

Summer School Brescia 2022

Biomarkers in neurodegenerative diseases From bench to bedside



12 - 15 July 2022
Brescia

Faculty

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University of Perugia, IT

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University of Brescia, Brescia, IT

Marc Suarez-Calvet

Barcelonabeta centre Barcelona, Spain

Argonde van Harten

University of Amsterdam, Nederland

Gianluigi Zanusso

University of Verona, IT

UNDER THE PATRONAGE OF



ORDINE OSPEDALIERO DI SAN GIOVANNI DI DIO
FATEBENEFRAELLI
PROVINCIA LOMBARDO VENETA
I.R.C.C.S. – Centro San Giovanni di Dio
Fatebenefratelli



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alla SIN per le Demenze

RATIONALE

Educational need:

The use of biomarkers for diagnostic and prognostic purposes in patients affected by neurodegenerative disease is challenging in clinical and research scenarios. New biofluid biomarkers enable the evaluation of neurodegeneration, glial activation, pathology processes and inflammatory pathways in the brain and could thus be used as target of newly developed disease-modifying therapies.

Course Description:

The Summer School “Biomarkers in neurodegenerative diseases from bench to bedside” is an opportunity for young neurologists and neuroscientists who are interested in specializing in Neurodegenerative diseases to receive in-depth instruction from internationally-recognized experts. Students will attend large lectures and panel discussions with question and answer sessions and will have the opportunity to visit biological laboratories using the different techniques and discuss them with international experts.

The purpose of the summer school is to provide a in depth-education course to international audience interested in neurodegenerative diseases. The specific learning Objectives are

- understand the technical strengths and limitations of different techniques used for the assessment of biofluid markers.
- Evaluate the clinical use and implications for the use of biological markers in clinical and research scenarios
- Understand the rationale and review the more recent evidences for biological markers assessment in new disease-modifying target therapies across neurodegenerative diseases

Audience target:

Undergraduate and Graduate medical Doctor (Neurologist, Geriatrician, Psychiatrist) Neuropsychologist

Biologist

Neuroscientist

Biotechnologist

Pharmacologist

Tuesday, July 12th 2022

4.00 pm-6.00 pm Opening Cerimony

4.00 pm *Introduction to Summer School*

"Biomarkers in neurodegenerative diseases From bench to bedside"

Alessandro Padovani, *Brescia*

4.30 pm *Biomarkers in neurodegenerative diseases*

Lucilla Parnetti, *Perugia*

5.00 pm *Welcome presentation* (the students present themselves with a brief biographical sketchpad)

5.30 pm **discussion on previous topics**

Wednesday, July 13th 2022

Biofluid biomarkers: laboratory challenges and pitfalls

9.00 am-10.00 am

Key Lecture

The new era of biomarkers in neurodegenerative disease

Argonde van Harten *Amsterdam, NED*

10.00 am *Methodological standards for CSF analyses*

Davide Chiasserini *Perugia*

10.45 am *Pre-analytical standards and pitfalls for plasma and cytokines analyses*

Silvia Giliani *Brescia*

11.30 am *Clinical standard for plasma and CSF analyses in neurodegeneration*

Filippo Baldacci *Pisa*

12.15 am **discussion on previous topics**

1.00 pm – 2.00 pm **Lunch**

2.00 pm-4.00 pm **Hands-on**

2 separate small groups

GROUP 1 - How to deal with biological samples?

Nocivelli Institute, *Brescia*

GROUP 2 - ELISA and Western blot analyses

Pharmacology Laboratory, *University of Milan*

4.00 pm - 5.00 pm **Faculty-all and students**

4.00 pm – 4.30 pm *Discussion on methodological standard and issues in biosampling*

4.30 pm – 5.00 pm *Discussion on CSF and plasma ELISA and Western Blots*

5.00 pm - 5.30 pm *The importance of high-standard biosampling*

Alessio di Fonzo *Milan*

Thursday, July 14th 2022

Plasma innovative biomarkers

9.00 am-10.00 am

Key Lecture

Biomarkers for prognostic challenges in neurodegeneration

Marc Suarez-Calvet *Barcelona*

10.00 am – 1.00 pm *NEW TECHNIQUES FOR NEW BIOMARKERS*

10.00 am *New techniques for high-sensitivity biomarkers in plasma and serum*

Nicholas Ashton *Gothenburg*

10.45 am *Exosomes and extracellular vesicles: the new future of biomarkers?*

Antonio Longobardi *Brescia*

11.30 am *The use of plasma biomarkers in clinical practice: what, when and how?*

Andrea Pilotto *Brescia*

12.15 am *discussion on previous topics*

1.00 pm – 2.00 pm Lunch

2.00 pm-4.00 pm Hands-on new biofluid biomarkers

2 separate small groups

GROUP 1 - Luminex and SIMOA analyses

Nocivelli Institute, Brescia

GROUP 2 - How to deal with Exosomes and extracellular vesicles

IRCCS Fatebenefratelli Lab

4.00 pm - 5.00 pm Faculty-all and students

4.00 pm – 4.30 pm *Discussion on methodological Luminex and SiMOA techniques*

4.30 pm – 5.00 pm *Discussion on exosomes strengths and limitations*

5.00 pm - 5.30 pm *Open Table*

Plasma biomarkers: is screening possible in the next future?

