

Academia Europaea | Barcelona Knowledge Hub



2020 Annual Report of Activities



2020 ANNUAL REPORT OF ACTIVITIES

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2020 ANNUAL REPORT OF ACTIVITIES

1. EXECUTIVE SUMMARY

1.1 Overview

The Barcelona Knowledge Hub (AE-BKH), founded in 2013, is the node of Academia Europaea (AE) in southern Europe and the Mediterranean region. Its main aim is to promote activities of interest for AE Members in this area and for the scientific community in general, with the end goal of helping consolidate a genuine European area of research, education and innovation.

The AE-BKH office is located at the Institute for Catalan Studies (IEC) in downtown Barcelona. Its staff consists of: an Academic Director, Prof. Ricard Guerrero; a Hub Manager, Kimberly Katte; and a Web Master and Social Networking Manager, Rubén Duro. The following organisations from Barcelona/Catalonia are AE-BKH's partners: the Barcelona City Council, the Government of Catalonia (Universities and Research Secretariat) and "la Caixa" Banking Foundation.

1.2 Annual programming in 2020

During 2020, despite facing unprecedented challenges due to restrictions related to the COVID-19 pandemic, the AE-BKH managed to carry out its annual programming with considerable success. In many cases, it adapted its activities by either reducing the capacity of in-person attendance, in accordance with recommendations of public health authorities, or by completing moving them to an all-virtual environment. As in previous years, many of its activities featured educational and social outreach events open to the general public. These activities included:

- AE-BKH Women's Week 2020: "Women and cooperation: a symbiotic perspective"
- Summer Course, "Barcelona Dialogue 2020"
- Concert, "Music by Women Composers", part of the IEC "Music in the Cloister" series
- *Disputatio* of Barcelona 2020: "Cities, Climate and Pandemics: Reflections from Urban Studies and Environmental Economics."

1.3 Building Bridges 2020

Following the large success attained the previous year, in early 2020, the AE-BKH began preparations for the 32nd Annual Conference of Academia Europaea (AE) and 9th of the Young Academy of Europe (YAE), scheduled to take place in October. However, soon COVID-19 began to wreak havoc on plans for event, prompting the Board of Trustees of the AE to cancel the 2020 conference. New dates were then approved for the following year, which are 19-22 October 2021.

1.4 Hypatia Prize

The call for candidates for the second edition of the Barcelona Hypatia European Science Prize, in the area of Life and Health Sciences, was expected to end on 31 March 2020 but was extended until 31 July 2020, due to COVID-19 and the subsequent state of alarm decreed in Spain. Following deliberations made by the Jury, Italian virologist Dr. Ilaria Capua was unanimously selected as



prize winner, for her research career conducted at the highest international level, for her leadership in the promotion of open access to genetic information on emerging viruses, and for the social impact that she has made through her contributions to the multidisciplinary concept of “One Health,” encompassing human, animal and environmental health.

1.5 Special projects

In 2020, the AE-BKH developed two special projects in collaboration with key partner institutions:

- Collaboration on the Barcelona Science Plan 2020-2023, launched by the Barcelona City Council as a science and university policy with the goal of turning Barcelona into a European capital for research and innovation.
- “Symbiotic Life” documentary series, consisting of several short films produced by Science into Images that explore different examples of symbiotic relationships existing in nature, in particular, in microscopic organisms.

1.6 External activities

With the goal of consolidating Barcelona as a scientific hub in southern Europe and the Mediterranean region, in 2020 the AE-BKH maintained its presence in external activities organised by other academic and scientific institutions. These included:

- Participation in the presentation of the “Living Terrace” of the Barcelona Natural Sciences Museum
- Attendance at the virtual inauguration of the Budapest Knowledge Hub

1.7 Web communications, social media and digital content

Finally, given the extensive use of online platforms during 2020 to keep its activities accessible during the COVID-19 pandemic, the AE-BKH witnessed an especially strong growth in the audiences reached through its on-line communication tools and social media platforms. In particular, its websites, Facebook and Twitter accounts and ‘Barcelona-in-Action’ digital archive saw a large increase in user activity.

In conclusion, despite facing numerous challenges during 2020 on various levels, the AE-BKH managed to maintain the overall quantity and quality of its programming. The activities carried out position our Hub for continued growth in 2021, which we hope will be a brighter year for all.

Ricard Guerrero, Academic Director
Kimberly Katte, Hub Manager

Academia Europaea-Barcelona Knowledge Hub



2. OVERVIEW

2.1 Presentation

The present Annual Report provides an overview of the activities of the Barcelona Knowledge Hub of Academia Europaea (AE-BKH) during the year 2020.

