

March 2018

NEWSLETTER



The 5th MCAA General Assembly and Annual Conference took place from 2 to 3 February at KU Leuven, Belgium. For those who couldn't attend, find out what happened in our special coverage and meet the new members of the MCAA Board!

Has news of the MCAAAcademy reached you yet? Francesco Grassi, Marco Masia and Renaud Jolivet have been working hard on making MCAA Members' dreams come true, and they are now proud to present this new programme, designed to support career development.

The MCAA needs you! The association will be at the Edinburgh Fringe Festival and will need creative people like you!

page 31

page 36

CONTENTS

MCAA Matthew Mostafa Moonir Valentina Bala Attili, Murat Gunes, Zsofia Buttel, Maria Gorna, DiFranco, Chair Shawrav, Vice-Chair Ferro, Vice-Chair General Treasurer Secretary Member Member Assembly page O5 page 11 page 13 page 14 page 15 page 02 page 07 page 09 Renaud Jolivet, Nehama Lewis, Member Marco Masia, Member Sara Ricardo, MCAA Awards 2017 Charlotte Thorley Sara Johansson $\Delta \Delta \cap M$ Academy Member Member page 18 page 20 page 23 page 26 page 29 page 31 page 17 The 2017 Edinburgh The March Sponsor Sponsors Sponsor for Science movement hurricane Fringe Festival **IPCHAIN** CORBEL season page 36 page 33 page 38 page 39 page 40



FOUR GREAT SPEAKERS WE MET AT THE MCAA ANNUAL EVENT

Contributing to the success of the MCAA Annual Conference and General Assembly (at the University of Leuven, Belgium, on 2 and 3 February 2018) was the range of different sessions on offer for participants. We were lucky enough to meet four speakers from very different fields - the Mayor of Leuven; a philosopher and sociologist of science; an innovation specialist; and one of the pioneers of the concept of 'open science'. Below is an overview of what they said for those who couldn't attend.



LOUIS TOBBACK

Mayor of Leuven —

Opening of the conference

"Violence is the enemy of science"

The Annual Conference was opened by the Mayor of the host city, Louis Tobback. He gave a

warm welcome to the participants and emphasised the role of KU Leuven in making the city attractive. When we met him afterwards, he emphasised the importance of multiculturalism in a city like Leuven. "There are between 150 and 155 nationalities within the small area of Leuven. That makes for a truly multicultural city and environment," he said. He also emphasised how Leuven provides scientists with a secure place to conduct their research.

Researchers in other locations around the world are not always so lucky, as Mr Tobback reminded his audience during his speech: "Violence is the enemy of science. "How much talent is wasted with the wars in the Middle East, wherethere is physical and military violence. And what Mr Trump is doing in the Unit-

ed States is also a form of violence that doesn't favour scientific development in my opinion," he mused. It is therefore crucial for the scientific community to stay united for the sake of the future and events like the MCAA annual conference are a good opportunity to reinforce this sentiment, Mr Tobback suggested.

TRUDY DEHUE

Philosopher and sociologist of science — "What's in the facts?
A call for much more open knowledge"

"Psychiatrists study people, I study psychiatrists!"

Trudy Dehue's session "What's in the facts? A call for much more open knowledge" attracted a particularly





high number of comments on social media (especially on Twitter, in conjunction with the hashtag #MCAAGA18). To give an idea of what she does she usually jokes, "Psychiatrists study people, I study psychiatrists!" The purpose of her session was to question classifications and the way they create realities. According to her theory, definitions are not neutral, but reflect values in societies.

"My simplest example is that if you



study poverty, you use a definition of poverty. That precedes the facts and the figures. And the figures cover up the values, but the values are still very active, because the figures are being used in policy programmes. And the values behind the figures are still creating the policies," Professor Dehue told us when we met after her session. She believes it is very important to put the definitions and the figures arising from those definitions into perspective.

The mental health disorders seen among PhD students are a good example: "You can say PhD students suffer from depression. If we do so, we don't ask, "what about the system in which PhD students have to work? Little money, having to travel all over the world, no job security, and no building up of a pension if you don't have a regular job." Although we are only talking about mental disorders, shouldn't

we also call that injustice?". Tackling the uncertainty inherent within the academic world could therefore be a first step to tackling mental disorders among PhD students, Professor Dehue concluded.

RAHUL BANSAL

Deputy Director of Education at Climate-KIC — Innovation in Europe

"Innovation is anything new you can introduce in the market to address the needs or challenges of people"

Mr Bansal was speaker in the session on innovation. When we met for a chat, he highlighted the role of innovation in today's world: "as innovators and as researchers, we have a responsibility to innovate ethically", he said.

Although we tend to associate inno-





vation with technology, it can be applied in many different sectors. "Innovation could be also business model innovation. The technology might be there or it might be the same technology, or it might be a very simple technology. But the way you serve the needs of your customers can be very innovative," he explained.

Researchers shouldn't hesitate to adopt an entrepreneur state of mind, according to Mr Bansal: "see how you can explain why your innovation is needed on the market, be entrepreneurial and go for it! If vou want to learn what a business model is, what finance is, what marketing is, what branding is, how to tell stories, how to sell your business, your product, then go for it!" To him, researchers are already entrepreneurial in that they commit their career to their research without knowing the outcome. Business entrepreneurship involves some adaptation. But for researchers, "the sky is the limit!".

GARETH O'NEILL

President of the <u>European</u>

<u>Council of Doctoral Candidates</u>

<u>and Junior Researchers</u>

(Eurodoc) — Open science

"Sharing is caring"

At the end of a very fruitful day, we chatted with Mr O'Neill about opening up research; in other terms, 'open science' — "A bit of a buz-

zword at the moment".

The principle is based on the opening up of a wide range of scientific activities (from the submission of a journal article, to research management for example) and making these activities accessible to other researchers and — why not — to the general public.

Challenges remain, however, like data protection and data storage. But there are also benefits from open science for less advanced regions in research terms, said Mr O'Neill. "In these regions, researchers have zero access to publications. They sometimes have to find illegal ways to access research data. It is important for these areas, that they have access to this and can develop their own research project, and maybe they could come back to us and involve us," he says. In this sense, "Sharing is caring".





INTERVIEW WITH MATTHEW DIFRANCO, CHAIR



Could you say a few words about yourself?

Born and raised in New Jersey, I did my undergraduate degree in Materials Science and Engineering at Drexel University in Philadelphia, Pennsylvania. After three years as an IT consultant, I moved to London in 2003 with the intention of completing a one-year master's programme in Computer Science at University College London, and then going back to the US. But then life happened, and after two more years at UCL as a research assistant. I moved to Dublin for a PhD programme in Computer Science at University College Dublin. During my PhD, the economy crashed in Ireland (and pretty much everywhere else). I spent two months in Vienna for a summer school and lab visit in 2008, where I developed a collaboration at the Medical University of Vienna (MUW), which would lead to my application for a Marie Curie Individual Fellowship to move to Vienna. Last year I left my job as a staff scientist at MUW to work independently as a researcher and consultant.

Why did you apply for the Chair position?

I joined the MCAA during my Individual Fellowship in Vienna, and

was happy to be part of a network of researchers who shared a common experience. Getting a Marie Curie IF is prestigious and rewarding, but can also be challenging and lonely, since one is often working on a solitary project in an unfamiliar country. Since I remained in Vienna after my IF, I stayed active with the MCAA Austrian Chapter (MCA3C), eventually becoming Chair. As the 2016 MCAA Board elections in Venice approached, the MCA3C met and discussed getting involved with the MCAA Board to help shape the organisation. I was elected in Venice to an Ordinary Board position, and since then have spent the last two years learning about what the MCAA does, how it works at the Board level, and developing ideas for the future of the organisation. When it was clear that our former Chair, Brian Cahill, would not run again for Chair in 2018, I was encouraged by a number of Board members to run for Chair. I decided to run, but I wanted to work with people who already had some experience in MCAA, who had complementary skills and concrete ideas of what they wanted to accomplish and who could work well together as a team. My goal was to





bring more structure to the governance of MCAA and to focus on securing a future for the Association for years to come.

What are your priorities for the MCAA for the coming two years?

Well, since we ran as a team in the Board election, and since all 11 of us managed to win a position, the question is really, what are 'our' priorities? First, we want to bring more structure and organisation to the management of the MCAA, so that future Boards can pick up from the one before them. We don't want the MCAA to live and die based on the dedication of a few people, but rather thrive based on the contributions of many, and the processes we hope to put in place. We also want to develop the reputation of MCAA as a strong voice for researchers and research policy at the European level, as well as in individual countries. We want to secure the financial stability of the MCAA through sponsorships, partnerships, further revenue-generating projects such as books and training events, and grant funding for various projects where the MCAA can take part. And finally, we want to continue offering networking and career development opportunities to our members through our Chapters and Working Groups.

