





# Erasmus+ blended intensive courses (BIP) programme in Neuro Rehabilitation



Co-funded by  
the European Union



UNIVERZITA KARLOVA  
3. lékařská fakulta



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The event was included in the System of lifelong education of physiotherapists in the Czech republic with the guarantee of Union of Physiotherapists of the Czech Republic (16 credits) and Czech Medical Chamber (3 credits).

The partner of the project is Ceros.



Additional info at [www.CEROS.mobi](http://www.CEROS.mobi)

# ABOUT

**Department of rehabilitation, Third Faculty of Medicine, Czech Republic together with School of Health Care, Savonia University of Applied Sciences, Finland, and Department School of Health Sciences University of Thessaly, Greece organize Blended Intensive Programme (3 ECTS).**

Physiotherapy has an irreplaceable role in the treatment of neurological patients. The quality of education of physiotherapists should potentially improve the quality of care and consequently the quality of life of people with neurological diseases. To achieve this result, it is important to find effective and new ways to educate physiotherapists. One such possibility is to organize a Blended International Program (BIP) – a one-week course with an online component, in which at least three universities will participate. Universities will ensure quality presentations by qualified academics who have not only clinical but also scientific experience in this area, which will improve the quality of education and bring new content of neurological rehabilitation to the teaching of physiotherapy students. In addition, it will offer students dialogue with foreign students, which will improve their language skills. Students' active work in international groups will improve their communication skills and ability to present their own results. Students will form six international groups. Each of them prepares and then presents a lecture and an article in a selected area (physiotherapy after a stroke, multiple sclerosis, etc.). Participants will visit specific workplaces dedicated to neurological patients.

**The aim of the workshop is to understand different physiotherapeutic approaches to people with neurological disease.**

# CONTACT PERSONS OF THE PROGRAMME

**Prof. PhDr. Kamila Řasová, Ph. D., Professor of Physiotherapy,**

Third Faculty of Medicine, Charles University, Czech Republic

**kamila.rasova@lf3.cuni.cz, +420 604 511 416**

**Dr. Marja Äijö, Ph. D., Principal lecturer of gerontology and rehabilitation,**

Savonia University of Applied Sciences, Kuopio, Finland **marja.aijo@savonia.fi,**

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**Dr. Thomas Besios, Assistant Professor,** Department School of Health Sciences

University of Thessaly, Greece, **tbesios@uth.gr**

**Marek Malich, student coordinator, malich.marek@gmail.com**

# VIRTUAL MEETING

**16. 4. 2024 4 p.m.** (Finland and Greece time), **3 p.m.** (Czech time)

Link: <https://savonia.zoom.us/j/7447856425>

**Dr. Marja Äijö:** How did the collaboration between the faculties start? Presentation from the BIP workshop at the University of Kuopio. Getting to know the goals of the project.

**Prof. PhDr. Kamila Řasová, Ph. D.:** Getting acquainted with the program of the BIP workshop in Prague.

**Dr. Thomas Besios:** Assignment of group work

**Marek Malich:** Student activities



# SUNDAY 12 MAY

## Student welcome at the airport

**20:00 Welcome event at Hotel Baroko** (Tomsova 11/13, Prague)

- Opening ceremonial
- The band NUDZ will make the evening enjoyable!
- Symbolic celebration of the appointment of Kamila Řasová as a professor (and her fiftieth birthday)
- Christening of the collection of our students "Examination of motor functions"
- Welcome drink



[More about NUDZ band](#)

# MONDAY 13 MAY I.

**8:30 – 11:15, Third Faculty of Medicine, Charles University, lecture hall 422  
(Ruská 87, Prague 10)**

**8:30 – 9:30 Welcome to the Third Faculty of Medicine, Charles University**

**Moderates Dr. Thomas Besios: Presentation of participants, universities, and countries: student presentations based on assignments from a virtual meeting**

**Michaela Schramlová, MSc. Assignment of group work** Division of students into groups (representatives of all three universities will be equally distributed in each group). These groups will solve various sub-tasks and prepare Friday's presentation throughout the BIP meeting. The aim of the presentation is to summarize what the healthcare systems in all three participating countries have in common and what they differ in.