2.2 Mission and Vision

The AE- Barcelona Knowledge Hub

- Introduction and area of influence

Academia Europaea (AE) is a pan-European, non-governmental association acting as an Academy. Its members are scientists and scholars who collectively aim to promote education and research. Founded in 1988, it currently has approximately 4,000 Members, leading experts from a variety of different fields including the physical sciences, technology, biological sciences, medicine, mathematics, literature, humanities, social sciences, cognitive sciences, economics and law. The **Barcelona Knowledge Hub (BKH)** is the AE's branch office for the **Mediterranean and Southern European region**, including Turkey and Israel.

The main goal of AE-BKH is the promotion of activities of interest for the Members of AE in its area of influence, and for the scientific community in general, with **special emphasis on multi-disciplinary activities** that include **transversal perspectives of the natural and exact sciences, the social sciences and the humanities**. The vision of AE-BKH is to **help consolidate a genuine European area of research, education and innovation**.

While most activities organised by the AE-BKH have, during its early history, take place in Barcelona, an increasing number of activities has taken place in cities in Spain. This is reflected in the information gathered in the present annual report.

- History and main objectives

In 2012, the Government of Catalonia (*Generalitat de Catalunya*), the Barcelona City Council (*Ajuntament de Barcelona*) and the "la Caixa" Banking Foundation (*Fundació Bancària "la Caixa"*) created the Barcelona Knowledge Hub (from then on, AE-BKH) to promote activities of the AE in southern Europe and the Mediterranean region. These three organisations from Barcelona are partners of the AE-BKH, while the Institute for Catalan Studies (IEC) houses and supports the Hub's office within its central headquarters located in the old city, holding historical ties with local medical and scientific institutions.

In 2013, the AE-BKH began its operations and held its first activities, many of which have, over time, become staples in its annual programming, such as Women's Week and the *Disputatio* of Barcelona (see corresponding sections).



- **Current specific objectives of the AE-BKH include:**

- Increasing the quantity and quality of its programming while maintaining sustainability
- Strengthening collaborations and partnerships with academic and research institutions in its area of influence
- Recognising and supporting excellent research conducted by individual scholars
- Improving the visibility and impact of its actions

- **Office and staff**

The AE-BKH office is located on the premises of the IEC, a mid-17th century historical building very conveniently located in the centre of the city of Barcelona. Since August 2014, Prof. Ricard Guerrero of the UB, Emeritus, and Adjunct Professor of the University of Massachusetts-Amherst, serves as Academic Director. In 2019, Kimberly Katte continued to serve as Hub Manager, overseeing the daily operations of the Hub and planning and implementation of activities, while Rubén Duro continued to manage the website, digital content, social media, and the audio-visual section (i.e., AE-BKH “Barcelona in Action” Video Channel).

3. ANNUAL PROGRAMMING IN 2020

3.1 AE-BKH WOMEN'S WEEK 2020 (4-5 MARCH)

Women and cooperation: a symbiotic perspective

On March 4th and 5th, the Barcelona Knowledge Hub of Academia Europaea (AE-BKH) celebrated **AE-BKH Women's Week 2020**, in commemoration of UN International Women's Day, and in collaboration with the UNESCO Chair on Women, Development and Cultures. Entitled "**Women and cooperation: A symbiotic perspective**," this eight edition of AE-BKH Women's Week featured women scholars in mathematics, music, biology, film, architecture and urbanism. It also helped consolidate the initiative as one of the main pillars of the AE-BKH's annual programming ever since the Hub began in 2013. In line with similar celebrations around the world, AE-BKH Women's Week serves, on the one hand, to recognise the important contributions made by women to different fields of human knowledge, and, on the other, to claim women's rights and promote gender equality.



The programme for this year's AE-BKH Women's Week kicked off on Wednesday, March 4th, in Prat de la Riba Hall at the Institute for Catalan Studies (IEC), with the lecture, "**The Mathematics of Music**", by mathematician and musician Pilar Bayer, Professor Emerita of the University of Barcelona. Prof. Mònica Rius-Piniés, Director of the UNESCO Chair on Women, Development and Cultures, opened the session, while musicologist and ex-General Secretary of the IEC, Romà Escalas, introduced Prof. Bayer and reiterated the strong links between mathematics and music. Representatives from the Catalan Society of Mathematics and the Catalan Society of Musicology were in attendance and thanked by the organisers for their support in communicating the event.



