

**Organizatori / Organizers:**

Medicinski fakultet Hrvatskog katoličkog sveučilišta / School of Medicine, Croatian Catholic University  
Zavod za neurologiju Kliničke bolnice Dubrava / Department of Neurology, Dubrava Clinical Hospital

PROGRAM CJELOŽIVOTNOG UČENJA

# Izazovi u dijagnosticiranju i lijеčenju Parkinsonove bolesti

LIFELONG LEARNING PROGRAM

## Challenges in diagnosing and treating Parkinson's disease

**Zagreb, November 25 and 26, 2022**

Preporodna dvorana HAZU

National Hall of Croatian Academy of Sciences and Arts

Pokrovitelj: Hrvatska akademija znanosti i umjetnosti  
Under the auspices of the Croatian Academy of Sciences and Arts



**Poštovani kolegice i kolege!**

Veliko nam je zadovoljstvo pozvati Vas da sudjelujete u Programu cijeloživotnog učenja o izazovima u dijagnosticiranju i liječenju Parkinsonove bolesti.

Parkinsonova bolest je druga najčešća neurodegenerativna bolest i jedan od vodećih uzroka neurološke onesposobljenosti. U posljednjem desetljeću sve je više znanstvenih spoznaja o novim dijagnostičkim i terapijskim postupcima koji mogu značajno pridonijeti boljoj zdravstvenoj skrbi o oboljelima od Parkinsonove bolesti.

Kliničke značajke i dalje predstavljaju glavni dijagnostički kriterij Parkinsonove bolesti no smanjene su pouzdanosti zbog preklapanja s drugim neurodegenerativnim poremećajima. Posljednjih godina sve je više istraživanja o dodatnim dijagnostičkim testovima koji mogu pridonijeti pouzdanoj dijagnozi Parkinsonove bolesti, identifikaciji njene prodromalne faze ili utvrđivanju jasnih podtipova kao osnove predviđanja daljnog tijeka bolesti.

Liječenje Parkinsonove bolesti zasniva se na primjeni oralne farmakoterapije i naprednih metoda liječenja poput subkutanih injekcija ili infuzija apomorfina, infuzija levodopa-karbidopa ili levodopa-karbidopa-entakapon intestinalnog gela, neurokirurške tehnike duboke stimulacije te ostalih ne-farmakoloških oblika liječenja. U svakodnevnom kliničkom radu postoje brojni izazovi u pristupu liječenju bolesnika s Parkinsonovom bolesti uključujući pravovremeni izbor lijeka u različitim fazama bolesti, prepoznavanje uznapredovale Parkinsonove bolesti, odлуke o dodatnim metodama liječenja motoričkih i ne-motoričkih simptoma s obzirom na različite čimbenike te pružanja medicinske skrbi za bolesnike s ugrađenim specifičnim uređajima.

Cilj ovog Programa je stjecanje osnovnih i novih znanja o kliničkim karakteristikama te specifičnim metodama dijagnosticiranja i liječenja Parkinsonove bolesti. Edukacija je namijenjena stručnjacima iz svih područja koji sudjeluju u skrbi oboljelih od Parkinsonove bolesti.

U Programu sudjeluju uvaženi međunarodni i hrvatski stručnjaci iz područja poremećaja pokreta koji će svojim znanjem i iskustvom pridonijeti edukaciji iz područja dijagnosticiranja i liječenja različitih faza Parkinsonove bolesti.

Svi sudionici Programa pozvani su da pripreme prikaze slučajeva bolesnika s parkinsonizmom (naglasak na dijagnostičkim i terapijskim dilemama) koji će se tijekom interaktivne nastave zajednički obraditi. Kroz diskusiju o iskustvima i dilemama iz svakodnevne kliničke prakse želimo unaprijediti multidisciplinarni i individualizirani pristup liječenju oboljelih od Parkinsonove bolesti.