Discussant: Lucilla Parnetti *Perugia*, Nicholas J Ashton *Gothenburg*, Alessandro Padovani *Brescia*

Speaker: Alberto Lleo *Barcelona*

Friday, July 15th 2022

Cerebrospinal fluid innovative biomarkers

9.00 am-10.00 am

Key Lecture

Synaptic dysfunction in neurodegeneration

Monica Di Luca *Milan*

10.00 am – 1.00 pm ***THE NEED OF NEW CSF BIOMARKERS***

10.00 am ***CSF Synaptic dysfunction biomarkers***

Alessandro Padovani *Brescia*

10.45 am ***CSF Inflammatory and cytokines biomarkers***

Matteo Gastaldi *Pavia*

11.30 am ***RT-QUIC for neurodegenerative disease: strengths and technical limitations***

Fabio Moda *Milan*

12.15 am **discussion on previous topics**

1.00 pm – 2.00 pm Lunch

2.00 pm-4.00 pm Hands-on

2 separate small groups

GROUP 1 - How to perform a RT-QUIC analyses

University of Verona neuropathology Lab

GROUP 2 - How to perform a standard CSF analyses

Central laboratory, ASST Spedali Civili of Brescia

4.00 pm - 5.00 pm Faculty-all and students

4.00 pm – 4.30 pm ***Discussion on methodological standard for CSF analyses***

4.30 pm – 5.00 pm ***Discussion on RT-QUIC pitfalls***

5.00 pm - 5.30 pm ***Open Table***

RT-QUIC and the risk of proteinopathies overlap

Discussant: Fabio Moda *Milano*, Gianluigi Zanusso *Verona*

Speaker: Piero Parchi *Bologna*

5.30 pm - 6.00 pm ***Conclusion***

Alessandro Padovani *Brescia*

VENUE

Aula Nocivelli
ASST Spedali Civili Brescia
Piazzale Spedali Civili, 1
25123 Brescia

REGISTRATIONS

In person attendance € 500,00 (VAT22%included)

Virtual attendance € 50,00 (VAT22%included)

IN-PERSON Attendance Registration fee includes:

- Admittance to the Scientific Sessions
- Conference documents and Certificate of Attendance
- CME accreditation Programme
- Catering service (coffee breaks and lunches)
- Accommodation in Brescia

VIRTUAL Attendance Registration Fee includes:

- Certificate of Attendance
- CME accreditation Programme
- Program On Demand

PAYMENT METHODS

Bank transfer

SienaCongress s.r.l. UNICREDIT Siena Via Tolomei

IBAN IT 31 M 02008 14205 000105006259 codice SWIFT: UNCRITM1F50

Full payment of fees (accepted in EURO only) is required in order to attend the Summer School ; payments must be net of all bank charges and they must refer to "SUMMER SCHOOL NEUROBS 2022+participant's NAME/SURNAME".

Copy of the transfer receipt must be sent by e.mail to info@sienacongress.it

CME-Continuing medical education

Event ID: 354818 (in presence)

Assigned Credits: n. 25

The course is included in the Italian ECM National Programme and it will be Accredited for Medical Doctor (Neurology, Geriatrics, Psychiatry, Psychotherapy), Psychologist, Biologist and Physical Therapist.

Event ID: 354811 (online)

Assigned Credits: n. 24

The course is included in the Italian ECM National Programme and it will be Accredited for Medical Doctor (Neurology, Geriatrics, Psychiatry, Psychotherapy), Psychologist, Biologist and Physical Therapist.

FREE BURSARY APPLICATION

(applicati on deadline: Thursday June 30th, 2022)

Free bursary application is now available for European and extra-Europe participants: full registration in presence and accommodation will be awarded for participation in this event.

In order to apply for Free Bursary, please send an e-mail to the Organizers of the Summer School (info@sienacongress.it) including the following information:

- your complete Name and Surname
- your affiliation (name of the Institution and complete address)
- a short personal statement on how attendance at this Summer School will influence your professional practice
- a statement explaining the justification of funds
- your complete CV