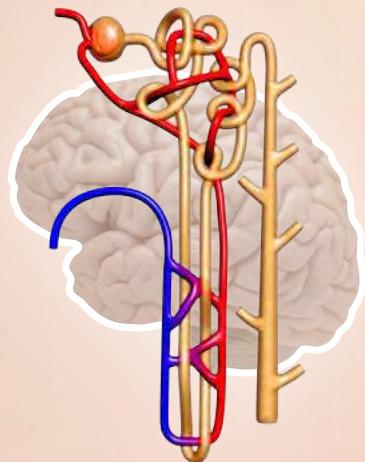


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FONDAZIONE
INTERNAZIONALE
MENARINI



FIRST INTERNATIONAL MEETING ON
**BRAIN-KIDNEY
INTERACTION**
THE BRAIN AND KIDNEY:
FROM PHYSIOLOGY TO CLINICS



NAPLES (ITALY), 23th-24th NOVEMBER 2023

Aula Magna - Congress Center
Via Partenope, 36 - Naples (Italy)

Prof. Giovambattista Capasso

biogem

V:

Università
degli Studi
della Campania
Laura Kelcey

RATIONALE

Brain dysfunction is highly prevalent in the population. However, patients suffering from kidney disease have an even greater risk for brain dysfunction, compared to the remaining population. Unfortunately, the pathogenesis of brain-kidney dysfunction remains elusive. Neuropsychological and brain imaging data are now starting to be gathered, thereby characterizing this pathological entity.

Data from animal and cellular models suggest several mechanisms and possible avenues for future interventions: mono-aminergic systems, glymphatics, neural stem cells are among the neural structures vulnerable to uremic toxins and, in turn, responsible for the cognitive dysfunctions in chronic kidney disease and dialysis patients. Because kidney function can be replaced by artificial systems (dialysis) or renal transplantation, there is hope that this specific form of cognitive impairment might be prevented or even cured. Furthermore, the comprehension of brain-kidney interaction could disclose our understanding of other neurological diseases.

This first meeting on brain-kidney axis will join renowned international speakers from different fields aiming at unraveling the mechanisms and future therapeutic options for this new clinical entity. The character of this meeting will insist on the interdisciplinary interaction among speakers (neurologists, nephrologists, neuroscientists, epidemiologists, renal physiologists, geriatricians, experts in regenerative medicine, precision medicine, imaging and diagnostics).

Giovambattista Capasso

CHAIR OF THE MEETING

Giovambattista Capasso

University of Campania “Luigi Vanvitelli”Naples, Italy
Biogem Research Institute Ariano Irpino, Italy

ENDORSEMENTS



*ERA's endorsement is for the promotion of education in general, therefore the specific content of the event
is the responsibility of the organiser*



CO-ORGANIZED BY



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20089 Rozzano (Milan, Italy)
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ORGANIZING SECRETARIAT



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First international meeting on brain-kidney interaction: from physiology to clinics

PROGRAMME

THURSDAY, 23th NOVEMBER

THURSDAY, 23th NOVEMBER 2023 - MORNING

08.00 a.m. - 09.00 a.m. Registration to the Meeting

09.00 a.m. - 09.30 a.m. Opening Ceremony

G. Nicoletti Rector University of Campania "Luigi Vanvitelli"

O. Zecchino President Biogem

M. Fontana ERA Executive Director

L. De Nicola President Elect SIN

09.30 a.m. - 10.00 a.m. Introduction to the Meeting

Chairperson: **L. De Nicola** (Naples, IT)

Why a conference on Brain-kidney cross-talk?