Veselimo se zajedničkom druženju u Zagrebu!

Pozdrav

**Petra Bago Rožanković**

**Dear colleagues!**

It is our great pleasure to invite you to participate in the Lifelong Learning Program about the challenges in diagnosing and treating Parkinson's disease.

Parkinson's disease is the second most common neurodegenerative disorder and one of the leading causes of functional disability. In the last decade, there has been increasing scientific knowledge about new diagnostic and therapeutic procedures that can significantly contribute to better health care for patients with Parkinson's disease.

Clinical features are still the main diagnostic criteria for Parkinson's disease, but reliability is reduced due to overlap with other neurodegenerative disorders. However, recent research data shows that additional diagnostic tests could contribute to more reliable diagnosis of Parkinson's disease, identification of its prodromal phase, or determination of specific subtypes as a basis for predicting the further course of the disease.

The treatment of Parkinson's disease is based on the use of oral pharmacotherapy and advanced treatment methods such as subcutaneous injections or infusions of apomorphine, infusion of levodopa-carbidopa, or levodopa-carbidopa-entacapone intestinal gel, neurosurgical techniques of deep brain stimulation and other non-pharmacological forms of treatment. In daily clinical practice, there are numerous challenges in treating patients with Parkinson's disease, including timely drug selection in different stages of the disease, recognition of advanced Parkinson's disease, accurate decision on the use of additional therapies for motor and non-motor symptoms, and ensuring adequate health care for the patients with device-added treatment.

The aim of this Program is to acquire basic and new knowledge about the clinical characteristics and specific methods of diagnosing and treating Parkinson's disease. The education is intended for experts from all fields who participate in the care of patients with Parkinson's disease.

Respected international and Croatian experts in the field of movement disorders will participate in the Program and share their knowledge and experience in diagnosing and treating the various stages of Parkinson's disease.

All Program participants are invited to prepare case reports of patients with parkinsonism (emphasis on diagnostic and therapeutic dilemmas), which will be discussed together during the interactive class. The final goal is to implement multidisciplinary and individualized approach to the treatment of patients with Parkinson's disease.

We look forward to spending time together in Zagreb!

