

**CONSOLIDATED ANNUAL TRUSTEE
(activity) REPORT**

FOR 2016



'The Academy of Europe'
Registered office

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**Company limited by Guarantee and registered at Companies
House. Registration number 07028223
Registered with the Charity Commission, registration number
1133902**

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Section 1: Governance

THE TRUSTEES, AND COUNCIL OF THE ACADEMIA EUROPAEA

Board of TRUSTEES (at 31 December 2016)

Officers

President:	Professor Sierd Cloetingh	Utrecht, (elected June 2014, renewable at AGM of 2017)
Vice President:	Professor Anne Buttimer	Dublin, (till 2018)
Hon. Treasurer:	Professor Peter Scott Professor Ole Petersen	London (resigned April 2016) Cardiff (appointed April 2016)
Co-opted Members:	Professor Theo D'haen Professor Eva Kondorosi	Leuven, (till end 2019) Budapest (till end 2019)
Appointed by Council:	Professor Balazs Gulyas Professor Don Dingwell Professor Svend Erik Larsen	Stockholm, (till end 2016) Munich, (till end 2016) Copenhagen, (till end 2016)

At the time of writing this report, the number of independent members that are elected to Council was set at a maximum of three. The Chairs of the Academic Sections are *de facto* members of the Council. Periods of office of Section chairs are as described in the regulations. The list of Section chairs, as at 31 December 2016, is at annex 6 of this report. Three members of the Council are nominated by Council to the Board of Trustees. Professors Gulyas, Dingwell and Larsen all retired as Council representatives at the end of 2016. They were then co-opted for a specified period as from 1 January 2017. Professors Peyraube, Drotner and Coester were appointed by Council to the Board of Trustees, with effect from January 2017. Prof. D'Haen is the Editor-in-Chief of the European Review. Three class chairs had their mandates modified by agreement with the Council, as follows: Prof Buttimer till AGM 2017, Prof Dingwell till AGM 2018, Prof. Larsen till AGM 2019. Prof. Petersen stepped down as class chair during the year to assume the role of AE Treasurer on the resignation of Prof. Scott. Prof Verkhatsky was appointed by the Trustees as Class Chair for Class C – life sciences until AGM 2019.

Class A1 – Humanities and Arts – Chair Professor Svend Erik Larsen (Trustee)

Class A2 – Social and related Sciences – Chair Professor Anne Buttimer (Vice President (officer and Trustee)

Class B – Exact Sciences – Professor Don Dingwell (Trustee)

Class C – Life Sciences – Professor Alex Verkhatsky

At the AGM of 2015, changes in the Regulations were approved. As a result Professors Dingwell, Petersen and Larsen were appointed as Vice Presidents (ex officio) for the duration of the incumbent presidency.

The composition of the Council as at 31st December 2016 is at Annex 6.

London General Secretariat

Executive Secretary: Dr David Coates
Senior Administrator: Ms Teresa McGovern
Accounts and payroll: Outsourced to Keith Vaudrey Ltd.
Membership Secretary: Function partially provided by the Wroclaw office
Membership administration and database outsourced: Technical University of Graz. Contact is Ms Dana Kaiser

The Executive Secretary is the *de facto* CEO and Company Secretary, with responsibility for day-to-day operations of the London office; oversight of the regional hubs and secretariat support to the Board and other committees.

The registered office is at Senate House, University of London, Malet Street. London WC1E 7HU

Barcelona Hub (<http://barcelona.acadeuro.org/>)

Academic Director: Professor Ricard Guerrero.
Assistant :Anna Magro.

Bergen Hub (www.acadeuro.b.uib.no/)

Academic Director: Professor Jan Vaagen (Deputy, Prof. Laszlo Csernai).
Assistant: Ms Lene Bakke

Cardiff Hub (www.aecardiffknowledgehub.wales/)

Academic Director: Professor Ole Petersen (Treasurer).
Hub Manager: Ms Louise Edwards
Office manager: Mrs Judith Lockett

Graz data Centre. Responsible (under contract) for delivery, support, development and content management of the AE corporate website (ae-info.org) and membership database . The data centre team include: (Director) Professor Frank Kappe, Project Manager H. Leitner, M.Sc., Chief Programmer Robert Hoffmann and Main Editorial Management Dana Kaiser, M.A.

Wroclaw Knowledge Hub (www.acadeuro.wroclaw.pl/)

Academic Director: Professor Tadeusz Luty
Administrators: Dr Ola Nowak and Ms Kasia Majkowska

Auditors

Keith-Vaudrey & Co
Chartered Accountants
First Floor, 15 Young St.
London W8 5EH

Principal Bankers

NatWest Bank Plc
PO Box 2AG
63, Piccadilly
London W1A 2AG

Solicitors

Hewitson Becke+Shaw
Shakespeare House
42, Newmarket Road
Cambridge. CB5 8EP

Section 2: The structure and mission of the Academia Europaea

Prior to 2010 the Academia Europaea operated under a Deed of Trust and was registered as a Charity with the Charity Commission of England and Wales (former registration number 1001978).

On 23 September, 2009: the Academia Europaea was incorporated as a Company limited by Guarantee and was registered at Companies House (number 07028223). See: <https://beta.companieshouse.gov.uk/company/07028223> . The Company was also registered as a not-for-profit charity (registration number 1133902, see

<http://apps.charitycommission.gov.uk/Showcharity/RegisterOfCharities/CharityWithoutPartB.aspx?RegisteredCharityNumber=1133902&SubsidiaryNumber=0>

Governance and management

The affairs of the Academia Europaea are managed by a Board of Trustees. There is consultative Council and other operational sub committees that are described in annex 1. Elections and appointments to the Board and to the Council are as described in the regulations. These can also be found on the corporate website at www.ae-info.org.

The officers of the Academia (President, Vice President(s) and Treasurer) are elected by members. Other Trustees are either appointed from the Council, or co-opted directly by the Board. The AGM confirms these appointments in accordance with the regulations. The Vice Presidents (ex officio) are appointed by the Board of Trustees for a defined term.

Training and induction of new Trustees

New Trustees are provided with a copy of the statutes and regulations; governance documents and sets of minutes of the past year meetings. Trustees also receive copies of documents describing the role and responsibilities of Directors and Trustees and links to the appropriate Charity Commission and Company House websites.

The mission of the Academia Europaea

The Academia Europaea is an international, non-governmental association of individual scientists and scholars, who are experts and leaders in their own subject areas as recognised by their peers.

The Academia will:

- Promote European scholarship and research and increase the wider appreciation of its value and importance
- Make recommendations to national governments and international agencies concerning matters affecting science, scholarship and academic life in Europe.
- Encourage interdisciplinary and international research in all areas of learning, particularly in relation to European issues.
- Identify topics of trans-European importance to science and scholarship, and propose appropriate action to ensure that these issues are adequately studied.

The Academia will endeavour to:

- Encourage the highest possible standards in scholarship, research and education.
- Promote a better understanding among the public at large of the benefits of knowledge and learning, and of scientific and scholarly issues, which affect society, its quality of life and its standards of living.

Charitable objectives:

The advancement and propagation of excellence in scholarship in the humanities, law, the economic, social and political sciences, mathematics, medicine, and all branches of natural and technological sciences anywhere in the world for the public benefit and for the advancement of the education of the public of all ages in the aforesaid subjects in Europe

Section 3: Trustees' report for the period ended 31 December 2016

The Trustees would like to thank all of the organisations that have sustained the Academia through their generous general financial sponsorships in particular the authorities supporting the Barcelona Knowledge Hub and the German Academy of Sciences (Leopoldina) a Patron member of the Academia Europaea and those that have contributed to specific events and activities of the Academia during the period of this report. These organisations are identified in various places within this report and in the accounts and have been identified within with the various 'reports to members' of events held during the current period, where appropriate. The Trustees have been active in their engagement in the affairs of the Academia and a majority have attended every Board (and the annual Advisory Council)

meeting. Trustees have been active in monitoring the affairs of the Academy. The Trustees wish to express their gratitude to the elected officers of the Academy for their hard work on behalf of the membership, in particular to thank those Trustees who stepped down during the period of this report (Professor Scott).

This reporting period was carried out against the background of an unexpected loss of core donor support. The loss of a 50,000 Euro annual donation and a delay in payment of over 26,000 Euros, forced the Trustees to amend the planned expenditures and put into place cost saving measures. The net result as expressed in the annual accounts for 2016 was a decline in unrestricted funds reserves carried forward to £ Nil..

The Trustees are fully aware of the need to continue to search for new sources of sponsorship, in particular to support core costs. The Trustees therefore implemented an increase in the recommended level of member donations requested in 2017, setting rates in accordance with an age-related banding system. The Trustees wishes to acknowledge support received in 2016 from the following organisations: The Riksbankens Jubileumsfond; the Heinz Nixdorf Foundation for the renewal of sponsorship of the Erasmus Lecture, the Technical University of Graz for their dedicated IT and corporate web support, the Wenner Gren Foundations in Stockholm and the Volkswagen Stiftung for support to the HERCuLES group and to Cambridge University Press for their donation of book prizes to the 2016 Burgen Scholars. In addition the Trustees are grateful to Professor Petersen at the Cardiff Hub and to the Vice Chancellor and authorities of Cardiff University for their generous hosting and sponsorship of the 2016 annual conference. Further financial support was gained locally for new initiatives that were organised by and run through the regional hubs. Hub activity reports for 2016 are annexed in full at the end of this report.

The Trustees are pleased to report that in 2016, inter – organisational links were strengthened with a number of European federation organisations (ALLEA, FEAM, EASAC and euroCASE) and a joint project proposal was submitted to the European Commission. That proposal was approved. The first tranche of the four-year grant was paid at the end of 2016. The project (SAPEA) is described in detail in the report. In addition, the Trustees agreed to collaborate closely with ALLEA to jointly organise the 2017 annual conference. The AE also engaged in a number of specific activities that responded to policy issues across Europe and made a specific focus on strengthening links with Eastern European and Southern European communities, including in the North African states through the Barcelona Hub and in collaboration with the ERC, through the President and Prof. Eva Kondorosi (AE Trustee) in her capacity as an ERC vice-president.

The Trustees are pleased to report a further widening of the membership of the Academia Europaea with the election in 2016 of 235 scholars. The Trustees also continued to support the further development of the Young Academy of Europe, in recognition of the AE mission to promote young researchers. The Trustees continue to recognise the difficult economic circumstances and are able to report that the Knowledge Hubs are financed with local support and were not reliant on core financial support from central funds for their day-to-day operations. It is with regret that the Bergen hub lost its local financial support and emergency arrangements were made to transfer responsibility to the University of Bergen. The re-constituted Hub continued operation, but the Academia lost the financial contribution made under from the previous arrangement. Finally in this period, the Trustees were able to provide some support through the Hubert Curien Initiative Fund, even in difficult financial circumstances. The recipient activities are reported elsewhere. In 2016 The AE launched a new award – the Adam Kondorosi prizes, to honour the memory and achievements of Professor Adam Kondorosi. The first award to an outstanding young researcher is reported on below. A new Fund for the prize was established by the generosity of Prof Eva Kondorosi and other sponsors.

During 2016, the People of the UK voted to leave the European Union. The implications of a future departure of the UK (BREXIT) will be considered by the Trustees. However, as the Academia Europaea does not rely for its operational existence on any formalised funding from the European Union and as it has a membership of individuals drawn from the continent of Europe and from beyond Europe. The Trustees consider the risks to the continuation of the Academia as a UK registered and domiciled charity to be negligible at this time. The situation will be kept under review and any necessary steps will be taken to ensure a continuation, including any changes in jurisdiction if needed.

The Trustees, are pleased to place on record, their belief that at the time of compilation of this report, there are no additional or unforeseen risks that may place the continuation of the charity in jeopardy.

Public benefit statement

Over the year the Academia has published articles and papers in commercial journals; organised academic meetings and conferences that are open to young scholars and to the interested public in all areas of operation. The Academia has provided prizes and awards to support and recognise researchers in pursuit of their scholarship. To enhance the accessibility of the European scholarly community to the public, the Academia has maintained and enhanced its Web portal and has contributed to the betterment of European Policy through participation in providing expert, impartial advice to authorities and governmental organisations and has supported the Young Academy of Europe. A full description of all of the main activities is included elsewhere in this report.

The Trustees have consulted the guidance made by the Charity Commission for England and Wales on the Public Benefit requirement of the charities Act 2011. The Trustees are confident that they have complied with their duty under

section 4 of the Charities Act 2011 in that they have had a due regard to public benefit guidance published by the Commission.

Future Plans

In the coming year the Trustees will continue to deliver the mission of the Academia through the running of appropriate workshops, publications and related activities. More focus will be given to activity through the four regional hubs. The Young Academy of Europe, will continue to be supported, specifically to provide a focus to engage with and support young researchers from across Europe, who are embarking on an academic and research career. The AE engagement in European Science policy advice will be strengthened through the new Science Advice Policy project (SAPEA) funded by the European Commission and the Trustees will endeavour to find additional core funding and sponsorship sources. The Trustees will especially focus on ensuring that its UK based membership and researchers in general can continue to be fully engaged with their international colleagues during the period of negotiation of the UK exit from the European Union.

Section 4: Centrally co-ordinated activities during the period, 1 January 2016 – 31 December 2016

28th Annual Meeting of the Academia Europaea, 27 – 29 June 2016.

The 28th annual conference was held in Cardiff, under the patronage of the Vice Chancellor of Cardiff University – Professor Colin Riordan. The event was organised by the AE Cardiff Knowledge Hub in association with the Learned Society of Wales. The Trustees wish to thank the Vice Chancellor and Professor Ole Petersen (Academic Director of the AE Knowledge Hub, Cardiff). The list of sponsors and patrons can be found below



A full description of the event can be found in the 2016 annual report of the AE Knowledge Hub, Cardiff (at annex 3) and at [www](http://www.ae.org.uk).



The 2016 Erasmus Medal was awarded on 27 June, 2016 to the distinguished international astronomer ;

The Council of the Academia Europaea were pleased to award the Erasmus Medal to the internationally renowned cosmologist and astrophysicist;

***Professor Martin Rees,
The Lord Rees of Ludlow, OM, FRS, FREng, FMedSci, FBA(hon)***

The Erasmus Medal of the Academia Europaea is awarded on the recommendation of the Council, to a member who has maintained over a sustained period, the highest level of international scholarship and recognition by peers.

The laudation was made by **Gerrard Gilmore FRS, MAE**. Professor of Experimental Philosophy, Cambridge, UK

2016 Heinz-Nixdorf Erasmus Lecture title : ***“From Mars to the Multiverse”***

Lecture abstract: We have two main motives for studying astronomy: first, to set our Earth in a cosmic context, and understand how our present complex cosmos emerged from ‘simple’ beginnings; and second, to probe nature’s laws in environments far more extreme than can be simulated in the laboratory. This lecture will illustrate both of these motives. Unmanned spacecraft have visited the other planets of our Solar System (and some of their moons), beaming back pictures of varied and distinctive worlds - but none propitious for life. But prospects are far more interesting when we extend our gaze to other stars. Most stars are orbited by retinues of planets. Our home Galaxy contains a billion planets like the Earth. Do some of these have biospheres?

Moreover, our Galaxy is one of billions visible with a large telescope-- all the aftermath of a cosmic 'big bang' 13.8 billion years ago. More astonishing still, 'our' big bang may not have been the only one.

The remarkable advances in recent decades are primarily owed to new engineering and technology. Armchair theory alone doesn't get us far!

Finally, in focusing back on Earth we should realize that even in a perspective stretching billions of years into the past – and equally far into the future too – this century is special. It's the first in the Earth's history when one species (ours) can determine the biosphere's future.

Biography:

Martin Rees is a cosmologist and space scientist. He is based in Cambridge, where he has been Director of the Institute of Astronomy, a Research Professor, and (until recently) Master of Trinity College. He was President of the Royal Society during 2005-2010. In 2005 he was appointed to the UK's House of Lords. He has received many international awards for his research, and belongs to numerous foreign academies including the US National Academy of Sciences, the Russian Academy and the Pontifical Academy. He has served on the Boards of the British Museum, the Science Museum, NESTA, the Princeton Institute for Advanced Study and on many other bodies connected with education, space research, arms control and international collaboration in science. He lectures, writes and broadcasts widely for general audiences. His books include 'Before the Beginning', 'Our Final Century?', 'Just Six Numbers', 'Our Cosmic Habitat', 'Gravity's Fatal Attraction', and (most recently) 'From Here to Infinity: Scientific Horizons', an expanded version of his BBC Reith Lectures. A further book, 'What we still don't know' is forthcoming.

For full information about the life and works of Professor Rees, go to this link (<http://www.ast.cam.ac.uk/~mjr/>). The lecture will be published in a future issue of The European Review (2017).

The Erasmus lecture is sponsored by the **Heinz-Nixdorf Stiftung**



Further information about the Heinz-Nixdorf Stiftung: <http://www.heinz-nixdorf-stiftung.de>

The 2016 Burgen Scholars awards, 29 June, Cardiff

The Burgen Scholarships are named in honour of our founding President – Professor **Arnold Burgen FRS MAE**.

They provide recognition to younger European scholars, at the post-doctoral level, who are emerging talents and potential future leaders in their field. Recipients may or may not yet have an established position.

The nomination of candidates is a task given to the members of the Academia Europaea resident in the country that is hosting the annual meeting.

Up to ten awards can be made. The awards cover the costs of attendance and participation in the Annual Conference (registration fees, travel and accommodation).

The Burgen Scholarship award is marked by the presentation of a certificate to the successful candidates, and a book prize generously donated by the Cambridge University Press. Costs for attendance and participation are covered by the AE.

A local committee of Academia Europaea members who are responsible for the organisation of the Annual Conference make the final selection of the list of Burgen scholars from amongst those nominated by their fellow national members of the Academia Europaea.

The book prize is sponsored by :



The Academia Europaea was pleased to award the 2016 Burgen Scholar awards to:

**Paweł Ferdek
Ceri Hammond
Monika Jakubowska
Rhianedd Mair Jewell
Isabel Matinez Garay
Tomos Owen
Shuang Peng
Tomos Proffitt
Emiliano Spezi**

(in alphabetical order by family name).



NAME: Paweł Ferdek

AFFILIATION: Cardiff University

FIELD OF SCHOLARSHIP: Bioscience

BIOGRAPHICAL NOTE:

Paweł Ferdek is currently a postdoctoral researcher at Cardiff University. In 2007 he was awarded the MSc degree in Biotechnology from Jagiellonian University (Krakow, Poland) after performing his research at the University of Virginia (Charlottesville, VA, US). Following his move to the UK, he completed a 4-year Wellcome Trust funded PhD programme in Molecular and Cellular Physiology at the Universities of Liverpool and Cardiff, graduating in 2012. He presented his work at multiple international scientific meetings. Since 2014 he has been an Affiliate Member of The Physiological Society and he was actively involved in organising the Early Career Physiologists' Symposium in 2015.

DETAILS OF RESEARCH:

Paweł is interested in many aspects of bioscience and was involved in a wide variety of scientific projects. He performed his MSc research in the field of atherosclerosis, looking at mechanisms that led to transition of macrophages into lipid packed foam cells. As a PhD student he demonstrated a novel role for the anti-apoptotic protein Bcl-2 in regulation of Ca^{2+} extrusion in pancreatic acinar cells, which was later published in *Current Biology*. His recent scientific activities are centred on pathophysiological Ca^{2+} signalling mechanisms, especially in the context of diseases of the exocrine pancreas such as pancreatitis and pancreatic cancer. As opposed to investigating processes in single cells, he examines Ca^{2+} signals that occur simultaneously in adjacent cells in isolated pancreatic lobules. He is particularly interested in signalling events induced by bile acids in enigmatic pancreatic stellate cells and implications of these events in initiation and progression of acute biliary pancreatitis.

TWO KEY PUBLICATION REFERENCES:

1. Ferdek PE, Gerasimenko JV, Peng S, Tepikin AV, Petersen OH & Gerasimenko OV. (2012). A novel role for Bcl-2 in regulation of cellular calcium extrusion. *Curr Biol* 22, 1241-1246.
2. Gerasimenko JV, Gryshchenko O, Ferdek PE, Stapleton E, Hebert TO, Bychkova S, Peng S, Begg M, Gerasimenko OV & Petersen OH. (2013). Ca^{2+} release-activated Ca^{2+} channel blockade as a potential tool in antipancreatitis therapy. *Proc Natl Acad Sci U S A* 110, 13186-13191.



NAME: **Oleksii Gryshchenko**

AFFILIATION: Bogomoletz Institute of Physiology, Ukrainian Academy of Sciences, Kiev
Cardiff School of Biosciences, Cardiff University, Cardiff

FIELD OF SCHOLARSHIP: Calcium signalling in pancreatic stellate cells

BIOGRAPHICAL NOTE:

Oleksii Gryshchenko studied at Moscow Institute of Physics and Technology, Moscow, the USSR. He qualified as an engineer-physicist, with diploma thesis defended on "Chemical Modification of the Voltage-Dependent Characteristics of Calcium Channels in Neurons of *Helix Pomatia*". In 1998 he defended PhD Thesis "Investigation of potassium channels and their role in cardiomyocytes differentiated from embryonic stem cells", scientific advisor Prof. P.Kostyuk. Dr Gryshchenko carried out different scientific projects such as electrical excitability of early embryonic stem cell-derived cardiomyocytes; diabetes-induced abnormalities in pain sensitivity of nociceptive neurons; excitation-contraction coupling in cardiomyocytes and others. In collaboration with Prof. O.H.Petersen's Lab he investigated pancreatic acinar cells in normal and pathology. Recently his field of interest has included the investigation of the behaviour and properties of pancreatic stellate cells.

DETAILS OF RESEARCH:

Normal pancreatic stellate cells (PSCs) are regarded as quiescent, only to become activated in chronic pancreatitis and pancreatic cancer. However, we now report that these cells in their normal microenvironment are far from quiescent, but are capable of generating substantial Ca²⁺ signals. We have compared Ca²⁺ signalling in PSCs and their better studied neighbouring acinar cells (PACs) and found complete separation of Ca²⁺ signalling in even closely neighbouring PACs and PSCs. Bradykinin (BK), at concentration corresponding to the slightly elevated plasma BK levels that have been shown to occur in the auto-digestive disease acute pancreatitis *in vivo*, consistently elicited substantial Ca²⁺ signals in PSCs, but never in neighbouring PACs, whereas the physiological PAC stimulant cholecystokinin failed to evoke Ca²⁺ signals in PSCs. The BK-induced Ca²⁺ signals were mediated by B2 receptors and B2 receptor blockade protected against PAC necrosis evoked by agents causing acute pancreatitis. The initial Ca²⁺ rise in PSCs was due to inositol trisphosphate receptor-mediated release from internal stores, whereas the sustained phase depended on external Ca²⁺ entry through Ca²⁺ release-activated Ca²⁺ (CRAC) channels. CRAC channel inhibitors, which have been shown to protect PACs against damage caused by agents inducing pancreatitis, therefore also inhibit Ca²⁺ signal generation in PSCs and this may be helpful in treating acute pancreatitis.

TWO KEY PUBLICATION REFERENCES:

Gryshchenko O, Gerasimenko JV, Gerasimenko OV, Petersen OH. Ca(2+) signals mediated by bradykinin type 2 receptors in normal pancreatic stellate cells can be inhibited by specific Ca(2+) channel blockade. *J Physiol*. 2016 Jan 15; 594(2): 281-93.

Gerasimenko JV, **Gryshchenko O**, Ferdek PE, Stapleton E, Hébert TO, Bychkova S, Peng S, Begg M, Gerasimenko OV, Petersen OH. Ca²⁺ release-activated Ca²⁺ channel blockade as a potential tool in antipancreatitis therapy. *Proc Natl Acad Sci U S A*. 2013 Aug 6; 110(32): 13186-91.