**9:45 – 10:05 Markéta Pavlíková MSc. ICF categorical profile as a versatile tool to assess and plan rehabilitation of people with multiple sclerosis**

**10:10 – 10:40 Renáta Tejnská, MSc. Watsu in neurological diseases**

**10:45 – 11:15 Dr. Thomas Besios, Assistant Professor, Department School of Health Sciences University of Thessaly, Greece: Cerebral Palsy: Physical Therapy Techniques in Greece**

Lunch time (not provided by the organizer)



# MONDAY 13 MAY II.

**13:30 meeting in front of Centrum Paraple, o.p.s., Ovčárská 471/1b, Prague 10**

**13:45 – 16:00 Students will be divided into two groups. While the first half will get to know the Paraple Center, the second will attend the Paradance workshop (13:45 – 14:30). Then, both groups meet in the hall, where a dance performance will take place (14:45 – 15:00). After that, the groups change (15:15 – 16:00).**

Introduction to the Paraple Center, which offers rehabilitation programs for people with spinal cord injuries: [www.paraple.cz/en](http://www.paraple.cz/en)

**Mgr. Marcela Řasová, Ph.D. and Jan Havíř:** The basic principles of Paradance and the possibility of using individual elements in physiotherapy. The second group will learn about the premises and the mission of the Paraple Center. After an hour, the groups switch and watch a demonstration of Paradance together.





# TUESDAY 14 MAY

**Departure from Hotel Baroko at 8:00**

**11:00 Welcome lunch (paid by the organizer)**

A visit to the beautiful **spa town of Karlovy Vary** accompanied by expert lectures in the field of balneology:

Assoc. prof. PaedDr. Petr Kolisko, Ph.D., Institute for Research and Education of Active Health

MUDr. Milada Sárová, Balneology clinic and RNDr. Tomáš Vylita, Ph.D., Hydrogeology

The participants will be divided into three groups, which will take turns on three different programs:

**1st group** excursion to the spa of the President Hotel

**2nd group** the Hot Spring underground: [www.karlovyvary.cz/en/hot-spring-colonnade#1233](http://www.karlovyvary.cz/en/hot-spring-colonnade#1233)

**3rd group** the springs on the Karlovy Vary colonnades: [www.karlovyvary.cz/en/colonnades-and-springs](http://www.karlovyvary.cz/en/colonnades-and-springs)

Tour of the museum Jan Becher: [www.karlovyvary.cz/en/tour-museum-jan-becher-0](http://www.karlovyvary.cz/en/tour-museum-jan-becher-0)

**Departure by bus at 18:30**

# WEDNESDAY

## 15 MAY

Welcome at Thomayer Faculty Hospital, Vídeňská 800, Prague 4 ([www.ftn.cz/en](http://www.ftn.cz/en))  
Participants from will be divided into three groups and participate in the program as **scheduled in the table**

Jana Hlinovská, MSc.: Neurorehabilitation program at Thomayer Faculty Hospital

**Barbora Blahutová, MD.**, Anna Herynková, BSc.: Presentation of the virtual reality (VR) for improving the function of the upper limb

Aletia Štouračová, MSc., Marie Šandová:  
Practical demonstration of the Vojta reflex locomotion (VRL) in children

11:45 Brunch (paid by the organizer)

Afternoon

Time for preparation Friday' presentation





# THURSDAY 16 MAY I.

**7:05 train from Central station, Prague (train) to Beroun**

**8,15 h pavilion G: luggage drop off, starting point**

PhDr. Kristýna Hoidekrová, presentation of the biofeedback sensory system HandTutor, the Gloreha robotic glove and the Myro device.

**9:15 h two groups**

First group: Pavel Doubek, MD, Ph.D. Center for mental rehabilitation, including case study

Second group: hospital tour

# THURSDAY 16 MAY II.

Conference: Possibilities for Rehabilitation in People with Neurological Health Conditions

**11:00 – 11:20 prof. PhDr. Kamila Řasová, Ph.D., professor at the Department of Rehabilitation, Third Faculty of Medicine, Charles University Prague**

Topic: Physiotherapy in People with Multiple Sclerosis

**11:25 – 11:45 Marja Äijö, Ph.D., Principal Lecturer of gerontology and rehabilitation at School of Health Care, Savonia University of Applied Sciences (Finland)**

Topic: Aging and Neurological Diseases – Needs for Rehabilitation

**11:50 – 12:10 Bc. Janis Lukáš, Cert. MDT, professional physiotherapist at MUDr. Jan Calta Rehabilitation Center, Beroun Rehabilitation Hospital**

Topic: Parkinson's Disease, Rehabilitation and Physiotherapy Based on European Guidelines

**12:10 – 13:10 lunch time (paid by the organizer)**



# THURSDAY 16 MAY III.

**13:10 – 13:30 Eija Partanen-Kivinen, MSc., senior lecture at School of Health Care, Savonia University of Applied Sciences (Finland)**