Could you share your impressions from the General Assembly?

I was very happy to see that the GA grew in terms of participants, sessions, and exhibitors. Leuven was a great location, being a small city, but close to Brussels. There were a lot of people participating for the first time, and I heard a lot of positive feedback about the sessions

which were run during the Annual Conference. I was also pleased to see that the GA Task Force for 2019 in Vienna was present and actively engaging with participants and organisers to begin planning for next year. The MCAA Annual Conference and GA should be the most important event for us each year, and I hope we can make the experience in Vienna even better than it was in Leuven.



INTERVIEW WITH MOSTAFA MOONIR SHAWRAY, VICE-CHAIR

Could you say a few words about yourself?

I am, currently, a Post-Doctoral researcher working on a European Research Council-funded project at Vienna University of Technology, Austria. In 2012, I started as an Early Stage Researcher with the



ENHANCE project, a Marie Curie Initial Training Network at the same university. Before Austria, I also worked at the Université Catholique de Louvain, Belgium, and I studied nanotechnology at the University of Twente, the Netherlands.

Over the last two years, I have received several awards, including Marie Curie Alumni of the Year 2014 from the MCAA, the first award of its kind, and the Young Scientist Award from the European Materials Research Society. I am a Fellow of Royal Microscopical Society.

I was born and brought up in Bangladesh, a country in south-Asia, which has the world's longest sandy sea beach and the largest mangrove forest. I began my education in Bangladesh and graduated as an Electronics Engineer. I believe that my networking skills and enthusiasm for encouraging MCAA members to evolve and develop together and influence one another come from the Bangladeshi culture of hospitality and empathy. The eastern philosophy of sacrifice, symbiosis and love for nature guides my philosophy of science, which is to help human civilisation through nanotechnology.

Why did you apply for the position of Vice-Chair?

I have been an active member of the MCAA since its establishment. I founded the Austrian Chapter of MCAA with my colleagues and went on to make it an active Chapters. Later on, I joined the Financial Affairs Working Group to bring in sponsors and funding. Before getting elected as Vice-Chair, I was chairing the Austrian Chapter and contributing as an ex-official Board member. So, running for the vice chair position was a natural progression and in tune with my mission and vision for this organisation that is so dear to me. I was also encouraged by Fellow members, such as Matthew Di-Franco. Over the last few years, as an association, we have started to contribute to a number of different areas. The outgoing Board members Brian, Marco and Kiran did an outstanding job and gave a lot of exposure to the MCAA. Following in their footsteps, I want to be an integral part of this fantastic organisation in its growth, development and influence. I feel



that the time is now right for me to be more directly involved in the MCAA's decision-making process` and to put into practice my innovative ideas for its evolution. I would like to thank all the members on behalf of the whole Board for selecting us to represent the MCAA.

What are your priorities for the MCAA for the coming two years?

As a very young association, we face many challenges. Other than running this association successfully, I would personally like to focus on:

Career Development of members:

Members are the core assets of this association. I want to meet the needs of members from different research fields and from different career stages. Very specifically, we would like to offer more career development-related courses that are needs-based and result-oriented, and with a holistic approach. The ideal situation would be to have a set career path with short and long-term goals where members are actively guided and trained by inhouse and external experts.

Incubator:

My ultimate dream is to obtain a place for MCAA members in each incubator in Europe. Recently, I established a collaboration with the Innovation Incubation Centre (i2c) in Austria, which is providing training to selected members.

Special groups:

I would also like to form a subgroup for less-represented groups in our

association. For example, I want to establish and institutionalise a support system for differently abled researchers (I do not like the terminology 'physically and mentally challenged or disabled' as we all are challenged or disabled at some point in life).

Female focus:

Our association is named after one of the greatest women scientists, who is also my role model. Career support for women scientists is increasing, but we still have a long way to go. We already have a Working Group for women, but I feel we should be more vocal on policy level changes for women scientists.

Financial sustainability:

I would also like to contribute to the self-sustainability of the MCAA. As a member of the Financial Affairs WG and in my capacity as a Chair of the Austrian Chapter, I have already showed how we can generate funds to offer workshops/career-related services. Over the next two years, I would like to make a concrete plan for fundraising activities. Just to give you one example, we are making new web pages for each Working Group/Chapter. This will help them find their own local partners and sponsors. Personally, I would also like to bring synergy and coherency between various thematic Working Groups and geographical Chapters.

I hope that together with my Fellow Board members, I will be able to achieve these priorities over the next two years.

Could you share your impressions from the General Assembly?

It is very exciting to see the number of attendees at our General Assembly increasing every time. This year, we had some great sessions on very popular topics such as career development and science communication. Interestingly, we also discussed unconventional but necessary topics, such as researchers' mental health, support opportunities for differently abled researchers etc. I personally greatly appreciated the enthusiasm among the members, especially those attending for the first time. Though it was late at night, I enjoyed the Science Slam immensely. Overall, it was a nice experience, thanks to Bala, the organisers and the contractors, who worked hard. As the organising chair of the next General Assembly, I would like to invite all our members to come to Vienna on 24 and 25 February 2019, and I hope to create a very memorable and helpful experience for them.



INTERVIEW WITH VALENTINA FERRO, VICE-CHAIR

Could you say a few words about yourself?

Passionate about science and enthusiast about sharing it. I have just completed my Marie Curie Fellowship in the ITN Phoqus, where I worked as a PhD student in the field of biophysics, and specifically optical tweezers. I have lived in four different countries, counting Italy, where I was born, and I received both my BSc and MSc in Physics from the University of Catania. From there, I moved to Belgium, then Scotland, and sometime along the way I lived in Germany too. Travel-

ling and meeting new people and cultures are two of the things I love the most about being a researcher. This is probably why, once I started being part of the MCAA, I never stopped contributing to it.

Why did you apply for the Vice-Chair position?

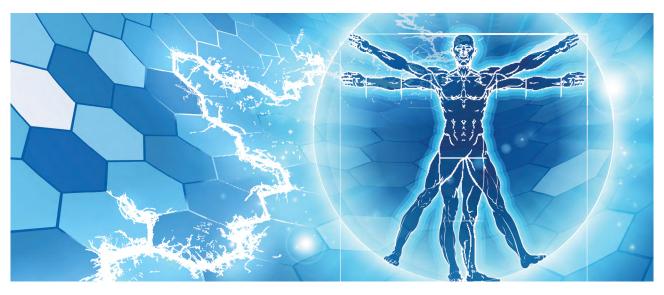
Over the last two years, I have been increasingly involved in the activities of the MCAA.

It started with founding the Scotland chapter and organising its activities, but the more I have got to know the association the more I wanted to contribute, participating in the Board meetings, volunteering with the newly established blog and helping in every way I could.

At my first GA, Salamanca 2017, I felt at home:

- I was surrounded by like-minded people with similar experiences and objectives.
- It was only natural to take my contributions to the next step, applying for the position of Vice-Chair.

The group I shared the campaign





with, MCAA2020, was all the incentive I needed to make the final decision.

What are your priorities for the MCAA for the coming two years?

The MCAA has grown incredibly and so have expectations on the quality of our activities and partnerships.

I believe that reinforcing a sense of belonging for MCAA Members will help to generate more quality content, as more members would genuinely be more active in our community. Improved communication, among the members and with external partners, is one of my priorities as it is, in my opinion, key to achieving this result.

Obviously, we will also need to encourage this engagement by marketing the advantages of being a member and providing new and exciting opportunities. Doing this would put a lot on the MCAA's plate, making it of crucial importance that we streamline our procedures, that we increase transparency, that we are able to attract more partners. We need to start rethinking the MCAA as more than 'just' an Alumni association.

Together with the elected Board we are already brainstorming on these topics and many new ideas are already on their way.

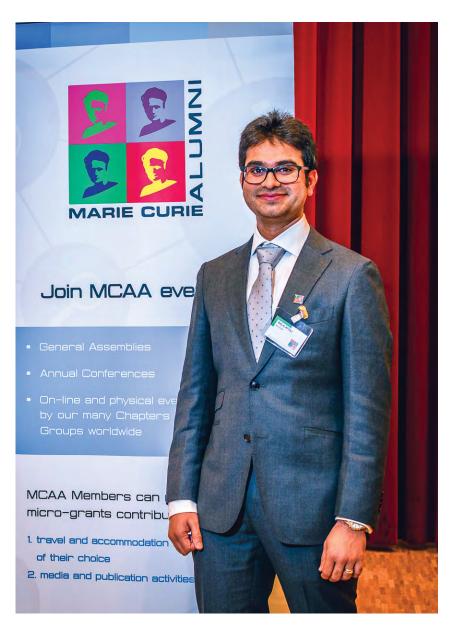
Could you share your impressions from the General Assembly?