NAME: **Ceri Hammond**

AFFILIATION: Cardiff Catalysis Institute, Cardiff University School of Chemistry
FIELD OF SCHOLARSHIP: Heterogeneous Catalysis and Catalysis Engineering

BIOGRAPHICAL NOTE:

I am a recently appointed Royal Society University Research Fellow at the Cardiff Catalysis Institute, where I lead a young and dynamic research group ("Hammond Catalysis Engineering"). Currently, the group is composed of 1 PI, 5 PhD students, 3 co-supervised PhD students and 4 undergraduate students. In addition to my main fellowship at Cardiff, I also hold a position of visiting research at Stanford University in California, where I spend several months each year. Prior to establishing my independent research group, I spent several years at ETH Zurich, Switzerland, working in the Institute of Chemical and Bio-Engineering as a post-doctoral research fellow. Since 2011, I have published > 40 peer-reviewed publications, 2 patents, and have received 4 funding awards as PI, including a >£500,000 grant from The Royal Society. In my spare time, I enjoy skiing, cycling, mountaineering, travelling and learning languages.

DETAILS OF RESEARCH:

As defined in textbooks, a catalyst is "a substance that accelerates the rate that the equilibrium position of a chemical reaction is attained, whilst undergoing no net chemical change." Catalysts work by lowering the energy required for the reaction to become spontaneous. In doing so, they are able to make chemical processes cleaner, more sustainable, and more economically viable. Consequently, catalytic science is a core element of our contemporary chemical industry.

My groups research focuses on the development of chemical processes catalyzed by solids. The three main strands of my teams research are (1) the development of various porous materials and nanoparticles which are able to act as heterogeneous catalysts; (2) advanced mechanistic studies of catalytic systems through kinetic analysis and in situ spectroscopic study; and (3) the intensification (*i.e.* upscaling) of catalytic processes through reactor design and process optimization. More recently, my team has also expanded into the field of nanotherapeutics. My research is highly interdisciplinary, combining several aspects of chemistry, chemical engineering and material science.

TWO KEY PUBLICATION REFERENCES:

1. Simple and scalable preparation of highly active Lewis acidic Sn- β
C. Hammond et al., *Angew. Chem. Int. Ed.* 51 (2012) 11736-11739
Cover Article
Highlighted in ETH Life, and highlighted as a 'Hot Topic' by Wiley-VCH
2. Direct catalytic conversion of methane to methanol in an aqueous medium using Cu-promoted Fe- ZSM-5
C. Hammond et al., *Angew. Chem. Int. Ed.* 51 (2012) 5129-5133
Highlighted as a 'Hot Article' by Wiley-VCH
Highlighted in Science (336 (2012) 6081) and Chemical and Engineering News (90 (2012) 37)



NAME: **Monika Jakubowska**

AFFILIATION: Cardiff University
FIELD OF SCHOLARSHIP: Biological Sciences

BIOGRAPHICAL NOTE:

Monika simultaneously worked as a Researcher (2010-2013) and conducted her PhD studies in Biophysics (2013) at the Jagiellonian University, Poland. She tested chlorophyll-derived light-activated drugs as a potential therapeutic tool for cancer. Monika investigated a role of nitric oxide in therapy-induced inflammatory responses in the human

adenocarcinoma xenografts. She then moved to Cardiff (2013) to work as a Research Associate in School of Biosciences, studying the interplay between nitric oxide and calcium signalling pathways upon inflammatory stress. Monika gave an oral presentation at the Gordon Research Seminar on Calcium Signaling in 2015, Sunday River, ME, US, as well as multiple poster presentations of her current work (2014-2016). She joined The Physiological Society in 2014 as an Affiliate Member, and in 2015, on behalf of The Society, organised the Early Career Physiologists' Symposium.

DETAILS OF RESEARCH:

Monika investigates stress-induced cellular signalling in the exocrine pancreas. She focuses mainly on the interactions between nitric oxide (gasotransmitter) and calcium in pancreatic stellate cells which play important roles in development of pancreatic pathologies: chronic pancreatitis and pancreatic cancer. By using 3D confocal microscopy together with the fluorescent NO and Ca²⁺ indicators, Monika studies how pro-inflammatory signals lead to cellular stress and disease.

TWO KEY PUBLICATION REFERENCES:

M Jakubowska, D Michalczyk-Wetula, J Pyka, A Susz, K Urbanska, BK Plonka, P Kuleta, P Lacki, M Krzykawska-Serda, L Fiedor, PM Plonka (2013) *Nitrosylhemoglobin in Photodynamically Stressed Human Tumors Growing in Nude Mice*. Nitric Oxide 35:79-88

M Jakubowska, M Szczygiel, D Michalczyk-Wetula, A Susz, G Stochel, M Elas, L Fiedor, K Urbanska (2013) *Zinc-Pheophorbide a - Highly Efficient Low-Cost Photosensitizer against Human Adenocarcinoma in Cellular and Animal models*. Photodiagn. Photodyn. Ther. 10(3):266-277



NAME: **Rhianedd Mair Jewell**

AFFILIATION: Aberystwyth University

FIELD OF SCHOLARSHIP: Welsh and European Literature

BIOGRAPHICAL NOTE:

Rhianedd is a Coleg Cymraeg Cenedlaethol lecturer in Professional Welsh at Aberystwyth University. After studying for a BA in French and Italian at the University of Oxford, she remained at St Anne's College to complete her MSt in Modern Languages (Italian) and her DPhil in Italian Literature. Her thesis focussed on the construction of identity in language and narrative in the work of the Sardinian Nobel Prize winning author, Grazia Deledda (1871-1936).

While completing her DPhil, Rhianedd was also a recipient of the John Rhys Scholarship and therefore worked as Celtic Lecturer for the university, teaching modern Welsh to undergraduate students and in the University Language Centre. After obtaining her doctorate she went on to work as a Welsh Lecturer at Swansea University for a year before beginning her current role at Aberystwyth University. Rhianedd currently holds the Saunders Lewis Memorial Scholarship which funds her most recent research project, a study of Saunders Lewis's Welsh translations of the plays of Samuel Beckett and Molière.

DETAILS OF RESEARCH:

Saunders Lewis (1893-1985) is a central figure in Welsh literature, politics, and the genre of Welsh drama. His contribution to these fields has been well established, but one aspect of his work remains neglected, namely his work as a translator. My current research examines Saunders Lewis's Welsh translations of the plays of Samuel Beckett and Molière. Lewis translated Molière's farce, *Le Médecin malgré lui (Doctor er ei Waethaf)*, in 1924, as a young writer and academic; he translated Beckett's absurdist masterpiece, *En Attendant Godot (Wrth Aros Godot)*, in 1962, at a time when he was an established dramatist and political figure. I intend to demonstrate that these two texts, which frame Lewis's literary career, reflect changes in his own personal and professional life in that time, and map the development of translation theories during this period. The early translation, *Doctor er ei waethaf*, is in keeping with foreignization, a theory which places an emphasis on the foreign nature of the original text. Lewis keeps references to French culture, and demonstrates his great respect for Molière as a playwright who should be emulated. The later translation, however, *Wrth Aros Godot*, can be associated with domestication, as it is adapted for a Welsh audience. It could even be regarded as a different play given that Lewis has imprinted his own religious and political interpretation on the text. The

translator of *Godot* is a confident dramatist in his own right, and this can be seen in the liberties taken in this latter translation.

TWO KEY PUBLICATION REFERENCES:

Her a Hawl wrth Gyfieithu Dramâu: Saunders Lewis, Samuel Beckett a Molière (Cardiff: University of Wales Press, Forthcoming 2017)

'Sardinian Confines in the works of Grazia Deledda' in *Italian Women Writers, 1800-2000: Boundaries, Borders, and Transgression*, ed. by Patrizia Sambuco (Lanham: Fairleigh Dickinson University Press, 2015), pp. 45-56.



NAME: Isabel Martinez Garay

AFFILIATION: School of Biosciences, Cardiff University

FIELD OF SCHOLARSHIP: Neuroscience

BIOGRAPHICAL NOTE:

After obtaining a degree in Biology at the University of Valencia (Spain), I embarked on two PhD projects, one at the University of Valencia, working on the genetics of X-linked cognitive impairment, and the second at the University of Hamburg (Germany), analysing the breakpoint regions of a chromosomal translocation. In 2007 I became a postdoc at the laboratory of Dr Ulrich Mueller, at the Scripps Research Institute in La Jolla, California, where I studied the development of the cortex, focusing on two critical processes, neuronal fate specification and neuronal migration. I then moved back to Europe in 2012 and joined the laboratory of Prof Zoltán Molnár at the University of Oxford for a second postdoc. During my time in Oxford I investigated the role of a candidate dyslexia susceptibility gene during corticogenesis and continued previous work on the function of classical cadherins in neuronal migration. In March 2015 I was appointed as a Lecturer at the School of Biosciences of Cardiff University. My laboratory studies the roles that adhesion proteins of the cadherin superfamily, in particular Cadherin 2 and the delta-protocadherins, play during development of the cerebral cortex.

DETAILS OF RESEARCH:

The cerebral cortex is the seat of higher brain function and it plays a key role in memory, attention, thought, perception, language, human consciousness, etc. Disruption of its layered architecture and alteration of its circuitry are associated with many neurological disorders, including epilepsy, schizophrenia, autism and mental retardation. Our long-term objective is to understand the cellular and molecular mechanisms of circuit formation in the cortex and how disruption of these processes leads to neuronal and brain dysfunction. With the mouse as a model system, we use a variety of techniques to study cortical development both in vitro and in vivo. We employ molecular and cell biological approaches, and combine them with techniques such as in utero electroporation and primary neuronal cultures, to manipulate cadherin function and assess the effects of such manipulations on neuronal production, positioning, target specificity and connectivity. We are focusing on one particular member of the cadherin superfamily, Protocadherin 19, which is mutated in a human disorder associated with epilepsy and cognitive impairment. We aim to elucidate the role of this particular adhesion molecule in the mammalian brain in an effort to understand the pathophysiology of the disease. In addition, we have recently demonstrated that classical cadherins provide traction for the migration of projection neurons in the cortex. We now want to further investigate the mechanisms by which adhesion and contractility are regulated in those cells.

TWO KEY PUBLICATION REFERENCES:

Martinez-Garay I, Gil-Sanz C*, Franco SJ, *, Espinosa A, Monár Z, Müller U. "Cadherin2/4-signaling via PTP1B and catenins is critical for nucleokinesis during radial neuronal migration in the neocortex" **Development** (accepted). *These authors contributed equally to this work.

Franco SJ, Gil-Sanz C*, **Martinez-Garay I***, Espinosa A, Harkins-Perry SR, Ramos C, Müller U. "Fate-Restricted Neural Progenitors in the Mammalian Cerebral Cortex" **Science** 2012 Aug 37:746-49.

*These authors contributed equally to this work.



NAME: Tomos Owen

AFFILIATION: Bangor University

FIELD OF SCHOLARSHIP: English and Welsh Literature

BIOGRAPHICAL NOTE:

Tomos Owen is a Lecturer in the School of English Literature at Bangor University, where he is also co-director of the MA in the Literatures of Wales / Llenyddiaethau Cymru. His teaching and research focuses principally on modern and contemporary literature and the literatures of Wales (in Welsh and English). Prior to his appointment at Bangor he was a lecturer at Cardiff University, where he gained his PhD and was also a postdoctoral fellow.

DETAILS OF RESEARCH:

Tomos Owen's research focuses principally on modern and contemporary Welsh writing. He has published on Welsh literary culture at the turn of the twentieth century, depictions of rioting in Welsh writing, Roald Dahl, W.H. Davies, Caradoc Evans and Arthur Machen. He is currently completing a monograph on Welsh writing in London at the turn of the twentieth century, to be published by University of Wales Press.

TWO KEY PUBLICATION REFERENCES:

Tomos Owen, 'How Sweet was My Valley: Willy Wonka and the Welsh Industrial Novel', in Damian Walford Davies (ed.), *Roald Dahl: Wales of the Unexpected* (Cardiff: University of Wales Press, 2016), pp. 27-48.

Tomos Owen 'Shibboleth: for Dylan Thomas' in Kieron Smith and Rhian Barfoot (eds), *Dylan Thomas: New Critical Perspectives* (Cardiff: University of Wales Press, 2017; in preparation)



NAME: Shuang Peng

AFFILIATION: Cardiff University

FIELD OF SCHOLARSHIP: Biomedical Science

BIOGRAPHICAL NOTE:

Shuang Peng received his bachelor's degree in clinical medicine in 2008 from Hainan Medical University, China. In 2011, he was selected as a candidate for the Joint Jinan University – Cardiff University post-graduate program and sent by Jinan University to study at Cardiff School of Biosciences. He obtained his Master's degree in Biomedical Science from Cardiff University in 2013. Thereafter, from 2014, he was supported by the China Scholarship Council to continue his project in the laboratory of Professor Ole Petersen CBE FRS at Cardiff University. He completed his Ph.D. in Pathology and Pathophysiology in 2016. He is currently involved in two research projects which are entitled "Study of the side-effects of the anti-leukaemia drug Asparaginase" (funded by Children with Cancer, UK) and "Calcium signalling, organelle dysfunction and pancreatitis" (funded by The Medical Research Council). He presented his work in multiple

international meetings (such as Early Career Physiologists Symposium 5 July 2015) and he became an Affiliate member of The Physiological Society in 2015.

DETAILS OF RESEARCH:

My primary research interest is directed but not limited to study of mechanisms and causes of acute pancreatitis. The pancreas secretes the enzymes needed for the breakdown in the gut of proteins, fats and carbohydrates. However, the enzymes needed for digestion can, if inappropriately activated inside the cells in the pancreas, also digest the pancreas itself. This is what happens in the painful human disease acute pancreatitis, which is mostly caused by gallstones or excessive alcohol intake. We know from previous work that one of the features of the acute pancreatitis pathway is elevated calcium levels inside cells. We have successfully demonstrated that reduction of calcium levels, either by inhibiting calcium release within cells or external calcium entry, dramatically improves survival of pancreatic cells treated with alcohol or bile. Release of calcium ions inside cells and flow of calcium ions into the cells from the outside are complex processes. We are aiming at identifying critical control points and ways and means of interfering with these, to develop additional strategies for prevention and/or treatment of acute pancreatitis. I particularly seek to understand the mechanism by which the anti-leukaemia drug Asparaginase induces acute pancreatitis. Asparaginase is an anti-leukaemic drug, forming an important part of the successful chemotherapy regime for young leukaemia patients. Asparaginase can, however, cause a life-threatening inflammation of the pancreas – known as pancreatitis. Once children develop pancreatitis they cannot receive any more Asparaginase, compromising their chance of beating leukaemia. This work may enable identification of children who are likely to get pancreatitis before they are exposed to Asparaginase, so that they can be offered alternative treatments.

TWO KEY PUBLICATION REFERENCES:

1. Peng S, Gerasimenko JV, Tsigorka T, Gryshchenko O, Samarasinghe S, Petersen OH, Gerasimenko OV. Calcium and ATP control of cellular pathology: Asparaginase-induced pancreatitis elicited via protease-activated receptor 2. *Phil Trans R Soc B* 2016 *In press*
2. Gerasimenko JV, Peng S, Gerasimenko OV. Role of acidic stores in secretory epithelia. *Cell Calcium* 2014 Jun;55(6):346-54.



NAME: **Tomos Proffitt**

AFFILIATION: University of Oxford

FIELD OF SCHOLARSHIP: Palaeolithic Archaeology and Primate Archaeology

BIOGRAPHICAL NOTE:

Tomos Proffitt, originally from Llanelli (Carmarthenshire), graduated from the Institute of Archaeology, University College London (UCL) in 2010. After working briefly in commercial archaeology in South East England, his MSc in Palaeoanthropology and Palaeolithic Archaeology at UCL part-funded by a Thomas and Elizabeth Williams Scholarship, focused on a technological analysis of stone tool assemblages from the upper Palaeolithic Magdalenian rock shelter at Buendia, Central Spain. With continued support from the Thomas and Elizabeth Williams Foundation and a UCL IMPACT Award, in 2012 Tomos undertook a PhD in Palaeolithic archaeology working with the Olduvai Geochronology and Archaeology Project (OGAP) at Olduvai Gorge, Tanzania, where he excavated hominin occupational sites (1.7-1.6 million years ago) commonly associated with *Homo habilis* and *Homo erectus*. His thesis is titled: "A technological analysis of the Oldowan and Developed Oldowan assemblages from Olduvai Gorge, Tanzania". Since receiving his doctorate in 2016, he is now a post-doctoral researcher with the Primate Archaeology Group at the Research Laboratory for Archaeology and History of Art at the University of Oxford.

DETAILS OF RESEARCH:

Tomos' PhD involved a detailed re-analysis of the Oldowan and Developed Oldowan stone tool assemblages from Olduvai Gorge, Tanzania, excavated by Mary and Louis Leakey in the 1960s and 70's. Through technological analysis and experimental replicative studies his results indicated that stone tool production at Olduvai Gorge between 1.8 and 1.5 million years ago showed no major variability in techniques. However, subtle changes were identified in raw material exploitation, stone tool production intensity and land use, possibly brought about by a changing climate. His current

research focuses on the stone tool-using behaviours of extant primates in order to better understand the development of stone tool technology in the early archaeological record (prior to 3.3 million years ago).

Archaeological techniques are utilised and developed to study the tool production and use of modern chimpanzees, capuchins and macaques (Ivory Coast, Brazil and Thailand). Detailed analysis of utilisation of stone tool technology by modern non-human tool-using primates can reveal differences and commonalities. This information can subsequently be used to identify similar tool-using extractive foraging behaviours of late Pliocene hominins, and to develop new models for the emergence of stone tool technology prior to 3.3 million years ago; thus throwing light on the origins of hominin technology. Tomos also maintains a strong interest in archaeological public outreach, often demonstrating Palaeolithic technologies at university open days and field schools, and creating exhibits for museums and displays.

TWO KEY PUBLICATION REFERENCES:

Proffitt, T., de la Torre, I., 2014. The effect of raw material on inter-analyst variation and analyst accuracy for lithic analysis: a case study from Olduvai Gorge. *Journal of Archaeological Science* 45, 270–283.

de la Torre, I., Benito-Calvo, A., Arroyo, A., Zupancich, A., **Proffitt, T.**, 2013. Experimental protocols for the study of battered stone anvils from Olduvai Gorge (Tanzania). *Journal of Archaeological Science* 40, 313–332.



NAME: Emiliano Spezi

AFFILIATION: School of Engineering, Cardiff University

FIELD OF SCHOLARSHIP: Medical Engineering and Medical Physics

BIOGRAPHICAL NOTE:

I graduated in Bologna University with a research project on the spatial energy distribution released from proton beams to biological tissues. I then specialised in Medical Physics commissioning a Monte Carlo model for a 6MV radiotherapy linear accelerator. In 2003 I obtained my PhD with a research on the accuracy of intensity modulated radiotherapy. I have more than 10 years experience of Research and Development in the National Health Service. I worked as R&D clinical scientist at the University Hospital in Bologna Italy between 2003 and 2007 and at Velindre Cancer Centre in Cardiff between 2007 and 2015. In 2015 I joined the Cardiff University School of Engineering where I am responsible for the delivery of two modules: Clinical Engineering 2 and Medical Image Processing. I received grants from National and International funding bodies and from the Industry. My areas of expertise are: Radiation Physics; Computational Physics; Medical Informatics; Medical Imaging.

DETAILS OF RESEARCH:

My research interests include Radiation Therapy Delivery and Verification, Medical Imaging to guide Radiation Therapy, Computational Models and Medical Informatics. My recent research activity focussed on three main strands: (a) Concomitant dose in Image Guided Radiotherapy, (b) Radioisotopes for Imaging and Therapy, (c) Radiotherapy outcome analysis. In the first area we developed computational models of estimating the concomitant dose from Cone Beam Computed Tomography used in Image Guided Radiotherapy. This is very important for the optimisation of radiotherapy treatments. We have recently published a review document on imaging dose from CBCT in radiation therapy. In the second area our work focussed on the development of optimised methods for the automatic segmentation of Positron Emission Tomography images. Our group recently filed a patent application so secure intellectual propriety arisen from this work. Furthermore we developed a computational tool to calculate patient specific dose distribution in Molecular Radiotherapy and we are using this code within the context of a clinical trial carried out in a European Clinical Institute. In the third area we have developed advanced data analysis tools that are being used for Radiotherapy Trials Quality Assurance nationally and internationally we are developing image processing tools to extract tumour characteristics and that can help us identifying of predictive biomarkers through correlation with clinical outcomes.

TWO KEY PUBLICATION REFERENCES:

Imaging dose from cone beam computed tomography in radiation therapy.

Alaei P, Spezi E.

Phys Med. 2015 Nov;31(7):647-58. doi: 10.1016/j.ejmp.2015.06.003. Epub 2015 Jul 4. Review.

Evaluation of advanced automatic PET segmentation methods using nonspherical thin-wall inserts.
Berthon B, Marshall C, Evans M, Spezi E.
Med Phys. 2014 Feb;41(2):022502. doi: 10.1118/1.4863480.

HERCuLES group events 2016

The HERCuLES group, is a thematic standing committee of Council established in 2004. It organises international symposia that are funded by a number of European charitable foundations and encompasses topics relevant to Higher education (in Europe), Educational research and general research issues and issues of emerging impact for the Higher education community, including cultural themes. The group aims to organise a major symposium every year. Symposium volumes are published. Further information can be found via the www.ae-info.org website.

Reported by the Chair of the HERCuLES group – Professor Erik de Corte (Leiden)

- A. On behalf of the Trustees, I would like to thank the Volkswagen Stiftung and INCHER (Kassel) Foundations for the support and sponsorship of the HERCuLES event. The event was attended by over one hundred delegates. Special thanks to Dr Wilhelm Krull CEO of the Volkswagen Foundation for support and participation and to Dr Georg Krücken at the INCHER for the organisation.

UNIVERSITY GOVERNANCE: IMPEDING OR FACILITATING CREATIVITY?



Conference Venue: Schloss Herrenhausen, Hannover 29 – 30 September, 2016

Background of the symposium

The relationship between governance and creativity in higher education and research is one of the biggest challenges for the present and future academic and scientific development. Presently, there is a lively debate about the tension between these two essential requirements of research and higher education. A special focus of the present debate lies on the question which governance structures do not limit but allow for creativity which is necessary for the generation of new knowledge at universities.

The aim of the conference is to pursue this question by discussions and presentations. Researchers dealing with issues of governance and creativity in universities will present their findings. Likewise, practitioners representing the field of higher education leadership will contribute from their experiences. As a highlight, the Nobel Prize winner for chemistry in 2014 will present his view on the topic.

The conference "University Governance: Impeding or Facilitating Creativity?" is organized by the Academia Europaea and the International Centre for Higher Education Research Kassel (INCHER-Kassel), University of Kassel, Germany, in collaboration and with the generous support of the German Volkswagen Foundation.

Organizing committee

Professor Emeritus Erik de Corte, Leuven, erik.decorte@kuleuven.be
Professor Emeritus Lars Engwall, Uppsala, lars.engwall@fek.uu.se
Professor Dr. Georg Krücken, Kassel, kruecken@incher.uni-kassel.de

Contents of the symposium

The symposium was organized in Hannover from September 29th, till September 30th, 2016. The event started with a “welcome” in the morning of Thursday, September 29th, and continued through Friday involving five thematic sessions, two keynote speeches, a panel and plenary discussion and closing remarks by Dr. Wilhelm Krull from the Volkswagen Foundation on Friday afternoon. The five sessions addressed the following themes:

SESSION 1: UNIVERSITIES, GOVERNANCE AND CREATIVITY

Michael Power, London School of Economics
Francisco Michavila, Universidad Politécnica de Madrid
Peter Scott, University College London

SESSION 2: UNIVERSITY UNITS, GOVERNANCE AND CREATIVITY

Rik Torfs, University of Leuven
Jetta Frost and Fabian Hattke, Universität Hamburg

SESSION 3: AUTONOMY, GOVERNANCE AND CREATIVITY

Catherine Paradeise, UPEM-LISIS, Marne-La-Vallée, and Jean-Claude Thoenig, Université Paris-Dauphine-DRM, Paris
Jan De Groof, College of Europe, Brügge

SESSION 4: SCHOLARS, GOVERNANCE AND CREATIVITY

Thomas Heinze, University of Wuppertal
Jutta Stumpf-Wollersheim, Technical University of Munich (TUM)
Sandra Ohly, University of Kassel

SESSION 5: LOOKING INTO THE FUTURE

Lauritz B. Holm-Nielsen, Sino-Danish Center for Education and Research, Beijing
Gili S. Drori, Hebrew University of Jerusalem

KEYNOTE SPEAKERS:

Ivar Bleiklie, University of Bergen
Christine Musselin, SciencesPo, Paris
Gerhard Casper, Stanford University, Freeman Spogli Institute for International Studies, Stanford
Stefan W. Hell, Max Planck Institute for Biophysical Chemistry, Göttingen

The papers will be published in a special open access issue of The European Review in 2017.