Greeting

**Petra Bago Rožanković**

- prof. dr. sc. **Joseph Jankovic**, Parkinson's Disease and Movement Disorders Clinic, Baylor College of Medicine, Houston, USA
- prof. dr. sc. **Per Odin**, Division of Neurology, Department of Clinical Sciences Lund, Lund University, Švedska
- prof. dr. sc. **Roberto Erro**, Center for Neurodegenerative Disease, University of Salerno, Italija
- prof. dr. sc. **Maja Troš**, neurolog, Medicinski fakultet Sveučilišta u Ljubljani i Klinika za neurologiju, KBC Ljubljana, Slovenija
- doc. dr. sc. **Igor Petrović**, neurolog, Medicinski fakultet Sveučilišta u Beogradu i Klinika za neurologiju, KBC Beograd, Srbija
- prof.dr.sc. **Srđana Telarović**, neurolog, subspecialist neurodegenerativnih bolesti, Medicinski fakultet Sveučilišta u Zagrebu i Klinika za neurologiju KBC Zagreb, Zagreb
- prof.dr.sc. **Nataša Klepac**, neurolog, subspecialist neurodegenerativnih bolesti, Medicinski fakultet Sveučilišta u Zagrebu i Klinika za neurologiju KBC Zagreb, Zagreb
- doc. dr. sc. **Gordan Džamonja**, neurolog, subspecialist neurodegenerativnih bolesti, Medicinski fakultet Sveučilišta u Splitu i Klinika za neurologiju KBC Split, Split
- prof. dr. sc. **Arijana Lovrenčić-Huzjan**, neurolog, subspecialist cerebrovaskularnih bolesti, Stomatološki fakultet Sveučilišta u Zagrebu i Klinika za neurologiju KBC Sestre milosrdnice, Zagreb
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- doc.dr.sc. **Vladimira Vuletić**, neurolog, Medicinski fakultet Sveučilišta u Rijeci i Klinika za neurologiju KBC Rijeka, Rijeka
- doc. dr. sc. **Sanja Tomasović**, neurolog, subspecialist neurodegenerativnih bolesti, Medicinski fakultet Sveučilišta u Osijeku i Klinika za neurologiju KB Sveti Duh, Zagreb
- doc. dr. sc. **Vjekoslav Peitl**, psihijatar, subspecialist biologische psychiatrie, Medicinski fakultet Hrvatskog katoličkog sveučilišta, Klinika za psihijatriju, KBC Sestre milosrdnice, Zagreb
- izv. prof. dr. sc. **Anamarija Bogović**, psiholog, Odjel za psihologiju Hrvatskog katoličkog sveučilišta, Zagreb
- doc.dr.sc. **Dubravka Bobek**, fizijatar, Zavod za fizikalnu i rehabilitacijsku medicinu s reumatologijom, KB Dubrava, Zagreb
- dr. sc. **Niko Radović**, radiolog, Klinički zavod za dijagnostičku i intervencijsku radiologiju, KB Dubrava, Zagreb
- dr. sc. **Vladimir Milić**, neurolog, subspecialist neurodegenerativnih bolesti, Klinika za neurologiju KBC Zagreb, Zagreb
- **Vanja Vojnović**, dr. med., neurolog, subspecialist neurodegenerativnih bolesti, Zavod za neurologiju, KB Dubrava, Zagreb
- doc. dr. sc. **Petra Bago Rožanković**, neurolog, subspecialist neurodegenerativnih bolesti, Medicinski fakultet Hrvatskog katoličkog sveučilišta, Zavod za neurologiju, KB Dubrava

- Prof. **Joseph Jankovic**, Parkinson's Disease and Movement Disorders Clinic, Baylor College of Medicine, Houston, USA
- Prof. **Per Odin**, Division of Neurology, Department of Clinical Sciences Lund, Lund University, Sweden
- Prof. **Roberto Erro**, Center for Neurodegenerative Disease, University of Salerno, Italy
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- Assist. Prof. **Vjekoslav Peitl**, Department of Psychiatry, University Hospital Center "Sestre milosrdnice", School of Medicine, Croatian Catholic University, Zagreb, Croatia
- Assist. Prof. **Anamarija Bogović**, Department of Psychology, Croatian Catholic University, Zagreb, Croatia
- Assist. Prof. **Dubravka Bobek**, Department of Physical and Rehabilitation Medicine, Dubrava Clinical Hospital, Zagreb, Croatia
- **Niko Radović**, M.D., PhD. Department of Radiology, Dubrava Clinical Hospital, Zagreb, Croatia
- **Vladimir Milić**, M.D., PhD. Department of Neurology, University Hospital Center Zagreb, Zagreb, Croatia
- **Vanja Vojnović**, M.D., Department of Neurology, Dubrava Clinical Hospital, Zagreb, Croatia
- Assist. Prof. **Petra Bago Rožanković**, Department of Neurology, Dubrava Clinical Hospital, School of Medicine, Croatian Catholic University, Zagreb, Croatia

## Izazovi u DIJAGNOSTICIRANJU Parkinsonove bolesti

Cilj predmeta je osposobiti polaznike za prepoznavanje ključnih kliničkih kriterija u dijagnosticiranju Parkinsonove bolesti s posebnim naglaskom na diferencijalnu dijagnozu prema drugim neurodegenerativnim bolestima te prezentirati dodatne dijagnostičke metode koje se primjenjuju ili su još u fazi istraživanja kao potencijalni biomarkeri Parkinsonove bolesti.