The General Assembly 2018 was extremely interesting from different viewpoints. Being a candidate for the Board, I had plenty of excuses for doing what I like doing best: talking to people, getting to know them, but also understanding what we can - and have to — do better. Of course, I also took pride in what we are already doing so well. The content of the parallel sessions is better every year, with more and more interesting speakers. Moreover, I lived in Leuven for a year in the past, and being together with both old friends and new (made over the two days), was priceless. I am looking forward to being a Board Member for the Vienna 2018, and I can assure you that the whole Board has already started working on it, to reproduce the good things from this year and, of course, improve on them to make the event even better.



INTERVIEW WITH BALA ATTILI, TREASURER



Could you say a few words about yourself?

I am Bala Attili, Ph.D. Researcher in Pharmaceutical Sciences specialised in Pharmaceutical Chemistry at the Department of Pharmaceutical and Pharmacological Sciences of KU Leuven, Belgium. I have been honoured with Marie Curie Fellowships twice (FP7 and Co-fund projects).

I have a Master's degree in pharmacy (MPharm) as well as in Business Administration (MBA specialised in international business). I have more than five years of experience in the workplace, and I've worked across Europe.

I am currently an MCAA Executive Board Member and Treasurer (as of February 2018). I was previously a Board Member (2016-2018) and also Chair of the BeNeLux chapter (2015-2016). I contribute to the Financial Affairs working group, and I am also an active volunteer with many NGOs.

Why did you apply for the Treasurer position?

I believe in making the MCAA a



global self-supporting association. I am prepared to invest my previous experience gained as Board Member and as Chair of an MCAA chapter in running the association efficiently. The position of treasurer within the MCAA is crucial. It obviously involves dealing with various budgetary matters, but also planning for the future sustainability. With the skills that I have acquired during the course of my career, I believe I am the ideal person for managing both finances and people, hence my motivation to be treasurer.

What are your priorities for the MCAA for the coming two years?

My vision is to see the MCAA become a global, self-supporting association and a platform for all Marie Curie Fellows to share ideas, discuss and collaborate with each other. I attach particular importance to self-sustainability and transparent budgeting.

Self-sustainability: we should unleash the potential of the MCAA so that it can brand itself as a self-supporting association by 2020. Achieving this would involve various strategies, such as: (i) partnerships with industry and research institutes (ii) organising career fairs and an annual general assembly, (iii) encouraging and training the chapters and working groups to be self-sustaining.

Transparent budgeting. The budget allocations should be adjusted based on the chapter and WG activities. The budget and miscellaneous actions should be monitored



regularly, and the budget caps revamped (if needed). Budgetary allocations should be flexible (to allow for unforeseen projects).

Could you share your impressions from the General Assembly?

This year GA was a huge success, with more than 400 participants for the GA and AC. We had high-quality talks during our opening, keynote as well as parallel sessions. More than 100 posters were presented by Marie Curie Ph.D. students and Postdocs from various disciplines. A new MCAA board was elected. I was delighted to be elected as an executive committee member, as Treasurer. Overall, this year the GA was a great success and it is absolutely fantastic to see from the

increasing number of attendees that more and more active MC Fellows want to stay in touch with the MCAA. See you all @Vienna-2019.



INTERVIEW WITH MURAT GUNES, SECRETARY

Could you say a few words about yourself?

I am the type of person to meet challenges head-on rather than sweep them under the carpet and hope they go away. While I'm an optimistic person, I am also realistic about the current situation. I am hard working and I consistently sets firm goals for myself. Then, once I've defined the benchmarks, I take the necessary steps to achieve those milestones.

Why did you apply for the position of Secretary?

I have had experience of scientific collaboration, volunteered in several associations and organised national and international workshops. I put huge emphasis the importance of the skills needed for such activities and makes me want to share my experiences, which I hope will be of benefit for the MCAA.

What are your priorities for the MCAA for the coming two years?

I believe that career development and recognition can be ensured



by training, outreach activities and networking:

- Supporting Chapters and Members' activities boosting the revenue of MCAA:
- Increasing the number of outreach activities and their diversity;
- Supporting interaction with the public, industry and schools to increase understanding of scientific activities.

Could you share your impressions from the General Assembly?

It was such an amazing atmosphere with more than 500 attendees. Young scientists were all together to meet and share their experiences. The MCAA Working Group presentations were highly beneficial in terms of career development and self-training.



INTERVIEW WITH ZSOFIA BUTTEL, ORDINARY BOARD MEMBER



Could you say a few words about yourself?

I am a final year PhD candidate in the Molecular Microbiology Group of the University of Groningen, developing genetic tools for the production of antibiotics in filamentous fungi. I have been very fortunate that as an Early Stage Researcher in an Initial Training Network I have had the opportunity not only to develop my research skills, but also get valuable insights into working with industry. This has been an invaluable experience that has helped me think about my career in a more holistic way.

I am also a bit of a networking enthusiast — from the very beginning of my scientific career I have actively involved myself in professional and academic associations. This type of volunteering has offered a range of excellent opportunities for both personal and professional development. What can I say — I love science, I love the buzz of the scientific community and I am super driven to learn, grow and leave a positive mark wherever my career takes me.

Why did you apply for the position of Ordinary Board Member?

I passionately believe that scientists should be far more involved in decision-making and that we are responsible for forming public opinion. This is especially true in today's challenged world. That sense of taking action is what attracted me to the role. Besides I'm honoured and proud to be supported by the Marie Skłodowska-Curie Actions.

What are your priorities for the MCAA for the coming two years?

As the Chair of the Financial Affairs Working Group for the past months, I have been working on a financial framework to attract and retain sponsorship and thereby secure the financial sustainability of the MCAA. Over the next two years I would like to continue working on this financial plan and the association's external relations, building industry partnerships and mapping career opportunities for early stage researchers.

A last word for those who elected you?

Thank you for your trust, go science!



INTERVIEW WITH MARIA GORNA, ORDINARY BOARD MEMBER

Could you say a few words about yourself?

I am a biochemist and a structural biologist – I studied in Poland, then did my PhD as a Marie Curie Early Stage Researcher at the University of Cambridge. After 5 years as a postdoc at CeMM in Vienna, I returned to Poland in 2015 as a MSCA Individual Fellow and an EMBO Installation Grantee to start my own group. I am now a junior group leader in structural biology and I lead several basic research and R&D projects related to biotechnology. I alsofounded the MCAA Polish Chapter last year.

Why did you apply for the position of Ordinary Board Member?

I have really enjoyed working for the MCAA community so far — I formed a Chapter and have been attracting members, organising workshops and events. For example, we co-organised the 'Bridging Science and Business' and 'Standing up for Science EU' workshops, as well as the celebrations for Marie Skłodowska-Curie's 150th birthday in Poland. I have met fantastic

and engaged people at the MCAA and I am always delighted by the diverse mix of topics, career paths and nationalities. I am passionate about all things science-related, but mostly about people and matters important to researchers inside or outside of — academia. All of this made me want to continue working for the MCAA and to join the excellent team that makes up the MCAA Board, where I feel I can contribute the most. Incidentally, it also feels fitting to have a Polish scientist called Maria on the Board, and I strive to honour the memory of our eponymous role model!

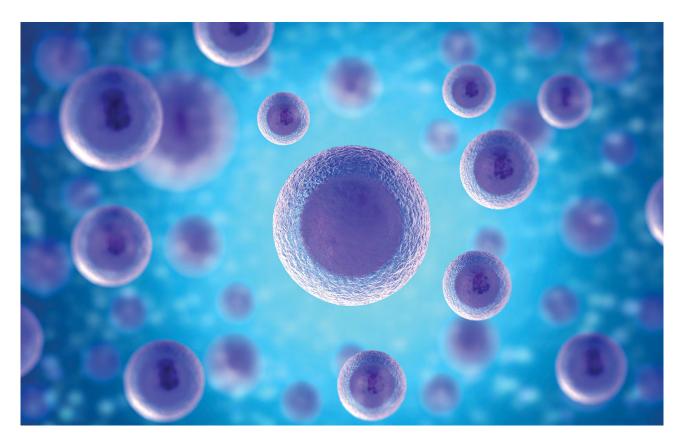
What are your priorities for the MCAA for the coming two years?