B. The HERCuLES group also co-organised a joint event with China. This was a follow-on collaboration with AE member Professor Wang Ning. The bilateral event was held at a **second workshop meeting in China** Shanghai Jiao Tong University on 13 – 15 May 2016, on the occasion of the 120th anniversary of SJTU. We are grateful to Theo D'Haen (Trustee) who was the AE contact and organiser.

The topic of the conference was:

Conflicts and Dialogue between the Sciences and the Humanities and the Social Sciences.

The AE HERCuLES delegation (all of who gave a paper) were:

Svend Erik Larsen
Erik De Corte
Alfred Hornung
Bert Weckhuysen
Lars Engwall
Milena Zich-Fuchs
Wim Blockmans
Theo D'haen

Aim of the Conference

'2016 saw the 120th anniversary of the founding of Shanghai Jiao Tong University. In order to present the remarkable achievements SJTU has made in world science and humanities & social sciences in the past one hundred years and strengthen the established communication and dialogue between Chinese and European scientists and humanities & social science scholars, representatives of the Academia Europaea and leaders of SJTU, decided to organize this high-level international conference in Shanghai.



Undoubtedly, we now live in an age of globalization, in which both China and Europe play important roles. If we say that the impact that globalization has made on human beings hitherto has chiefly lain in applied science, medical science and other relevant scientific fields, then this impact has increasingly manifested itself also in the humanities and social sciences. The present conference will explore the conflict, dialogue and complementary relationship between the sciences and the humanities & social sciences. With this aim, we invited some eminent scientists and humanities scholars from China and Europe as well as from other parts of the world to discuss the advances made on the frontiers of world science and humanities and social sciences in the age of globalization and the impact made by globalization.'

II. General Theme and Sub-themes discussed were;

The general theme was conflict and dialogue between science and humanities in the age of globalization.

It was divided into the following sub-themes:

- (1) The new roles played by modern universities in research.
- (2) The dimensions of science and culture, as embodied in the humanities & social sciences, in higher education and the tension between the two.
- (3) The interaction of world-class universities with their constitutive colleges or faculties
- (4) The important role played by advanced studies in world-class universities.
- (5) The role of humanities in science-oriented universities and the function of a liberal arts education.
- (6) The advent of posthuman society and the rise of posthumanism.
- (7) Multidisciplinary cooperation and interaction between the sciences and the humanities & social sciences
- (8) The impact of technology on the future of universities

Participants were selected mainly from among scholars of the AE, SJTU and the Chinese Academy of Social Sciences as well as from those of other institutions who are familiar with or interested in the above sub-themes. The organizing committee was composed of representatives of the above institutions, with the Institute of Arts and Humanities of SJTU as the main organizer in charge of all the conference affairs.

The AE delegation was supported by a grant allocated from the AE Hubert Curien Fund.

Activity funded from the AE Hubert Curien Fund during 2016.

The Hubert Curien Initiatives Fund. Named in honour of the second President of the AE. The fund had its first open call in 2015. Applications for 2016 came from members of the Academia and the Young Academy. Grants were made for new and collaborative events and activities. The emphasis was on interdisciplinarity and on activities relevant to the regional missions of the knowledge Hubs. The Board of Trustees assessed all applications

Symmetry, Proportion, and Seriality: The Semantics of Mirroring and Repetition in Science and the Arts, which was held at the Freiburg Institute of Advanced Studies (FRIAS) at the University of Freiburg from May 26-28, 2016.



Organised by: Martin Middeke (English Literature), Monika Fludernik (English Studies) and Andreas Buchleitner (Physics),

Young Academy of Europe (YAE) Video interviews with eminent European Scholars:

YAE organiser Professor Lynn Kamerlin (YAE President in 2015 - Uppsala), in collaboration with Professor Anne Buttimer (AE Vice President and Trustee). Continuation of a 2015 project (see 2015 activity report) to produce a series of structured interviews on the (historical) career



trajectories of eminent AE members as a video record archive. A series of six YouTube video interviews were made and are available via this link: https://www.youtube.com/channel/UCkLRBX0i9h0cpAl_OkIMxw

Chapter 6: Academia Europaea outreach.

Over the year, the President and members of the Board of Trustees and the Executive Secretary had discussions with the European Research Council and Commission, ALLEA and other European Academies and pan-European organisations, and with a number of European Charitable Foundations. The Trustees wish to thank in particular members of the Board and Section Chairs, who represented the Academia at a wide range of events.

Individual members of the Board and Council represented the Academia at a number of conferences and other invited events. Bids were prepared to a number of Foundations, in line with the policy to broaden the basis of general financing of the Academy and to support specific developments in the programme of the Academia, including through the new Hubs. These are mentioned where appropriate in the finance sections of this report.

Members of the Young Academy were invited to participate in all events organised by the AE and the AE Hubs. Members of the Board of the YAE were also invited to participate in meetings of the Board of Trustees and Council. Much outreach effort was channelled through the Regional Hubs and relevant outputs have been reported in the Hub reports as described in the annexes to this consolidated report..

The AE Russia Prizes

The scheme was launched in 1992, for young scientists and scholars in Russia, and now applies to young scholars under 33 years of age and with a publications record, from across the Russian Federation.



Past sponsors include: The International Science Foundation, New York (Soros); Amersham International, UK; the Rayne Foundation, London; and the Danish Physical Society. In previous years additional sponsors have been the Robert Koch Microbiological Society, Heidelberg; and Mr T Mann of Cleveland.

Professor V.P Skulachev MAE (President of the Russian Club of AE members) reports that:

I am happy to inform you that the 22th Contest of AE Russian Prizes for young scientists has been successfully completed. 16 laureates have received diplomas, medals and prizes (Rub 50,000 each, the award on medicine is

shared by two laureates) at the celebration ceremony on December 5, 2016. The ceremony took place in the White-Blue Ceremony Hall at the 31th floor of the Moscow State University Main Building. Rosbusinessbank (Ms. N.V. Kocuba, the Chairman of the Board) allocated Rub 750,000. This money was distributed among laureates. As to additional expenses for organization of the contest, they were kindly covered by Rosbusinessbank (Rub 75,000 and \$ 800).

List of laureates:

Mathematics/Mechanics:

Tatiana A. Safonova, 1983, Northern (Arctic) M.V.Lomonosov Federal University, Arkhangelsk, «Vector-valued Sturm-Liouville operators with potential-distribution and differential operators associated with them»

Physics:

Andrey V. Babichev, 1986, Ioffe Institute, Saint-Petersburg, «Fabrication and study of new types of LEDs and photodetectors with graphene transparent contacts»

Maxim A. Yurkin, 1982, Voevodsky Institute of Chemical Kinetics and Combustion SB RAS, Novosibirsk, «Development of methods to solve direct and inverse light-scattering problems for small particles»

Chemistry:

Marina M. Vdovenko, 1985, Lomonosov Moscow State University, «Fundamental approaches to increase the sensitivity of peroxidase detection in enhanced chemiluminescence reaction and the development of assays for the determination of practically significant analytes using enzyme immunoassay»

Alexander S. Novikov, 1988, Saint-Petersburg State University, «Theoretical studies in organometallic and coordination chemistry: reactivity, catalysis, and weak interactions»

Petr S. Sherin, 1983, International Tomography Center SB RAS, «Photophysical and photochemical processes in the lens of human eye»

Earth sciences:

Vladislav V. Gurzhiy, 1985, Saint-Petersburg State University, «Crystal chemistry of the uranium compounds with tetrahedral oxoanions»

Biology:

Maksim M. Erokhin, 1984, Institute of Gene Biology RAS, «Control of gene activity by DNA regulatory elements in *Drosophila*»

Ivan V. Kulakovskiy, 1985, Engelhardt Institute of Molecular Biology RAS, Vavilov Institute of General Genetics RAS, «Computational analysis of transcription factor binding sites in genomes of higher eukaryotes»

Oleg V. Markov, 1988, Institute of Chemical Biology and Fundamental Medicine SB RAS, «Dendritic cell-based vaccines and therapeutic agents on the basis of natural ribonucleases as novel strategy of antitumor treatment»

Sergei S. Ryazansky, 1983, Institute of Molecular Genetics RAS, «The regulation expression and functions of small non-coding RNAs in germline of *D. melanogaster*»

Elena Y. Stolyarova, 1983, Udmurt State University, Izhevsk, «Rheumatoid factor in idiopathic regulation of autoimmunity»

Medicine: (the award is divided between two laureates)

Aleksei A. Kashintcev, 1984, State Pediatric Medical University, Saint-Petersburg, «The evaluation of specific molecular markers of pancreatic ductal adenocarcinoma among Slavic population» - ½ award

Alexander S. Sotnichenko, 1988, Kuban State Medical University, Krasnodar, «Tissue engineering of the heart» - - ½ award

Humanities:

Elena L. Vilinbakhova, 1984, Saint-Petersburg State University, «Tautologies in Russian»

Tatyana N. Vitsenets, 1985, Far Eastern Federal University, «Development of migration processes on the territory of the Far East. Mechanism of management of foreign labour force mobility»

The AE-Adam Kondorosi Prize for research achievements in Plant sciences



The awards are given in two categories. "The Adam Kondorosi Academia Europaea Award for Early-Career Investigators" recognizes young scholars making an outstanding scientific contribution in the field of nitrogen fixation, plant biology and microbiology related to symbiosis. The first such award was presented to **Simona Radutoiu** [a Romanian lady working at Aarhus University], at the biannual European Nitrogen Fixation Conference, held on the 12th conference in Budapest 2016. "The Adam Kondorosi Academia Europaea Award for Advanced Research" recognizes landmark research in symbiosis and related fields that has changed our understanding and made a significant scientific impact. It will be presented at the Academia Europaea- ALLEA-YAE joint conference for the first time in September 2017 to Professor Allan Downie (John Innes Centre, UK) for his work on Rhizobium-Legume interactions. The awards consist of an Academia Europaea diploma/medal and a donation. This prize was established in

recognition of the significant achievements made in the field of Plant and Microbial Nitrogen Fixation by the late Professor Adam Kondorosi.

Members of the Award Committee:

- Jens Stougaard, ENFC president (chairman)
- Eva Kondorosi, ENFC board
- Sharon Long, Stanford University
- Graham O’Hara, Murdoch University
- Klaus Palme, Academia Europaea
- Mart Saarma, Academia Europaea
- Luis M. Rubio, ENFC board

European research policy and advice

European Science Advisory Council (EASAC). formed by a number of European Academies, and supported by the Academia Europaea provides EU institutions and other pan-national bodies with fully independent advice on the scientific aspects of public policy.

The Academia was a founding member of this Council and collaborates with our sister Academies in making available our members’ expertise where needed, for the many study groups that are established. The Academia provides a financial contribution towards the running of the secretariat of EASAC, which is based at the German National Academy of Sciences (Leopoldina) in Halle. The Academia covers the costs of participation of the AE Council member and also AE experts participating in specific study panels [<http://www.easac.eu/>]. The AE supports a number of members, who provide their individual expertise to EASAC studies and/or are engaged in the standing committees of EASAC. In 2016 these members were:



Professor Don Dingwell (Trustee) AE delegate to the EASAC governing Council; Professor John Ludden - AE representative on the Energy standing panel; Professor Lars Walløe, Chair of the Environment Panel; Professor Kirstin Vala Ragnasdóttir AE nominated expert on the circular economy panel and Laszlo Csernai ad hoc participant in the Energy panel


SAPEA – Scientific Advice for general European Policy (not policy for research)



SAPEA: Science Advice for Policy by European Academies

- Spanning the disciplines of engineering, humanities, medicine, natural sciences and social sciences, **SAPEA** brings together the outstanding knowledge and expertise of Fellows from over 100 Academies, Young Academies and Learned Societies in more than 40 countries across Europe
- SAPEA is part of the [European Scientific Advice Mechanism \(SAM\)](#) which provides independent, interdisciplinary and evidence-based scientific advice on policy issues to the European Commission, working closely with the [SAM High Level Group of Scientific Advisors](#)
- The project is funded through a grant from the EU’s Horizon 2020 programme. It runs from November 2016-October 2020.



 = country with at least one Academy

Academies' independence, academic expertise and convening power make them a critical source of evidence for policymakers and the wider public, providing an unbiased, balanced and transparent perspective. Academies within SAPEA are members of one or more of the European Academy Networks: [Academia Europaea](#), [ALLEA](#), [EASAC](#), [Euro-CASE](#) and [FEAM](#).

SAPEA will provide a means for closer collaboration between Academies, combining Fellows' expertise in engineering, human, medical, natural, social and technical sciences in a unique way.

All of the Networks' Member Academies across Europe are part of SAPEA and are encouraged to participate actively. Opportunities for involvement include:

- **suggesting scientific topics**
- **communicating their latest major scientific outputs to SAPEA**
- **nominating Fellows** to the SAPEA Working Groups, or other events requiring the advice of an expert (e.g. experts' workshops or stakeholder meetings)
Fellows' travel costs will be reimbursed
- **hosting Working Group meetings**
direct costs can be covered
- **acting as "Lead Academies"** for a selected scientific topic
- **hosting outreach events**
event support can be provided
- **raising the visibility of Academy work at a European Level** by sharing news of activities with the SAPEA Communications Office for the project website

AE engagement in SAPEA

The Horizon2020 funded project contract with the European Commission was signed and started at the end of 2016. The President is a member of the Board of Management of the project. Prof. Ole Petersen (Academic Director of the Cardiff Hub and VP) is our alternate and oversees the work of the AE SAPEA Science Policy Officer - Louise Edwards, who is based at the Cardiff Hub. Louise is responsible for the day-to-day management of any AE involvement in policy advice topic work and is a member of the project coordination team. The AE Executive Secretary acts as AE project manager in liaison with the central project coordination team. At the outset of the project AE were actively involved in carrying out a review of knowledge available on GM technologies for agriculture and took the lead on a policy advice topic entitled "Food From the Oceans" (FFO). This topic has a scheduled report date of December 2017. Louise Edwards is topic co-ordinator. Our intention throughout the project is to work with and through the regional knowledge Hubs and with the Young Academy of Europe to ensure maximum opportunity for involvement of our members. We will also establish an outreach forum of other pan-European organisations to improve linkages and engagement of non-core partner expertise.

Events provided with AE patronage in 2016

During the year AE also provided non-funding 'patronage' to a number of international events organised through AE members. These included events organised or linked to our Regional Knowledge Hubs (see their annexed reports) and;

- **As You Law It. Negotiating Shakespeare** 9 November 2016 – Verona. (Prof Daniella Carpi);



- **INSIGNIFICANT: Humans The Universe and Nature:** A video project for schools across Europe (Frank Courchamp (Saclay, Paris) [http://www.ae-info.org/ae/Acad_Main/Events/Insignificant])
- **"Landscapes of Realism"** with our member Prof. Dirk Goettsche, Nottingham U

Patronage for events is a benefit open to all AE and YAE members – on request. Member organised events can also be publicised via the AE website.

European Alliance for Social Sciences and Humanities (EASSH)

During 2016 , Academia Europaea became formally involved with EASSH, through members Professors Poul Holm, Svend Erik Larsen, Kirsten Drotner. This was a result of a Task force established by the Board under the coordination of Svend Erik Larsen. The in hope is to strengthen AE engagement with the Social Sciences and Humanities European communities and to ensure their linkage into SAPEA work. During the year AE endorsed the EASSH report: **“Integration of Social Sciences and Humanities in Horizon 2020. Embedding SSH - 2nd Report (2015): A response from the European Alliance for SSH”**



Reports of the activity of the AE Knowledge Hubs for 2016 are annexed as follows;

Barcelona Knowledge Hub	(Annex 1) -
Bergen Knowledge Hub	(Annex 2) -
Cardiff Knowledge Hub	(Annex 3) -
Wroclaw Knowledge Hub	(Annex 4) -

Section 5 Corporate matters

2016 New members elected

Two separate nomination cycles were held in 2016. A total of 235 new members were elected by Council.

A full list of these members, allocated by Class and Section is at Annex 5

The Class chairs responsible for oversight of the nominations process in 2016 were:

Class A1 – Humanities and Arts – Sections A1-A6 [Chair Professor Svend Erik Larsen (Trustee)]

Class A2 – Social and related sciences – Sections A7 – A10 [Chair Professor Anne Buttimer (Vice President and Trustee)]

Class B – Exact and Natural Sciences – Sections B1 –B5 [Professor Don Dingwell (Trustee)]

Class C – Life Sciences – Sections C1 – C5 [Professor Ole Petersen (Trustee)]

Communications

During the year an A-Z membership directory for 2016 was published, in time for the Cardiff AGM. And general leaflets and other printed materials were updated. The Hubs and HQ issued regular electronic newsletters throughout the year. A letter from the President was issued to all members, Young Academy contacts and non AE contacts every two months throughout 2016. The Graz Data centre maintained the ae-info.org website and both Graz and Wroclaw ensured that member data was updated, including for new members elected in 2016.

As a subscribing member of the European Academies Science Advisory Council (EASAC), the AE has continued to contribute to the expert reviews and reports published by that body and circulated these to appropriate sections of the membership and through the electronic newsletters and links on our website.

During the year, officers and Board members establish a regular discussion forums with other European organisations, notably ALLEA (All European Academies) , FEAM, euroCASE and EASAC for the development of future collaborative projects and coordinated policy advice activities and with EASSH .

Governance meetings held in 2016

The Trustees, Council and their subcommittees

The Board of Trustees met on 29 April at Budapest; 27 June, Cardiff; 27 November, Barcelona. All meetings were quorate.

The Council met in Cardiff on 26 June at Cardiff.

Class meetings to decide on recommended new member lists were held on:

Class A1 (20 May) - Paris

Class A2 (30 May) - Bonn

Class B (4 May) - Munich

Class C (9 June) - London

A list of Trustees, Council and Section Committees at December 2016 are at Annex 6

Annual Business Meeting 2016

The 2016 AGM took place at Cardiff University on 27 June. The President was in the Chair. There were 38 members present. The minutes of the 2015 AGM were approved and signed.

In accordance with the regulations: Members were advised that due to the unexpected resignation of Professor Peter Scott as Honorary Treasurer, The Board had pro tem appointed Professor Ole Petersen (VP) as interim Treasurer. The Board with the approval of the Council had also appointed Professor Alex Verkhatsky as the Chair of Class C -Life Sciences. In addition, an election was held for a vacant independent member seat on the Council due to the retirement of Prof. Gulyas. A ballot of members present was held and Professor Xavier COSTA-GUIX was elected for a three-year term. Members re-appointed Marie Farge and Laszlo Csernai as independent members of the Council, for a final term of three years (until 2019). The AGM approved a motion for co-option of the following as Trustees: Professor Balazs, Gulyas (until the AGM of 2018); Professor Theo D'Haen (until the AGM of 2018); Professor Eva Kondorosi (until the AGM of 2019); Professor Don Dingwell (until the AGM of 2018) and Professor Svend Erik Larsen (until the AGM of 2019).

The members then received reports from the Treasurer and adopted the 2015 consolidated activity report and accounts and approved motions to re-appoint the auditors. The AGM approved a motion to set the 2016 recommended member donation level at 120 Euros per member and to continue with the current policy of exemptions.

The AGM received reports from the Editor-in-chief of the European Review (Prof. D'Haen); the Hub Directors (or representatives) and a representative of the Young Academy (Prof. Nicole Grobert, the President of the YAE). Professor Gulyas reported that the Board, with agreement of the Council would re-open the search for the 2017 Erasmus Medal recipient. Professor Gulyas announced that the 2017 Annual conference would take place in Budapest at the Hungarian Academy of Sciences jointly organised with ALLEA (All European Academies). The theme would be Sustainability and Resilience of European Science.

The President announced that the 2017 AGM would be held at Budapest on 4 September

Section 6 Statement of Trustees' Responsibilities

The Trustees (who are also the directors of The Academia Europaea for the purposes of company law) are responsible for preparing the Trustees' Report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice). Company law requires the trustees must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the charitable company and of the incoming resources and application of resources, including the income and expenditure, of the charitable company for that period. In preparing these financial statements, the trustees are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charities SORP;
- make judgements and estimates that are reasonable and prudent;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charitable company will continue in operation.

- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charitable company will continue in operation.

The Trustees are responsible for keeping accounting records that are sufficient to show and explain the company's transactions and disclose with reasonable accuracy at any time the financial position of the charitable company and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the charitable company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

In so far as the Trustees are aware:

- there is no relevant audit information of which the charitable company's auditor is unaware; and
- the trustees have taken all steps that they ought to have taken to make themselves aware of any relevant audit information and to establish that the auditor is aware of that information.

The Trustees are responsible for the maintenance and integrity of the corporate and financial information included on the charitable company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Risk assessment

The Trustees have assessed the major risks to which the charity is exposed, in particular those relating to the operations and finances of the charity and are satisfied that systems are in place to mitigate our exposure to these risks. However, the situation will be kept under constant review.

Financial Report

The Trustees confirm that suitable accounting policies have been used and applied consistently and that reasonable and prudent judgements and estimates have been made in the preparation of the financial statements for the period 1 January 2016 - 31 December 2016. The Trustees also confirm that applicable accounting standards have been followed and that the financial statements have been prepared on the going concern basis. The assets are available and adequate to fulfil obligations on a fund - by - fund basis.

The Academia is required by UK law to present its accounts in sterling. A version expressed in Euros could be prepared by converting the figures at the exchange rate for a particular date, but this would not be accurate since transactions are spread across the financial year, during which a range of exchange rates have existed. Any significant foreign exchange impacts are described in the notes to the accounts. The full accounts have been published separately to the activity report.

Reserves policy

The total funds for the year ended 31 December 2016 was £278,066 [YE 31 December 2015, £101,132, out of which the restricted fund was £278,066 (31 December 2015, £80,502 and the accumulated fund was £Nil [31 December 2015, £20,630]. It is the policy of the Trustees to maintain sufficient reserves for the Academia Europaea to continue its charitable activities and in view of this, the Trustees aim to achieve reserves equal to approximately six months of operations. This was not the case in 2016.

Income and expenditure for the period ended 31 December 2016 (summary overview)

The year was one of slow progress towards stability. Our total income for the year was £493,205. Total expenditure was £316,271. The balance of funds brought forward to 2016 from 2015 was £101,132. However, during the year a significant donation for general purposes was lost (50,000Euros). This resulted in a dramatic decline in reserves carried forward to 2017 (at £Nil) as a result of committed expenditures. The Charity seeks to operate an effective zero balance budget. We are increasingly dependent upon members' donation income and in 2016 this was at (net) 148,427 GBP and life membership payments totalled £15,096. The Trustees stress to all members the importance of supporting the Academia by making a donation every year, preferably at the recommended level. Without more members making a payment, the AE will not be able to grow the range and type of activity and support for member initiatives that we all hope for. Whilst a voluntary scheme is preferable to imposing a compulsory subscription system, the Trustees reviewed this policy in November and decided to levy an increased general fee rate and to introduce age-related banding for annual donations, per member. Sponsorship continued to be successful for individual activity, and we thank the Volkswagen Stiftung for their support and the support of other event or activity sponsors. The Board continued to recognise the difficulty in obtaining core financial support from public and many private institutions. The full audited accounts for 2016 are available in a separate document.

