33rd Annual Conference of Academia Europaea

Building Bridges 2022

Academia Europaea
Barcelona Knowledge Hub

BARCELONA, 26-27 OCTOBER 2022

PLENARY PROGRAMME
(as of 7 October 2022)
Our Building Bridges logo represents a nexus that supports and connects different European cities. The bridge has the shape of a capital letter “M”. This letter is the typeset block or “typographic square” that determines the features of the rest of the letters of the same Typographical Family. Any new typeset begins with the design of the “M”. This letter has its origin in an Egyptian hieroglyphic symbol: a wavy line representing the sea. The Phoenicians adopted this symbol and attributed the meaning ‘mem’ or ‘water’ to it, but they placed it upright. The vertical and horizontal variants coexisted in Greek, Etruscan and, for some time, also in Latin. In Augustus’ time (63 BC–14 AD), this letter was flat and firmly grounded on three legs, similar to the way it appears and it is used nowadays. Like our Conference, the logo conveys bridges built among different countries, cultures, and all fields of human science and knowledge (© Building Bridges logo by M. Berlanga).
Institute for Catalan Studies (IEC)
https://www.iec.cat
C/ Carme 47, 08001 Barcelona
Map: https://goo.gl/maps/hRPFq9vjE1uwkuCJ7

Barcelona Biomedical Research Park (PRBB)
http://www.prbb.org/
C/ Doctor Aiguader 88, 0803 Barcelona
Map: https://goo.gl/maps/Umj87dtkhUKwfnq76

AE Barcelona Knowledge website, e-mail and telephone:
http://www.buildingbridges-acadeuro.org/
barcelona@acadeuro.org — Tel. +34-932701725
Gaudi’s dragon, at the entrance of Park Güell, Barcelona. This mythological beast, with its bright scales of small tiles, represents Python, Delphian guardian of the underground waters, the source of knowledge. Python, Gaia/Earth’s son, spelled oracles, early symbol of the dissemination of knowledge and science. (Design and Production by R. Guerrero & M. Berlanga)
October 25 (Tuesday)

CLASS C MEETING

09.30-09.45  Class C  
Eva Kondorosi, Chair of Class C  
Welcome and introduction

09.45-12.40  New Members’ presentation

09.45-10.15  Iva Tolić, Ruđer Bošković Institute, Zagreb  
“Mechanobiology of mitosis”

10.15-10.45  Manuel Serrano, ICREA Professor, Institute for Research in Biomedicine, Barcelona  
“Cellular senescence and reprogramming provide new in-sights into the process of ageing”

10.45-11.10  Coffee break

11.10-11.40  József Haller, University of Public Service, Budapest  
“Abnormal aggression models and the neurobiology of violence”

11.40-12.10  Jaume Bertranpetit, Institute of Evolutionary Biology, Pompeu Fabra University, Barcelona  
“The information hidden in the human genome: from the history of populations to adaptation and disease”

12.10-12.40  Rebecca Fitzgerald, Early Cancer Institute, University of Cambridge  
“From population to personalised prevention of cancer: lessons from the oesophagus”

Please note that all times listed below are according to Central European Time (CET)
12.40-14.00 Lunch break

14.00-15.45 From food security to translational medicine: Brainstorming and strategic plans

14.00-14.05 Eva Kondorosi
Introduction

14.05-14.15 Crisanto Gutiérrez
“Challenges of precision plant gene editing in Europe”

Dirk Inzé
“Gene editing for crop improvement: the quest for a science based policy making” (Video)

14.15-14.25 Ray Dixon
“The nitrogen crisis in agriculture and potential solutions using biological nitrogen fixation”

14.25-14.35 András Báldi
“From local ecosystems to food security”

14:33-14:55 Discussion

14:55-15.45 Peter Hegyi
“Data analysis in healthcare”
“Artificial intelligence in medicine”

15:45-16:30 Marja Makarow, President of Academia Europaea
Welcome to new Academia Europaea Members elected in 2021 and 2022

16:30 Welcome drink
October 26 (Wednesday)

08.15 Check-in for Class meeting participants at Registration Desk at PRBB

CLASS A1, A2 & B MEETINGS

09.00-10.30 Class meetings held in parallel A1, A2 & B

Class A1. Room: Marie Curie
Presentations by new Members

Class A2. Room: Charles Darwin
Presentations by new Members

Class B. Room: Ramón y Cajal
Presentations by new Members

10.30-11.00 Coffee break

11.00-12.30 Continuation of Class meetings

Class A1, Chair Poul Holm
John Tolan, Professeur d’histoire, Université de Nantes
“Religious diversity and cultural transmission in Europe: 2 ERC projects”