I am passionate about the career development of MCAA members and scientists in general, and this encompasses many different aspects. I would like to work on the visibility of the MSCA brand, to initiate and maintain key partnerships with other active organisations, and to create opportunities for continued skills development and networking. I would like to help ensure that we are an inclusive community,

and in particular encourage women in science or business. Throughout my career, I have benefited from various leadership and management courses, secured generous funding, and started my own group. Now I have ideas on how to transfer knowledge gained elsewhere







to improve the training of MCAA members. I would like the MCAA to continue growing as a hub of activities, a hub in which every member can find something to support their career and interests.

Could you share your impressions from the General Assembly?

The General Assembly is the MCAA in a nutshell — it is home to all the different nationalities and inter-disciplinarity that we can be so proud of, on top of scientific excellence and enthusiastic engagement on a variety of topics important for society. The GA complements other more research-focused, specialised conferences enabling us to make unexpected connections

with other fields or science-related activities. This GA was also a very special and emotional experience for me — I had never run in any elections before, and I was touched by the numerous votes, so I would like to thank all members for their show of support!



INTERVIEW WITH RENAUD JOLIVET, ORDINARY BOARD MEMBER

Could you say a few words about yourself?

I was born and raised in Switzerland, although I also hold French citizenship. I did my undergrad in physics, after which I switched to neuroscience. I did my PhD at EPFL in Lausanne, had a brief career interruption, and then went on to be a postdoc in Lausanne and Zürich with short stints in Japan. After that, I moved to London for five years and this is where I did my Marie Curie Individual Fellowship. In January 2016, I returned to Switzerland to start my own lab in medical physics between CERN and the University of Geneva. I now lead a team of five PhD students and postdocs. My main academic interests are brain energy and non-neuronal cells, which I investigate using a combination of computational modelling and cellular neuroscience experiments.

Why did you apply for an Ordinary Board Member position?

My Individual Fellowship allowed me to spend a significant amount of time abroad and these were transformative years. As such, I have benefited hugely from the MSCA programme professionally, but also for my personal development. I have also always had an interest in policy. Being a Board Member allows me to give back through volunteering and having the possibility to shape a small bit of the future of Europe during what appears to be a transition period in modern history. I also hope to gain some valuable experience I can use later in other contexts in my career.

What are your priorities for the MCAA for the next coming two years?

I have been involved in the MCAA mentoring program (MCAA Academy) since its inception and I am really keen on developing this project as I believe that mentoring is too often missing in academia. We have a vast repertoire of skills, positions and experience within our members which could be very effectively tapped into to help young, or more senior, members of our association. This is going to be my personal priority. Separately from that, I believe that we need to take active steps to grow the association and I am keen on exploring new ways to

sustain the association financially.

Could you share your impressions from the General Assembly?

Even though I have been an active member since 2013, I had never attended a GA before. I was very impressed by the number of participants, the level of engagement of our members and the diversity of activities our members participate in. For me this was a very positive experience. I am now looking to participating to the next two GAs during my tenure in the Board.





INTERVIEW WITH NEHAMA LEWIS, ORDINARY BOARD MEMBER



Could you say a few words about yourself?

Hi, my name is Nehama Lewis, and I am Australian with dual Israeli citizenship. Following my doctoral studies in communication (University of Pennsylvania, 2010) and postdoctoral research in psychology (Florida International University, 2010-2012), I was privileged to receive a Marie Curie Career Reintegration Grant. The grant (CIG-333605, 2013-2017) was for investigating the ways in which young adults in Israel and the US engage with information about drugs from media and interpersonal sources (https://cordis.europa.eu/result/ rcn/208746 en.html). In addition, we tested a longitudinal model of the effects of information-seeking on drug use behaviour. The results show that drug-related information-seeking may be an early indicator of greater risk of use.

Besides my involvement in the MCAA, I am a tenured faculty member at the University of Haifa (website and CV), and serve as head of the MA programmes in strategic communication and public relations. My research focuses on the role of the media in shaping human behaviour and draws from communication and psychology (persuasion). I am particularly interested in studying the effects of media (including campaign messages) on health behaviours, such as cancer screening, as well as risk behaviours, such as substance use.

Why did you apply for the position of Ordinary Board Member?

I was a founding member of the Israeli MCAA chapter and chapter chair since 2015. Since 2015, I have also taken part in the MCAA GA and in board meetings in an ex-official capacity. When the op-

portunity arose to contribute from my area of expertise to the MCAA board, I was happy to offer my candidacy. The MCAA is a unique organisation that encompasses academic researchers and scientists working in the non-academic sector from a diversity of fields and backgrounds. I am confident that the new board will help the organisation continue to develop and to serve its members, and am happy to play a role in this process as Ordinary Board Member.

What are your priorities for the MCAA for the coming two years?

Strategic communication between the MCAA and related organisations is a key factor in the MCAA's continued growth and success. The organisation has made great progress in its outreach efforts during the last few years. My priority is to contribute to these efforts by applying my knowledge in strategic communication. Specifically, I aim to identify, implement and evaluate effective communication strategies. These strategies will be used within the MCAA, to facilitate effective communication across work-





ing groups and chapters, as well as enhance the MCAA's outreach activities and collaborations with other scientific and professional organisations.

Could you share your impressions from the General Assembly?

The General Assembly (GA) in Leuven was very successful, and provided participants with an interesting range of sessions, social events, workshops and networking opportunities. I attended the GA in Salamanca (2017) and in Venice (2016) and always feel very much at home. The GA provides a unique forum for meeting researchers from around the world, discussing diverse scientific issues and interests, and learning about different career paths and opportunities. I look forward to next year's GA in Vienna, and am sure it will be as productive and enjoyable as in previous years.



INTERVIEW WITH MARCO MASIA, ORDINARY BOARD MEMBER



Could you say a few words about yourself?

I am Italian, currently living in Germany with my wife and three children. After working in academia for 10 years as Assistant Professor of Theoretical Chemistry at the University of Sassari [http://physchem.uniss.it/marco.masia], I turned to entrepreneurship. I currently advise start-ups and businesses as an Innovation Manager and I also train and coach researchers on innovation and entrepreneurship.

Why did you apply for the position of Ordinary Board Member (after two years as the Vice-Chair)?

With my fellow members on the previous Board, we laid the foundations for the organisation's growth. Over the past two years, we have made important connections with institutions and companies. We have also developed the IT infrastructure of the MCAA, improved internal organisation and initiated many important projects, such fundraising (the book on Marie Curie being the most successful). With collaboration between chapters,



working groups and individual members, we have also rolled out the mentoring initiative, online training courses (mostly provided by Epigeum), and webinar series on policy and business that can be followed on our YouTube channel. We have also created a blog and have organised many local gatherings and events. Since I took an active role in many of these initiatives, I decided to apply to be an Ordinary Board Member to follow them more closely.

I was tempted to run for chair, but I thought that the executive committee needed fresh blood and enthusiasm. I am very happy about the election results. All the people on the board are very motivated and make a great team. Our Excommembers offer supplementary expertise and will work well together.

What are your priorities for the MCAA for the coming two years?

I think that the first priority is to develop the association as a more in-

dependent entity, where members take greater responsibility for its growth and success. This means encouraging members to get more engaged in the life of the Association. The GA in Leuven was a great catalyst for engagement: many working groups and chapters have developed new ideas and activities thanks to the willingness of members to step in and help carry out many initiatives. The new Board will make sure that chapter and working group chairs are empowered and motivated, and it will coordinate and support many initiatives. The most important tasks for the new Board are to develop a sustainable long-term fundraising strategy, to devise standard operating procedures so that the association functions better and to improve communication with members and partners.

Could you share your impressions from the General Assembly?

I think that the strongest impression I had was of the enthusiasm

of the members. Despite a few organisational glitches (something we will address for the next year), people were keen to get involved, to meet other members, and to find out about our ongoing and future initiatives. I could see that people really enjoyed the GA, and look forward to a great GA next year.





INTERVIEW WITH SARA RICARDO, ORDINARY BOARD MEMBER

Could you say a few words about yourself?

I am a scientist in the Life Sciences with an interest in helping to make science fairer and more transparent, and helping it to have a positive impact on people's lives.

A little about my background: after finishing my degree in biology in Lisbon I moved to London where I obtained my PhD in Developmental Biology at the NIMR/ UCL. I then moved to the Skirball Institute/ NYU Medical Centre, to conduct research on the mechanisms of cell migration and lipid signalling in the germline. In 2011 I moved to Barcelona with a Career Track Fellowship to establish my research on the principles of global single cell population behaviour, and on the cell biology of germ cells during development. I received my MSCA grant (a Career Integration Grant) at this time, which together with two other national project grants, was instrumental in developing the research. I joined the MCAA in 2014, joining the board of the Spain-Portugal Chapter in January 2016 and becoming an active member of the Policy Working group in April 2017.