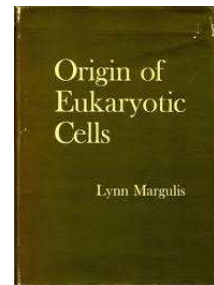
The lecture provided a look at the main mathematic principles underlying music, including those historically used to explain sound, as well as the role of new technologies in music, including the digital treatment of musical creation, reproduction and storage. Prof. Bayer set the tone for her lecture by quoting a letter by philosopher and scientist Gottfried Wilhelm Leibniz, to mathematician Christian Goldbach, in 1712: "*Musica est exercitium arithmeticae nescientis se numerare animi*". She proceeded to offer historical examples of advancements made by mathematicians alongside similar advancements made by their musical contemporaries, such as Sophie Germain and Clara Schumann, or Lejeune Dirichlet and Felix Mendelssohn. Thus, several mathematical musical concepts emerged at around the same time, respectively, including: harmonic series, and the infinity of prime numbers; the breakdown of sound into harmonic frequencies, and Newton's contributions to optics; soundwaves, and Euler's equation; calculus, congruencies, and regular dodecagons, and semitones and circles of fifths; and dynamics systems and melodic lines ending with the tonic. Finally, Prof. Bayer revealed another remarkable musical-mathematical duo: 'Ludwig', an algorithm-based software tool, and herself as composer and creator of short musical pieces that were reproduced for those in attendance.

The second activity, the round table, "**Fifty years of the book Origin of Eukaryotic Cells, by Lynn Margulis**", took place on Thursday, March 5th, in Ramon Turró Hall of the Royal Academy of Medicine of Catalonia. This session was introduced by Mercè Piqueras and chaired by Carmen Chica,



both AE-BKH collaborators, and featured a panel of renowned women scientists, educators and communicators, including M.Vallmitjana, B.Vendrell, M.Berlanga and C.Puche.

Origin of Eukaryotic Cells, published by Yale University Press in 1970, was the book in which the young biologist Lynn Margulis (Chicago, IL, March 5, 1938 – Amherst, MA, November 22, 2011) first proposed her theory of the symbiotic nature of the ultrastructure of the eukaryotic cell. The book, containing interesting ideas that are clearly argued with an extensive biological background and ample supporting evidence in different organisms, represents the basis of our present knowledge of cellular evolution and of the origin of the organisms presently known as protists. The panel offered a retrospective look at the serial endosymbiosis theory and the book's reasoning of the lineages of eukaryotic organisms at a time when DNA sequencing was just starting and when techniques commonly used nowadays, such as restriction enzymes or PCR, were unknown. First-hand accounts, including personal anecdotes and excerpts from interviews and documentaries carried out by the panel members themselves, provided a unique look at an extraordinary book by an extraordinary biologist that triggered a revolution in the field of evolutionary biology.



Finally, unfortunately the last activity of AE-BKH Women's Week 2020, **"City Unfinished, a social cooperative initiative exploring Memory and Identity in the Self-Built City"**, had to be postponed due to the coronavirus pandemic, as dictated by local public health authorities. A screening of the documentary film, "City Unfinished – Voices of El Ermitaño" (Lima, 2018), was scheduled to take place on Thursday, March 12th, in the auditorium of the Goethe-Institut Barcelona, followed by a debate on the main topics of the documentary film: public space, community building, housing, memory and identity. The debate was to feature journalist and author Bettina Bremme (Goethe-Institut), architect and urban planner Zaida Muxi (ETSAB-UPC) and urban researcher and film director Kathrin Golda-Pongratz (UIC School of Architecture, AE-BKH), with the goal exchanging ideas about the role of public space and housing in the construction of identity in different cultures, including our own. The activity will be rescheduled when possible (new date to be announced, when available).



The film, lasting 29 minutes, is based on an investigation of the urbanisation and place-making processes in the neighbourhood of El Ermitaño (Independencia/Lima), in collaboration with British architect John F C Turner, who depicted and theorised about the self-construction of Peru in the 1960s. A rediscovery made in Turner's files of an historic documentary filmed in El Ermitaño in 1964, and its later return to and screening in the place where it had been filmed, in 2016, helped to activate collective memory and trigger work on a new documentary. "Ciudad Infinita – Voces de El Ermitaño" (in Spanish, with subtitles in English) seeks to portray the current challenges facing the El Ermitaño neighbourhood as told by its residents. The film reactivates memories of its roots, in particular, of its different identities of migratory origin. The documentary furthermore helps raise awareness of the concerns and efforts of its people, while providing ideas of possible incentives for similar initiatives aimed at improving and consolidating neighbourhoods such as El Ermitaño.