G. Capasso (Ariano Irpino, IT/Naples, IT)

SESSION I

Chairpersons: **F. Esposito** (Naples, IT)

S. Frische (Aarhus, DK)

10.00 a.m. - 10.30 a.m. A new way of looking into brain function:
the lesson from fMRI

G. Tedeschi (Naples, IT)

10.30 a.m. - 11.00 a.m. How to study effects of CKD on the brain by 2-photon
in-vivo microscopy

E. Gutiérrez (Aarhus, DK)

11.00 a.m. - 11.30 a.m. Visual cortical function in patients with inherited
retinal diseases treated with gene therapy

F. Simonelli (Naples, IT)

11.30 a.m. - 12.00 p.m. *Coffee break*

First international meeting on brain-kidney interaction: from physiology to clinics

PROGRAMME

THURSDAY, 23th NOVEMBER

SESSION II

Chairpersons: **J. Małyszko** (Warsaw, PL)
M. Simeoni (Naples, IT)

12.00 p.m. - 12.30 p.m. Coexistence of Brain and Renal dysfunction in a model of ciliopathy
M. Zacchia (Naples, IT)

12.30 p.m. - 01.00 p.m. Cancer, Kidney Failure and Cognition
S. Kesler (Austin, USA)

01.00 p.m. - 01.30 p.m. Integration of Cognitiviy Impairment in the Oncology Clinical Trials
A. Capasso (Austin, USA)

01.30 p.m. - 03.00 p.m. *Lunch*

THURSDAY, 23th NOVEMBER 2023 - AFTERNOON

KEY NOTE LECTURE 1

Chairperson: **G. Paolisso** (Naples, IT)

03.00 a.m. - 03.40 a.m. Why we humans are different from chimpanzees, bonobos, Denisovans and Neanderthals
G. Remuzzi (Milan, IT)

SESSION III

Chairpersons: **G. Grandaliano** (Rome, IT)
G. La Manna (Bologna, IT)

03.40 p.m. - 04.10 p.m. Kidney function and cerebral blood flow
M.A. Ikram (Rotterdam, NL)

04.10 p.m. - 04.40 p.m. Renal and systemic role of uromodulin
L. Rampoldi (Milan, IT)

04.40 p.m. - 05.00 p.m. *Coffee break*

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PROGRAMME

KEY NOTE LECTURE 2

Chairperson: **G. Piccoli** (Le Mans, FR)

05.00 p.m. - 05.40 p.m. Regenerative medicine in neurological diseases
G. Martino (Milan, IT)

SESSION IV

Chairpersons: **Ph. Jaeger** (London, UK)
A. Pani (Cagliari, IT)

05.40 p.m. - 06.10 p.m. Brain glymphatic system: possible role in CKD
M. Nedergaard (Copenhagen, DK/ Rochester, NY USA)

06.10 p.m. - 06.40 p.m. Genetic and biochemical markers of brain dysfunction
C. Zoccali (New York City, USA / Ariano Irpino, IT)

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PROGRAMME

FRIDAY, 24th NOVEMBER

FRIDAY, 24th NOVEMBER 2023 - MORNING

SESSION V

Chairpersons: **D. Fliser** (Homburg, DE)
G. Gambaro (Verona, IT)

09.00 a.m. - 09.30 a.m. Physical activity is beneficial in dialysis patients. What could we still learn?
F. Mallamaci (Reggio Calabria, IT)

09.30 a.m. - 10.00 a.m. Ageing, CKD and cognitive disorders
F. Mattace Raso (Rotterdam, NL)

10.00 a.m. - 10.30 a.m. Cognitive disorders in dialysis and transplant patients
C. Franssen (Groningen, NL)

10.30 a.m. - 11.00 a.m. Sodium and the Brain
E. J. Hoorn (Rotterdam, NL)

11.00 a.m. - 11.30 a.m. *Coffee break*

SESSION VI

Chairpersons: **H.J. Anders** (Munich, DE)
F. Mallamaci (Reggio Calabria, IT)

11.30 a.m. - 12.00 p.m. Phosphate and Brain function
C. Wagner (Zurich, CH)

12.00 p.m. - 12.30 p.m. Potassium and Brain function
F. Trepiccione (Naples, IT)

12.30 p.m. - 01.00 p.m. Acid-base and Brain function
P. H. Imenez Silva (Rotterdam, NL)

01.00 p.m. - 03.00 p.m. *Lunch*

First international meeting on brain-kidney interaction: from physiology to clinics

PROGRAMME

FRIDAY, 24th NOVEMBER

FRIDAY, 24th NOVEMBER 2023 - AFTERNOON

SESSION VII

Chairpersons: **A. Perna** (Naples, IT)
P. Ronco (Paris, FR)