In March 2017, I also co-founded a scientific editing and consultancy service.

Why did you apply for the position of Ordinary Board Member?

The MCAA has grown very much over the last year, both in terms of membership as well as the services and benefits offered to members. Because of this, it has also experienced increased visibility and is developing a reputation outside of the membership. My main motivation to apply was to allow the continuation of the good work developed by the former board and to build on this momentum to continue to deliver benefits to MCAA

members. Within the scientific system, I would also like to give a voice to researchers.

What are your priorities for the MCAA for the coming two years?

Over the coming two years, we will work as a team to: improve operational efficiency; to involve our membership even more; to connect and collaborate with external partners to increase researchers' benefits, and to function as a representative of researchers in policy discussions.

Could you share your impressions from the General Assembly?

I think the General Assembly went well. We had good dynamic workshops and sessions that saw involvement by members and a great deal of interest. There are also some interesting projects being developed in the different working groups. We hope that the General Assembly next year in Vienna will be an even greater success.



MCAA AWARDS 2017: MEET THE WINNERS

As usual, the annual MCAA Awards ceremony took place at the MCAA General Assembly and Annual conference. Who were the lucky winners? Find out below!



Outstanding Contributor Award: KIRAN KUMAR CHEREDDY

"This award is for me the recognition of team work. I am sad to leave the executive committee, it's been a four-year collaboration, but now it is time for me to contribute with my ideas to the new Board." According to the Committee, Kiran contributed to the MCAA more than anyone else in 2017.

Kiran Kumar Chereddy is a manager in strategy and project management office at Novartis Pharma AG (Switzerland) and was the MCAA Treasurer (2016-2018) and an Ordinary Board member (2014-2016).

Career Award:

JOÃO PEDRO MAGALHÃES

"Winning the MCAA Career Award is fantastic recognition of my work and that of my lab and collaborators, further increasing awareness of research on the biology of ageing, and of my work."



João Pedro's extraordinary career to date swung the Committee.

João Pedro graduated in Microbiology in 1999 from the Escola Superior de Biotecnologia in his hometown of Porto (Portugal). He then obtained his PhD in 2004 from the University of Namur in Belgium. Following a postdoc with genomics pioneer Prof George Church at Harvard Medical School, in 2008 João Pedro was recruited to the University of Liverpool. He is now a reader and leads the Integrative Genomics of Ageing Group (http://pcwww.liv.ac.uk/~aging/).

Best Innovator Award: MEITAL RECHES

"It is an honour to receive this award. It means that I utilised the funds I obtained from the MSCA to start something meaningful."

Meital's innovation in 2017 did not escape the attention of the Committee.

Meital, Associate Professor at the Hebrew University of Jerusalem (Israel), is a chemist. She was a student at Tel Aviv University for her undergraduate and graduate studies and then conducted her post-doctoral research with Prof. George Whitesides at Harvard University. She established her own lab in 2010 at the Hebrew University. Her research focuses on the interactions of biological entities with surfaces (cells, bacteria and proteins).

Social Impact Award: TINA MAGAZZINI

"Receiving this Social Impact award means a lot, both on a personal level and more broadly, as an acknowledgement of the role that social sciences can and should play in promoting social justice!"

Tina holds a bachelor in Political Science from the University of Florence, a Master in International Relations from the City College of New York, and a PhD in Human Rights from the University of Deusto, with a secondment at the University of Sussex.

She has worked with diverse NGOs and the European Commission in the areas of social inclusion, policy analysis and minority rights in Portugal, the United States, Guatemala, Belgium and Hungary. After a decade of moving to and from different what she calls 'B' cities (Brooklyn, Brussels, Budapest, Bilbao, Brighton), she is currently based in Harare, Zimbabwe, at UNESCO's Regional Office for Southern Africa.





HONORARY MEMBERS NOMINATED BY THE BOARD

The award recognises member/ non-member and/or organisations for outstanding contributions to the association's development and growth.

Bernard L. Feringa —
Academy Professor
at the Royal Netherlands
Academy of Sciences,
Netherlands, and Nobel
Prize winner

EURAXESS represented by Viktoria Bodnarova, Regional Representative of EURAXESS North America

"This honorary recognition means years of hard work and great collaboration with the MSCA and the MCAA community. I would like to thank MCAA and its members for this wonderful award. I would like to thank the European Commission for financing and supporting this initiative and all my colleagues around the world who are doing a phenomenal job in working with the MSCA Fellows!"

Viktoria worked at the Czech Academy of Sciences for five years as a project manager for national and international projects focusing on the mobility of researchers and their career development. Since 2013, she has been the Regional Representative of EURAXESS North America.

An Jansen, Research Policy Adviser at KU Leuven (Belgium) "I am truly excited about this great honour and recognition given by the MCAA Board! This award means a lot to me, as it shows that our Marie Skłodowska-Curie fellows love KU Leuven and they are happy with the support that they receive. I am very grateful to all my colleagues at KU Leuven for the many efforts they put in to create this supportive environment."

An Jansen is Research Policy Adviser at KU Leuven. Her areas are training and education, career development and the international and intersectoral mobility of doctoral and postdoctoral researchers. She coordinates the YouReCa (Young Researchers' Careers) programme that assists KU Leuven's young researchers in evolving into highly skilled and multifunctional professionals. She is also the KU Leuven expert and first contact point for the Marie Skłodowska-Curie actions.

Selection Committee

- Professor Mário Tristan: Associate Professor at University of Connecticut School of Medicine (Costa Rica);
- Dr Asunción López-Varela: Associate Professor at Facultad Filología, Universidad Complutense de Madrid;
- Bérénice Kimpe: ABG Foundation:
- Dr Edit Székely: Budapest University of Technology and Economics;

- Janos Kriston-Vizi: Chair of the MCAA Grants & Awards Working Group;
- Dana Ghafoor-Zadeh: European Commission Trainee;
- Raffaele Ferrando: Communication Officer at the European Commission.



GETTING STARTED IN PUBLIC ENGAGEMENT

Charlotte Thorley was invited to speak in a session on how to get started in science communication and public engagement. For those who couldn't be there in person, she published a <u>blog post</u>.



The session was very dynamic and informative and was attended by an engaged and curious audience of researchers involved in MSC Actions. They were perhaps drawn by the selection of interesting panel members: Sofie Vanthournout, Director of Sense about Science EU; Dominka Bijos, a medical instruction designer for Delta Kn; and MCAA chair, and our very own Calum MacKichan, MCAA chair of communications

and Publications Officer for the European Plant Science Organisation.

As the discussion was so good, and the questions really important, I thought I'd summarise them in a blog post for posterity! Here goes...

A quick guide to getting involved in science communication and public engagement:

Say yes

Both Dominika and I shared our experiences of getting involved by just saying 'yes' the first time an opportunity came up. The easiest way is to get involved is to say yes to something that someone asks you to do, whether that be speaking to a group of adults one evening, going to a school as part of a careers fair, or writing an opinion piece for a newspaper. This way someone





else is going to do a lot of the organisational work (the teacher, your lab-mate, the university, the editor...). Hopefully it will go well, and you'll be starting on your own engagement journey, but if you don't enjoy it, you don't ever have to do it again. At least you tried!

Try things out

As you get more comfortable with engagement, you can try some new ways to communicate and engage. There are so many options available to you and what you will be good at might depend on all sorts of factors, like the time you have available and your other hobbies, interests and skills. As it turns out, after many years of giving workshops in schools and public presentations, I realised I'm not that great at presenting science, but I am brilliant at managing things, and bringing people together to work on a project together. So now, that's the role I take. You might find that you don't enjoy live radio interviews, but you love to record podcasts, or you really don't enjoy writing for blogs but you do get a lot out of twitter. If you are already in an amateur theatre group, you might like to work with them on creating a play that involves your

research. Having a go is really the best way to see what suits you.

Practice

Good engagement and communication are like any other skills — they take practice. You wouldn't expect a band to go on stage without rehearsing, so why would someone giving a talk do that? Work on your talks, your writing, your presentation skills, your comedy skills, dancing, drawing, whatever you need to make your activity high quality. That way both you and your audience will get the most from it.

Say no

I know, I know, I already told you to say 'yes'. But engagement stops being enjoyable once you are under too much pressure, and certainly for those of you in academia there are already many other pressures on your time. Prioritise what you get involved with based on you interests, time and values, so that you can be at your best. Your public will thank you for it!

The questions...

Many grant applications or job roles now expect me to include public engagement in my work, but it's not something I have much experience with, it's not my thing. What can I do?