Signed on 4 September 2017 by:

Professor Sierd Cloetingh (President)

Professor Ole Petersen (acting Treasurer)



Academia Europaea | Barcelona Knowledge Hub

Annual Report 2016

www.barcelona.acadeuro.org

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The Open Access journal *Contributions to Science* (www.cat.science.cat) has published in December 2016 a thematic issue devoted to the Activities of the AE-BKH, 2013–2016: *Contrib. Sci.* 12-2:79-150. See the ISSUU version in <http://revistes.iec.cat/contributions> and also in the AE-BKH website: barcelona.acadeuro.org

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1. OVERVIEW

1.1 The Academia Europaea

Founded in 1988, the Academia Europaea (AE) is an international, nongovernmental, not-for-profit association of individual scientists and scholars from all disciplines, recognised by their peers as experts and leaders in the own subject areas. Our members are leading scientists and scholars who collectively promote research, learning and education. The AE recognises genuine international excellence and supports the culture of European research through dialogue and collaboration. Our membership now numbers well over 3000, including more than 75 Nobel laureates. The AE is pan-European, and its elected members are drawn from the whole European continent and also from non-European countries. The AE has currently 22 thematic sections. The current president of the AE is Prof. Sierd Cloetingh, from Utrecht University.

1.2 The Academia Europaea Barcelona Knowledge Hub

In 2012, the Catalan Government (Generalitat de Catalunya), the Barcelona City Council (Ajuntament de Barcelona) and the “la Caixa” Foundation launched the Southern European and Mediterranean office of the Academia Europaea, the Barcelona Knowledge Hub, from now on, AE-BKH. These three organizations have the condition of “partners” of the AE-BKH. The three partners count on the support of the Institute for Catalan Studies (IEC) to hold and maintain the hub’s office.

Operational since January 2013, the AE-BKH focuses on the promotion of activities of interest for the Members of the Academy and the scientific community in general, with special emphasis on multidisciplinary activities that include the transversal perspectives of the natural and social sciences and the humanities. The field of action of the AE-BKH covers, especially, but not uniquely, the Mediterranean and Southern Europe.

Office: The AE-BKH office is located at the premises of the IEC, a mid-17th century historical building very conveniently sited in the centre of the city of Barcelona. Since August 2014, Prof. Ricard Guerrero, from the University of Barcelona, is the academic director of the AE-BKH. During 2016, the administrative assistants to the hub were Anna Wasmer (January to July) and Griselda Ribas (October to December).

During 2016, the management of the website, the digital coordination and the numerous audio-visual activities (AE-BKH “Barcelona in Action” video channel) have been externalized. Currently, the responsible person for the management of the AE-BKH new website is Jara Duro, and the responsible person for the digital coordination and the audio-visual section of the AE-BKH is Rubén Duro. There have been other external personnel collaborating for several activities, among them Carmen Chica, Mercè Piqueras, Mercedes Berlanga, Mitsi Ito and Wendy Ran. The administrative and technical support to the hub’s office at the IEC building is excellent and an essential part in the efficient every-day running of the Academia Europaea Barcelona Knowledge Hub.

PARTNERS of the AE-BKH:



1.3 The Young Academy of Europe

Since 2007, the European Research Council (ERC) has been supporting excellent young scientists by awarding them with the ERC Starting Grants under the motto “Supporting the next generation of research leaders in Europe.” In this context, the ERC has also manifested its support to the Young Academy of Europe (YAE) as a bottom-up initiative of a dynamic and innovative group of recognized European young scientists with outspoken views about science and science policy. The YAE shares the objective of the ERC to widen participation across Europe and across the research domains.

The AE-BKH provides administrative support to the YAE since 2013, by working closely with the persons occupying the Chair position during each period, as they have been Lynn Kamerlin, Stockholm (2014–2015), Nicole Grobert, Oxford (2015–2016), Hagit Amirav, Amsterdam (2016–2017) and the current Chair Marcel Swart, Girona (2017–).

1.4 The AE-BKH International Advisory Committee

During the 26th Annual Meeting of the AE (held in Barcelona on July 16–18, 2014), the Board and the Council of the AE nominated an International Advisory Committee (IAC) for the AE-BKH. Eleven academics, most of them Members of the Academia Europaea (MAE), from Mediterranean countries and with different fields of expertise were chosen.

In the IAC meeting of 2014 (Barcelona, 29th November) it was discussed the planning of part of the activities that were developed in the year 2015, and that were explained in the 2015 Annual Report. In the IAC meeting of 2015 (Barcelona, 10th December) it was discussed the planning of the activities to be developed in the year 2016, most of them already described in the present Report.

On April 17, 2015, José Mariano Gago, Member of the IAC, died in his home in Lisbon. From July 2015, Rosalia Vargas, president of *Ciência Viva*, the Portuguese Agency for the Scientific and Technological Culture, was incorporated to the IAC.

The members of the IAC are currently as follows:

Enric Banda, BSC, Barcelona, enric.banda@gmail.com

Pedro García-Barreno, Fellow of the RAE and RAMed, Madrid, pgbarreno@gmail.com

M. Dolors Garcia-Ramon, UAB, Bellaterra, mariadolors.garcia.ramon@uab.cat

Ramon Gomis, IDIBAPS, Barcelona, ramon.gomis@idibaps.org

Sergiu Hart, The Hebrew University, Jerusalem, Israel, hart@huji.ac.il

Yvon Le Maho, Natl. Centre for Sci. Res., CNRS, Strasburg, France, yvon.lemaho@iphc.cnrs.fr

Genoveva Martí, ICREA Professor UB, Barcelona, genoveva.marti@gmail.com

Marc Mayer, Faculty of Philology UB, Barcelona, mayerolive@yahoo.es

Maria Paradiso, University of Sannio, Benevento, Italy, paradiso@unisannio.it

Regina Revilla, Merck Sharp & Dohme Spain, Madrid, regina_revilla@merck.com

Rosalia Vargas, *Ciência Viva*, Lisbon, Portugal, rvargas@cienciaviva.pt

2. FEATURE ACTIVITIES DURING 2016

2.1 WOMEN'S WEEK 2016 (3–6 MARCH)

From March 3 until March 6, the AE-BKH held its annual Women's Week (WW2016), in commemoration of the UN International Women's Day, celebrated each 8th of March. The programme of this AE-BKH WW2016 had the general title "*Women and Migrations. Challenges and opportunities*", and counted on the support of a grant from the AE 2016 Hubert Curien Fund.

On March 3, at the Prat de la Riba Room of the IEC, **Mary Ann Newman**, Ferragut Fund, NYC, pronounced a Distinguished Lecture under the title of "*Women and cultural transmission. The essential role of translation.*" Afterwards, there was a session titled "*Greater than Life. In remembrance of Lynn Margulis (1938–2011).*" During this session, **Ricard Guerrero** gave the lecture "*Lin in Spain. How she stood our Spanish-Catalan accent*".



Mary Ann Newman and Ricard Guerrero

Finally, at the Royal Academy of Medicine of Catalonia (RAMC), the **Gani Mirzo Band** offered the concert "*Music from Syria and the Kurdistan, a nation without a State*". Gani Mirzo (ud, buzuk and composer) was accompanied by Neila BenBey (singer), Francesc Puig (clarinet) and Juan José Barreda (flamenco guitar).



The Gani Mirzo Band concert at the Royal Academy of Medicine of Catalonia

On March 4, at the IEC, it was held the Workshop "*Women, migrations and war*". The speakers were **Mitsi Ito** (NYC) who gave the lecture "*How a New Yorker fell in love with Barcelona*"; **Maryam Ghafouri** (Teheran) with the lecture "*Opportunities of Muslim women in the Western World*"; **Pere Castaño** (Sabadell), who gave his lecture "*Walking with immigrants*"; and **Salvador Giner** (MAE, Barcelona), who closed the Workshop with his lecture "*Is war a male affair?*"



Mitsi Ito, Maryam Ghafouri, Pere Castaño and Salvador Giner

Afterwards, the International Year of Global Understanding was commemorated, with a plenary lecture by **Silvia Pellicer** (YAE, University of Zaragoza) under the title *“Women on the Move: The Transnational Era and the power of Art”*.



Silvia Pellicer, University of Zaragoza

During the celebration of the WW2016, the 1st floor of the cloister of the Institute for Catalan Studies (IEC), was the scenario for two art exhibitions curated by Anna Wasmer.

Núria López Ribalta, critic of art, introduced the digital art of *“The Book of Beasts. Palmira 2015”*, a work with which ceramist and photographer **Teresa Gironès Villanua** (1941–2016)* translated the reflections of the dangers of power and the horrors of war into a wonderful photomontage.

*Unfortunately, Teresa Gironès died on September 6, 2016, only six months after her exhibit at the WW2016.

Eusebi Vila Delclòs, artist painter, introduced *“Women/Dones/Mujeres. Reflections and aesthetics of female emotions”*, a collection of paintings by **Trini Sotos Bayarri**, full of sensitivity and delicacy.



Excursion to the Natural Park of the Montnegre I el Corredor

On March 6, as the final act of the WW2016, and following a tradition of the AE's Annual Conferences, the speakers of the WW2016 made an excursion to the Natural Park of the Montnegre I el Corredor, about 35 km north of Barcelona. They explored the Mediterranean forest and visited sites of historical significance at the location.



Excursion to the Natural Park of the Montnegre i el Corredor of the participants in the AE-BKH Women's Week 2016, on March 6th, 2016

2.2 INTERNATIONAL SYMPOSIUM AT THE RAMÓN ARECES FOUNDATION, MADRID (1–2 JUNE)

International Symposium “Researching, educating, dialoguing. The lessons that we learnt from José Mariano Gago (1948–2015)”, Madrid

On April 17, 2015, in Lisbon, the city where he was born in 1948, died José Mariano Gago, former Minister of Science and Technology (1995–2002) and Minister of Science, Technology and Higher Education (2005–2011) of Portugal. Gago played a crucial role in the design of plans for the development of science, technology and innovation, not only in his country but throughout Europe. He did it by designing and promoting several organisms that played major roles in the structure and organization of science in the European Union during the last thirty years, particularly in the creation and initial impulse of the Academia Europaea, the European Science Foundation and the European Research Council.

The International Symposium “Researching, educating, dialoguing. The lessons that we learnt from José Mariano Gago (1948–2015)” was coordinated by Federico Mayor Zaragoza (MAE, president of the Foundation for the Culture of Peace and president of the Scientific Council of the Ramón Areces Foundation) and Ricard Guerrero (MAE, academic director of the Academia Europaea Barcelona Knowledge Hub). The Symposium was held on July 1–2 at the Ramón Areces Foundation facilities in Madrid. The symposium remembered the huge task carried out by Gago, and his outstanding intellectual ability. Firstly, through his work as a physicist of elementary particles at CERN, Geneva, a centre to which he devoted many years of his professional career. Then, in the organization of science, technology and higher education in Portugal. And finally, in the organization of several European bodies that have been essential to develop the governance of science in the EU and, through this, contributing to improve of the organization of science around the world.

José Mariano Gago also played a crucial role to make that scientific culture were considered one of the main bases to achieve a free, democratic society, in which knowledge and education were highly appreciated values. One of his major achievements was the creation and early development of *Ciência Viva*, the Portuguese Agency for Scientific and Technological Culture, launched in 1996, that had its most direct manifestation in the organization of science centres around Portugal and made it possible to convey science and technology to the youngsters of the whole country.

Finally, we should not forget Gago’s seminal role in the creation and organisation of the Academia Europaea, founded in London in 1988, one of whose objectives is to help in the development of European policy for research, education and training at the highest levels. Those objectives tried to harmonize and coordinate the traditionally diverse and particular cultures on science and education in different European countries. Through this “unity in diversity,” the original aim of the founders of the Academia Europaea was to create a genuine area of intellectual excellence by recognizing the quality and relevance of all fields of knowledge, and leveraging the experience, culture and tradition of the huge conglomerate of cultures and traditions that make up Europe.

José Mariano Gago taught us many lessons. The Symposium remembered all those that he left to us and impulse us to follow his example, to achieve a more educated and better prepared society, able to face the new challenges that contemporary times are presenting to our old and young Continent. Only through knowledge, education and dialogue will we be able to deal with the melting pot of cultures and civilizations that have characterized Europe.

Recalling one fortunate yet shocking sentence by Federico Mayor, we could say that:

“Si vis pacem, para verbum”



The Symposium was divided into three sessions, two sessions on July 1 (morning and afternoon) and one session on July 2 (morning).

First session, July 1 (morning)

Opening lecture by **Manuel Heitor** (Minister of Science, Technology and Higher Education of Portugal): “*Knowledge and the collective ambition for Europe: Learning from José Mariano Gago in policy making*”.

Sierd Cloetingh (president of the Academia Europaea) gave the lecture *“The Academia Europaea, challenging the future”*.

Genoveva Martí (MAE, ICREA Professor of Logics, UB) read the lecture *“The scientific career (the ICREA and Serra Hunter programs)”*

María A. Blasco (Director of the National Centre for the Oncological Research (CNIO)) gave the lecture *“Development of a research centre of excellence (CNIO) and its relation with the citizen”*.



Inaugural session, from left to right: Ricard Guerrero, Manuel Heitor, Federico Mayor, Carlos Andradass

Second session, July 1 (afternoon)

Andreu Mas-Colell (MAE, Pompeu Fabra University, Ex-minister of Economics and Knowledge of the Government of Catalonia) gave the lecture *“Promotion and development of a science of excellence policy (the CERCA Institution)”*.

Enric Banda (MAE, General Secretary of the European Science Foundation, 1998-2003) gave the lecture *“The European Science Foundation”*.

Julio E. Celis (Chair of the Science Policy Committee of the European Academy of Cancer Sciences, Danish Cancer Society Research Center) gave the lecture *“Shaping EU cancer research policy: Towards a virtual European Cancer Institute”*.

Third session, July 2 (morning)

Rosalia Vargas (president of *Ciência Viva*, Portugal) gave the lecture *“José Mariano Gago. Who he was; what he did”*.

Carlos Andradass (Rector of the Complutense University, Madrid) gave the lecture *“Science and research at and for the University”*.

Joan J. Guinovart (MAE, president of the International Union of Biochemistry and Molecular Biology (IUBMB) gave the lecture *“Foundation and development of the Federation of Scientific Societies of Spain (COSCE)”*.

Núria Sebastián (MAE, Vice-president of the European Research Council) gave the lecture *“The European Research Council and its role to promote excellence in research at the European scenario”*.

Salvador Giner (MAE, Professor Emeritus, University of Barcelona) gave the lecture *“Reasons and unreasons of research at the University”*.

Closing Lecture by **Sheldon L. Glashow** (Boston University, Nobel Prize on Physics, 1979): *“Particle Physics and Cosmology. Useless but Essential!”*



Sierd Cloetingh and Sheldon L. Glashow

2.3 DISPUTATIO OF BARCELONA WEEK 2016 (21–24 NOVEMBER)

About the *Disputationes*

In the scholastic system of education of the Middle Ages, the *Disputationes* offered a formalized method of debate designed to uncover and establish truths in theology and in sciences. Fixed rules governed the process: they demanded dependence on traditional written authorities and the thorough understanding of each argument on each side. The famous *Disputatio of Barcelona*, called in the summer of 1263 by King James I of Aragon, was the most important and well-known of the inter-faith *Disputationes* that took place between Christian and Jewish theologians in the late Middle Ages. In 1263, the disputants were Friar Paulus Christianus (Dominican, and a convert rabbi from Judaism) and rabbi Moses ben Nachman (also known as Nachmanides), from the Girona's community, the most important scholar of Judaism in his time. They discussed about theological questions in front of the king and his court, in the presence of the most important men of the prosperous and influent city of Barcelona.



Left: Sant Jordi Gothic Hall of the Palau de la Generalitat.
Right: The *Disputatio of Barcelona*, 1263. Original drawing made by Trini Sotos.

The modern *Disputatio of Barcelona* has been successfully recovered. In November 2013, the AE-BKH celebrated its inaugural event by commemorating the 750th anniversary of the medieval *Disputatio*, and organised a modern-day *Disputatio* on “**Social and state-of-the-art Medicine**”, featuring philosopher **Thomas Pogge** (Yale University; he being the leader of the Health Impact Fund) and neuroscientist **Mara Dierssen** (Centre for Genomic Regulation, UPF, Barcelona; she being the president of the Spanish Society for Neuroscience).

After the success of the *Disputatio of Barcelona* 2013, the AE-BKH organised in November 2014, together with the United Nations University Institute on Globalization, Culture and Mobility (UNU-GCM), a second modern-day *Disputatio of Barcelona*, on the topic “**The Mediterranean, bridge of cultures**”. The *Disputatio of Barcelona* 2014 was held on the 27th of November at the Saint Pau Historic Site, Barcelona, where the UNU-GCM is located. Two MAE, **Maria Paradiso** (geographer, Professor of Geography and Planning at the University of Sannio, Italy), and **Enric Banda** (geophysicist, Director of Science and Environment at the “la Caixa” Foundation, Barcelona), presented two views of the topic, covering many different aspects of the Mediterranean history, culture, opportunities and present difficulties.

On December 9, 2015, the third modern-day *Disputatio of Barcelona* was held in the Royal Chapel of Sainte Agatha, in the Gothic Quartier. This *Disputatio of Barcelona* 2015, was also a success as the two previous events. Two scholars,

Núria Sebastian (vice-president of the European Research Council), and **Ulises Cortés** (from the Barcelona Computing Centre (supercomputer Mare Nostrum), discussed on “**Natural vs Artificial Intelligence**”.

We can consider that the modern-day *Disputationes* are a distinctive feature of the BKH, and must be continued in future years.

Reception to the AE’s Board and invitees by the M. Hon. Carles Puigdemont, president of the Generalitat de Catalunya

On Monday 21 November, 2016, the Board of the Academia Europaea and other MAE were received in a special audience by the president of the Government of Catalonia, M. Hon. Carles Puigdemont at the Palau de la Generalitat, the headquarters of the Government of Catalonia.



The Board of the AE during the audience with the president of the Government of Catalonia, 21 November 2017)
From left to right: Xavier Costa-Guix, Ole Petersen, Genoveva Martí, Andreu Mas-Colell, Hagit Amirav, David Coates, Tadeusz Luty, Ricard Guerrero, John Feldman, Carles Puigdemont (president of the GC), Annia Domènech, Enric Banda, Sierd Cloetingh (president of the AE), Marie-Ange Thébaud, Arcadi Navarro (Secretary of Univ.&Research, GC), Christophe Thébaud, Balázs Gulyás, Nina Petersen, Miklós Maróth. (Photo courtesy of the Generalitat de Catalunya.)

Several aspects of the collaboration between the Barcelona Knowledge Hub of the AE (AE-BKH) and the Government of Catalonia were discussed in a warm and pleasant atmosphere. President Puigdemont encouraged the Board of the AE, and particularly the academic director of the Barcelona Knowledge Hub (AE-BKH), Ricard Guerrero, to continue the excellent work that they have done to promote and spread knowledge at the highest level, in both humanities and sciences, in the Mediterranean region. The audience was also attended by several of the participant lecturers in the *Disputatio* Week 2016, and enjoyed this special visit very much.

The 2016 *Disputatio* of Barcelona

The Debate

The fourth modern-day *Disputatio of Barcelona*, was held at the Palau de la Generalitat, under the presidency of the president of the Government of Catalonia, M. Hon. Carles Puigdemont. It was devoted to the topic: “**Natural Life vs. Synthetic Life**”. Two scholars, **Anna Veiga** (Centre for Regenerative Medicine, Barcelona) and **Ricard Solé** (Complex Systems Lab, PRBB, Barcelona), debated on the new challenges that the current scientific advancements present to human societies.



Anna Veiga and Ricard Solé

The impressive knowledge in their respective fields of research allowed the two *disputantes* to clearly expose their ideas to the audience. An active debate among the public and the speakers helped to better understand several critical questions previously exposed by the *disputantes*.

Other activities of the *Disputatio of Barcelona Week*

In addition to the central act of the Debat of the *Disputatio of Barcelona*, the AE-BKH organized several activities for the attendants, especially for the members of the Board of the Academia Europaea. Among them were a concert by singer and author **Lidia Pujol**: “*Iter Luminis, Works and Pleasures of Love*”, devoted to the life and work of Ramon Llull (1232–1316) in the 7th centenary of his death, a guided visit to the *Call* (Jewish Quarter) of Barcelona—including and the visit to Andreu Mas-Colell’s home in the *Call*—, the InterSection Workshop devoted to “*What is Life? In remembrance of Lynn Margulis (1938–2011)*”, the *premiere* of the film *Symbiotic Earth: How Lynn Margulis rocked the boat and started a scientific revolution*, directed by **John Feldman** (Hummingbird Films, New York), and, finally, a guided visit to the premises of the Industrial School of Catalonia, in Barcelona.

Concert by singer and author Lidia Pujol: “*Iter Luminis, Works and Pleasures of Love*”.

At the Prat de la Riba Hall, in the Institute for Catalan Studies (IEC), singer-songwriter **Lidia Pujol** and her accompanying musicians and singers offered a concert devoted to the life and work of Ramon Llull (1232–1316) to commemorate the 7th centenary of his death. Lidia Pujol was accompanied by Mohamed Ayoub (voice), Miquel Àngel Cordero (double bass and voice), Pau Figueras (guitar), Mohamed Soulimane (violin, lute, kemanje, tambourines), Sandra Ballbè (movement/dance) and the Chorus of Vallferosa.

CONCERT BY LIDIA PUJOL
**AROUND THE MUSIC AND CONCEPTS
 OF RAMON LLULL (1232–1316)**
*Si no ens entenen pel llenguatge,
 entenen-nos per l'amor.
 (If we cannot understand to each other through words,
 let us understand through love)*
 December 9th, 2015
 Royal Chapel of St. Agatha, Gothic Quarter, Barcelona
 Lidia Pujol, voice
 Miquel Àngel Cordero, double bass and voice
 Pau Figueras, guitar

- Summa
1. Prefacio: He escrivit aquesta suma. (Works S. España – Islamic Element)
 2. Cant de la Sibilla. (Manuscript of Marston s. XV)
 3. Vegeu també: OM, Dies, salms (El Misteri d'Élc. s. XIII/XIV)
 4. A veu, dansa Vegeu Santa Maria. (R. Lull's. MEXU, cantons paravenals)
 5. Quanad veu la lauseta movent. (Berruol de Ventolers, 1143-1170)
 6. Veni Creator Spiritus. (Folios Mox. s. IX)
 7. Cantils sinens concinnatus. (Llibre Veruol de Montserrat. s. XIV)
 8. Polerans Regina. (Llibre Veruol de Montserrat. s. XIV)
 9. Quon ay le mare punita. (Avencor, canço de trobador. s. XII)
 10. Ad mortem fructuaman. (Llibre Veruol de Montserrat. s. XIV)
 11. Navega sola. (Mestre Surtori)
 12. El testament d'Amillia. (Popular catalan)
 13. El ha got. (Joan Verges / Joan Miralles, M. Àngel Cordero. s. XX)
 14. Segua Frenema. (L'argelata / traditional rapallera)

Lidia Pujol is a multilingual singer and songwriter born in Barcelona that has sung songs in Catalan, Spanish, French, English and Greek. She has a great interest in the coexistence of different cultures, and has found her own identity as an artist by mixing traditional folk-songs, Hebrew, Greek, Medieval, Sephardic and other more distant origins. Her Lidia's art, culture and creativity are the seeds to build a new social identity. She has participated in five shows in worldwide events, such as: Festival of Arts, World Festival (Digitalized), Jackson Brown, Dada Poets, Ulla Luch and Maria Martin. She has just arrived in Barcelona and will offer in this concert a choice of songs related to Culture, love, peace and coexistence.

The public filled up the solemn Hall of the IEC and enjoyed* the music, the voices and the spectacular performance of light, sound and dance. At the end, the audience gave the artists a long, warm ovation.



Concert "*Iter Luminis, Works and Pleasures of Love*", by singer-songwriter Lidia Pujol and her musicians and singers.