Class A2, Chair Björn Wittrock
Philippe Aghion, College de France, INSEAD, and London School of Economics
“Creative destruction and the quest for greener and more inclusive growth”
Class B, Chair Paolo Papale

Ricardo Baeza-Yates, Institute for Experiential AI at Northeastern University, Boston, and Pompeu Fabra University, Barcelona

“Responsible AI: Challenges and recommendations”

12.30  
Check-in for conference participants not attending Class meetings, at Registration Desk at PRBB

Sandwiches and finger food on PRBB terrace
13.30-13.45 Opening of Plenary Sessions at the PRBB

Marja Makarow, President of Academia Europaea
Ricard Guerrero, Director of the AE-Barcelona Knowledge Hub
Moniek Tromp, Vice-Chair of the Young Academy of Europe

13.45-16.15 Debate sessions on hot topics in science policy
Rapporteur: Nisha Gaidn, Nature science magazine

13.45-14.35 Session 1 (40 min for panel + 10 min for questions)
Science policy for the future

Robert-Jan Smits (Chair), President of the Eindhoven University of Technology
“The European perspective”
Andreu Mas-Colell, Pompeu Fabra University, Barcelona
“Interplay between regional and European policies”
Moniek Tromp, University of Groningen
Vice-Chair of the Young Academy of Europe
“Next-generation science policy”

14.35-15.30 Session 2 (45 min for panel + 10 min for questions)
Towards an inclusive and representative academic landscape

The panel will focus on discussing systemic actions for improving demographic, geographic, and ethnographic diversity at research and educational institutions, and identify best practices for an inclusive and representative academic landscape across Europe.
Linn Leppert (Chair), Young Academy of Europe and University of Twente

Stephen Curry, Imperial College London
“Practical steps toward diversity and inclusion in academia”

Yvonne Galligan, Dublin Institute of Technology
“Shaping gender equality in academia”

Katalin Solymosi, ELTE Eötvös Loránd University, Budapest. Young Academy of Europe (recruitment Vice-Chair). Hungarian Young Academy (Co-Chair). AE-Budapest Knowledge Hub (Co-Chair of the Danube Region thematic mission)
“Diversity and inclusion in EU13 countries”

15.30-16.15  Session 3 (35 min for panel + 10 min for questions)
Asking more from research: Scientific and scholarly research results are a public good to be benefitted by society

Marja Makarow (Chair), President of Academia Europaea and University of Helsinki

Shankar Balasubramanian, University of Cambridge
“Fast track DNA sequencing for vaccine development and cancer therapy”

Helga Nowotny, Professor emerita ETH Zurich and Former President of the European Research Council
“Social innovations”

16.15-17.00  Coffee break

17.00-18.30  Welcome to new AE Members
Coordinator: Genoveva Martí
Master of Ceremonies: Donald B. Dingwell

Musical introduction, by Dani Jané, Barcelona, Spanish guitar Improvisation / Calm / Milonga / Gipsy lament

18.30  Glass of cava, and refreshment

20.30  PRESIDENT’S DINNER
Hotel Casa Fuster, Passeig de Gràcia, 132. 08008 Barcelona
October 27 (Thursday)

09.00-11.00  ANNUAL BUSINESS MEETING for AE Members

PLENARY SESSIONS–2

11.15-12.15  Debate sessions on hot topics in science continued

11.15-12.15  Session 4  
**Environment and sustainability**

*What can and should be the roles and responsibilities of Academia Europaea in the current environmental and climate crisis?*

**Poul Holm** (Chair), Professor of Environmental History, Trinity College Dublin

**Verena Winiwarter**, Commission for Interdisciplinary Ecological Studies, Austrian Academy of Sciences

"Environment and sustainability - Current situation and possible future directions of the Academia Europaea”

**Peter Wagner**, ICREA-University of Barcelona. University of Central Asia

“Climate change and the politics of the Great Acceleration”

**Jane Hill**, University of York

“Environment and sustainability - involvement of Academia Europaea in research challenges and opportunities”

12.15-13.00  Lunch break
13.00-14.30 Session 5
Frontiers of science - what’s around the corner?

13.00-13.05 Carl-Henrik Heldin (Chair), Dept. of Medical Biochemistry and Microbiology, Uppsala University

13.05-13.15 Laudatio and presentation of the 2021 ERASMUS MEDAL to Philippe Aghion by Andreu Mas-Colell, Pompeu Fabra University, Barcelona

13.15-13.40 Philippe Aghion, College de France, INSEAD, and London School of Economics
Academia Europaea Heinz Nixdorf Erasmus Lecture 2021
“The promise of the creative destruction paradigm”

13.40-14.05 Kirsten Drotner, University of Southern Denmark
“Frontiers of science: which frontiers? Which science?”