The activities comprising AE-BKH Women's Week 2020, attended by the general public and academic community, are available on-line at:

<http://barcelona.acadeuro.org/womens-week-2/womens-week-2020/>



3.2 SUMMER COURSE, “BARCELONA DIALOGUE 2020” (VARIOUS DATES, MAY– JUNE)



Northeastern University
College of Arts, Media and Design

“Barcelona Dialogue” is an ongoing collaboration between Northeastern University (NU) in Boston, USA, and the Academia Europaea-Barcelona Knowledge Hub (AE-BKH) for the organisation of an annual summer programme. The main goal of this summer programme is to provide students with an immersion-based learning experience in the art, architecture and history of Barcelona, hands-on workshops and cultural visits, and a unique dialog with local creators, designers, and entrepreneurs.

The “Barcelona Dialogue” summer programme was conceived within the educational framework of experiential learning at the root of Northeastern University’s many academic programmes. This philosophy of higher education is based on the pedagogical premise that a complete education requires a diversity of experiences on a global scale that go beyond the boundaries of the traditional campus, drawing from the latent synergies between social progress, innovation and scholarly research.

Prof. Xavier Costa, Member of Academia Europaea (MAE), serves as Faculty Advisor for the programme, while local and invited faculty members, including other MAEs and AE-BKH staff members and collaborators, have also contributed toward the academic content of the programme in previous editions held on-site in Barcelona (2016, 2017 and 2019). Circumstances due to the coronavirus pandemic enabled the 2020 edition to be moved on-line, opening up opportunities for exploring the use of technology to help the “Barcelona Dialogue 2020” programme achieve its objectives. Classes were held in a virtual format on various days in May and June 2020.



BARCELONA DIALOGUE 2020

Analysis of Urban Transformation:
Barcelona’s Superblocks
Final Presentation
Emma Laskaris
June 16, 2020



BARCELONA DIALOGUE 2020

Gaudí and Güell:
A Patronage
KELLY WARD
ARCHAESSO
JUNE 16, 2020



The following recorded sessions are available on the programme’s website: introductory presentations by Xavier Costa, Faculty Advisor and Member of AE, and by Kimberly Katte, AE-BKH Manager; and two of the 2020 final project presentations by students Emma Laskaris and Kelly Ward.

The AE-BKH looks forward to working with Northeastern University on the next on-site edition of the “Barcelona Dialogue” edition. In the meantime, it welcomes the academic community to view the aforementioned videos, in addition to other on-line tools, at:

<http://barcelona.acadeuro.org/home/annual-programming/barcelona-dialogue>

3.3 CONCERT, “MUSIC BY WOMEN COMPOSERS” (22 OCTOBER 2020)

On Thursday, October 22, 2020, the AE-BKH collaborated on a special concert entitled “Music by Women Composers,” organised by the Institute for Catalan Studies (IEC) in Barcelona, concluding its 2020 “Music in the Cloister” series.



Pilar Bayer, pianist and Professor Emerita of Mathematics at the University de Barcelona, presented a programme featuring a selection of classical and contemporary works written by women composers from the eighteenth to the twenty-first centuries, including music by both renowned and lesser-known names. Prior to playing each piece, she provided a brief look at the composer who wrote it, offering insight into her own unique story and perspective, and usually hidden due to historical or social prejudices. The concert serves as another

example of how the AE-BKH strives to harness synergies among the arts and sciences, eliminating barriers among disciplines to embrace all fields of human knowledge. It also serves as an excellent example of ‘herstory’ and scholarship with gender perspective in the field of music.

The concert took place in Prat de la Riba Hall, Institute of Catalan Studies (IEC), Barcelona, with limited in-person capacity due to COVID-19 restrictions, and it was also streamed live on YouTube. The full video is available for viewing at <https://youtu.be/aLpjeZhzoDY> and currently enjoys over 625 views. In addition, a gallery of photos and the programme are available on the AE-BKH website.



Pilar Bayer Isant (Barcelona, 1946) is currently Professor Emerita of Algebra at the University of Barcelona (UB). She was first introduced to music by her father, violinist and saxophonist Marcel·lí Bayer Gaspà (1898–1977). Throughout her education, she combined her studies of mathematics and music. In 1967, she obtained the title of professor of piano at the Barcelona Municipal Conservatory of Music, and in 1968, she received her undergraduate degree in mathematics from the UB, where she obtained her PhD in 1975, becoming Full Professor of Algebra in 1982. She has served as Professor of Mathematics at the UB, the Autonomous University of Barcelona (UAB) and the University of Cantabria, as well as at universities in Regensburg and Göttingen, Germany. She is a tenured member of the Spanish Royal Academy of Exact, Physical and Natural Sciences, of the Royal Academy of Arts and Sciences of Barcelona, and of the Royal European Academy of Doctors. In addition, she is an Emerita Member of the Institute for Catalan Studies (IEC), in the Section of Sciences and Technology.