Topic: Physical Activity and Neurological Diseases

**13.35 – 14:55 Dr Zacharias Dimitriadis, associate professor at Physiotherapy Department, School of Health Sciences University of Thessaly (Greece)**

Topic: The effect of Resistant Exercises in Spasticity on People with Neurological Disorders

**14:00 – 14:20 Dr. Thomas Besios, Assistant Professor at Department of Physical Therapy, School of Health Sciences, University of Thessaly (Greece)**

Topic: Rehabilitation techniques to improve the Functional Status of patients with Stroke

**Afternoon: program organised by students**

# FRIDAY 17 MAY

Lecture hall at Department of rehabilitation, Královské Vinohrady University Hospital (pavilion O)

**8:30 – 9:00 Helena Zimmermanová, MSc. Introduction of the Department of rehabilitation, Third Faculty of Medicine, Charles University**

**9:00 – 9:20 prof. Marcela Grünerová Lippertová, M.D., Ph.D. Early neurorehabilitation**

**9:20– 9:40 Šárka Špaňhelová, MSc.: Vojta reflex locomotion**

**9:40 – 10:00 Michaela Schramlová, MSc. Quality of Life and Quality of Education among Physiotherapy Students in Europe**

**10:00 – 11:00 Students presentations and closing ceremony of the workshop (Moderates Dr. Marja Äijö)**

**11:30 – 13:00 Prof. Kamila Řasová Muscle imbalances, Czech approach to the treatment of functional disorders of the locomotor system  
lecture hall 423 (participation is voluntary)**





# PERSONS

## **prof. PhDr. Kamila Řasová Ph.D.**



Affiliation: Department of Rehabilitation Medicine, and Department of rheumatology and rehabilitation, Third Faculty of medicine, Charles University, Prague, Czech Republic

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Prof. PhDr. Kamila Řasová, Ph.D. she received her doctorate in neuroscience at Charles University. She works as a professor, guarantor of the physiotherapy study program and head of research at the Rehabilitation Clinic of the 3rd Faculty of Medicine, UK. She works as a physiotherapist at the Rheumatology-Rehabilitation Clinic of the 3rd Faculty of Medicine, UK.

He has research experience in the field of physiotherapy for people with multiple sclerosis, post-stroke people, with spinal muscular atrophy and critically ill patients. Her research is financed by domestic and foreign grants. She developed her own therapy program, the Activating Therapy Motor Program. In addition, it has organized several international workshops, e.g., thanks to the support of European companies. She is the author of seven peer-reviewed monographs and the editor of international books devoted to neurorehabilitation. According to web of sciences, she is the author of 83 articles with an impact factor (publication 77 Web of Science Core Collection), Times Cited sum 739, H – index 15.

# PERSONS

## **Dr. Thomas Besios**



Dr. Thomas Besios is an Assistant Professor at the University of Thessaly (Department of Physiotherapy), Lamia. Postgraduate degree of the Democritus University of Thrace in the Department of Science and Physical Education specializing in Prevention – Intervention – Rehabilitation (2006). Postgraduate degree of the Department of Physiotherapy of Thessaloniki specializing in Pediatric Physiotherapy

(2016). Ph.D. from the Democritus University of Thrace in Neurological rehabilitation (2018).

He is a Member of the Research Laboratory of Human Performance and Rehabilitation and has been a member of research teams in research projects. He has published in scientific journals, member of scientific and organizational committees of conferences and has participated in several postgraduate courses and specialized clinical seminars. His field of expertise is Neurological Physiotherapy in children and adults. His research interests span the areas of neurological rehabilitation, assessment tests and treatment of neurological disorders.

[www.physio.uth.gr/en/wp-content/uploads/2023/08/CV-THOMAS-BESIOS-2023.pdf](http://www.physio.uth.gr/en/wp-content/uploads/2023/08/CV-THOMAS-BESIOS-2023.pdf)

[www.scholar.google.com/citations?user=3qSzaVcAAAAJ&hl=el](http://www.scholar.google.com/citations?user=3qSzaVcAAAAJ&hl=el)

[www.researchgate.net/profile/Thomas-Besios](http://www.researchgate.net/profile/Thomas-Besios)



# PERSONS



## **Senior Lecturer Eija Partanen-Kivinen, MSc. (Physical Education)**

Affiliation: Savonia University of Applied Sciences / School of Health Care, Kuopio, Finland

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Senior lecture Eija Partanen-Kivinen has been working in different levels on education, last 14 years in Savonia University of Applied Sciences. She has been teaching mainly in physiotherapy study program. Last five years she has been working in different EU funded projects dealing with well being and health promotion.