*You can also enjoy some songs of the concert through [this link](#) to the "Barcelona in Action" Video channel

Guided visit to the *Call* (Jewish Quarter) of Barcelona

The Board of the AE, other MAE and accompanying persons visited the Jewish Quarter of Barcelona, the *Call*. The visit was guided by Victor Sorensen, director of the Jewish Community of Barcelona. His explanations about the history of Jews in Catalonia, and their way of life in the city during the Middle Ages, accompanied by the visit to several of the related buildings and streets, made the walk through the narrow and old streets of the "old Barcelona" especially memorable*.



Several moments of the visit to the *Call* of Barcelona.

* You can see a video report of the visit to the *Call* through [this link](#) to the “Barcelona in Action” Video channel

Including in the visit to the *Call*, and as a special final act for it, the attendants were invited to pay a visit to Andreu and Esther Mas-Colell’s home, a building of the 13th–14th century located in the middle of the *Call*, which has been accurately restored. Andreu Mas-Colell, MAE, and his wife offered the attendants a warm reception at their home with a wonderful appetizer to recover energy.

Afterwards, the attendants enjoyed a lunch at the restaurant of the Petit Palace Boqueria Garden Hotel, located in a 19th-century building at the heart of the city, and in the limits of the former *Call*. The president of the AE, Sierd Cloetingh, addressed a warm, friendly speech to the attendants.



Lunch at the patio of the Petit Palace Boqueria Garden, located at the edge of the former Jewish Quarter of Barcelona

InterSection Workshop

As in former editions of the *Disputatio of Barcelona Week*, an InterSection Workshop was held on a topic related to the topic of the *Disputatio* debate.

On Wednesday 23 November, the 2016 InterSection Workshop was coordinated by **Christophe Thébaud** (Chair of the Organismic and Evolutionary Section of the AE, Section C-4), and was devoted to the topic “What is Life?”, on which the whole scientific career of Lynn Margulis focused. Prof. Margulis died on November 22, 2011, and the BKH decided to dedicate the Workshop to remember her work.

The lecturers for the Workshop were **Annia Domènech** (Out-of-Pluto, Paris), who imparted the lecture *Extraterrestrial life: a very human quest*, focused on the advancements on SETI (Search of ExtraTerrestrial Intelligence); **Gloria G. Cuadrado** (Barcelona) who talked about *A brief history of the Universe: from the Big Bang to the origin and evolution of life*, in which she described the main events in the history of the Cosmos, from this unique event known as the Big Bang to the origin of life; **David Jou** (Autonomous University of Barcelona) with his lecture about *Thermodynamics and Life* and explained life as a non-equilibrium physical system; **Ricard Guerrero** (AE-BKH) who talked about *Minimal Life* and discussed several aspects of the establishment of minimal ecosystems and the simplest conditions to be found in a planet to allow the biopoiesis, or origin of life; **Mavi Sánchez-Vives** (IDIBAPS, Barcelona), with her lecture *Intelligent Life*, in which discussed various issues related to neurobiology and to the study of the minimal neural connections, and, finally, **Javier Macia** (Complex Systems Lab, PRBB, Barcelona) who talked about *Artificial Life*, discussing the advancements on that specific field of research and complementing the talk given by Ricard Solé, from the same lab of the speaker, at the *Disputatio* debate of the day before.



Ch. Thébaud, A. Domènech, G.G. Cuadrado, D. Jou, R. Guerrero, M. Sánchez and J. Macia

Premiere of the film “Symbiotic Earth: How Lynn Margulis rocked the boat and started a scientific revolution”

Also on Wednesday 23 November, in the afternoon, fifth anniversary of Lynn Margulis death, John Feldman presented his film at the Pere i Joan Coromines Room at the IEC.



John Feldman (Hummingbird Films, NY) introducing his film

The film (about 2 h, 30 min. in its present form), accurately produced and edited by the director, offered a ten-chapter journey, both throughout time and space, into John Feldman's personal view about the scientific and personal figure of Lynn Margulis. Through several interviews to various colleagues, collaborators and disciples of Lynn, Feldman has created a linear narration that deals with the main aspects of Lynn's scientific career and the impact of her research in the current state of the biological sciences. Lynn Margulis actively lectured and made research, both in the lab and in the field, in Spain since 1983 until her death. She especially collaborated with the microbial ecology group of the Autonomous University of Barcelona (1983–1988) and of the University of Barcelona (1989–2011), directed by Ricard Guerrero, first on the karstic system of Banyoles and afterwards on the microbial mats of the Ebro Delta.



Lynn Margulis (1938–2011). Some stills from the film

Guided visit to the premises of the Industrial School of Catalonia

On Thursday 24 November took place the last event of the *Disputatio* Week 2016. It was the visit to the Industrial School of Catalonia, in the geometrical quarter of the Eixample, an urbanistic design famous world-wide. The visit was guided by Jaume Rosell, from the School of Architecture of Barcelona (Technical University of Catalonia). The original building (1867) was Can Batlló, the textile factory of the Batlló brothers, built by the renowned architect Rafael Guastavino. Since 1889, when the factory ceased its activities, the building experienced many changes. New facilities and functions were added to the original, and now the large architectural ensemble is the home of different departments of the Diputació de Barcelona (Provincial Council), and of the Industrial School of Catalonia.

For the development of this activity, the Barcelona Knowledge Hub received the collaboration of the Catalan Society for the History of Science and Technology (SCHCT).

3. OTHER ACTIVITIES DURING 2016 (Activities and collaborations in chronological order)

January

3.1 DIAPHORA kick-off meeting

On January 15, Ricard Guerrero, Director of the Barcelona Knowledge Hub of the Academia Europaea (AE-BKH) attended the meeting held at the Puig i Cadafalch Hall of the Institute for Catalan Studies (IEC) as representative of the BKH, one of the five partners of this initiative.



The meeting was coordinated by Sven Rosenkranz (ICREA Research Professor; coordinator of the LOGOS Research Group in Analytic Philosophy, Department of Logic, History and Philosophy of Science, University of Barcelona) and joined sixteen participants from several European universities and academic institutions.

The Marie Skłodowska-Curie European Training Network DIAPHORA serves as a European research and training platform for collaborative research on the nature of philosophical problems, their resilience and the sources of persistent divergence of expert opinion about them, and their relation to conflicts in the practical sphere.

DIAPHORA undertakes to provide 14 Early Stage Researchers with the knowledge and skills necessary to meet the demands of top-level research within its remit, as well as professional complementary skills training in both the academic and non-academic sectors, with the goal of widening their potential societal contributions and improving their individual career prospects.

After the meeting, Ricard Guerrero informed the Network Coordinator that AE-BKH prefer the month of November, both in 2016 and in 2017, for hosting interns, as November is the month in which the hub has the most important activity of the year, the *Disputatio of Barcelona Week*. At this time of the year, AE-BKH can offer comfortable office space for the respective interns.

3.2 Collaboration with the 1st Conference of the UNU-GCM Migration Network

On January 28, the United Nations University-Globalization, Culture and Mobility Institute (UNU-GCM), organized the 1st Conference of the University Migration Network.

Starting from three thematic areas of concern, International Migration and Human Security, Gender Perspectives in Migration and Migration and Sustainable Development, researchers of the UNU Migration Network presented their core findings and exchanged their knowledge, expertise and views about approaches and terminologies in the field of migration. The aim was to give both stakeholders and experts, along with all those interested in the topic, a wide range of outlooks in order to contribute to developing new understandings and strategies to deal with future challenges in the field of international migration.

February

3.3 Meeting with CIMNE (International Center for Numerical Methods in Engineering)

On February 3, Ricard Guerrero and Anna Wasmer held a meeting with Francisca García-Sicilia (Director of International Relations of CIMNE) and Eugenio Oñate (president of the Executive Council of CIMNE). During the meeting it was discussed the possibilities of future collaboration between the Barcelona Knowledge Hub of the Academia Europaea and the CIMNE in the diffusion of science at the highest level.



3.4 Participation at the Fernando González Bernáldez Interuniversity Foundation Award

On February 5, Rubén Duro (Project Coordinator of the Barcelona Knowledge Hub)—representing Ricard Guerrero—attended the Fernando González Bernáldez Interuniversity Foundation award ceremony at the University of Alcalá (Alcalá de Henares, Madrid). Miguel Morey Andreu was awarded for his long life research on the ecology of insular ecosystems. The act included also the lecture *“Creating conservationists social scenarios: the brown bear”* given by Guillermo Palomero (president of the Brown Bear Foundation). The lecture was the inaugural act of the Master on Preserved Territories 2016. After the ceremony, Rubén Duro introduced the Barcelona Knowledge Hub activities to some members of the Fernando González Bernáldez Interuniversity Foundation with the aim of establish the contact for future institutional collaboration.

March

3.5 Meeting of the AE's hubs in London

On March 14, three of the four AE's hubs (Wrocław, Barcelona and Cardiff), plus the AE's Graz Information Centre, met for the first time in London. The hard-working meeting, held in the Senate House of the University of London, where the AE's central office is located, had a pleasant atmosphere, and many topics of interest for both the hubs and the AE's itself were discussed and agreed. The meeting was directed by Sierd Cloeting, AE president, and excellently coordinated by David Coates, Executive Secretary, and Teresa McGovern, Administrator of the office. Both the warm

environment at the meeting room, and the mild, sunny weather in London contributed excellently to the efficiency of the meeting, which everybody considered necessary to hold again next year.

3.6 Meeting with the MICROPIA project, Amsterdam

Between March 23–28, Ricard Guerrero met Jasper Buiks (curator of the permanent exhibition) as MAE expert on both microbial ecology and microbial diversity, and as the responsible person for the permanent exhibition on the microbial world inside a museum (the Natural History Museum of Barcelona, the Blue Museum), directed by Anna Omedes Regàs.

April

3.7 Collaboration with the Seminar on Predictive Catalysis, Girona

The Girona Seminar on Predictive Catalysis have taken place in the historic city of Girona every two years since 1993, with the aim of bringing together young and senior scientists in a beautiful environment and in an informal and friendly atmosphere to discuss the Chemistry of everything.

The 2016 edition, held in Girona (Catalonia) between April 17–20, was focused on “*Transition-Metal Reactivity by Design*”, and had front-line plenary and keynote speakers from all over the world. Young researchers opted for poster prizes and talked awards sponsored by Nature Chemistry, RSC Organic Chemistry Frontiers, and Wiley. The Seminar was chaired by Marcel Swart, ICREA, University of Girona, member of the Young Academy of Europe.

May

3.8 Presentation of the activities of the AE-BKH at Andorra

On May 12, 2016, the academic director of the BKH, Ricard Guerrero, was invited by the SAC (Societat Andorrana de Ciències, Andorran Society of Sciences) to present the activities of the BKH since the establishment of the hub, in January of 2013.

On May 12 and 13, 2016, Ricard Guerrero extensively discussed with the president of the SAC, Àngels Mach, and with the Rector of the University of Andorra, Miquel Nicolau, the various possible collaborations between the two Andorran institutions and the Academia Europaea Barcelona Knowledge Hub.



The University of Andorra (UdA), founded in 1997, is the public state university of the Principality of Andorra. It has as a basic mission to meet the needs of the Andorran society, not only in those areas regarding higher education but also in relation to research and the transfer of technology and knowledge, each and every one with a high level of quality and adapted to the reality and the dimensions of the country. It is the aim of the UdA to maintain an open attitude, not only to our society, where the University looks for collaboration, and to which it serves, but also to international institutions, with criteria of flexibility and of optimization of resources. The University of Andorra focuses its activities on the student, not only from a scientific point of view but also from a humanist stand, developing creativity, critical analysis and the desire to continue learning autonomously.

June

3.9 Presentation of the activities of the AE-BKH at Boston and Amherst, MA, USA

Between June 9–21, Ricard Guerrero was in Cambridge and Amherst (Massachusetts., USA) introducing the activities of the Academia Europaea to some relevant academic personalities, among them Raymond Bradley (UMass-Amherst), Moselio Schachter (SDSU) and Roberto Kolter (Harvard Medical School).

3.10 Annual Conference of the AE, Cardiff

On June 27, Ricard Guerrero attended the 2016 Annual Business meeting at Cardiff, where jointly with other MAE decided to elect Xavier Costa-Guix as an Independent member of the Council of the Academia Europaea.

3.11 Collaboration with the IEEC Asteroid Day

The Barcelona initiative was born in the framework of the international Asteroid Day movement that wants to popularize the fall of Tunguska (on June 30th, 1908), the most energetic contemporary impact detected so far.

With that purpose, the Institute of Space Sciences (CSIC-IEEC), the Royal Academy of the Sciences and Arts of Barcelona (RACAB), the Barcelona Knowledge Hub of the Academia Europaea (AE-BKH), and the Astronomic Society of Sant Cugat-Valldoreix (AASCV), celebrated the Barcelona Asteroid Day 2016 at the facilities of the Royal Academy of the Sciences and Arts of Barcelona.

The invited lecturer was Michael Küppers (ESAC) who gave the lecture *"Impacting asteroid Didymos: Testing asteroid deflection with the AIDA mission"*.

After the lecture it was organized a round table on *"Reasons to care about asteroid impact hazard"*, with the participation of Jordi Llorca (UPC), Jorge Núñez (UB and RACAB), Mar Tapia (IGEF-IEC) and Josep M. Trigo-Rodríguez (moderator, CSIC-IEEC).

July

3.12 Collaboration with the "Art and Design in Barcelona" Summer 2016 Course. Northeastern University, Boston

Between July 4–24, Xavier Costa-Guix (MAE, Northeastern University, Boston) and Suzanne Strum (UPC) organized, with the collaboration of the Barcelona Knowledge Hub of the Academia Europaea, the "Art and design in Barcelona". Summer 2016 Course. Northeastern University, Boston.

The course is conceived as an introduction to the creativity, art and design of the city of Barcelona, focusing on the recent decades, yet keeping in mind its historical trajectory since classical times. We will focus on the role of creativity in today's economy, and will examine some cases of entrepreneurship and innovation resulting from applying design thinking to fashion, gastronomy, media, advertising, and other fields.

The lecture sessions on July 4, 11, 18 and 19, held at the Pi i Sunyer Room of the IEC, addressed the transformed cultural, economic and technological status of design in the contemporary period, and explored exchanges and intersections with architecture, urban identities and lifestyles. The course aimed to address the implications for cities of the ascendancy of design as a process, a trans-disciplinary mode of creative thinking, and as a specialized field of study.

The city of Barcelona is considered as a case study for understanding the importance of design and cultural industries and heritage as a source of wealth. Cultural and creative industries including food, fashion, media, visual and performance arts are relevant fields of social, economic and technological innovation. The creation of Barcelona's cultural arts district in the Raval and the 22@ area for creative industries constitute two urban case studies that were explored during the program.

3.13 Collaboration with the International Conference on Feminist Geographies and Intersectionality: Places, Identities and Knowledges, UAB (Bellaterra) and IEC

Between July 14–16, The Geography and Gender Research Group of the UAB, chaired by Maria Dolors Garcia-Ramon (MAE, UAB and member of the IEC) hosted the International Conference on Feminist Geographies and Intersectionality: Places, Identities and Knowledges, sponsored by the Commission on Gender and Geography of the International Geographical Union (IGU).

There was a three-day Conference that sought to gather researchers working with gender as well as other identities that play a role in the experience of place: age, social class, ethnicity, sexuality, ability. The Conference brought together 76 participants from 21 countries (United States, United Kingdom, France, Israel, Argentina, Brazil, Turkey, Germany, Singapore, Canada, Sweden, The Netherlands, Belgium, New Zealand, Iceland, Czech Republic, India, Portugal, Italy, Greece and Spain) and was organised through three keynote lectures, twelve sessions of paper presentations, one panel and one walking tour through the old city of Barcelona.

The first keynote speaker, **Joos Drooglever Fortuijn** (University of Amsterdam) talked about *Gender and Intersectionality in geography teaching*. The second, **Hanna Hamdam Saliba** (Urban and Regional Planner, Palestine/Israel), focused on *The everyday spatial experiences, practices and behaviours of Arab women in Barcelona and Jaffa/Tel Aviv*. Finally, **Margarida Queirós do Vale** (University of Lisbon) talked about *Gendering smart cities: Time-spaces and places for feminism*. Under the umbrella of Feminist Geographies and Intersectionality, participants

sent 51 abstracts that referred globally to 12 themes: Teaching and learning, Activism, Intersectional theory, Sexualities, Work and gender contract, Identities and representations, Planning and policies, Masculinities, Religions, Migrations, Methodologies and Mobilities.

Saturday morning was devoted to an important panel that took place at the old building of IEC on the topic of Intersectionality and Feminist Geography. The panellists were **Marianne Blidon** (Université Paris 1), **Peter Hopkins** (Newcastle University), **Lynda Johnston** (University of Waikato), **Dina Vaiou** (National Technical University of Athens). The convenor of the panel was **Dr. Maria Dolors Garcia-Ramon** (UAB and IEC) and the chair was **Maria Rodó-de-Zárate** (Universitat Oberta de Catalunya). The panel dealt with the intersectional dynamics of power structures and the central role of place within them; that is, situating space as a constituting part of intersectional dynamics. It contributed to contextualize the development of intersectional theory and to relate the theoretical developments on intersectionality with conceptualizations on spatiality.

October

3.14 Experts' visit to the ALBA Synchrotron, Bellaterra

On October 24, members of the Advisor Council on Science and Technology of the Catalan Parliament (CAPCIT)—among them Ricard Guerrero (academic director of the AE-BKH)—visited the facilities of the Consortium for the Building, Equipment and Exploitation of the Light Laboratory of the ALBA Synchrotron. During more than an hour, the group, accompanied by political representatives of Catalonia and different personalities of the science and technology field, were informed about the research, the experimental tasks developed by the installation. Caterina Biscari (director of the centre) and other members of the centre were responsible for the explanations about this installation that is unique in Spain.

November

3.15 Meeting of the AE Board of Trustees in Barcelona

On Sunday 20 November, several MAE arrived to Barcelona for the celebration of the *Disputatio of Barcelona 2016*, organized by the AE-BKH.

The accommodation site for the MAE was the Hotel Regina, located at Bergara Street, next to the Catalunya Square, at the core of the town. Established in 1917, the Hotel Regina has witnessed the most important events occurred in Barcelona, such as the urbanistic transformations of the first quarter of the 20th century or the terrible period of the Spanish Civil War (1936–1939). During that awful period of the history of Barcelona, the Hotel Regina was converted into an improvised hospital which helped to save the lives of many people. Behind a beautiful modernist door canopy, which is still conserved, the hotel has accommodated most of the Spanish celebrities who have come to Barcelona. Its Modernist façade precedes a beautiful interior, renovated in 2006 by the architect and interior designer Jordi Veciana.

On Monday 21 November, the AE Board's business meeting took place at the facilities of the Institute for Catalan Studies (IEC), headquarter of the Barcelona Knowledge Hub.



At the centre: AE's president Sierd Cloetingh. From his left side, clockwise: Balázs Gulyás, Ole Petersen, Andreu Mas-Colell, Tadeusz Luty, Xavier Costa-Guix, Miklós Maróth, Ricard Guerrero, and David Coates.

On the afternoon, the Board held the second session, in which **Tadeusz Luty** (Wroclaw hub) and **Ricard Guerrero** (Barcelona hub) made the presentations of their respective hubs to the rest of trustees. Afterwards **Balázs Gulyás**

started the discussion about the Budapest Conference. (See ANNEXES 1 and 2 with different actions of the AE-BKH for the diffusion of its activities, presented by R. Guerrero.)

3.16 Collaboration with the 3rd FCIS (Founding Science and Social Innovation) meeting, Institute for the Promotion of Science and Research

On November 29, Ricard Guerrero attended the 3rd FCIS meeting devoted to "The new role of the Collaborative Economy on the Science and Research funding". With the presence of important personalities of the academic field: University of Barcelona (UB), Autonomous University of Barcelona (UAB), Confederation of Spanish Scientific Societies (COSCE), Spanish Foundation for Science and Technology (FECYT), Spanish Council for the Scientific Research (CSIC), among other, several lectures and round tables were organized with the aim of discussing the issue and establish the importance, incidence and perspectives of this new way of funding science.

December

3.17 Publication of a thematic issue of *Contributions to Science* on the activities of the AE-BKH during 2013–2016

The issue 12-2 (December 2016) of the journal *Contributions to Science*, published by the Science Sections of the IEC, includes nine articles, with the foreword written by Ricard Guerrero and Andreu Mas-Colell. (See ANNEX 3, for the contents of the thematic issue and Guerrero & Mas-Colell's article.)



4. ANNEXES

4.1 ANNEX 1

The AE-BKH bulletin *BarceloNEWS*

Currently without a defined periodicity (it varies in function of the amount of activities developed by the hub), the Barcelona Knowledge Hub of the Academia Europaea edited the electronic bulletin *BarceloNEWS*.

During 2016 it have been edited ten issues, some of them designed by the BKH itself and others designed through the AE application, than have been distributed to the MAE. The purpose of *BarceloNEWS* is to inform about the activities and events, both past and upcoming, organized by, coordinated by, participated by, or related in any way to the AE-BKH.

You can get access to all the *BarceloNEWS* from the AE-BKH through [this link](#).



Header of the *BarceloNEWS*, the electronic bulletin of the AE-BKH

The AE-BKH “Barcelona in Action” video channel

One of the singularities of the Barcelona Knowledge Hub of the Academia Europaea is the audiovisual activity. The audiovisual team of the AE-BKH (Rubén and Jara Duro) is responsible for the development of this specific area, working not only on the activities organized by the hub but also as support of other institutions related to the Academia Europaea. In this field of actuation, the AE-BKH has offered technical support to the YAE for the production of several interviews included in the YAE Project “Dialog Project”.

To show this works, the audiovisual team of the AE-BKH created the “Barcelona In Action” video channel, running on the YouTube and Vimeo platforms. Some of the videos produced by the BKH audiovisual team and included into the “Barcelona In Action” video channel are linked through the “Video” section at the bottom of each “BarceloNEWS” newsletter with the aim that all MAE can watch them.

During 2016, the AE-BKH has uploaded 14 videos to the Vimeo platform, all of them related to the activities of the hub. You can get access to the video channel through [this link](#).

4.2 ANNEX 2. Diffusion of the activities of the AE-BKH

The AE-BKH office, with the purpose of informing about the activities developed by the hub, created the website barcelona.acadeuro.org and the corresponding accounts on the Facebook <https://www.facebook.com/ae.bkh/> and Twitter [@ae_barcelona](https://twitter.com/ae_barcelona) platforms. Through these accounts it has been possible to introduce into the social network information about the activities related to the AE-BKH.