03.00 p.m. - 03.30 p.m. The kidney-brain nexus. Regulatory and philosophical implications
M. Farisco (Ariano Irpino, IT/Uppsala, SW)
I. Zecchino (Benevento, IT)

03.30 p.m. - 04.00 p.m. Uremic neurotoxins and brain function
Z. Massy (Paris, FR)

04.00 p.m. - 04.30 p.m. Gut-Brain-Kidney: the stunning interplay
L. Gesualdo (Bari, IT)

04.30 p.m. - 05.00 p.m. Neural Control of Inflammation in AKI/CKD
M. Okusa (Charlottesville, USA)

05.00 p.m. - 05.20 p.m. *Coffee break*

KEY NOTE LECTURE 3

Chairpersons: **M. Wang** (London, UK)

05.20 p.m. - 06.00 p.m. Role of the endocannabinoidome in neurological disorders and neuroinflammatory conditions derived from renal dysfunction
V. Di Marzo (Quebec City, CAN)

06.00 p.m. Summary and Closing Ceremony
G. Capasso (Ariano Irpino, IT/Naples, IT)
D. Goumenos ERA Secretary General (Patras, GR)

First international meeting on brain-kidney interaction: from physiology to clinics

FACULTY

Hans-Joachim Anders	Renal Division, Department of Medicine IV University Hospital, LMU Munich (DE)
Anna Capasso	Department of Medical Oncology -Dell Medical School University of Texas at Austin Austin (USA)
Giovambattista Capasso	University of Campania “Luigi Vanvitelli” Naples Biogem Research Institute Ariano Irpino (IT)
Luca De Nicola	Department of Advanced Medical and Surgical Sciences University of Campania “Luigi Vanvitelli” Naples (IT)
Vincenzo Di Marzo	Department of Medicine and Department of Agricultural and Food Science Laval University Quebec City (CAN)
Fabrizio Esposito	Department of Advanced Medical and Surgical Sciences University of Campania “Luigi Vanvitelli” Naples (IT)
Michele Farisco	Science and Society Unit, Biogem Ariano Irpino (IT) Centre for Research Ethics and Bioethics Uppsala University Uppsala (SW)
Danilo Fliser	Clinic for Internal Medicine IV Renal & Hypertensive Diseases Saarland University Medical Centre Homburg (DE)

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FACULTY

Casper Franssen	Department of Nephrology University Medical Center Groningen Groningen (NL)
Sebastian Frische	Department of Biomedicine University of Aarhus Aarhus (DK)
Giovanni Gambaro	Department of Medicine Division of Nephrology and Dialysis AOUI and University of Verona Verona (IT)
Loreto Gesualdo	Nephrology, Dialysis and Transplantation Unit Department of Precision and Regenerative Medicine and Ionian Area (DiMePre-J) University of Bari Aldo Moro Bari (IT)
Giuseppe Grandaliano	Division of Nephrology University Cattolica del Sacro Cuore Rome (IT)
Eugenio Gutierrez	Center for Functionally Integrative Neuroscience (CFIN) Department of Clinical Medicine, Aarhus University Aarhus (DK)
Ewout J. Hoorn	Department of Internal Medicine Division of Nephrology and Transplantation Erasmus Medical Center Rotterdam (NL)

First international meeting on brain-kidney interaction: from physiology to clinics

FACULTY

M. Arfan Ikram	Department of Epidemiology Erasmus University Medical Center Rotterdam (NL)
Pedro Henrique Imenez Silva	Department of Internal Medicine Division of Nephrology and Transplantation Erasmus Medical Center Rotterdam (NL)
Philippe Jaeger	Department of Renal Medicine University College of London London (UK)
Shelli Kesler	Department of Adult Health, School of Nursing The University of Texas at Austin Austin (USA)
Gaetano La Manna	Department of Nephrology Alma Mater Studiorum - Bologna University Nephrology, Dialysis and Kidney Transplant Unit IRCCS- Sant'Orsola Hospital Bologna (IT)
Francesca Mallamaci	Department of Nephrology Dialysis and Transplantation Azienda Ospedaliera “Bianchi-Melacrino-Morelli” CNR-IFC Institute of Clinical Physiology, Research Unit of Clinical Epidemiology and Physiopathology of Renal Diseases and Hypertension of Reggio Calabria Reggio Calabria (IT)