Sleep well – work well project (1/ 2019– 2/ 2021) – The aim of the project was providing methods for employers, in particular, to proactively intervene in employees' sleeping difficulties and to improve the wellbeing and productivity of employees suffering from sleeping disorders.

Vireeksi -project, promotion of heavy -duty vehicle drivers well-being at work (2/2020 – 1/ 2023). The aim of this project was to increase the well-being and work ability of heavy vehicle drivers in North-Savo region through utilizing existing measure tools and knowledge of individual workload and recovery.

Feeling good Northen Savo (5/ 2021 – 9 / 22) The aim of the project was to strengthen the mental health of the population of the province of North-Savo, especially those in a vulnerable position, outside working life and unemployed.

Promoting well-being of pink-collar workers (9/2023 – 2/ 2026). The aim of the project is to advance well-being at work of the working-age professionals in early childhood education, nursing, cleaning and municipal central kitchen sector in North-Savo region.

# PERSONS



**PhD, Principal Lecturer; gerontology and rehabilitation,  
Marja Äijö**

Affiliation: Savonia University of Applied Sciences, School  
of Health Care, Kuopio, Finland

E-mail: [marja.aijo@savonia.fi](mailto:marja.aijo@savonia.fi)

Principal lecturer, PhD Marja Äijö, is Doctor of Health Sciences, main field of study for the Gerontology and Public Health, from the University of Jyväskylä. She works as a principal lecturer, guarantor of the physiotherapy study program and head of research project: MIOLI, Measured and guided exercise service for older people with respiratory and circulatory diseases. Effects on physical activity, functional capacity, quality of life and use of health services funded by Olvi-säätiö and Kuopion Seudun Hengityssäätiö.

She has research experience in the field of physical activity, older people, cardiovascular disease, fall prevention and health care services. Her research is financed by domestic grants. In addition, she has organized several international workshops for the physiotherapy students. She is a facilitator of research group in

ENPHE European Network of Physiotherapy in Higher Education and presentative person from Savonia-UAS in COHEHRE Consortium of Institutes of Higher Education in Health and Rehabilitation in Europe. She is the author of several book and research articles.

<https://www.researchgate.net/profile/Marja-Aeijoe>

[https://scholar.google.fi/citations?user=jZoqS\\_kAAAAJ&hl=fi](https://scholar.google.fi/citations?user=jZoqS_kAAAAJ&hl=fi)

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# PERSONS

## Zacharias Dimitriadis



Dr. Zacharias Dimitriadis is Associate Professor at the Physiotherapy Department of the University of Thessaly. He has obtained a BSc Physiotherapy from TEI Athens (currently known as University of West Attica, 2005), an MSc Physiotherapy (Neuro-adult route) from Cardiff University (2008) and a PhD Musculoskeletal from the School of Translational Medicine of the University of Manchester (2011). His

research interests are concerned with the spinal pain and postural disorders, manual therapy, motor control and development and validation of assessment tools for musculoskeletal and neurological patients.

He is currently teaching under- and postgraduate modules related to manual therapy, soft tissue mobilization, ergonomics, clinical musculoskeletal physiotherapy and research methods. He has participated in a number of clinical seminars relative to the rehabilitation of patients with neuromusculoskeletal and neurological problems and he has rich clinical experience in different rehabilitation settings. He has more than 40 publications in national and international peer-reviewed journals and more than 300 citations (h index: 9). He is reviewer in many different international peer-reviewed journals. He has participated in many national and international conferences either by presenting his work or as a member of scientific committees.

[www.physio.uth.gr/en/wp-content/uploads/2021/04/CV-Dimitriadis-Zacharias.pdf](http://www.physio.uth.gr/en/wp-content/uploads/2021/04/CV-Dimitriadis-Zacharias.pdf)

[www.scholar.google.com/citations?hl=el&user=hXsi4h0AAAAJ](https://www.scholar.google.com/citations?hl=el&user=hXsi4h0AAAAJ)

[www.researchgate.net/profile/Zacharias-Dimitriadis](https://www.researchgate.net/profile/Zacharias-Dimitriadis)



# PERSONS

## **Barbora Miznerova**



Dr. Barbora Miznerova is a researcher at the Clinic of Rheumatology and rehabilitation Third Faculty of Medicine Charles University in Prague. She is also a graduate student of Kinesiology and Rehabilitation at Second Faculty of Medicine Charles University in Prague. She graduated at Third Faculty of Medicine from General Medicine in 2020. Her first scientific contribution thanks to which she

found her scientific interest was research on early neurorehabilitation approach using Functional Electrical Stimulation-assisted Cycle Ergometry in mechanically ventilated patients. In her work she currently focuses on means of modern rehabilitation using virtual reality in people with multiple sclerosis with upper limb functional impairment or trunk control impairment. She also is a member of a research team studying the effect of various intensified rehabilitation approaches on clinical outcomes in stroke survivors – post-acute inpatient rehabilitation program, COMIRESTROKE at Clinic of Rheumatology and Rehabilitation Third Faculty of Medicine and Thomayer Faculty Hospital in Prague.