3.4 DISPUTATIO OF BARCELONA 2020

An annual activity of the Academia Europaea-Barcelona Knowledge Hub

The *Disputatio of Barcelona 2020*. “Cities, Climate and Pandemics: Reflections from Urban Studies and Environmental Economics.”

Starting in the early twentieth century, rapid urbanisation has become one of the dominant demographic trends of our times, driving the interrelated issues of climate change and public health issues. This year the Academia Europaea – Barcelona Knowledge Hub (AE-BKH) has been a close collaborator of the Barcelona City Council on its recently published Barcelona Science Plan 2020-2023, outlining strategic municipal policies for bridging science and society in a variety of areas, including the ongoing climate crisis. Thus, in light of the current COVID-19 pandemic and its widespread social impact, the AE-BKH decided to devote the 2020 edition of its *Disputatio of Barcelona* annual debates to “**Cities, Climate and Pandemics: Reflections from Urban Studies and Environmental Economics**”. The session focused on the essential role of cities in climate change mitigation and in the control of pandemics such as COVID-19. Barcelona, along with other major metropolises in the world, provided for an interesting analysis.



Coordinated and moderated by **Alexander Fidora**, MAE, ICREA Research Professor in the Department of Ancient and Medieval Studies, UAB, this debate shed new light on the aforementioned questions by bringing together experts from different fields: urbanist **Kathrin Golda-Pongratz**, MAE, UIC Barcelona School of Architecture; and environmental economist **Jeroen van den Bergh**, ICREA Research Professor, ICTA-UAB.

The *Disputatio 2020* was held, for the first time ever, in an all-virtual setting, enabling approximately 100 participants from nearly twenty different countries to participate in the session. However, the interactive, multidisciplinary spirit characterising previous *Disputationes* was not compromised; following the engaging presentations made by the two *disputantes*, which featured original research findings in their respective fields, a lively question-and-answer section drawing on comments and questions posted by the online audience ensued. This portion of the programme underlined the need for transversal, complementary approaches to dealing with climate change across world cities, in order for policy to prove more effective.

The *Disputatio 2020*, originally planned for 18 November 2020, finally took place on 19 January 2021. The event was a great success, in terms of both participation and content. It helped push the interrelated issues of city planning, climate change and pandemics to the forefront of the public agenda, and it posed relevant questions regarding how to tackle one of the most important challenges facing citizens locally and globally.

The entire video of the debate, viewed over 225 times, is available at:

https://youtu.be/ow3_JXyCKeA



4. “BUILDING BRIDGES 2020”, THE 32th AE ANNUAL CONFERENCE

Planning meeting in London (11 February 2020) and postponement until 2021

In the spring of 2020, the Barcelona Knowledge Hub (AE-BKH) had already begun preparations for the **32nd Annual Conference of Academia Europaea (AE) and 9th of the Young Academy of Europe (YAE)**, scheduled to take place in October. In fact, members of the AE-BKH, including Academic Director Ricard Guerrero and Hub Manager Kimberly Katte, attended a meeting of the Planning Committee at the British Academy in London on 11 February, in order to address key aspects of the conference, including the scientific programme, registration and calendar.



However, COVID-19 quickly burst onto the scene in March, putting plans for travel and events on hold worldwide. As a result, the Board of Trustees of the AE unfortunately decided to cancel the 2020 conference. New dates were then approved for the next year, which are 20-21 October 2021.

We kindly ask you to please mark these dates on your calendars and to check the conference website, <http://www.buildingbridges-acadeuro.org/>, for updates on the format and content of the programme. In light of the rapidly changing situation surrounding the COVID-19 pandemic, virtual alternatives are being planned, however, we hope to be able to host certain activities with limited in-person attendance at the stunning Barcelona Biomedical Research Park (PRBB). More information will be available in spring 2021.

5. HYPATIA PRIZE

5.1 PREPARATION & CALL FOR NOMINATIONS – 2ND EDITION (LIFE & HEALTH SCIENCES)

At the very end of 2019, the Academia Europaea-Barcelona Knowledge Hub (AE-BKH) announced the Call for Nominations for the second edition of the **Barcelona Hypatia European Science Prize**, awarded by the Barcelona City Council in collaboration with the AE-BKH. This Prize, in the amount of 30,000 euros, recognises an outstanding researcher who has achieved a career of excellence



at the highest international level in Europe and has made a significant contribution toward different fields of knowledge, as well as a positive impact on society. Although the call was initially expected to close on March 31, 2020, it was extended until July 31, 2020, due to COVID-19 and the subsequent state of alarm decreed in Spain.