### Challenges in DIAGNOSING Parkinson's disease

The aim of the subject is to train participants to recognize the key clinical criteria in diagnosing Parkinson's disease with a special emphasis on differential diagnosis to other neurodegenerative diseases and to present additional diagnostic methods that are applied or are still in the research phase as potential biomarkers of Parkinson's disease.

## 25. studenog 2022. / November 25, 2022

8:30	POZDRAVNI GOVOR / WELCOME SPEECH
9:00-9:30	<b>Tomić S.</b> Dijagnostički pristup bolesniku s parkinsonizmom / Diagnostic approach to patients with parkinsonism
9:30-10:00	<b>Erro R.</b> Heterogenost kliničke slike Parkinsonove bolesti / Heterogeneity of the clinical picture of Parkinson's disease
10:00-10:30	<b>Džamonja G.</b> Klinički dijagnostički kriteriji Parkinsonove bolesti / Clinical diagnostic criteria of Parkinson's disease
10:30-11:00	<b>Petrović I.</b> Atipični parkinsonizam kao diferencijalna dijagnoza Parkinsonove bolesti / Atypical parkinsonism as a differential diagnosis of Parkinson's disease
11:00-11:30	<b>Miletić V.</b> Funkcionalni parkinsonizam / Functional parkinsonism
11:30-12:00	PAUZA / BREAK
12:00-12:30	<b>Radović N.</b> Neuroradiološke metode u dijagnosticiranju Parkinsonove bolesti – budućnost postaje sadašnjost / Neuroradiological methods in diagnosing Parkinson's disease – the future becomes the present
12:30-13:00	<b>Trošt M.</b> Uloga radionuklidnih slikovnih pretraga u dijagnosticiranju Parkinsonove bolesti / The role of radionuclide imaging in diagnosing Parkinson's disease

13:00-13:30

13:30-14:00

14:00-15:00 PAUZA ZA RUČAK /

15:00-17:00

Izazovi u dijagnosticiranju Parkinsonove bolesti - prikazi kliničkih slučajeva / Challenges in diagnosing Parkinson's disease - presentations of clinical cases

## Izazovi u LIJEĆENJU Parkinsonove bolesti

Cilj predmeta je osposobiti polaznike za primjenu individualiziranog oblika liječenja Parkinsonove bolesti uključujući oralnu farmakoterapiju, infuzijske metode liječenja, neurokirurške tehnike i ostale ne-farmakološke metode, uz poseban naglasak na sposobnost rješavanja izazova u cijelom procesu liječenja pojedinca s Parkinsonovom bolesti.

### Challenges in the TREATMENT of Parkinson's disease

The aim of the subject is to educate participants on the application of an individualized approach to the treatment of Parkinson's disease, including oral pharmacotherapy, infusion therapies, neurosurgical techniques, and other non-pharmacological methods, with a special emphasis on the ability to solve challenges in the process of treating an individual patient with Parkinson's disease.

## 26. studenog 2022. / November 26, 2022

08:30-9:00	<b>Telarović S.</b> Farmakoterapija Parkinsonove bolesti – izazovi liječenja rane i kasnije faze bolesti / Pharmacotherapy of Parkinson's disease - challenges of treating the early and later stage of the disease
9:00-9:30	<b>Klepac N.</b> Pristup bolesniku s uznapredovalom Parkinsonovom bolesti – važnost ranog prepoznavanja / Approach to patients with advanced Parkinson's disease - the importance of early recognition
9:30-10:00	<b>Odin P.</b> Primjena infuzijskih oblika liječenja u Parkinsonovoj bolesti / Application of infusion based treatment in Parkinson's disease