Frontpage of the AE-BKH website

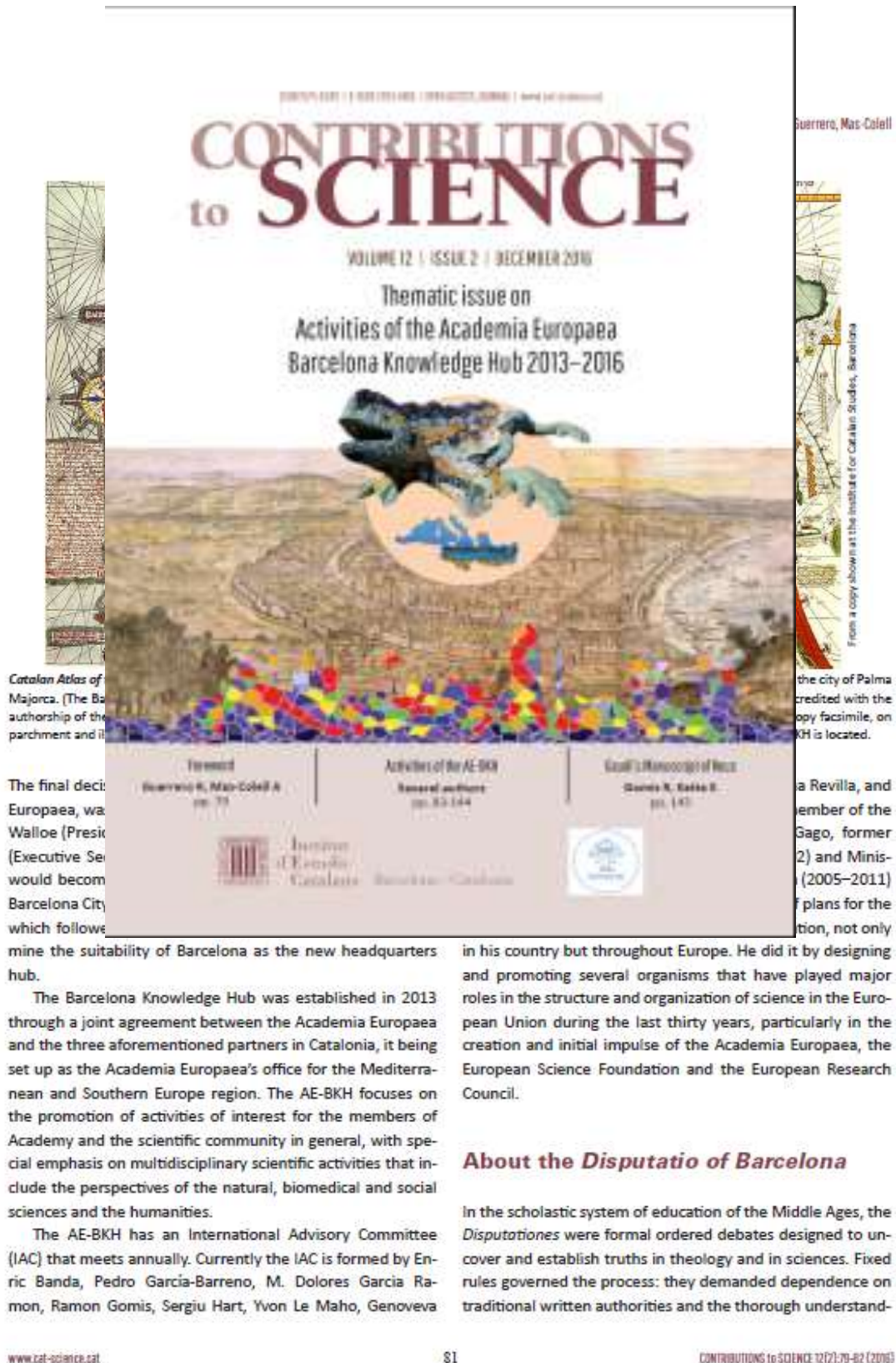


Frontpage of the AE-BKH Facebook page



Frontpage of the AE-BKH Twitter profile

4.3 ANNEX 3. Contributions to Science 12-2 (December 2016)



Catalan Atlas of Majorca. (The Ba authorship of the parchment and it

The final deci Europa, wa Walloe (Presik (Executive Ser would becom Barcelona City which follow

mine the suitability of Barcelona as the new headquarters hub.

The Barcelona Knowledge Hub was established in 2013 through a joint agreement between the Academia Europaea and the three aforementioned partners in Catalonia, it being set up as the Academia Europaea's office for the Mediterranean and Southern Europe region. The AE-BKH focuses on the promotion of activities of interest for the members of Academy and the scientific community in general, with special emphasis on multidisciplinary scientific activities that include the perspectives of the natural, biomedical and social sciences and the humanities.

The AE-BKH has an International Advisory Committee (IAC) that meets annually. Currently the IAC is formed by Enric Banda, Pedro Garcia-Barreno, M. Dolores Garcia Ramon, Ramon Gomis, Sergiu Hart, Yvon Le Maho, Genevieve

Guerrero, Mas-Colell

From a copy shown at the Institute for Catalan Studies, Barcelona

the city of Palma credited with the copy facsimile, on KH is located.

a Revilla, and member of the Gago, former 2) and Minis- (2005–2011) f plans for the tion, not only

in his country but throughout Europe. He did it by designing and promoting several organisms that have played major roles in the structure and organization of science in the European Union during the last thirty years, particularly in the creation and initial impulse of the Academia Europaea, the European Science Foundation and the European Research Council.

About the *Disputatio of Barcelona*

In the scholastic system of education of the Middle Ages, the *Disputationes* were formal ordered debates designed to uncover and establish truths in theology and in sciences. Fixed rules governed the process: they demanded dependence on traditional written authorities and the thorough understand-

Cover and Contents of the thematic issue and article by R. Guerrero & A. Mas-Colell, as the presentation of the issue.



The Academia Europaea-Barcelona Knowledge Hub is located in the building of the Institute for Catalan Studies, in Barcelona.

ing of each argument on each side. The famous *Disputatio of Barcelona*, called in the summer of 1263 by King James I of Aragon and Catalonia, was the most important and well-known of the inter-faith *Disputationes* that took place between Christian and Jewish theologians in the late Middle Ages. In the *Disputatio of Barcelona* the *disputantes* were Friar Paulus Christianus, a Dominican (and a former rabbi converted from Judaism to Christianity) and rabbi Moshe ben Nachman (also known as Nahmanides), the most important scholar of Judaism at his time, from the Girona's community. The discussion focused on theological questions with the presence of the king and his court, and of the most significant men of Barcelona, then a prosperous and affluent city.

Since its creation, the AE-BKH has developed four *Disputationes*, in 2013 (coinciding with the commemoration of the 750th anniversary of the medieval *Disputatio of Barcelona*), in 2014, 2015 and 2016. The success achieved in those editions is the best cultural manifestation of AE-BKH and consequently continuing them has been considered most suitable.

About the Young Academy of Europe

Institutions devoted to all fields of knowledge are committed to defending the planet. Leaders must continually remind of it both to governments and the citizenship. The younger generations have much to do about it. The combination of the experi-

ence of senior researchers and the real possibilities of younger generations are the guarantee for the future. The Young Academy of Europe (YAE) was created to respond to this need. It was born as a pan-European initiative of outstanding young scientists to create a platform for networking, scientific exchange and science policy. The AE and the YAE signed an agreement in December 2012, establishing that "both organizations shall actively explore the potential for, and development of, a wide range of initiatives and activities, that would provide for a mutual benefit to both organizations and to the wider scholars' community across Europe." The AE-BKH is responsible for giving the necessary administrative support to the YAE and collaborating in the YAE's Interviews Project.

Several major issues affect the activity and objectives of the AE-BKH, the main being (a) attention to global social problems (displacement by conflict, migration, poverty, scientific development), (b) promotion of the women in all aspects of BKH organization, activities and development in all activities and in the area of influence of the hub, (c) interdisciplinarity in the treatment of the discussed topics, (d) collaboration with the related entities both national and international, and (e) involvement in the expansion and dissemination of the Young Academy of Europe.

To conclude, the Barcelona Knowledge Hub has tried to make a significant contribution to the aims and activities of the whole Academia Europaea, especially those related with Southern Europe and the Mediterranean. 🟩

About the images on the first page of the articles in this issue. Articles of this thematic issue of CONTRIBUTIONS TO SCIENCE, devoted to the activities of the Barcelona Knowledge Hub of the Academia Europaea (AE-BKH), show in their first page a reproduction of a *tracocóis*, a type of mosaic used in Catalan Modernism, made from broken pieces of ceramics, like tiles and dinnerware. Those nine "broken tiles," designed by the architect from Reus Antoni Gaudí, show multiple angles and views, reflecting the ever-changing reality around us. The AE-BKH believes that those images, created more than a century ago, represent appropriately the multiple aspects of the present academic world, both in science and humanities, which constitute one of the main objectives of the activities of the Barcelona hub. See also the article "Antoni Gaudí (1852–1926): The Manuscript of Reus," by R. Gomis and K. Katte, on pages 145–149 of this issue. This issue can be downloaded in ISSUU format and individual articles can be found at the journals' repository of the Institute for Catalan Studies [www.cat-science.cat; <http://revistes.iec.cat/contributions>].

ACADEMIA EUROPAEA KNOWLEDGE HUB REGION BERGEN (AEkhRB)

Annual Report: 2016

The focus of Academia Europaea's hub in Bergen will be resources and expertise relating to the 'Northern seas' – Europe's northern dimension.

The Hub office in the premises of Business Region Bergen (BRB) opened for Hub business 4 March 2014, and has operated regularly after the official Hub inauguration 30 May 2014. The HUB-secretary where, due to a new collaboration agreement, transferred from BRB to UiB as of 01.07.2016.

Academia Europaea Knowledge hub Region Bergen

University of Bergen

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Since the HUB-secretary where transferred from BRB to UiB during 2016 there has been some changes in the HUB-secretary. Vidar Totland, BRB, was the HUB secretary until 01.07.2016. Tommy Aarethun, UiB, was the HUB secretary the rest of the year. As of 01.03.2017, Lene Bakke will be the HUB-secretary.

REGULAR EVENTS ORGANIZED BY AEkhrB:

BHAG-meetings: There has been five BHAG-meetings in 2016.
(February, March, May, October and December)

ACTIVITIES 2016:

Physics Colloquium, UiB Dept. of Physics and Technology, Friday, 26.02.2016, 14:00, Auditorium B, *Prof. Dieter Röhrich MAE*, IFT – University of Bergen: **“Proton-CT – a novel diagnostic tool for particle therapy”**

June 8, 2016

Academia Europaea president Sierd Cloetingh and University of Bergen Rector Dag Rune Olsen signed a new collaboration agreement: University of Bergen takes over hosting the Academia Europaea Knowledge Hub Region Bergen.

CONSENSUS-2016 and Regional Members Meeting (RMM) took place on June 10-11, in the frame of the [Hanseatic Days](#) in Bergen 9-12 June 2016. The CONSENSUS meeting took place on **June 10** between 17:00-19:00, while the RMM and the associated symposium in cooperation with HFK and UiB was on [June 11](#).

[ICNEFP-2016](#) – **The 5th International Conference on New Frontiers in Physics**, July 6-14, 2016 in OAC, Kolymbari, Crete, the [annual interdisciplinary meeting](#) took place, co-organized by the Academia Europaea Knowledge Hub Bergen.

NorSAC 2016 (Northern Science Achievement Colloquium)

“Colloquium to highlight Hub mission-related scientific achievement or achievement related to strengthening interplay between Northern Seas countries.”

This year the theme for the colloquium was:

ATOM SMASHERS AND CANCER THERAPY TOOLS
NORTHERN CONTRIBUTIONS –Past-Present-Future

The NorSAC where arranged in Bergen the 6th and 7th of December 2016, with both AE President Sierd Cloetingh and Dr David Coates, Executive Secretary of Academia Europaea present.

NorSAC program: <http://acadeuro.b.uib.no/files/2014/07/Program-NorSAC-2016.pdf>

HUB-RELATED ACTIVITIES:

April 2016: Postgraduate Degree Program on “Cultural Heritage Management & Sustainable Development” is announced by The University of Pannonia, Koszeg Campus and The Institute for Advanced Studies, Koszeg (iASK), Hungary:

April 2016: Norwegian documentary on Rolf and Viggo Widerøe that Jan S. Vaagen has contributed too.

July 25, 2016

Public engagement activities of the AE Bergen Knowledge Hub contributed to the project “Science Advice to Policy by European Academies” (SAPEA) collected by ALLEA

July 25, 2016

Statement “Science is Global” of the European Academies including Academia Europaea.

Aug. 7, 2016

The Roald Dahl 100 Years Celebration:

Gunnstein Akselberg's article on Roald Dahl in Bergens Tidende.

Sep. 14, 2016

University of Bergen Unveils Yuri Gagarin Sculpture

On Energy and Sustainable Development

The Hub Continued its activity in this field from previous years. The activity was permanently reported on the Hub's Web-site: <http://acadeuro.b.uib.no/activities/energy/>

The Hub was represented in international academic organizations:

[A] EASAC (European Academies Science Advisory Council) Energy Steering Panel. The Hub representative participated in the published EASAC ESP reports published in 2016.

[B] EPS (European Physical Society), Energy Working Group. The participation in EASAC is concluded at the end of 2016 as the AE Board of Trustees decided that starting from 2017 AE will support the SAM (EU Science Advisory Mechanism) via SAPEA, and not via EASAC.

Hub related publications in the field:

[1] PHYSICAL BASIS OF SUSTAINABLE DEVELOPMENT, CSERNAI, László Pál – PAPP, István – SPINNANGR, Susanne Flø – XIE, Yi-Long, Journal of Central European Green Innovation 4 (2) pp. 39-50 (2016)

(<http://greeneconomy.karolyrobert.hu/>)

[2] Quantitative assessment of increasing complexity

L.P. Csernai, S.F. Spinnangr, S. Velle,

arXiv:1609.04637v1 [q-bio.OT]

[3] Quantitative Entropy Study of Language Complexity,

R.R. Xie, W.B. Deng, D.J. Wang and L.P. Csernai,

arXiv:1611.04841v1 [cs.CL]

[4] Radiation dominated implosion,

Susanne F. Spinnangr, Istvan Papp and Laszlo P. Csernai,

arXiv:1611.04764v1 [physics.plasm-ph]

[5] Experimental Study of Foam Generation, Sweep

Efficiency, and Flow in a Fracture Network,

Ferno, M. A.; Gauteplass, J.; Pancharoen, M.; et al.

SPE JOURNAL, 21, 1140-1150 (2016)

[6] Visualization of Carbon Dioxide

Enhanced Oil Recovery by Diffusion in Fractured Chalk,

Eide, Oyvind; Ferno, Martin A.; Alcorn, Zachary; et al.,

SPE JOURNAL, 21, 112-120 (2016)

Presentations:

[c1.] Actual Questions of Energy Production - invited keynote lecture - Laszlo P. Csernai, XXIII International Energy and Innovation Forum, Feb. 16-19, 2016, Visegrád, Hungary

[c2.] Fundamental Physics of Sustainable Development - Colloquium talk - Laszlo P. Csernai, Wuhan University of Technology, Dept. of Physics, March 17, 2016, Wuhan, China

[c3.] History of Physics in Bergen and of Sustainable Development, - invited talk - Laszlo P. Csernai, 2nd Int. Conf. on History of Physics, Sept. 5-7, 2016, Pöllau, Austria

[c4.] Physics of Sustainable Development - Colloquium talk - Laszlo P. Csernai, Wuhan University of Technology, September 28, 2016, Wuhan, China

[c5.] Sustainability and Competitiveness of Energy Supply in Europe, Invited contribution to discussion - L. P. Csernai, Deutsch-Ungarisches Forum 2016, 26 October 2016, Budapest, Hungary.

[c6.] Sustainability and Energy Supply in Europe, Invited contribution - L. P. Csernai, iASK Research Workshop, 3 November, 2016, Kőszeg, Hungary.

Bergen, Mai 2017

Prof. Jan S. Vaagen, Hub Academic Director

Tommy Aarethun, Hub secretary



ANNUAL REPORT 2016



Promoting research excellence for policy
and progress

Introduction

By Professor Ole Petersen

CBE FMedSci FLSW MAE ML FRS

Honorary Academic Director, *Academia Europaea* Cardiff Knowledge Hub



Welcome to our Annual Report 2016, highlighting our achievements so far in meeting the three-year priorities set out in our Strategic Plan 2016-2019.

Founded in 1988, *Academia Europaea* is a non-governmental association, acting as a pan-European Academy. Our members are leading scientists and scholars who collectively promote research, learning and education. Our membership now numbers well over 3000, including more than 75 Nobel laureates.

Academia Europaea operates through a network of regional knowledge hubs in Barcelona, Wroclaw and Bergen. In 2016, they have been joined by a fourth hub, hosted at Cardiff University in Wales. Cardiff's world-leading research was ranked 5th amongst UK universities in the 2014 Research Excellence Framework for quality and 2nd for impact.

This has been a momentous first year for the new Cardiff Knowledge Hub. The *Academia Europaea* Annual Meeting and Conference 2016 was hosted at Cardiff, just four days after the UK's referendum vote to leave the European Union.

It is now more vital than ever to emphasise the importance of collaboration and networking between research communities in Europe and, indeed, worldwide.

In this context, I am pleased with the proactive role the Hub has played in preparations for a new European project, SAPEA (Science Advice for Policy by European Academies), which will support the European Scientific Advice Mechanism (SAM). The project officially got under way on 1st November and the Cardiff Hub has been vigorously engaged from the outset, contributing to the review work on New Techniques in Agricultural Biotechnology. I am delighted that the Cardiff Hub will, on behalf of *Academia Europaea*, lead the work on the first topic coordinated by the SAPEA consortium, *Food from the Oceans*, due in 2017.

I would like to thank Sir John Skehel for his very active engagement as Chair of the Hub Steering Group. My thanks also to Professor Nora de Leeuw, Pro Vice Chancellor (International and Europe), Cardiff University, for her great support.

A handwritten signature in black ink, appearing to read 'Ole Petersen', written in a cursive style.

Professor Ole H. Petersen

Highlights in 2016



Professor Ole Petersen at a meeting of the SAPEA partners, Amsterdam, February 2016. Professor Sierd Cloetingh, Academia Europaea President, is also pictured.

A new project, SAPEA (Science Advice for Policy by European Academies), kicked off in November. The Cardiff Hub is playing a major role in delivering work in the project, on behalf of *Academia Europaea*.



Academia Europaea Annual Conference 2016, Hadyn Ellis Building, Cardiff University

The *Academia Europaea* Annual Meeting and Conference 2016 took place 26th-30th June in Cardiff, attracting a large international audience.



New Cardiff Hub website

The new Hub website and corporate identity were launched in the autumn, with a completely fresh look and feel.

Achievements in 2016

Our achievements are set out in the context of the priorities in the Strategic Plan 2016-2019.

Priority 1:

Establish a major role in developing the Scientific Advice Mechanism (SAM)

The Scientific Advice Mechanism (SAM) was established by the European Commission in 2015 to provide high-quality, timely and independent scientific advice for policymaking. It is supported by a new project, SAPEA (Science Advice for Policy by European Academies), which commenced in November. Funded under Horizon 2020, the SAPEA consortium comprises five pan-European academies, including *Academia Europaea*. The project is four years' duration and is budgeted at 6 million EUR in total. The Cardiff Knowledge Hub is delivering a significant part of the work assigned to *Academia Europaea* in the project, under its status as a Linked Third Party.

Over the course of 2016, Professor Ole Petersen and the Cardiff Hub Manager, Louise Edwards, had significant involvement in the preparatory phase of the project. Following the official start date on 1st November, Professor Petersen represented *Academia Europaea* in his capacity as Vice-President at the first joint meeting of the High-Level Group, the SAM Unit of the European Commission and the SAPEA Consortium, held in Brussels. Louise Edwards, Hub Manager, joined the Review Team for the first topic with SAPEA participation, New Techniques Agricultural Biotechnology, with its initial meeting hosted in Brussels in December.

Priority 2: Showcase outstanding regional research

The Cardiff Hub website was relaunched in October, following a comprehensive professional redesign, including a new image identity and strapline. The website now provides an attractive showcase for our work, with in-depth reports and features, as well as news. The new image has also been incorporated into a new set of marketing collaterals produced for the Hub.

Our editorial activity on the new website included an online report on the INGSA (International Network for Government Science Advice) Conference in October, which was referenced by other academies. Regionally, we wrote and published an online report on the *Come Dine with the Future* expert meeting on food and sustainability, organised by the Sêr Cymru National Research Network for Low Carbon Energy and Environment and the Royal Society of Biology and hosted by the National Museum of Wales in November.

At the Annual Conference in June, young scholars from across Wales presented their research to the delegate audience, followed by the award of a prestigious Burgen scholarship.

Dr Tomos Owen, Bangor University, receives his Burgen scholarship award from Academia Europaea President, Professor Sierd Cloetingh



Priority 3: Engage with our membership

Academia Europaea Annual Meeting and Conference

The *Academia Europaea* Annual Meeting and Conference 2016 took place between 26th and 30th June in Cardiff. The event also marked the official opening of the Cardiff Knowledge Hub by the President of *Academia Europaea*, Professor Sierd Cloetingh, and the Vice-Chancellor of Cardiff University, Professor Colin Riordan.



Professor Sierd Cloetingh, Academia Europaea President, at the official launch of the Cardiff Hub

Highlights of the Conference included:



Erasmus Lecture 2016

The Erasmus Lecture, given by the UK's Astronomer Royal, Lord Rees of Ludlow, and entitled *From Mars to the Multiverse*.



Panellists at the debate on Scientific Advice Mechanisms

A debate on Scientific Advice Mechanisms, with a panel that included Sir Mark Walport (UK Chief Scientific Adviser & Chair of the Prime Minister's Council for Science & Technology) and Patrick Child [Deputy Director-General of DG-Research and Innovation, European Commission). It was chaired by Sir Emyr Jones Parry, President of the Learned Society of Wales (LSW) and sponsored by the LSW.

Mini-symposia were held on brain projects at the frontiers of neuroscience, the reproducibility of published research, migration and identity.

An exhibition attracted major publishers and research organisations, as well as highlighting the best of Welsh tourism and culture.

Geology lesson at the Vale of Glamorgan

Delegates enjoyed a varied social programme, including a Gala Dinner at the City Hall and an excursion to study Wales' rich geological features on the Vale of Glamorgan.



"Thank you for everything; this was a spectacular meeting, run extremely well, informative and enjoyable".

Conference delegate **Other Hub Meetings and Events**

In November, the Cardiff Hub hosted two events, both at the new CUBRIC (Cardiff University Brain Imaging Centre) Building in Cardiff.



Panelists on the Future of UK Research

Our panel session on *The Future of UK Research and Scholarship* attracted a lot of interest. Following the UK referendum result, many questions have been raised around the future of UK research and scholarship in a post-Brexit world. The context was set through an opening talk by Professor Richard Catlow, incoming Foreign Secretary at the Royal Society. Our panelists and the audience then explored ideas about how best to pursue European and other international collaborations.



Sir John Skehel's lecture

Sir John Skehel, Vice-President and Biological Secretary of the Royal Society, also delivered a lecture on behalf of the Cardiff Hub. Sir John has provided major insights into the molecular basis of how viruses recognise and infect their host cells. He focusses on the virus that causes influenza, of which there are 3–5 million cases a year worldwide, resulting in up to 500,000 deaths.

Alexei Tepikin, Professor of Cellular and Molecular Physiology at the University of Liverpool, delivered a special seminar on 14th November.

Priority 4: Engage with wider stakeholders



Front page of the Strategic Plan

The Hub's first Strategic Plan, covering 2016 to 2019, was professionally designed and printed. It was circulated to the Hub's wider stakeholder networks, including research-intensive universities in the UK and Republic of Ireland, national and regional academies across Europe, the Welsh government, European organisations such as the League of European Research Universities (LERU) and the European Universities Association (EUA).

External Meetings and Events

The Cardiff Hub was represented at the following external meetings:

January – Professor Petersen participated in the Expert Workshop on Science Advising in Europe, organised by the Initiative for Science in Europe (ESE), in Heidelberg, Germany.

February – Professor Petersen took an active part in negotiations between consortium members in the SAPEA project, at a meeting held in Amsterdam.

March – At a follow-up meeting of the SAPEA consortium in Brussels, Louise Edwards represented the Cardiff Hub, alongside the *Academia Europaea* President, Professor Cloetingh.



Joint Hub meeting in London

March - Representatives from all four *Academia Europaea* Hubs, together with the Young Academy of Europe, met in London to exchange progress reports and to coordinate planning in areas such as website development, marketing and communications.

April – The Cardiff Hub team presented progress reports to the *Academia Europaea* Board, Budapest.

May - Professor Petersen took the opportunity to strengthen links with EASAC (European Academies Scientific Advice Council), one of the partners in the SAPEA project, by attending its Council Meeting in Norway.

June – Professor Sven Bestmann, Vice-President of the Young Academy of Europe made a promotional presentation to attract early- and mid-career researchers to join the YAE, in an event co-organised with the Cardiff Hub and the European Office at Cardiff University.

September - The European Commission hosted the second INGSA (International Network for Government Science Advice) Conference, attended by the Hub Manager, Louise Edwards, and *Academia Europaea* President, Sierd Cloetingh.