The Hypatia Prize will be awarded annually, rotating each year among three major areas of knowledge: Science and Technology (call held in 2018); Life and Health Sciences (call opened in 2019 and closed in early 2020); and Humanities and Social Sciences (call to open in 2021). The winner of the first edition of the prize, devoted to Science and Technology, was Prof. László Lovász, mathematician and President of the Hungarian Academy of Sciences, for his outstanding career in the field of mathematics and for his contribution to social progress. The present (second) edition of the Prize recognises a research career focused on the **Life and Health Sciences (LHS)**, including other related sciences and technologies giving support to LHS, such as biochemistry, bio-engineering, etc. Finally, the third edition (2021) will be dedicated to Humanities and Social Sciences.

The name of the prize, Hypatia, was chosen in homage to Hypatia of Alexandria (c. 355-415), a woman philosopher and scientist who successfully bridged and disseminated all scholarly disciplines known during her time and who, for this same reason, was assassinated by the forces of ignorance and fanaticism.

The Hypatia Prize constitutes one of the main programmes of the **Barcelona Science Plan**, a strategic initiative of Barcelona City Council to promote the research and innovation infrastructures of the city. Its main objective is to consolidate Barcelona as a European capital of research and innovation.

5.2 SELECTION OF PRIZE WINNER, PROF. ILARIA CAPUA, BY THE INTERNATIONAL JURY

Candidates for the second edition (Life and Health Sciences) of the Barcelona Hypatia European Hypatia Prize, awarded by the Barcelona City Council in collaboration with the AE-BKH, were nominated by Members of Academia Europaea (AE). They were then evaluated by the five members of the International Selection Jury: Dr. Eva Kondorosi (president), Dr. Paola Bonfante, Dr. Lluís Ferrer, Dr. Cristina Pujades and Dr. Ricard Guerrero (secretary). The jury held a virtual meeting on September 8th to analyse the information provided by nominators, in line with the prize terms and conditions previously published.



ILARIA CAPUA (Photo by Isabella Balena)

After extensive deliberations, the jury decided unanimously selected Italian virologist **Dr. Ilaria Capua** as prize winner, for her research career conducted at the highest international level, for her leadership in the promotion of open access to genetic information on emerging viruses, and for the social impact that she has made through her contributions to the multidisciplinary concept of “one health,” encompassing human, animal and environmental health.

As with the previous edition, an award ceremony presided by the Office of the Mayor of Barcelona and attended by members of the academic and scientific community, including AE officials, is under preparation and will feature a distinguished lecture by Dr. Capua. Given the rapidly changing circumstances surrounding the current COVID-19 pandemic, the details of this event will be confirmed in early 2021, in agreement with recommendations by the public health authorities.

5.3 PRIZE WINNER ILARIA CAPUA NAMED MEMBER OF AE ON THE PRESIDENT’S LIST

Following her selection as prize winner of the second edition of the Barcelona Hypatia European Science Prize in September 2020, Dr. Ilaria Capua was named Member of Academia Europaea (AE) on the President’s List in the fall. She will be welcomed into the community of AE scholars at the Building Bridges 2020 conference in October.



6. SPECIAL PROJECTS DURING 2020

6.1 COLLABORATION ON THE BARCELONA SCIENCE PLAN 2020-2023



The AE-BKH collaborates with one of its supporters, the Barcelona City Council, on the implementation of the recently released Barcelona Science Plan 2020-2023, a comprehensive science policy with the aim of projecting Barcelona as a European capital of science and innovation. Developed by the Barcelona City Council in conjunction with representatives from Barcelona's research and innovation ecosystem, the plan is built on four main axes:

1. Consolidating Barcelona as a European capital of science by improving the international visibility of its universities and research centres and by forging alliances with key European cities and institutions.
2. Providing municipal support for research that helps develop innovative, fair and effective solutions to urban challenges.
3. Creating a science culture by and for citizens that encourages citizen participation in science and promotes access to science education and dissemination.
4. Fostering relationships among science, art, innovation and society, in order to cultivate creative synergies and promote knowledge transfer and innovation among a diverse range of stakeholders.

The plan lays out 15 specific objectives and 51 actions to be taken over the course of the next three years. The Barcelona Hypatia European Science Prize, now in its second edition (see Section 1, above), represents one of those actions. The AE-BKH looks forward to continuing to collaborate with the Barcelona City Council on additional actions within the framework of the plan.

The complete plan is available in English at:

http://barcelona.acadeuro.org/wp-content/uploads/2020/07/PBC-2020-2023_ENG.pdf

6.2 “SYMBIOTIC LIFE” DOCUMENTARY SERIES

In May, the AE-BKH launched, “**Symbiotic Life**”, a new on-line initiative fruit of its partnership with Science into Images, a scientific dissemination project led by biologist and science filmmaker Rubén Duro, who is also the Hub’s webmaster and social media manager.

