 2021  
(electronic version, ISSN 2336-4777, <http://www.pojivo.cz/cz/pohybove-ustroji/>)

More recent information about the Symposium will be available on the websites:

[www.pojivo.cz](http://www.pojivo.cz) & [www.ortoprotetika.cz](http://www.ortoprotetika.cz)