14.05-14.30 Jean-Marie Tarascon, College de France
“Smarter batteries via the help of sensing and self-healing functionalities”

14.30-15.00 Coffee break

15.00-15.10 Laudatio and presentation of the 2022 ANDRÉ MISCHKE YAE PRIZE FOR SCIENCES AND POLICY to Gergely Toldi by Gemma Modinos, Young Academy of Europe and King’s College London

15.10-15.35 Gergely Toldi, University of Auckland, New Zealand. Hungarian Young Academy and AE-Budapest Knowledge Hub Young Academy of Europe Prize Lecture 2022
“Early career academic clinicians at the intersection of medicine, research and policy - Lessons learned from the COVID pandemic”
15.35-15.45  
*Laudatio* and presentation of the **2022 ACADEMIA EUROPAEA GOLD AWARD 2022** to Sierd Cloetingh  
by Robert-Jan Smits

15.45-16.10  
Sierd Cloetingh, Department of Earth Sciences, Utrecht University  
Academia Europaea Gold Award Lecture 2022  
“Bottom-up probing System Earth: a journey in deep time and space”

16.10-16.30  
Concluding remarks and announcement of **Building Bridges 2023**
The **Barcelona City Hall** stands on one side of the Plaça Sant Jaume, right in the Barcelona’s Gothic Quarter and in front of the Palau de la Generalitat de Catalunya. The neoclassical façade conceals Gothic gems such as the historic Great Hall, or *Saló de Cent*, designed by Pere Llobet and built in the 14th century. The city’s first form of government was the Consell de Cent, or Council of the One Hundred, which used to meet in the Great Hall, the *Saló de Cent*, from 1373 until it was dissolved in 1714. The *Saló de Cent* is a Gothic-style chamber. At present, institutional events are carried out, such as the inauguration of the mayor, delivery of municipal distinctions, prizes, etc. (Photograph by M. Berlanga)
BARCELONA HYPATIA EUROPEAN SCIENCE PRIZE

17.00  Buses to the City Hall for those going to the Ceremony Session of the Barcelona Hypatia European Science Prize (People wishing to attend the ceremony must register previously; until two days before, at least)

18.00-19.30  Barcelona Hypatia European Science Prize, 3rd edition (Human and Social Sciences). Awarded since 2018 by the Barcelona City Council in collaboration with the Academia Europaea-Barcelona Knowledge Hub

Ceremony Session at the Barcelona City Hall, Saló de Cent (Plaça de Sant Jaume, 2. 08002 Barcelona)

18.00-18.30  Opening Ceremony Session by the Mayor of Barcelona (or a City Council representative)
Presentation by Ricard Guerrero (Academic Director of AE-BKH) and Marja Makarow (Academia Europaea President)

Laudatio by Genoveva Marti (ICREA-University of Barcelona)

18.30-19.00  Lecture by the awardee, Nancy Cartwright, Durham University, UK
“Modelling Objectively”

19.00-19.30  Drinks offered by the City Council
The School of Athens, one of the most famous frescoes that Raphael (Raffaello Sanzio, 1483–1520) and his school made for the Pontifical Palace in the Vatican between 1509 and 1511. It has been considered that the painting evoked the Egyptian city of Alexandria between the 4th centuries BC and AD. Raphael represented here Ptolemy and Euclid, and probably also Hypatia. She has been identified with the figure in the square [C. Chica. Contributions to Science (2016), 12(2): 129–140. doi: 10.2436/20.7010.01.253].

Winners of the two previous editions of the Barcelona Hypatia European Science Prize

1st edition (2018). Exact Sciences: László Lovász, mathematician and president of the Hungarian Academy of Sciences, for his outstanding career in the field of mathematics and for his contribution to social progress. In 2021, he was awarded the Abel Prize, regarded as the highest distinction worldwide in the field of mathematics.

2nd edition (2019-2020). Life Sciences: Ilaria Capua, virologist and promoter of the multidisciplinary concept of “One Health”, for her research career, her leadership in the movement of open access to genetic information on emerging viruses, and for the social impact of her work.
Academia Europaea
The Academy of Europe
Barcelona Knowledge Hub

OLD CONVALESCENCE HOUSE, the site of the Institute for Catalan Studies

http://barcelona.acadeuro.org/

Academia Europaea (IEC Building)
C/ Carme 47, 08001 Barcelona
barcelona@acadeuro.org – Tel. +34-932701725

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