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FACULTY

Jolanta Malyszko

Department of Nephrology
Dialysis and Internal Medicine
Medical University of Warsaw
Warsaw (PL)

Gianvito Martino

Division of Neuroscience
San Raffaele Scientific Institute
Vita-Salute San Raffaele University
Milan (IT)

Ziad Massy

Division of Nephrology at the
Paris West University (UVSQ)
Ambroise Paré University Hospital
Paris (FR)

Francesco Mattace Raso

Division of Geriatrics
Department of Internal Medicine
Erasmus University Medical Center
Rotterdam (NL))

Maiken Nedergaard

Center for Translational Neuromedicine
University of Copenhagen
Copenhagen (DK)
University of Rochester Medical Center
Rochester, NY (USA)

Mark Okusa

Division of Nephrology , Center for Immunity
Inflammation and Regenerative Medicine
University of Virginia Health System
Charlottesville (USA)

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FACULTY

Antonello Pani	Division of Nephrology University of Cagliari S.C. of Nephrology, Dialysis and Transplantation ARNAS G. Brotzu Hospital Cagliari (IT)
Giuseppe Paolisso	Department of Medical and Surgical Advanced Science University of Campania “Luigi Vanvitelli” Naples (IT)
Alessandra Perna	Department of Translational Medical Sciences University of Campania “Luigi Vanvitelli” Naples (IT)
Giorgia Piccoli	Department of Nephrology CHM - Hospital Center Le Mans Le Mans (FR)
Luca Rampoldi	Division of Genetics and Cell Biology University Vita-Salute San Raffaele Milan (IT)
Giuseppe Remuzzi	Mario Negri Institute for Pharmacological Research IRCCS Milan (IT)
Pierre Ronco	Unit INSERM 1155 Tenon Hospital and Sorbonne University Paris (FR)
Mariadelina Simeoni	Department of Translational Medical Sciences University of Campania “Luigi Vanvitelli” Naples (IT)

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FACULTY

Francesca Simonelli	Multidisciplinary Department of Medical, Surgical and Dental Sciences University of Campania “Luigi Vanvitelli” Naples (IT)
Gioacchino Tedeschi	Department of Advanced Medical and Surgical Sciences University of Campania “Luigi Vanvitelli” Naples (IT)
Francesco Trepiccione	Department of Translational Medical Sciences University of Campania “Luigi Vanvitelli” Naples (IT)
Carsten Wagner	Institute of Physiology and Zurich Kidney Center University of Zurich Zurich (CH)
Monica Wang	Senior Editor Nature Reviews Nephrology London (UK)
Miriam Zacchia	Department of Translational Medical Sciences University of Campania “Luigi Vanvitelli” Naples (IT)
Irene Zecchino	Department of Science and Technology University of Sannio Benevento (IT)
Carmine Zoccali	Renal Research Institute New York City (USA) Institute of Molecular Biology and Genetics (Biogem) Ariano Irpino (IT)

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REGISTRATION - HYBRID EVENT

VIA WEBSITE AND/OR APP - HYBRID EVENT

Subscription to the Reserved Area and to the Event of your interest is required.
REGISTRATION IS FREE.

RESIDENTIAL EVENT

Via website www.en.fondazione-menarini.it

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REGISTRATION - LIVE STREAMING

LIVE STREAMING

Via website www.en.fondazione-menarini.it

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REGISTRATION - FONDAZIONE APP



VIA FONDAZIONE MENARINI APP

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GENERAL INFORMATION

MEETING VENUE

Aula Magna, Congress Centre
Via Partenope, 36 - 80121 Naples (Italy)

OFFICIAL LANGUAGE

The official language of the Meeting will be English.

REGISTRATION HOURS FOR RESIDENTIAL EVENT

Attendance at the meeting is free.

For more information and to register please visit the following website:

www.en.fondazione-menarini.it/Home

Thursday, 23th november: 08.00 a.m. – 06.00 p.m.

Friday, 24th november: 08.00 a.m.- 06.00 p.m.

Please note that times are expressed in Local time (Central European Time - CET)

LIVE STREAMING EVENT ONLINE ON:

Thursday, 23th november: 08.00 a.m. – 06.00 p.m.