<b>10:00-10:30</b>	<b>Vuletić V.</b> Liječenje Parkinsonove bolesti metodom duboke moždane stimulacije / Treatment of Parkinson's disease with deep brain stimulation
<b>10:30-11:00</b>	<b>Bago Rožanković P.</b> Izazovi u liječenju uznapredovale Parkinsonove bolesti / Challenges in the treatment of advanced Parkinson's disease
<b>11:00-11:30</b>	<b>Jankovic J.</b> Nove i terapijske mogućnosti u fazi istraživanja kod liječenja Parkinsonove bolesti / New and emerging treatments in Parkinson's disease
<b>11:30-12:00</b>	<b>PAUZA / BREAK</b>
<b>12:00-12:30</b>	<b>Tomasović S.</b> Liječenje ne-motoričkih simptoma Parkinsonove bolesti / Treatment of non-motor symptoms of Parkinson's disease
<b>12:30-13:00</b>	<b>Peitl V.</b> Psihijatrijski pristup bolesniku s Parkinsonovom bolesti / Psychiatric approach to patients with Parkinson's disease
<b>13:00-13:30</b>	<b>Bogović A.</b> Važnost psihološke evaluacije bolesnika s Parkinsonovom bolesti / The importance of psychological evaluation of patients with Parkinson's disease
<b>13:30-14:00</b>	<b>Bobek D.</b> Fizikalne metode liječenja motoričkih simptoma Parkinsonove bolesti / Physical methods of treating motor symptoms of Parkinson's disease
<b>14:00-15:00</b>	<b>PAUZA ZA RUČAK / LUNCH BREAK</b>
<b>15:00-17:00</b>	Izazovi u liječenju Parkinsonove bolesti (Kada? Kako? Zašto?) - prikazi kliničkih slučajeva  <b>PROVJERA ZNANJA</b>  Challenges in the treatment of Parkinson's disease (When? How? Why?) - presentations of clinical cases  <b>KNOWLEDGE TEST</b>

**OPĆE INFORMACIJE/ GENERAL INFORMATION****Mjesto održavanja / Venue**

Preporodna dvorana palače Narodnog doma HAZU  
Opatička 18  
Zagreb

**Datum održavanja / Dates**

25.-26. studenoga 2022. / November 25-26, 2022

**Službeni jezik / Official language**

Službeni jezik programa je engleski jezik. / Official language of the Program is English.

**Bodovanje/ Accreditation**

Svi sudionicima Programa bit će dodijeljena 2 ECTS boda./  
2 ECTS credits will be assigned to all participants.

**Društveni program / Social program**

Zajednička večera za sve sudionike bit će 25. studenoga 2022.  
Lokacija naknadno.

Joint dinner for all participants will be on November 25, 2022.  
Venue: TBA.

**Troškovi sudjelovanja / Costs of participation**

Za polaznike Programa utvrđuje se visina školarine u iznosu od 300,00 kuna/ 39,82 EUR i troškovi upisa u iznosu od 200,00 kuna / 26,54 EUR po fiksnom tečaju konverzije 1EUR=7,53450 kn.

Školarina i troškovi upisa uplaćuju se jednokratno na račun Sveučilišta IBAN HR112340009110353987 s pozivom na broj HR 00 - OIB polaznika.

U opisu je potrebno navesti: **Parkinson, uz ime i prezime polaznika.**

Prijave su moguće najkasnije do utorka, 15. studenoga 2022. godine putem linka:  
<https://forms.gle/bp3U5fST3q466cJK6>

For the Program participants the amount of tuition fee is determined in the amount of HRK 300.00 / EUR 39.82 and registration costs in the amount of HRK 200.00 / EUR 26.54 at a fixed conversion rate of EUR 1 = HRK 7.53450.

Tuition fee and registration costs are to be paid at once to the University's bank account: IBAN HR112340009110353987 with a reference number HR 00 - OIB of the participant.

In the description it is necessary to state:

**Parkinson, along with the first and last name of the participant.**

Registrations are possible till Tuesday, November 15, 2022, via registration link:

<https://forms.gle/bp3U5fST3q466cJK6>

**Prijave/ Registration**

<https://forms.gle/bp3U5fST3q466cJK6>





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### **Prijave i informacije**

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