This initiative consists of several short documentaries on different examples of symbiotic relationships existing in nature, presented in a visually striking format. These videos present rarely seen images of microscopic organisms and are of great academic and research value. However, the general public will also enjoy these educational and entertaining videos, as brief accompanying explanations subtitled in English provide non-experts with the tools necessary for fully appreciating the beauty and scientific interest of the images projected.

Thus, the main objective of “Symbiotic Life” is two-fold: to disseminate scientific research in a novel format, in line with the AE-BKH’s overall mission; and to give support to a distinctive feature of the AE-BKH, which places special emphasis on symbiosis both as a driving concept of evolutionary biology and as a figurative term to describe the connections between seemingly different academic fields, such as the natural and exact sciences, the social sciences and the humanities.

The initial five videos included in the “Symbiotic Life” documentary series are:

- **Microbial mats.** Structure, composition and functioning of microbial mats, the first ecosystems on Earth, and the driving force for the existence of life on our planet.
- **Earliest Sex.** Conjugation of a protozoan, as an example of one of the first manifestations of sexual activity in the eukaryotic world.
- **Living together.** Gut symbionts of termites as an extraordinary example of how symbiosis among very different organisms such as bacteria, protozoa and animals enables a uniquely efficient use of resources.
- **Living biofilms.** Microscopic life in a biofilm as an example of how the activity of one type of organisms –in this case, bacteria– can create ideal living conditions for another.
- **Beauty and the Beast.** The budding of the common jellyfish as an example of asexual repro-



duction.

All five videos are available for viewing on the AE-BKH “Barcelona-in-Action” channel on Vimeo. (<http://barcelona.acadeuro.org/home/barcelona-in-action-digital-archive/>)



7. EXTERNAL ACTIVITIES

7.1 PARTICIPATION IN THE PRESENTATION OF THE “LIVING TERRACE”, BARCELONA NATURAL SCIENCES MUSEUM (27 JUNE 2020)

On 27 June 2020, AE-BKH Academic Director Ricard Guerrero participated in the inauguration of the “Living Terrace” of the Barcelona Natural Sciences Museum, part of the Barcelona Greenery and Biodiversity Plan for 2020.

Located on the rooftop of the museum, the terrace boasts a surface area of 7,100 m² for growing herbaceous plants, keeping in mind factors such as wind, the nearby sea, and also the maximum weight limit. It houses vegetation that has adapted to the environmental conditions of the Mediterranean. Seven areas comprise the terrace: a welcome area, with some of the most commonly found species on terraces, as well as air plants (which can live without soil) and climbing plants; three different types of Mediterranean meadows with perennial plants; and three different types of ponds.

The AE-BKH looks forward to collaborating with the “Living Terrace” and other initiatives of the Barcelona Natural Sciences Museum.

7.2 ATTENDANCE AT THE VIRTUAL INAUGURATION, BUDAPEST KNOWLEDGE HUB (9 DECEMBER 2020)

On 9 December 2020, AE-BKH Academic Director Ricard Guerrero and Hub Manager Kimberly Katte, alongside over 100 other guests, attended the virtual inauguration of the new AE Budapest Knowledge Hub, the latest addition to AE’s growing number of hubs joining Barcelona, Bergen, Cardiff, Tbilisi and Wrocław. The new Hub is situated in the Hungarian Academy of Sciences building, from which the event was streamed live.

During the event, Tamás Freund MAE, President of the Hungarian Academy of Sciences and Sierd Cloetingh MAE, President of Academia Europaea each gave a welcome address. Professor Cloetingh referred to the opening of the new Hub as a milestone for Academia Europaea. László Lovász MAE, Academic Director of the AE Budapest Knowledge Hub and Former President of the Hungarian Academy of Sciences, delivered an opening address, followed by a series of presentations on four thematic missions of the AE Budapest Hub and scientific lectures.

The AE-BKH wishes the Budapest Knowledge Hub the best of luck as it begins its operations, and looks forward to working together on AE initiatives.



8. WEB COMMUNICATIONS, SOCIAL MEDIA AND DIGITAL CONTENT

The Barcelona Knowledge Hub of the Academia Europaea (AE-BKH) devotes special attention to its web communications, social media and digital content, as this area serves a double purpose: first, it enables the AE-BKH to promote and share news of its activities in a timely and visually striking way; and second, it permits the AE-BKH to create an international academic community of both AE Members and non-Members in a way that bears in mind their geographic dispersion.