Friday, 24th november: 08.00 a.m.- 06.00 p.m.

FACULTY SLIDE CENTRE OPENING HOURS

Thursday, 23th november: 08.00 a.m. – 06.00 p.m.

Friday, 24th november: 08.00 a.m.- 06.00 p.m.

TECHNICAL FACILITIES

Facilities will be available for computer presentations and overhead projections.

A Slide Center with PCs (Windows and Macintosh operating systems) will be available for Speakers to preview and finalize their presentations. Speakers are kindly requested to submit their presentations to the Slide Center technicians at least one hour before their talks.

LUNCH AND COFFEE BREAKS

Lunch and coffee breaks will be served in the meeting area.

ATTENDANCE CERTIFICATE

The attendance certificate will be provided via email upon request.

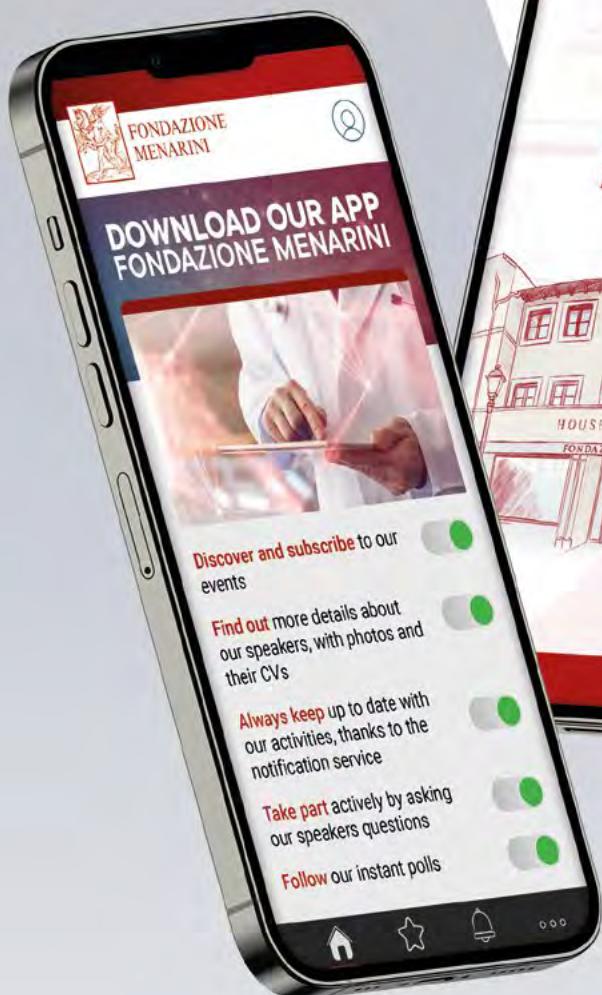
NOTES

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NOTES



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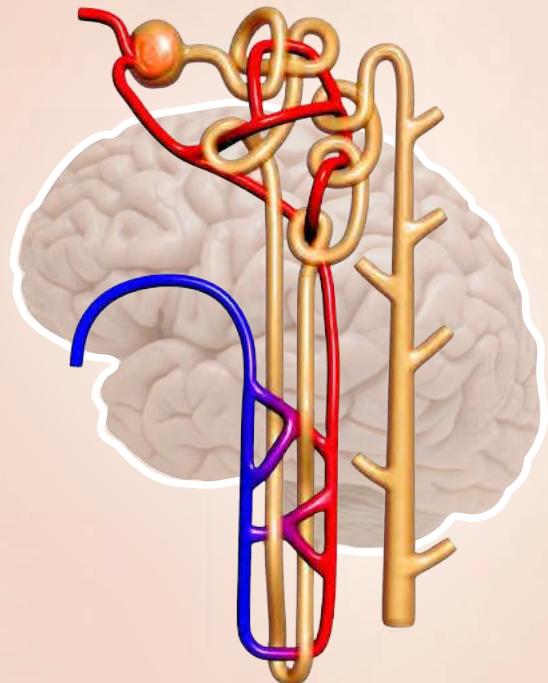
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All slides and presentations are available on our website 15 days after the event.

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