November - The first joint meeting of the SAPEA Board, the High-Level Group of Experts and the European Commission's SAM Unit took place in Brussels on 24th November, with Professor Ole Petersen representing *Academia Europaea*.

December – The first Review Team meeting for the SAM topic Agricultural Biotechnology, Brussels, was attended by Louise Edwards.

Marketing and Communications

The Cardiff Hub was able to raise its profile significantly through its promotion of the Annual Conference, both locally and internationally. Within Europe, we achieved coverage in sources such as the European University Association, Research Europe and the Welsh Higher Education Brussels. We also were featured by the Royal Irish Academy, the Learned Society of Wales, Universities Wales and the Welsh Government, which included us in its *Festival of Innovation* programme.

The *Academia Europaea* Annual Conference was promoted extensively through channels at Cardiff University, including its *Summer of Innovation* programme, designed to showcase initiatives of excellence. The Cardiff Hub gained a new set of pages on the Cardiff University website to promote the strategic collaboration between *Academia Europaea* and Cardiff University.

Cardiff's Pro Vice- Chancellor (International and Europe), Professor Nora de Leeuw, published several blogs highlighting the progress of the Cardiff Hub.

In June, we established Twitter and Facebook accounts to announce and promote Hub events.

Priority 5: Ensure future sustainability

In addition to the core operational funding provided by Cardiff University, the Hub was boosted by securing Horizon 2020 funding for the SAPEA project, enabling us to employ a full-time equivalent member of staff to work on SAPEA activities.



We acknowledge and express our gratitude to the Welsh Government and the Learned Society of Wales for their generous support towards the Annual Conference.



Governance

The Cardiff Hub Steering Group held its inaugural meeting on 26th June. The following distinguished scientists and scholars serve on the Group:

Yves Barde MAE
Nora de Leeuw FLSW
Dianne Edwards CBE FLSW FRS MAE
Theo D'Haen MAE
Donald Dingwell MAE
Stephen Holgate CBE FMedSci MAE
Colin Riordan FLSW
Irene Schulz-Hofer ML MAE
Sir John Skehel FRS FMedSci MAE (Chair)
John Tucker FLSW MAE

Resources

Staffing



Honorary Academic Director *Professor Ole Petersen*

Louise Edwards joined the team as Knowledge Hub Manager on 1st February. She brought extensive experience of managing European networks and projects, having spent the last nine years working in The Netherlands.



Executive Officer *Judith Lockett*

Judith brought her considerable experience as a senior university administrator to the successful organisation of the Academia Europaea Annual Conference and Meeting 2016.

Finance

In addition to covering the salaries of the Executive Officer and Knowledge Hub Manager (in-part), our hosts, Cardiff University, provided a sum for core operating costs in the academic year 2015-16.

Funding for work on the SAPEA project commenced from 1st November, meeting the costs of 1.0 FTE employee and associated travel costs.

The Conference budget was designed to cover costs and resulted in a balanced outturn.

Key Performance Indicators

Number of attendees at the Academia Europaea Annual Conference and Meeting 2016	148
Number of countries represented at the Academia Europaea Annual Conference and Meeting 2016	21
Number of attendees at the Hub events on 11 th November (panel debate and Skehel lecture)	94
Number of visits to the Hub website January-December 2016	2,664
Number of pages viewed on the Hub website January-December 2016	7,799
Average number of times users were served a Hub Tweet in timeline or search results (per day, July-December 2016)	88
Number of active user engagements (e.g. re-Tweets, likes) with the Hub Twitter account July-December 2016	63

Contact



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Annex 4

Academia Europaea Knowledge Hub Wrocław Report for 2016

The aim of this short report is to show the activities and achievements that have been accomplished by the Academia Europaea Knowledge Hub Wrocław. The actions were mainly focused on arranging and co-ordinating scientific conferences, with the participation of members of Academia Europaea, and participation of Polish members of Academia Europaea and project coordinators in international meetings and conferences in both Poland and abroad.

The most significant activity of the Academia Europaea Knowledge Hub Wrocław is organisation of scientific events. The conferences which we organise are addressed both to experienced researchers, members of AE, and to young researchers (PhD students, young PhD graduates who have already started their academic career). The aim of these conferences is the support of young scholars through sharing and popularizing the newest research results in a wide range of fields.

The Wrocław Seminars

'The Wrocław Seminars' are an initiative of the Academia Europaea, the University of Wrocław and the Riksbankens Jubileumsfond, established as a three-year project of three international seminars. The whole project has been targeted at mainly young researchers (before the doctorate or right after it) from Central and Eastern Europe. The AE Board will try to transform this initiative into a multiannual program, to develop scientific and research bridges between Western Europe and Central and Eastern Europe.

The most recent seminar: *Central Europe and Colonialism: Migrations, Knowledges, Perspectives, Commodities*, took place in the Institute of Romance Philology of the University of Wrocław between 21-23 September 2016. The circumstance of the Seminar taking place in Wrocław was also an occasion for organising a meeting of the History and Archaeology Section of the Academia Europaea in the same venue on 20 September (with Renate Pieper (Graz) and Aleksandra Nowak (AE Hub Manager) as organisers, and Siegfried Huigen acting as a host). Several participants of this meeting also took part in the Seminar during the subsequent days.





Seven keynote speakers and **27 junior scholars** took part in the Seminar. The Seminar was co-ordinated by Pieter Emmer (Leiden) and Siegfried Huigen (Wrocław), assisted by an organising committee consisting of Michael North (Greifswald), Dorota Kołodziejczyk (Wrocław), Dorota Praszałowicz (Kraków), Aleksandra Nowak (AE Hub Manager) and Katarzyna Majkowska-Kołyško (AE Project Coordinator). Live streaming of the conference was provided, which is still available on You Tube (<http://acadeuro.wroclaw.pl/seminar/central-europe-and-colonialism-migrations-knowledges-perspectives-commodities/>).

Conference themes were covered in four panels:

- *Commodities* - examined the exports of manufactures from Central Europe to the New World and the imports of products from the Americas and Asia to Central Europe,
- *Knowledges* - explored the genesis of various discourses that developed in relationship with the colonial world, to which actors from Central Europe made important contributions, such as geography, social and cultural anthropology, physical anthropology, Oriental studies, (world) history, and thinking on cosmopolitanism and globalism,
- Within *Perspectives*, insights from (post)colonial studies were applied to the history and culture of Central Europe, with a special focus on ambiguities ensuing from complex situations of dependence and domination,
- *Migrations* - dealt with both permanent migration from Central Europe to (erstwhile) colonies of the West European powers and Russia, and with temporary labour migration of colonial soldiers, missionaries, technicians, and colonial civil servants.

As a result of the popularity of this trial series, we will develop plans for a new series of seminars that will expand the focus to further topics of relevance to young scholars and that will also provide links into the European Research Council priority activity on ‘Widening Participation’ (to include emerging scholars in Central and Eastern countries). A request for financial support will

be submitted by the Board of Trustees of the Academia Europaea to the Riksbankens Jubileumsfond.

Workshops and meetings

A further meeting which is worth mentioning, is *Paths Towards Scientific Independence: Young Scientists' Careers in Europe*. This was organised within the **COST Targeted Network "Sci-Generation"**. The meeting took place on **14 April 2016** and its aim was to present various career paths for young scholars in Europe, their advantages and disadvantages.

Another significant event for the Wrocław Hub, was a two-day workshop *The Excellent Science Days* (5-6 November 2015). The event was provided by experienced editors of prestigious *Nature* and *Nature Physics* and was devoted to the art of writing scientific papers.

The success of *The Excellent Science Days* was the reason for the Hub's organisation of **the ERC Day on 14 November 2016**.

The European Research Council (ERC) grants are highly prestigious. They are intended for research which deepens the knowledge about the world and its aim is to support innovative research projects which will lead to disruptive discoveries and conclusions. They are highly competitive across Europe and three Polish scholars managed to obtain them this year.

The participants of the ERC Day discussed why it is so difficult to obtain a grant and how to improve the effectiveness of application for grants. Among the participants there were: **Prof. Jerzy Duszyński** (President of the Polish Academy of Sciences), **Prof. Eva Kondorosi** (European Research Council), **Prof. Michał Karoński** (Chair of the Council of the National Science Centre), **Prof. Jerzy Langer** (Polish Academy of Sciences) and **Prof. Karol Życzkowski** (Jagiellonian University). Moreover, the ERC Day was an occasion to become acquainted with current and planned competitions within ERC programmes, and with regulations and procedures of assessment of applications. For this purpose, **Dr Agnes Kulcsar**, Call Coordinator ERC and **Marta Kowol** from the Excellence Department of the Polish Academy of Sciences came to Wrocław. The

meeting's additional value was the presence of the ERC grantee, **Dr Alban Kellerbauer** from the Heidelberg University, who discussed his experiences connected with obtaining the ERC grant.

ERC Day we Wrocławiu



Local initiatives

The Wrocław Hub actively supports a range of local initiatives; such as summer schools, conferences and debates. In terms of merit (through inviting the AE members to participate)

and promotion (through mailing and newsletters), the Hub supported:

- **“With the View on the Horizon 2020”** debate – **8 April 2016**
- **“Wrocław and Lower Silesia vs. Mediterranean Culture”** conference organised by the Institute of Romance Philology – **8-9 June 2016**
- the fourth summer school within the series **Summer School on Democracy: European States towards Migration Crisis** – **20-29 June 2016** (lecture of the **Harvard University Professor, Prof. Klaus Zimmermann**).

Guest lectures

Moreover, the **guest lectures** of **visiting professors** are highly important to the Hub. These lectures are the opportunity to exchange thoughts and experiences between Wrocław scholars and foreign guests. Their aim is also internationalization of Wrocław’s scientific environment. In 2016 five guest lectures took place.



- In January 2016 we finished the series of lectures *Europa Una*. The organisers of this series were the Jan Nowak-Jeziorański College of Eastern Europe, the Regional Centre for International Debate, the Institute of Political Science and the Academia Europaea Wrocław Knowledge Hub. Professor **Donatella Della Porta** from the European University Institute (EUI) gave a lecture on *Participation and Deliberation in Civil Society and Public Institutions* focusing on the issues of participatory budgeting and social participation in the time of the crisis of public institutions.
- The effect of cooperation with the Willy Brandt Center of the University of Wrocław was a series of lectures (jointly entitled: *Challenges of Contemporary Migrations*). The aim of the series was to present various dimensions and challenges of contemporary migrations. The first lecture took part at the beginning of April. Professor **Dagmar Coester** presented the law aspects of the subject (*Immigration, cultural identity and the applicable law*). A month later, Professor **Pieter Emmer** gave the lecture on historical aspects of the subject (*The expansion of Europe and intercontinental migration*). Finally, a lecture of Professor **Maria Paradiso** was held in Wrocław in December. The lecture entitled *Mediterranean Mobility: the Moral Geographies of Encounters and Daily Life* was focused on the discussion on traditional system of social integration/segregation in the light of new trends and new political situation.
- In the middle of October, Professor **Peter Raspor** gave an inaugural lecture *The Yeast: Challenge for Technologists and Microbiologists in Beer Production?* for the postgraduate studies on the Brewing Technology of the Wrocław University of Environmental and Life Sciences. This field of studies appeared in Poland for the first time.

Internal meetings

The Wrocław Hub actively organises and takes part in internal meetings of Academia Europaea, for example;

- **the Regional Meeting of Members of the Academia Europaea** which took place in Wrocław on **19 March 2015** and during which the framework agreement for 2015-2016 between AE and the Municipality of Wrocław was signed
- annual conference of Academia Europaea in **Cardiff (2016)**
- the meeting of AE Hubs in **London on 14 March 2016** and in **Barcelona on 21-23 November 2016**.



AMUiA Affiliation

Due to the efforts of Professor Tadeusz Luty (our Hub Academic Director), in **June 2016** the **Academy of Young Scholars and Artists** was affiliated to the AE Wrocław Knowledge Hub.

We believe that this affiliation and further co-operation with the academic environment, will have a positive influence on the international recognition of the Academy of Young Scholars and Artists, including recognition among the prominent scholars who are the members of the Academia Europaea, and will bring many opportunities of undertaking joint activities of international character.

Annex 5: new members elected in 2016 and who subsequently accepted an invitation into membership

Class A1 – Humanities – Chair: Professor Svend Erik Larsen (DK)

History and Archaeology: Section Chair Nikita Harwich

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4211	Jean-Frédéric Schaub		Paris	30/08/1963	ORDINARY
4214	Greg Woolf		London	03/12/1961	ORDINARY
4216	Arndt Brendecke		Munich	04/01/1970	ORDINARY
4220	Ian Ralston		Edinburgh	11/11/1950	ORDINARY
4224	Bas van Bavel		Utrecht	24/06/1964	ORDINARY
4231	Corinne Bonnet	Female	Toulouse	30/03/1959	ORDINARY
4243	Olga Katsiardi-Hering	Female	Athens	08/04/1950	ORDINARY
4256	Mary Daly	Female	Dublin	27/10/1948	ORDINARY
4260	Jan Luiten Van Zanden		utrecht	15/11/1955	ORDINARY
4262	Corinne Hofman	Female	Leiden	10/07/1959	ORDINARY
4266	Roy Foster		Oxford	16/01/1949	ORDINARY
4291	Grete Walter-Klingenstein	Female	GRAZ	19/12/1939	ORDINARY
4298	Ferenc Fischer		Pecs	22/02/1953	ORDINARY
4326	Christine Lebeau	Female	Paris	23/05/1961	ORDINARY
4349	Markus Vinzent		Erfurt	12/04/1959	ORDINARY
4359	Michel Porret		Geneva	07/06/1955	ORDINARY

Classics and Oriental Studies: Section chair

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4213	Peter Thonemann		Oxford	14/05/1978	ORDINARY
4226	Peter Pormann		Manchester	12/08/1971	ORDINARY
4265	Mary Beard	Female	Cambridge	01/01/1955	ORDINARY
4270	Ingela Nilsson	Female	Uppsala	16/06/1970	ORDINARY
4280	Karen Radner	Female	Munich	11/05/1972	ORDINARY
4309	Luuk de Ligt		Leiden	12/08/1963	ORDINARY
4310	Alessandro Schiesaro		Manchester	29/05/1963	ORDINARY
4318	Philomen Probert	Female	Oxford	28/08/1973	ORDINARY
4347	Cristina D'Ancona	Female	PISA	21/03/1956	ORDINARY

Linguistics: Section chair Alain Peyraube

AE Membership

number	Full name	Gender	City	Date of birth	Membership type
4212	Carita Paradis	Female	Lund	04/11/1953	ORDINARY
4217	Marianne Mithun	Female	USA	08/04/1946	FOREIGN
4218	Walter Bisang		Mainz	02/02/1959	ORDINARY
4219	Lisa Cheng	Female	Leiden	29/03/1962	ORDINARY
4223	Jean-Christophe Verstraete		Leuven	25/02/1976	ORDINARY
4229	Claire Moyse-Faurie	Female	Villejuif	07/10/1949	ORDINARY
4233	Anna Giacalone	Female	PAVIA	17/06/1937	ORDINARY
4244	Helle Metslang	Female	Tartu	29/07/1950	ORDINARY
4247	Dwight Robert Ladd		Edinburgh	05/03/1947	ORDINARY
4288	Tom Güldemann		Berlin	16/02/1965	ORDINARY
4295	Balthasar Bickel		Zurich	19/12/1965	ORDINARY
4340	Alexandra Cornilescu	Female	Bucharest	06/08/1947	ORDINARY

Literary and Theatrical Studies: Section Chair Vladimir Biti

AE Membership

number	Full name	Gender	City	Date of birth	Membership type
4228	Marina Warner	Female	London	09/11/1946	ORDINARY
4245	Christine Reynier	Female	Montpellier	14/11/1957	ORDINARY
4248	Jüri Talvet		Tartu	17/12/1945	ORDINARY
4249	Marina Grishakova	Female	Tartu	09/06/1961	ORDINARY
4251	Dirk Van Hulle		Antwerpen	19/02/1966	ORDINARY
4254	Nicholas Harrison		London	09/03/1965	ORDINARY
4255	Ben Hutchinson		Canterbury	24/11/1976	ORDINARY
4274	Dagmar Burkhart	Female	Hamburg	14/02/1939	ORDINARY
4316	Clara Calvo	Female	Murcia	09/04/1961	ORDINARY
4319	Massimo Fusillo		L'Aquila	10/10/1960	ORDINARY
4329	Margaret-Anne Hutton	Female	St Andrews	22/03/1962	ORDINARY
4333	Maggie Gale	Female	Manchester	02/11/1963	ORDINARY
4337	Rosario Arias	Female	Málaga	05/03/1971	ORDINARY
4344	Rodolphe Baudin		Strasbourg	30/05/1974	ORDINARY
4356	Birgit Neumann	Female	Duesseldorf	21/05/1974	ORDINARY

Musicology, History of Art and Architecture: Section chair Laurenz Lütteken

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4222	Barbara Baert	Female	Leuven	17/07/1967	ORDINARY
4230	Joseph Rykwert		London	05/04/1926	ORDINARY
4281	Ralph Dekoninck		Louvain-la-Neuve	23/12/1972	ORDINARY
4330	Inga Mai Groote	Female	Heidelberg	28/04/1974	ORDINARY

Philosophy, Theology & Religious Studies: Section chair Tim Crane

AE Membership number	Full name	City	Date of birth	Membership type
4241	Nils-Eric Sahlin	Lund	20/07/1954	ORDINARY
4380	Martin Stokhof	Amsterdam	18/11/1950	ORDINARY

Film, Media and Visual Studies: Section Chair Kirsten Drotner

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4210	José van Dijck	Female	Amsterdam	15/11/1960	ORDINARY
4237	Fausto Colombo		Milano	16/04/1955	ORDINARY
4246	Nevena Dakovic	Female	BELGRADE	02/06/1964	ORDINARY
4279	Annette Kuhn	Female	London	29/09/1945	ORDINARY
4307	Graham Murdock		Loughborough	27/03/1946	ORDINARY
4321	Elisabeth Aafje van Zoonen	Female	Rotterdam	01/05/1959	ORDINARY
4328	Maren Hartmann	Female	Berlin	23/11/1967	ORDINARY
4332	Leopoldina Fortunati	Female	Udine	18/07/1949	ORDINARY
4346	Nick Couldry		London	01/07/1958	ORDINARY
4395	Helena Bilandzic	Female	Augsburg	02/06/1972	ORDINARY
4396	Sonia Livingstone	Female	London	30/04/1960	ORDINARY
4401	Ioan Pop-Curseu		Cluj-Napoca	04/02/1978	ORDINARY

Class A2 - Social and related sciences: Class chair Anne Buttimer (IRE)**Behavioural sciences: Section chair Peter Scott**

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4227	Pierre Jacob		Paris	01/01/1949	ORDINARY

	Anne					
4235	Christophe Stella	Female	Paris	14/01/1967	ORDINARY	
4242	Vosniadou	Female	Athens	26/11/1946	ORDINARY	
4322	Georg Krücken		Kassel	21/09/1962	ORDINARY	
4336	Roshan Cools	Female	Nijmegen	10/06/1975	ORDINARY	
4364	Robert Logie		Edinburgh	23/03/1954	ORDINARY	

Social Sciences: Section chair Antione Bailly

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4234	Desmond King		Oxford	23/10/1957	ORDINARY
4238	Kène Henkens		The Hague	30/07/1960	ORDINARY
4239	André Torre		PARIS	01/06/1957	ORDINARY
4240	Mladen Lazi?		Belgrade	08/09/1950	ORDINARY
4264	Michael Heffernan		Nottingham	07/06/1959	ORDINARY
4276	Alexander Stewart Fotheringham		Tempe	02/02/1954	FOREIGN
4366	Pearl Dykstra	Female	Rotterdam	14/12/1956	ORDINARY
4382	Nikitas Aliprantis		Kifissia	01/01/1941	ORDINARY
4386	Stuart Holland		Coimbra	25/03/1940	ORDINARY

Law: Section Chair Dagmnr Coester-Waltjen

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4253	Chris Thornhill		Manchester	08/06/1966	ORDINARY
4259	Bea Verschraegen	Female	Vienna	14/05/1953	ORDINARY
4263	Gerd Brudermüller		Dürkheim	15/01/1949	ORDINARY
4273	Katharina Boele-Woelki	Female	Hamburg	13/06/1956	ORDINARY
4278	Christiane Wendehorst	Female	Vienna	14/11/1968	ORDINARY
4339	Pasquale Femia		Caserta	09/11/1962	ORDINARY
4363	Hans Schulte-Nölke		Osnabrück	31/01/1963	ORDINARY
4365	Christian von Bar		Osnabrück	05/05/1952	ORDINARY
4373	Stephan Hobe		Cologne	11/12/1957	ORDINARY
4375	Reiner Schulze		Münster	06/10/1948	ORDINARY
4383	Ole-Andreas Rognstad		Oslo	27/03/1962	ORDINARY
4388	Hans-W Micklitz		Florence	17/07/1949	ORDINARY

Economics, Business and Management Sciences: Klaus Zimmermann

AE Membership	Full name	Gender	City	Date of	Membership
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number			birth	type
4232	Murat Çizakça		Bursa 01/02/1946	ORDINARY
4257	Manuel Arellano		MADRID 19/06/1957	ORDINARY
	Rainer Winkelmann		Zurich 28/06/1963	ORDINARY
4258				
4300	Martin Kahanec		Bratislava 28/04/1977	ORDINARY
4331	Lucian Liviu Albu		Bucharest 07/08/1951	ORDINARY
4334	Aura Reggiani	Female	Bologna 08/02/1951	ORDINARY
4350	Paul De Grauwe		London 18/07/1946	ORDINARY
4351	Monika Schnitzer	Female	Munich 09/09/1961	ORDINARY
4360	Lucrezia Reichlin	Female	London 14/08/1954	ORDINARY
4403	Manfred Deistler		Vienna 23/09/1941	ORDINARY

Class B - Exact and Natural Sciences: Chair Don Dingwell (D)

Mathematics: Section chair Jürg Kramer

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4173	François Labourie		Nice	15/12/1960	ORDINARY
4176	Peter Schneider		Münster	09/01/1953	ORDINARY
4178	Arnaud Beauville		Nice	10/05/1947	ORDINARY
4187	Jonathan Pila		Oxford	28/07/1962	ORDINARY
4191	Nicholas Higham		Manchester	25/12/1961	ORDINARY
4194	Annalisa Buffa	Female	Pavia	14/02/1973	ORDINARY
4198	Goran Mui?		Zagreb	07/10/1969	ORDINARY
4199	Kálmán Györy		Debrecen	23/02/1940	ORDINARY
4208	David Heath-Brown		Oxford	12/10/1952	ORDINARY
4215	Benoît Perthame		Paris	23/06/1959	ORDINARY
4225	Michael Harris		New York	28/06/1954	FOREIGN
4252	Bálint Tóth		Budapest	23/10/1955	ORDINARY
4261	Giovanni Jona-Lasinio		Rome	20/07/1932	ORDINARY
4272	Demetrios Christodoulou		Zürich	19/10/1951	ORDINARY
4289	Jean-Benoît Bost		Orsay	27/07/1961	ORDINARY
4352	Walter Schachermayer		Vienna	24/07/1950	ORDINARY
4354	Franco Brezzi		Pavia	29/04/1945	ORDINARY
4391	Michał Karoński		Poznan	05/09/1946	ORDINARY

Informatics: Section chair Jan Bergstra

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4182	Frank Leymann		Stuttgart	25/09/1957	ORDINARY
4186	Orna Kupferman	Female	Jerusalem	01/07/1968	ORDINARY
4189	Pavel Pevzner		La Jolla	05/04/1956	ORDINARY
4192	Artur Ekert		Oxford	19/09/1961	ORDINARY
4197	Richard Jozsa		Cambridge	13/11/1953	ORDINARY
4204	Thomas Eiter		Vienna	03/06/1966	ORDINARY
4335	Saso Dzeroski Karlheinz		Ljubljana	31/05/1968	ORDINARY
4338	Brandenburg		Ilmenau	20/06/1954	ORDINARY
4355	Dacheng Tao		Ultimo	03/09/1978	FOREIGN