Collaborate. Collaboration is the best way to make sure your first ventures in engagement go well. It might be that you can work with others in your department on an

activity they have already set up, or that you might work with an outreach programme from your university or institution that has existing public events, or that you have a friend who leads a dance class who are interested to do something with your work. If you have those other interested and experienced people around you, making something work for you won't be too hard.

Do you think science communication is something every researcher should be made to do?

No. Fundamentally no. Once this work becomes something that is enforced, then the joy will be sucked out of it, the researcher will resent it, and the audience will respond badly. The research, including my own, backs this up. However, I do believe that everyone can find a type of public engagement that works for them with a little help and that academia should have a general culture of engagement that supports this work in order to do its best for society. If you don't have a local public engagement officer or network to help you find what works for you, feel free to get in touch!

What about difficult subjects, such as the use of animals in research? Might we not be at risk if we talk about this; after all, some labs have been attacked.

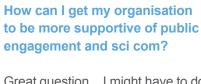
Involving the public in discussions about research is the best way to



counteract the negative opinions on subjects like this. Until recently, research, particularly science, was often done behind closed doors, making it difficult for the public to know why it is done the way it is, and even more difficult to trust the outcomes. Engaged research means that researchers are seen as people, with lives, families, hobbies, and this makes science much more part of everyday life. In turn, this means that the decisions researchers make, such as who to include in a clinical trial, whether to spend money on launching a satellite, to turn on the Large Hadron Collider, or explore the impacts of a new treatment on animals prior to human testing, make much more sense and are more easily empathised with. That's not to say that there won't ever be extremists who take extraordinary actions, but it becomes increasingly unlikely and importantly they won't have public support.

I'd like a career in science communication, but it seems like the competition is high. How can I get my first break?

A tricky one! Keep trying... you will get there eventually. You can improve your chances by contacting the job advertisers ahead of application to learn their values and interests so you can tailor your application accordingly. Include evidence of your activity, such as hyperlinks to videos or websites that include elements of your work, or perhaps send in a portfolio or images to support your application. The three most common mistakes I've come across when reviewing applications are quite simple to avoid and might really help. The first is to remember that there are lots of people out there who do science communication in a variety of ways. I've received hundreds of applications from people who have told me that they are the first person to think of having a fun approach to science for kids, or a science podcast. Take the time to research what else people are doing and frame your experience in that context. I would have been impressed to hear why those people thought their approaches were different from others, or how they built on existing knowledge. Secondly, look up the organisation you are applying to, to find out what they do and how they do it. And as mentioned, ring them up and ask. I've done too many interviews with people who don't really know what we do, or even can't remember the name of the organisation. Nerves and forgetfulness are fine, but laziness isn't. Finally, CV's for jobs outside of academia should be no more than 2 sides of A4. It's not a lot of room, I know, but honestly, if I get 100 applications, I don't have time to read your publication list. Keep the information recent and relevant.



Great question... I might have to do another post about that!

There were more questions, and lots of suggestions for ways you can get involved. Sense about Science is running its #askforevidence campaign, as well as workshops to help you stand up for science. Pint of Science is expanding, and there's maybe a Bright Club near you. Whatever you get involved with, I hope you enjoy it!





"I ATTENDED MY FIRST MCAA GENERAL ASSEMBLY AND IT WAS GREAT!"

An environmental engineer experienced in environmental biotechnology, <u>Sara Johansson</u> currently works on TreatRec, a European Industrial Doctorate (EID) project funded by Marie Skłodowska-Curie Actions (MSCA) programme. She attended the MCAA General Assembly and shared her impressions in an ethusiastic <u>blog post</u>.



I am just back from three intense days in Leuven where I attended the MCAA General Assembly together with my TreatRec colleague Yaroslav. It was a really great experience that far surpassed my expectations; let's be honest, elections of the board did not sound that exciting to me, but the GA had so much more to offer than that! First of all, I met an inspiring crowd of devoted young researchers from different disciplines and, since this is the MCAA, from a vast number of countries. There were also sessions on topics spanning from protection of intellectual property to science communication to how to balance professional and personal life in a research career.

Katia Levecque talked about the prevalence of risk factors linked with mental health disorders among PhD students, a topic she discussed in a paper that attract-

ed much attention last year, but I found even more interesting the approach of Gerard Govers, a professor at KU Leuven and former Director of the Doctoral School of Science and Technology there. He pointed out that research is a difficult process; failing experiments, uncertain outcomes, wrong turns and dead-ends are all part of the development of an idea. Instead of fooling ourselves into thinking that it will be easy, he suggested that we should accept the fact that conducting research is a daunting task and focus on how to deal with disappointment, unexpected results, competition and the difficult interpersonal relationships that are all part and parcel of it.

I was also very impressed by the work of the Policy Working Group, which aims to raise awareness on issues related to science policy. Topics they work on include





Open Science, employability of the current PhD surplus, the limited amount of permanent positions in academia, and academic refugees. One of the speakers highlighted the uneven flux of researchers to and from specific countries. Spain is just one example: the number of early stage researchers leaving is several times bigger than the number of early stage researchers entering. Being one of those, and noticing that I didn't meet a single other Swedish researcher during the meeting, while I on the other hand met several Spanish and Italians and Indians (and a surprisingly large number of Argentinians), underlined this.

Next year the MCAA General Assembly will be held in Vienna and I am already looking forward to going there and I highly recommend that you do too!



CAREER

WELCOME TO THE MCAA ACADEMY!

Has news of the MCAA Academy reached you yet? Francesco Grassi, Marco Masia and Renaud Jolivet have been working hard on making MCAA Members' dreams come true, and they are now proud to present this new programme, designed to support career development.

A new platform bringing together experienced scholars willing to give something back and early career scientists at an important career crossroads, the MCAA Academy can now be unveiled.

Effective mentoring can make a huge difference to a young scientist's career decisions. Whether the goal is to grow within an academic environment or to make a transition towards industry, a trusted mentor can offer invaluable advice and support based on his or her experience. We feel that the MCAA, with over 10 000 Members at different career stages is the ideal environment to establish a tutoring programme, from which a number of MCAA Members will benefit every year.

We are excited to share the news that a year's worth of pilot activities for the MCAA Academy have just begun!

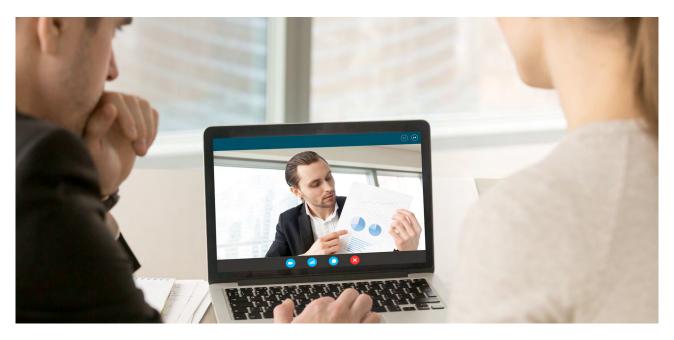
The 'Academy' programme is based on two pillars:

- 1. A yearly tutoring programme in which mentees are matched with mentors following a careful evaluation and the identification of corresponding profiles and needs.
- A €500 microgrant to support any activity linked to a mentee's





CAREER



career development. The MCAA's general accounting rules apply to the spending of this money.

In the first year, 20 mentees are being enrolled and matched to mentors.

In November 2017 we issued separate calls for expression of interest. In the first call, which closed after four weeks, 48 MCAA Members applied to become mentees. A selection was carried out based on the profile and the motivations that moved the candidates to apply to the Academy. We were all impressed by the high quality of the applicants: most share two features: courage and passion. Some applicants are currently experiencing a career gap, and are looking for the next opportunity.

The motivations and questions expressed by the applicant mentees are inspiring the MCAA Academy work team as they prepare for the next steps: 'Should I continue my career as a scientist'? 'How can I

prepare a strong motivation letter'? 'I need to acquire new skills for my career'; 'I would like practical guidance on how to make my career aspirations reality'.

The 20 mentees were announced during the session on mentoring at the 2018 Annual Conference in Leuven, and they are ready to start.

A second call, for mentors, opened in February 2018, immediately attracting over 50 MCAA Members at senior or mid-senior stage level. To maximise the number of profiles available for the matching phase of the project, the call for mentors is open ended. This means that anyone who is willing to share his or her professional experience and who has some time to devote to mentoring early-career Members, can still apply at https://www.marie-curiealumni.eu/form/mcaa-acade-my-call-mentors.

Mentors and mentees will hold regular online meetings and will

have access to additional resources such as training modules and webinars. An impact assessment will be performed at the end of the first year. Moreover, we plan to make the Academy a gateway to a broader community of mentors and mentees engaged in similar programmes elsewhere to maximise the benefits and the networking opportunities for both mentors and mentees.