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# PERSONS

## **Markéta Pavlíková**



Biostatistician collaborating with many scientists and health professionals to plan, analyse and publish their research. Passionate lecturer of research methodology and evidence-based practice. Open data advocate.

# PERSONS

## Marcela and Jan



Hi, my name is **Marcela**. I have always loved movement, dance and music. At the age of 15, I became ill with multiple sclerosis, which limited my movement. I studied Special Education at FTVS, specializing in dance and art education, and already during my studies I led Dance Movement Therapy, which uses musical rhythm to guide movement and at the same time gives joy from movement. During my internship in Canada, I got to know the walking school and the combination of music and movement for people with multiple sclerosis. I included these findings in my therapy and adapted the exercises for people in wheelchairs. I met Paradance two years ago. I discovered that wheelchair dancing is not only a great psychological support, but also a great rehabilitation exercise. Gradually, I began to incorporate individual elements from dance training into Dance Movement Therapy.

Hi, my name is **Jan** and I have more than 20 years of experience in Latin-American and Ballroom dances. After I started to dance with Marcela on a wheelchair I realized that every base principle that we do in common dancing is possible to do in Paradance. So it means that for wheelchair people it is the same to work with their core and posture.



# PERSONS

## NUDZ band



The band NUDZ was formed from psychologists, psychiatrists, anatomists, economists, and a security guard 12 years ago. The band plays regularly at events organized by Third Faculty of Medicine,

Charles University (e. g. at ball, in Zdibský pivovar and in Klecany on the square at the opening of spring).

The band NUDZ plays sixties to nineties dance music. The repertoire includes The Doors, The Kinks, Joe Cocker, The Chordettes, Mamas and Papas and many other bands.

Members of a band: the original singers Gábina and Karolína were supplemented by Martina and Aneta, and electric guitarist Ed also started singing. Other instruments include keyboards Petr, bass Honza and drums Saša.

\*NUDZ is an abbreviation for national Institute of Mental Health, center for research, implementation, education and health care: [www.nudz.cz/en/](http://www.nudz.cz/en/)

# KARLOVY VARY

Karlovy Vary (Carlsbad) is the greatest and most visited spa town of the Czech Republic, and it is also capital of Karlovarský kraj (Karlovy Vary Region), one of the 14 self-governing Czech regions. The city lies in the western part of Czech republic, 120 kilometres from Prague and 350 kilometres south of Berlin, on the river Ohře (Eger) and under the Krušné hory (Ore Mountains range). The city has nearly 50 000 inhabitants, the whole region about 300 000.

The city has been founded in 14th century by Holy Roman Emperor and King of Bohemia (Czech lands) Charles IV, ruler and reformer, voted in 2005 winner in "The Greatest Czechs", television show run by national public-service broadcaster. He founded the city in a place where he found thermal springs, and he himself tried their curative properties. The legend says it could have been in 1348, but the oldest extant written record is of 1370, granting the already existing town the privileges of a royal town.

In the following centuries, the town evolved into a thriving spa, sought after by the growing numbers of aristocrats, military generals, monarchs, but also scientists, artists, philosophers. The most lively period of the spa city was at the turn of 19th and 20th centuries, "La Belle Époque", when the curative spas in Europe were not only scientifically and medically up-to-date, but the industrialisation led to new possibilities to travel by railway and allowed access to spa treatment to much broader social strates.

Spa cities also developed quite different from other settlement, since they were always focused on surrounding therapeutic country, which could not be sacrificed to heavy industry or extensive agriculture. Spas also developed unique cosmopolitan culture, unique infrastructures and technologies for healing sources and treatment, etc. These were the reasons for a 2021 UNESCO World heritage list inscription of "The Great Spa Towns of Europe", a collection of Karlovy Vary and other 10 spas of 7 European countries, including Bath, UK.

For more information, visit the website: [www.karlovyvary.cz/en](http://www.karlovyvary.cz/en)



# KARLOVY VARY







# SEE YOU IN PRAGUE

Useful tips:

[www.prague.eu](http://www.prague.eu)

[www.praguevisitorpass.eu](http://www.praguevisitorpass.eu)

[Honest Guide – travel tips videos](#)