During 2020, the AE-BKH was exceptionally active in this area, as restrictions on in-person activities due to COVID-19 equated with an **increase in on-line activities**. Highlights from the year include: the first all-virtual AE-BKH activities, namely the “Symbiotic Life” documentary series, the Barcelona Dialogue 2020 summer course, and the *Disputatio* of Barcelona, “Cities, Climate and Pandemics: Reflections from Urban Studies and Environmental Economics”; and also ‘hybrid’ activities featuring both (limited) in-person and on-line attendance, such as the concert, “Music by Women Composers”, streamed live on YouTube. These tools demonstrated their capacity to reach new audiences.

As in the past, scientific communications specialist Rubén Duro continued to serve the Hub as web-master and manager of digital content, social media, and web communications.

8.1 WEB COMMUNICATIONS

The AE-BKH manages the following websites to communicate information about its activities:

AE-BKH institutional website, barcelona.acadeuro.org

By the end of 2020, the AE-BKH website had a total of **67,901 accumulated visitors** and almost **1,246,339 page views**. This represents an increase of **+41.46%** in the total number of visitors and of **+65.78%** in the total number of page views, with respect to the previous year. During 2020, **44 new pages** were created and **438 updates** made to the AE-BKH website.

Building Bridges conference website, buildingbridges-acadeuro.org

Due to the COVID-19 pandemic, the annual Building Bridges conference was not held in 2020, thus activity on the **Building Bridges** website was minimal during the year.

8.2 SOCIAL MEDIA

FACEBOOK PROFILES

The AE-BKH manages two Facebook accounts:

- **Barcelona Knowledge Hub, @ae.bkh**
- **Disputatio de Barcelona, @DisputatioBarcelona**

The first one (@ae.bkh) posts information regarding all AE-BKH activities and events, while the second one (@DisputatioBarcelona) is used exclusively to provide information about the annual *Disputatio* of Barcelona. Thus, the latter has a greatly reduced level of activity as compared to the former, which is limited to the dates surrounding the event.



By the end of 2020, the two accounts together had a total of **344 followers**, representing an increase of approximately **+23.7%** approximately as compared to the previous year. The total audience reached grew from **4,427** to **5,821** during 2020, representing a **+31.5%** improvement.

TWITTER PROFILE

The AE-BKH manages one Twitter account:

- **Academia Europaea (@ae_barcelona)**

During 2020, the aforementioned account had received a total amount of **35,573 impressions**, **630 engagements** and **832 followers**. These data represent increases of **-24.2%**, **+13.5%** and **+5.6%**, respectively, with regards to the previous year.

The table below shows the increase in activity on the AE-BKH websites and social media accounts:

On-line impact comparison between 2019 and 2020 (Data from 1st January - 31st December 2020)				
	Indicator	2019	2020	Performance improvement
WEBSITE	Accumulated visitors	48,000	67,901	+41.46%
	Page views	750,000	1,243,339	+65.78%
FACEBOOK	Followers	235	297	+26.4%
	Reached	4427	5821	+31.5%
TWITTER	Engagements	555	630	+13.5%
	Followers	788	832	+5.6%

8.3 DIGITAL CONTENT

In terms of digital content, AE-BKH carries out various specific actions. The main two are:

1. **Barcelona-in-Action Digital Archive**, a repository of photographs and videos filmed and edited by AE-BKH. The **Photo Gallery** is located on the AE-BKH website server at <http://barcelona.acadeuro.org/home/barcelona-in-action-digital-archive/gallery/> , while the **Video Gallery** (with 2,400+ views) is on the **YouTube** and **Vimeo** platforms, with links available at http://barcelona.acadeuro.org/home/barcelona-in-action-digital-archive/video_gallery/ .

During 2020, **11 new videos** were added, five of which comprise the “Symbiotic Life” documentary series, featuring footage of symbiotic relationships involving microscopic organisms.

2. **BarceloNEWS**, the digital AE-BKH newsletter containing news of past and upcoming activities. This publication is also sent by e-mail several times a year to AE subscribers.

During 2020, **6 new editions** were published and distributed on-line at <http://barcelona.acadeuro.org/home/barcelona-in-action-digital-archive/documents/barcelonews/>



9. PARTNERS OF THE AE-BKH

In 2012, the Government of Catalonia, the Barcelona City Council and the “la Caixa” Banking Foundation decided to become partners of the Barcelona Knowledge Hub of the Academia Europaea (AE-BKH), which was launched the following year.

Since then, the aforementioned institutions have acted as the main sponsors and promoters of the AE-BKH, in order to consolidate Barcelona as a hub of science and innovation in southern Europe and the Mediterranean region. Their continued support also helps provide the AE-BKH with the stability needed to undertake new activities and to plan for future growth and expansion.

The AE-BKH wishes to express its heartfelt gratitude to its partners.



For more information:



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