What's next for the MCAA Academy, I hear you ask. Well, we plan to complete the matching phase by the end of March, and then the programme will enter its operational phase.

FRANCESCO GRASSI



CLIMATE CHANGE

THE 2017 HURRICANE SEASON: EXCEPTION OR NEW TREND?

The Atlantic was never far from weather maps during the 2017 hurricane season. Last summer, 'Harvey', 'Irma' and 'Maria' all caused major damage in the Caribbean, as well as in the United States (more than 300 killed, plus billions of dollars' worth of damage). After gaining strength and becoming a category 3 hurricane, Ophelia also became the Atlantic's easternmost major hurricane on record.

This season raised numerous questions: is climate change responsible for this intensity? Can the 2017 hurricane season be considered an exception, or is this the start of a new trend?

We put these questions to Riccardo Biondi, expert in extreme atmospheric events.

ABOUT RICCARDO BIONDI AND THE (GEO)SCIENCE COMMUNICATION SCHOOL

"I focus my research activity on extreme thunderstorms, tropical cyclones and volcanic eruptions, which have several common characteristics (other than the destruction that they usually bring): their physical structure, the way they impact on climate, and the way used to monitor and detect them."

To enhance communication between all those sectors, Riccardo created the International (Geo)Science Communication School for scientists working in these fields and connected sectors (i.e. air traffic management, meteorology, volcanology, aircraft crews, modellers). It is intended to train a new generation of researchers so that they understand all the processes linked to extreme clouds and their interconnections and are aware of the needs of final users (e.g. pilots, air traffic managers, policy-makers).

This school attracts researchers of all ages from all over the world.

Interested? Contact the school here.

An unusual season over the Atlantic Ocean

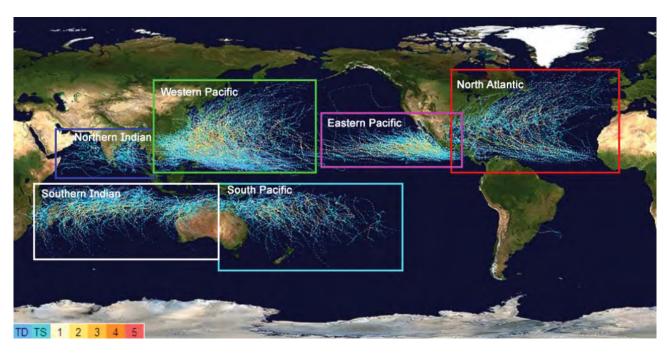
According to Riccardo, the hurricane season was certainly unusual over the Atlantic Ocean in 2017. There were several hurricanes over the Caribbean Sea and 'Ophelia' developed as tropical storm before

suddenly going north (to Portugal and Ireland) instead of following the 'usual' hurricane tracks. But how records are measured is important: "Other seasons this century (2004 and 2005) and during the previous one (two of them before the Second World War) were comparable or more active than 2017." Riccar-

do says that there are differences between the pre -and post-satellite era: "Before satellites, it was much harder to collect information about hurricanes (they develop in remote areas) so the consistency of archived data must be weighted by taking in account all the uncertainties."



CLIMATE CHANGE



Global warming is not acting alone

Even though global warming could appear as the main culprit in explanations as to why such phenomena are developing, Riccardo highlights the complexity of all the parameters involved: "So far, there is not any evidence of increase in frequency or intensity of tropical cyclones (or hurricanes) apart from future projections based on models. Nobody can say at the moment if climate change is influencing the development of tropical cyclones, it theoretically could, but the statistics are not highlighting anything,



yet." He adds that tropical cyclones can also be connected to climate change in another way: "they in fact can alter the climate by injecting water vapour and other aerosols at altitudes where they are not usually present (or they are present in small amounts)."

Accumulated Cyclone Energy (ACE)

The parameter 'Accumulated Cyclone Energy' measures the strength of hurricanes and tropical storms over their duration. It allows meteorologists to compare different storms and seasons. According to this parameter, the hurricane season 2017 was the 10th most active since 1851, explains Riccardo, with the highest number of hurricanes (three) surpassing a value of 40 (threshold overpassed just 25 times since 1950). 'Irma', in terms of accumulated energy, was the second most powerful hurricane since 1851. "Again, please always remember the uncertainties given to different instruments available in this long period!" he reminds us.

However, hurricanes represent a small percentage of events called tropical cyclones that develop in all the ocean basins. The distribution of these phenomena can be seen in the following map (Biondi et al., 2015) where the hurricanes are in the red box.

Riccardo explains: "much of the total Accumulated Cyclone Energy comes from the Pacific Ocean, especially from the western part, where in general the cyclones are more intense and they reach higher altitudes. The tropical cyclones are characterised by strong horizontal and vertical winds. The horizontal ones near the surface. are what we usually measure and 'feel', but the vertical winds are also important because they produce vertically larger cyclones, bringing a lot of air from the ground to the higher layer of the atmosphere (stratosphere)".



CLIMATE CHANGE

What's next?

Even though it is still difficult to extract some trends from current data, Riccardo says that according to certain model predictions, we could see more extreme hurricanes in the future. Nevertheless. he underlines how hurricanes (and in general tropical cyclones) are very important for the equilibrium of our planet, and help maintain atmospheric circulation. Therefore, the challenge for policy-makers should be to focus on better forecasting, improving early warning systems, better evacuation planning and more resistant buildings and infrastructures, so as to save lives.

Further reading

If you would like to see the data for yourself, Riccardo strongly recommends the <u>National Hurricane</u> <u>Center</u> website, which displays data in a way that is also accessible to the general public.



HURRICANES IN A NUTSHELL

Hurricane:

Hurricanes are large, swirling storms. They produce winds of 119 kilometres per hour (74 mph) or higher.

Types:

There are five types of hurricane. They are measured according to the Saffir-Simpson Hurricane Scale, which uses wind speed.

- -Category 1: Winds 119-153 km/hr;
- -Category 2: Winds 154-177 km/hr;
- -Category 3: Winds 178-208 km/hr;
- -Category 4: Winds 209-251 km/hr;
- -Category 5: Winds more than 252 km/hr.

Steps: A hurricane starts out as a **tropical disturbance**. Something like a thunderstorm develops over warm ocean waters.

A tropical disturbance sometimes grows into a **tropical depression**. This involves rotating thunderstorms with winds of 62 km/hr (38 mph) or less.

A tropical depression becomes a **tropical storm** if its winds reach 63 km/hr.

A tropical storm becomes a hurricane if its winds reach 119 km/hr.

Source: NASA



EVENT

EDINBURGH FRINGE FESTIVAL: WE NEED YOU!

Have you heard of the Edinburgh Fringe Festival? Try to imagine an explosion of creative energy from around the globe! The good news is that the MCAA will be there this summer and needs creative people like you! <u>Valentina Ferro</u>, MCAA Vice-Chair, has the lowdown.



Edinburgh is a magical city, with its castles, evergreen meadows, and hidden courtyards. But it is during August that this place really flourishes: this is when the Edinburgh Fringe Festival takes place, the world's largest art festival. The Fringe lasts for about 25 days and hosts more than 50 000 artists performing in more the 300 venues around the city. There is something for everyone: from live music and dance to start-up comedy, and from improvisation to drama and physical theatre. The population

of Edinburgh doubles and the city is splashed with colour and joyfulness; the atmosphere is multicultural, and visitors are intrigued and surprised in equal measure.

Having lived in Edinburgh for the last four years, I have noticed an increasing interest in shows about research and academia. Scientists on stage communicate about their research in a funny and engaging way and academics share their stories of struggle and success. For this reason, the Fringe represents a great opportunity for every researcher with a passion for outreach, and a career boost for those already working in science communication. Furthermore, the Fringe represents a great opportunity for MCAA members.

One common trait among Marie Curie Alumni is an interest in communication and dissemination, whether they want to learn more or are already experienced performers. It seems only logical to propose the most popular stage in Europe. For the Fringe 2018, the Communication WG is planning five performances in the second week of August, allowing a maximum of 15 members to take to the stage for between 10 and 15 minutes. Accommodation will be pro-

vided for the performance days. If you play an instrument, if you like to tell jokes using a mike, if you know a good experiment to perform on stage, send us an e-mail for more information: wg-com@mariecuriealumni.eu.

Most importantly, if you too believe that "science has great beauty", as Marie Curie did, wouldn't you want to share it with the whole world?