Physics and Engineering: Section chair Muhsin Harakeh

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4174	Jan Sladek		Bratislava	23/08/1952	ORDINARY
4175	Dominique Guillemaud Mueller		Orsay	24/09/1953	ORDINARY
4177	Sijbrand de Jong		Nijmegen	28/05/1963	ORDINARY
4181	Stefano Boccaletti		Fiorentino	21/10/1966	ORDINARY
4184	Jeff De Hosson		Groningen	27/05/1950	ORDINARY
4185	Angel Rubio		Hamburg	27/09/1965	ORDINARY
4196	Lennart Ljung		Linköping	13/09/1946	ORDINARY
4201	Dario Vretenar		Zagreb	29/10/1958	ORDINARY
4202	Paolo Giubellino		Torino	09/11/1960	ORDINARY
4205	Vincenzo Greco		Catania	18/06/1974	ORDINARY
4207	Raimond Snellings		Utrecht	05/11/1967	ORDINARY
4209	Chuanzeng Zhang		Siegen	16/12/1957	ORDINARY
4221	Tamás Biró		Budapest	22/03/1956	ORDINARY
4236	Angela Bracco	Female	Milano	24/09/1955	ORDINARY
4250	Boris Sharkov		Darmstadt	11/02/1950	ORDINARY
4267	Marek Kuś		Warsaw	26/04/1955	ORDINARY
4268	Isao Tanihata		Osaka	14/03/1947	FOREIGN
4269	Michael Aizenman		Princeton	28/08/1945	FOREIGN
4271	József Gyulai		Budapest	21/08/1933	ORDINARY
4277	Hasan Mandal		ISTANBUL	22/05/1965	ORDINARY
4293	Jinde Cao		Nanjing	08/11/1963	FOREIGN
4317	Alessandro Astolfi		London	11/10/1967	ORDINARY

4361	Andre Mischke		Utrecht	11/01/1972	ORDINARY
4389	Anne Jacob Kox		Amsterdam	21/07/1948	ORDINARY
4402	Fabiola Gianotti	Female	Genève	29/10/1960	ORDINARY
4404	Philip Withers		Manchester	11/05/1963	ORDINARY

Chemical Sciences: Section chair Lynn Gladden

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4180	Angela Agostiano	Female	Bari	13/01/1952	ORDINARY
4183	Martin Schroder		Manchester	14/04/1954	ORDINARY
4195	Lutgarde Buydens	Female	Nijmegen	25/11/1955	ORDINARY
4200	Dan Shechtman Gilberte		Haifa	24/01/1941	ORDINARY
4203	Chambaud	Female	Champs sur Marne	19/12/1948	ORDINARY
4206	Chunli Bai		Beijing	26/09/1953	FOREIGN
4275	Elio Giamello		Turin	27/11/1950	ORDINARY
4348	Yitzhak Apeloig		Haifa	01/09/1944	ORDINARY

Earth and Cosmic Sciences: Section chair Don Dingwell

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4179	Andrey Ganopolski		Potsdam	14/08/1960	ORDINARY
4188	Jeannot Trampert		Utrecht	20/01/1961	ORDINARY
4190	Victor Brovkin		Hamburg	25/02/1963	ORDINARY
4193	Thierry Courvoisier		VERSOIX	23/03/1953	ORDINARY
4368	Raymond Bradley		AMHERST	13/06/1948	FOREIGN
4385	Andrew Fabian		CAMBRIDGE	20/02/1948	ORDINARY
4393	Alexander Norman Halliday		Oxford Washington	11/08/1952	ORDINARY
4405	Marcia McNutt	female	DC	19/02/1952	FOREIGN
4408	Michael Kramer		Bonn	31/12/1967	ORDINARY

Class C – Life Sciences: Chair Alex Verkhatsky; Vice-chair Robert Zorec

Cell and Developmental Biology: Section chair Margaret Buckingham

AE Membership number	Full name	Gender	City	Date of birth	Membership type
	Francois				
4297	Schweisguth		Paris	30/09/1963	ORDINARY
4305	Lena Claesson-Welsh	Female	Uppsala	15/10/1956	ORDINARY

			Bad		
4313	Didier Stainier		Nauheim	31/10/1963	ORDINARY
4315	James Murray		Cardiff	08/09/1961	ORDINARY
4341	Cédric Blanpain		BRUXELLES	06/09/1970	ORDINARY
4342	Shahragim Tajbakhsh		Paris	25/01/1961	ORDINARY
4343	Fiona Powrie	Female	Oxford	04/01/1963	ORDINARY

Biochemistry and Molecular Biology: Section chair Witold Filipowicz

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4282	Elisa Izaurralde	Female	Tuebingen	20/09/1959	ORDINARY
4285	Javier Caceres		Edinburgh	02/05/1959	ORDINARY
4290	Michael Nilges		Paris	14/10/1957	ORDINARY
4296	Jens Stougaard		Aarhus	08/09/1953	ORDINARY
4299	John Allan Downie		Norwich	07/04/1949	ORDINARY
4304	Laszlo Tora		Illkirch	20/07/1957	ORDINARY
4308	Carmen Buchrieser	Female	Paris	06/08/1961	ORDINARY
4312	Israel Pecht		Rehovot	28/06/1937	ORDINARY
	Matthias W. Hentze		Heidelberg	25/01/1960	ORDINARY
4314					
4324	Reuven Agami		Amsterdam	16/12/1965	ORDINARY
4325	Eileen Furlong	Female	Heidelberg	12/05/1970	ORDINARY
4353	Matthias Peter		Zurich	14/09/1962	ORDINARY

Physiology and Neurosciences: Section chair Dmitri Rusakov

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4284	Tibor Harkany		Vienna	20/06/1972	ORDINARY
4286	Nils Brose		Goettingen	29/06/1962	ORDINARY
4287	Agneta Nordberg	Female	Stockholm	08/06/1948	ORDINARY
4292	David Attwell		London	18/02/1953	ORDINARY
4303	Christian Keysers		Amsterdam	27/06/1973	ORDINARY
4311	Ryszard Przewlocki		Krakow	25/10/1943	ORDINARY
4323	Beáta Sperlág	Female	Budapest	24/02/1963	ORDINARY
4345	Matthias Tschoep		Garching	07/04/1967	ORDINARY
4358	Hannah Monyer	Female	Heidelberg	03/10/1957	ORDINARY
	Francesco Di Virgilio		Ferrara	03/08/1954	ORDINARY
4367					
4372	Rosa Cossart	Female	Marseille	05/08/1974	ORDINARY
4377	Christophe Mulle		Bordeaux	09/01/1957	ORDINARY
4381	Frank Kirchhoff		Homburg	01/11/1960	ORDINARY

4397 Michael Hausser London 28/01/1967 ORDINARY

Organismic and Evolutionary Biology: Section chair Yvon le Maho

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4294	Judit Padisák	Female	Veszprém	01/10/1955	ORDINARY
4301	Csaba Pál		Szeged	27/03/1975	ORDINARY
4306	David Sims		Plymouth	07/06/1969	ORDINARY
4327	Balázs Papp		Szeged	04/11/1977	ORDINARY
4390	Marta Estrada Ricardo	Female	Barcelona	27/06/1946	ORDINARY
4399	Amils Louise		MADRID	03/07/1947	ORDINARY
4407	Fresco	Female	Wageningen	11/02/1952	ORDINARY

Translational and Applied Biology: Section chair Anne Gro Salvanes

AE Membership number	Full name	City	Country	Date of birth	Membership type
4302	Ian Kimber	Manchester	UNITED KINGDOM	26/04/1950	ORDINARY
4320	Daniel Peeper	Amsterdam	THE NETHERLANDS	09/05/1964	ORDINARY
4357	Michel Kaiser	Menai Bridge	UNITED KINGDOM	30/01/1967	ORDINARY

Clinical and veterinary Sciences: Section chair Stephen Holgate

AE Membership number	Full name	Gender	City	Date of birth	Membership type
4283	Lambertus Kiemeney		Nijmegen	17/07/1960	ORDINARY
4362	William Henry Irwin McLean		Dundee	09/01/1963	ORDINARY
4369	Leonardo M Fabbri			08/06/1947	ORDINARY
4370	Marc Humbert		Le Kremlin-Bicêtre	18/06/1963	ORDINARY
4371	Munir Pirmohamed		Liverpool	29/08/1962	ORDINARY
4374	Markus M. Lerch		Greifswald	30/09/1957	ORDINARY
4376	Manuel Battegay		Basel	29/02/1960	ORDINARY
4378	André Syrota		Paris	21/04/1946	ORDINARY
4379	Krzysztof Narkiewicz		Gdansk	11/12/1962	ORDINARY
4384	Martin Röcken		Tuebingen	30/05/1956	ORDINARY
4387	Tivadar Tulassay		Budapest	18/01/1949	ORDINARY
4392	Jacek Jassem		Gdansk	21/10/1951	ORDINARY
4394	Erika von Mutius	Female	Munich	14/05/1957	ORDINARY
4398	Sven-Erik Dahlén		Stockholm	09/11/1952	ORDINARY
4406	Richard Charles Trembath		LONDON	22/08/1956	ORDINARY

Annex 6 Trustees, Council, Nominations sub Committee and Section Committee composition as at 31st December 2016

At the AGM in September 2015, the Regulations were amended to allow the appointment by the Board of a variable number of Vice Presidents (ex officio) to provide flexibility to the President and that serve a VP term limited to that of the President. These changes are within the overall limits set for the Trustees in the Articles of Incorporation and do not impact on the role or seniority of the elected officers. The Articles prescribe a Board made up of not less than 3 and NOT MORE than 15 members. The Articles describe a Board made up of elected officers (President, Vice Presidents and the Treasurer – all elected by the general meeting); a number of members (appointed by the Council) and a number of co-opted (by the Board) members. The subsidiary Regulations are used to determine numbers and balance up to the limit of 15. The current formula is: President, elected Vice presidents (up to 2 were approved by AGM in 2012); Treasurer. Three members appointed from the Council.

In November 2015 the Board approved the designation of existing Trustees as Vice Presidents ex officio, to reflect new portfolios. These were Professor Dingwell (Class Chair); Professor Svend Erik Larsen (Class Chair) and Professor Ole Petersen (Class Chair, later acting Treasurer). Governance and incorporation documents can be found on the website (www.ae-info.org).

Members of the Board of Trustees (at 31st December 2016)

The President – Prof. Sierd Cloetingh (Utrecht) from AGM 2014

The Treasurer – Prof. Peter Scott (London) from AGM 2015 (resigned in 2016)

The Vice President – Prof. Anne Buttimer (Dublin) until 2018

Ole Petersen, (Cardiff) (Vice President (ex officio) co-opted (assumed role *pro tem* as Treasurer during 2016);

Theo D'Haen, (B) (Editor-in-chief – European Review – co-opted 2014);

Svend Erik Larsen (DK) - from Council until end 2016, then co-opted Vice President ex officio;

Don Dingwell (D) - from Council until end of 2016, then co-opted Vice President ex officio);

Balazs Gulyas (HUN) (from Council – independent until end 2016, then co-opted until end of 2017);

Professor Eva Kondorosi (from January 2016, co-opted)

Academia Europaea - Composition of the Advisory Council (at 31 December 2016)

All terms of office are three years, with the possibility of renewal for one further period of three years. Positions on subcommittees are not time-limited. **Since September 2006 Chairs of Sections are all full members of the Council.** From 1st January, 2008 all Section chairs serve a three year term (renewable once) on Council. The first date of retirement for them was 31 December 2010. The Trustees (Officers) are *de facto* members of the Advisory Council.

	Sectn.	First appoint.	Reappoint	Retire
<u>President*</u>			2017	
<u>Vice-President(s)*</u>				2018
<u>Treasurer* [pro tem]</u>				2017

Independent Council Members elected by AGM

Laszlo Csernai, Bergen	B3	Sept 2013	2016	2019
Marie Farge, Paris	B3	Sept 2013	2016	2019
Balazs Gulyas, Stockholm*	C3	Sept 2010	2013	2016
Xavier COSTA-GUIX		June 2016	2019	

Plus all the Chairs of Sections (as follows).

* Members of the Board (of Management)

Academia Europaea Section Committees Chairpersons and Committee Members¹

At 31 December 2016

CLASS A1

A1 History & Archaeology

Chairperson²: Renate Pieper (to end 2016) ⁴

Renate.pieper@uni-graz.at

Dept. History. Karl-Franzens University, Attemgasse 8, 8010 Graz, Austria

Committee³: Graeme Barker (till AGM 2019), Pieter Emmer (till AGM 2019), Nicholas Canny (till AGM 2019), Michael North (till AGM 2019), Ryszard Stemplowski (till AGM 2019); Amalia Polónia, Olga (till AGM 2019, renewable); Katsiardi-Hering (till AGM 2019, renewable), Renate Pieper (till end of December 2019)

A2 Classics & Oriental Studies

Chairperson: Harm Pinkster (until AGM 2016), then Irmela Hijjiya-Kirschner (from AGM 2016 to 2019, renewable)

i.hijjiya@fu-berlin.de

Hittorfstr. 18 D-14195 Berlin

Committee: Carmela Baffioni (till AGM 2017), Irene de Jong (till AGM 2017), Juha Janhunen (till AGM 2017), Barbara Borg (till AGM 2019, renewable), Gerd Haverling (till AGM 2019, renewable), Eun-Jeung Lee (till AGM 2019, renewable), Alexander Lubotsky (till AGM 2019, renewable)

A3 Linguistic Studies

Chairperson: Alain Peyraube (until AGM. 2019)

peyraube@ehess.fr

Ecole des Hautes Etudes en Sciences Sociales, 54 Bvd. Raspail , 75006, Paris

Committee: Bernard Comrie (till AGM 2017), Maria Koptjevskaja –Tamm (first term ends AGM 2016), Greville Corbett (till AGM 2017), Wolfgang Dressler (till AGM 2016), Pier Marco Bertinetto (first term ends AGM 2017), Katarzyna Dzoibalska-Kolaczyk (first term till AGM 2017)

A4 Literary & Theatrical Studies

Chairperson: Vladimir Biti (to end of 2018, renewable)

vladimir.biti@univie.ac.at http://www.ae-info.org/ae/User/Biti_Vladimir

Institute of Aesthetic Studies, Dept. of Comparative Literature, Aarhus University, Langelandsgade 139, DK 8000 Aarhus C, Denmark

Committee: César Dominguez, Ottmar Ette, Marko Juvan (to end 2017), Lucia Boldrini (to end 2017, renewable), Susana Onega (to end 2017, renewable)

A5 Musicology & History of Art & Architecture

Chairperson: Philippe Vendrix (until AGM 2016) then Laurenz Lütteken (till AGM 2019, renewable)

University of Zurich. luetteken@access.uzh.ch

http://www.ae-info.org/ae/Member/L%C3%BCtteken_Laurenz

Committee: David Hiley (till December 2017), Christian Leitmeir, Lynda Nead, Raphael Rosenberg, Victor Stoichita, Valeska von Rosen (all till December 2017, renewable)

A6 Philosophy, Theology & Religious Studies

Chairperson: Tim Crane (Sept 2015 – AGM 2018, renewable)

cranetim@mac.com <http://www.timcrane.com/>

Faculty of Philosophy, University of Cambridge, Sidgwick Avenue. Cambridge CB3 9DA. UK.

Committee: Genoveva Marti (Barcelona); Claudine Tievcelin (Paris); Wlodek Rabinowicz (Lund) all until AGM of 2018, all renewable

A7 Film, Media and Visual Studies (created at the AGM of September 2015)

Chairperson: Kirsten Drotner (from AGM 2015 – AGM 2018, renewable)

drotner@sdu.dk

Inst. For the study of Culture-Media Studies. Univ.Southern Denmark.

Committee: Daniël Biltereyst, Göran Bolin, Patrizia Lombardo (to AGM of 2018, renewable)

CLASS A2

A8 Behavioural Sciences

Chairperson: Peter Scott (2016/2019):

p.scott@ioe.ac.uk <https://www.ioe.ac.uk/staff/51229.html>

University of London, Institute of Education. 20, Bedford Way, London. WC1H 0AL

Committee: Uta Frith (retired 2016), Terrie Moffit, Kurt Pawlik, Ulrich Teichler, Johan P. Mackenbach, Archana Singh-Manoux, Gianvittorio Caprara (until AGM 2019, renewable)

A9 Social Sciences

Chairperson: Antoine Bailly (to AGM 2019)

Antoine.Bailly@unige.ch

Rue de la Tour 51, 1867 Ollon, Switzerland

Committee: Alessandro Cavalli, Yale Ferguson, Sture Oberg, Justin Stagl, Yola Verhasselt Maria Paradiso (until Dec 2017, renewable), Maria Dolors Garcia-Ramon (Until Dec. 2017 renewable), Alun Jones (until Dec 2017, renewable)

A10 Law

Chairperson: Dagmar Coester-Waltjen (to AGM 2018, renewable)

coewa@freenet.de <http://www.uni-goettingen.de/de/person/100247.html>

Hilariastrasse 7, Pullach, Germany

Committee: William Cornish, Attila Harmathy, Eivind Smith, Ditlev Tamm, Verica Trstenjak (until 2017 renewable), Alain Strowel (until 2017 renewable)

A11 Economics, Business and Management Sciences

Chairperson: Klaus Zimmermann (to end 2017 renewable)

zimmermann@iza.org

Director of IZA, Schaumburg-Lippe-Str. 5-9, 53113 Bonn, Germany

Committee: Gianmarco Ottaviano, Jeroen van den Bergh, From Jan 2016 – Amelie Constant, Mirjana Radovic-Markovic, Reinhilde Veugelers (all until and of 2018, renewable)

CLASS B

B1 Mathematics

Chairperson: Jürg Kramer (to end 2019):

Dept. Mathematics. Humboldt University, Unter den Linden 6, 10099 Berlin.

Kramer@math.hu-berlin.de

Committee: Jean-Michel Bismut [to Sept. 2016], Helmut Hofer [to Sept 2016], Nigel Hitchin [retires 2017], Philippe Michel [to 2016], Umberto Zannier [to Sept 2016], Alfio Quarteroni [to Dec. 2017, renewable]

B2 Informatics

Chairperson: Jan Bergstra (to end 2016 renewable)

(Informatics Institute): Science Park 904, 1098 XH, Amsterdam, The Netherlands

j.a.bergstra@uva.nl

Committee: Dieter Fellner (Until AGM of 2018), Paul Spirakis (to 2017), Reinhard Wilhelm (to AGM 2016), Carlo Ghezzi (to 2017 renewable) Schahram Dustdar (to AGM 2018 renewable)

B3 Physics and Engineering Sciences

Chairperson: Muhsin Harakeh (ends AGM 2018)

m.n.harakeh@kvi.nl

Rijksuniversiteit Groningen, Kernfysisch Versneller Instituut, Zernikelaan 25, 9747 AA Groningen,

THE NETHERLANDS

Committee: Jan Vaagen, (ends AGM. 2016), Jörg Aichelin (ends AGM 2017), Norman Fleck (till AGM 2019, renewable), Pavel Exner -Vice Chair (ends AGM 2017) , Tamás Csörgö (until AGM 2019), Sydney Galès (until AGM 2019), Karlheinz Langanke (until AGM 2019), Maciej Ogorzalek (first term till AGM 2017, renewable), Minh Quang Tran (first term till AGM 2017, renewable)

B4 Chemical Sciences

Chairperson : Lynn Gladden (UK). Department of Chemical Engineering and Biotechnology
University of Cambridge, New Museums Site, Pembroke Street, Cambridge, CB2 3RA, UK (2014 – end 2016)
lfq1@cam.ac.uk

Committee: . From Jan 2014 to end 2016 - Jean-Marie Andre, Carmen Claver, Janine Cossy, Konstantin Hadjiivanov , Graham Hutchings , Joachim Sauer , Malgorzata Witko,

B5 Earth and Cosmic Sciences

Chairperson: Donald Dingwell (to end 2016)
dingwell@lmu.de
University of Munich, Earth Sciences, Theresienstr. 41/111, 80333 München, GERMANY

Committee: Enric Banda (till AGM 2016), André Berger (till AGM 2016), Paul Crutzen (till AGM 2016), Camiel de Loore (till AGM 2016), Jean-Claude Duplessy (till AGM 2016), Tuija Pulkkinen (till March 2018, renewable), John Ludden (till March 2018, renewable), Hans Thybo (till March 2018, renewable)

CLASS C

C1 Biochemistry and Molecular Biology

Chairperson: Witold Filipowicz (to end 2019):
filipowi@fmi.ch
Friedrich Meischer Institute for Biomedical Research. Maulbeerstrasse 66, CH-4.58 Basel

Committee: Anton Berns, Nicholas Hastie, Maurizio Brunori, Esteban Domingo and Daniella Rhodes, Moshe Yaniv (all from Sept. 2013 to end 2016 renewable)

C2 Cell and Developmental Biology (renamed at the AGM of 2015)

Chairperson: Margaret Buckingham (2013)
margab@pasteur.fr
Institut Pasteur, Dept. Biologie du Développement, CNRS URA2578, 25 rue du Dr Roux,
Paris Cedex 75724, FRANCE

Committee: Francesco Blasi (retired 2016), Meinrad Busslinger, Ingrid Grummt (retired 2016), Carl-Henrik Heldin , Elisabetta Dejana (first term ends AGM 2018, renewable), Anne Ephrussi (first term ends AGM 2018, renewable), Austin Smith (first term ends AGM 2018, renewable)

C3 Physiology and Neuroscience (renamed at the AGM of 2015)

Chairperson: Dmitri Rusakov (to AGM 2016 renewable)
d.rusakov@ucl.ac.uk
UCL Institute of Neurology, Queens Square. London. WC1N 3BG

Committee: Marina Bentivoglio (till AGM 2017, renewable), Alfonso Araque (till AGM 2018), Robert Zorec (till AGM 2018), Alex Verkhatsky (till AGM 2016, renewable) Vladimir Parpura (till AGM 2017, renewable), Riita Salmelin (till AGM 2017, renewable), Cisca Wijmenga (till AGM 2019), Barbara Franke (till 31 December 2018, renewable)

C4 Organismic and Evolutionary Biology

Chairperson: Christophe Thébaud (To AGM 2019, renewable)
christophe.thebaud@univ-tlse3.fr
UMR 5174 CNRS 'Evolution et Diversité Biologique', Université Paul Sabatier, 31 062 Toulouse cedex 4, France

Committee: Roy Anderson, Lars Walloe, Pat Monaghan (to 2017), Ricardo Guerrero (to 2017)

C5 Translational and Applied Biology

Chairperson: Anne Gro Salvanes (to 2017, renewable)

Anne.salvanes@bio.uib.no

Dept Biology, PO Box 7833, 5020 Bergen. Norway

Committee: Peter Raspor, Marianne Thoresen (all to AGM 2017, renewable)

C6 Clinical and Veterinary Science (created at the AGM of 2015)

Chairperson: Stephen Holgate (from AGM 2015 to AGM 2018, renewable)

sth@soton.ac.uk

Sir Henry Wellcome Laboratories, Univ. Southampton, SO16 6YD, UK

Committee: Christopher Griffiths (until AGM 2019, renewable), Paul Matthews (until AGM 2019, renewable), Richard Frackowiak (until AGM 2019, renewable)

1 Committees are elected by the members of the section accordance with the Regulations for Section Committees. At least 50% of the committee has to be elected by a ballot of the membership of the Section. All members of the Section are eligible to stand for election as Committee candidates. The exact procedure for rotation and elections is decided by the Committees themselves. The Chair must ensure the committees reflect a balance of representation of the fields within the Section and should ensure a regular rotation of members of the committee.

2 Chairs serve a three term, renewable once only for a further three years.

3 Committee members serve a three year term that can be renewed once only for a further three year period.

4 (date first term ends / date second and final term ends subject to agreement of the committee and Council)