More information about the 2018 Edinburgh Fringe Festival

Interested? Contact wg-com@mariecuriealumni.eu

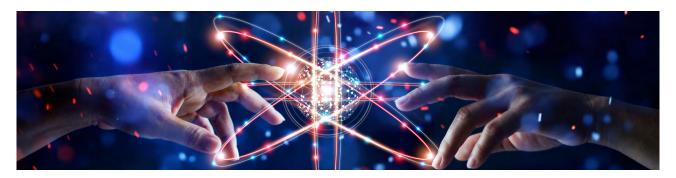
VALENTINA FERRO



EVENT

THE MARCH FOR SCIENCE MOVEMENT CONTINUES IN 2018

<u>Calum MacKichan</u>, Chair of the <u>MCAA Communication Working Group</u>, tells us why the March for Science movement is important and what is planned for this year.



Last year the March for Science represented one the largest mobilisations of scientists in history as over one million people are estimated to have marched in over 600 locations across the world.

The movement started in the United States, where concerns about the scientific policies of Donald Trump provided the impetus. The choice of World Earth Day on 22 April was symbolic following the withdrawal of the USA from the Paris Agreement and major cuts in funding to numerous agencies with scientific roles, including the Environmental Protection Agency.

After the March in Washington was announced, events were quickly initiated worldwide, including many with the involvement of MCAA members. The marches highlighted a series of issues, including failures in evidence-based policy-making, cuts in research funding, impingements on academic freedom, and

an increasingly post-factual media. The outgoing MCAA Chair Brian Cahill recently wrote about his experience and motivations for getting involved in the March in Göttingen in a blog for Euroscientist. He outlined the case of an Iranian MCAA member who was unable to give a scientific talk due to the travel ban imposed by the Trump administration, clearly opposing the values of the association as a mobile community of global researchers. He concluded by stating that he has "become convinced that researchers must become more active in defending fact-based policy-making".

This year the March for Science will take place on 14 April and MCAA members are active once again, involved in many of the more than 70 satellite events that have already been announced.

Whilst the overall number of events and attendance may be lower this

year, the long-term impact of the March for Science may be the connection of likeminded people in clusters across the world who are now organising more sustained and targeted efforts to involve science in policy-making. For example, in July the Keep On Marching event in Berlin united March for Science organisers from numerous locations in Europe. They discussed ongoing projects, including the Science-O-Mat, a project that defined the position of the main German political parties on scientific issues before the national election.

The movement has given a platform and a voice to researchers, leading to heightened political awareness of scientists across the world. This voice can be vital in times of political uncertainty.

CALUM MACKICHAN



IPCHAIN DATABASE: REVOLUTIONISING THE PROTECTION OF SCIENTIFIC RESEARCH



IPCHAIN

All academic research relies primarily on cost-effective intellectual property strategies. Through the strategic disclosure of an invention, competing researchers and corporate developers are effectively precluded from obtaining a patent on the innovator's idea. This established concept of defensive publication will soon be revolutionised through the use of IPCHAIN Database's Blockchain technology. Traditional defensive publication in peer-reviewed journals requires a great deal of time and additional work and thus may pose a legitimate risk for researchers keen on quickly protecting their continued freedom to operate. Submitted articles take time to write, often take months to get published and are always at risk of being rejected by the journal. From the time of inception to the eventual publishing of the invention, there is no protection for the scientist's intellectual property; despite the fact that they may share that information with others. The IPCHAIN Database directly addresses and effectively solves this problem.

The IPCHAIN Database (www.ipchaindatabase.com) is based on decentralised Blockchain technology, and as an incorruptible digital ledger, will change the way defensive publication is achieved in the context of scientific research. By adhering to the standards and international classification guidelines set forth by the World Intellectual Property Organisation (WIPO), IPCHAIN Database publications, which are considerably easier and faster to file, can be used as definitive proof in legal proceedings, and therefore qualify as prior art in the eyes of patent offices around the world. By using the IPCHAIN Database, the scientist effectively prevents other parties from obtaining a patent on his or her invention, and can even defend existing patents by using the ICPHAIN Database for the defensive publication of incremental innovations. In countries that use the so-called first-inventorto-file system (FITF), such as the United States, the Russian Federation, Japan, Canada, South Korea, Australia and many others, the discloser can also profit from a grace period during which he or she may file a patent.

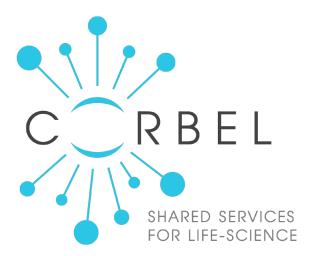
The IPCHAIN Database works in conjunction with traditional defensive publication in scientific

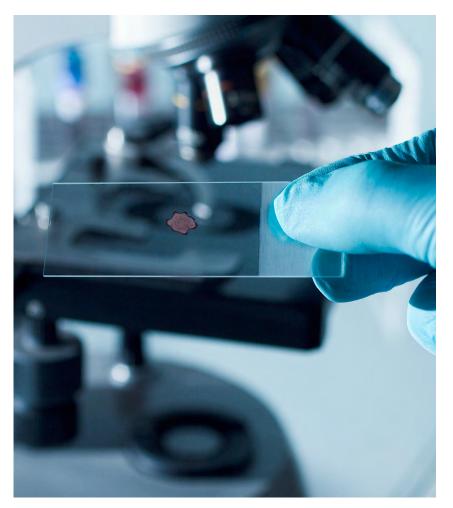
journals or on its own. The scientific advantage of one's innovation being featured in a peer-reviewed journal has led the IPCHAIN Database to devise an optional rating option. This allows for published authors in their respective fields, as proven experts, to give feedback on the innovation's relevancy, form, and content. This ensures that the IPCHAIN Database is able to offer all the advantages of traditional defensive publication without any of its inherent risks.

For more information on better protecting your innovations, please visit www.ipchaindatabase.com



OPEN CALL FOR ADVANCED RESEARCH PROJECTS





Partners in the EU-funded CORBEL project have launched an **Open Call for Advanced Research Projects**, offering all scientists in Europe – whether working in academia or industry – a unique opportunity to accelerate their research.

Project proposals should request access to at least two different research infrastructures. CORBEL will fund the service providers and will also cover travel and accommodation costs.

Supported by the Open Call project managers, successful applicants will be offered open access to cutting-edge technologies and services available from more than 20 service providers at 10 European research infrastructures.

Apply now! www.corbel-project.eu



BOOST YOUR RESEARCH WITH OPEN ACCESS SERVICES & TECHNOLOGIES



How research infrastructures can support your projects

Funding, access to technology and expertise, building new collaborations and developing multidisciplinary projects are only a few examples of the challenges faced by scientists. Thankfully, there are an increasing number of tools and resources being developed to help overcome some of the bottlenecks

in research. Biological and Medical Sciences' (BMS) Research Infrastructures fall into this category'. These resources offer open access services to tools and technologies with the sole aim of supporting the progress of innovation and excellent research. This article gives a practical overview of how to take advantage of the opportunities offered by BMS Research Infrastructures.

Euro-Biolmaging: the BMS Research Infrastructure for imaging²

A huge range of research projects require some sort of imaging input. Many researchers are often faced with the challenge that the state-of-the-art equipment and technical expertise required to perform advanced imaging is not available at their home institute.

² https://www.eurobioimaging-interim.eu/

¹ http://www.corbel-project.eu/services.html



This is exactly what Euro-Biolmaging aims to overcome and support — this research infrastructure was built to break down the barriers associated with biological and medical imaging. Euro-Biolmaging is a European-wide network of 29 imaging facilities (also known as, Nodes) offering a selection of 36 distinct imaging technologies. Euro-Biolmaging offers the following open access services:

Access to cutting-edge imaging technologies: whether you are interested in imaging molecules, cells or organisms, Euro-Biolmaging offers access to the latest imaging technologies to allow you to generate innovative results.

Expert training and support: each Node is staffed with personnel who can provide the support required to maximise the output of your research project. Guidance is available for all aspects of the imaging pipeline, from study design to image capture.

Image processing and storage: data storage and analysis re significant problems considering the large and complex datasets generated by imaging technologies. Euro-BioImaging can help extract meaningful conclusions from your data and, through tools such as Image Data Resource³, can give you the means to store and disseminate your data.

All life scientists, from academia to industry, across Europe and beyond, can access Euro-BioImaging services. Click here to apply.

Currently Euro-Biolmaging can

support user projects (costs related to travel and access) when they come in via the iNEXT project (http://www.inext-eu.org/) or the CORBEL project. Read on to find out more......

CORBEL's Open Call for Advanced Research Projects

In addition to Euro-Biolmaging, there are 12 other biological and medical Research Infrastructures in Europe. These 13 research infrastructures are currently working together via the CORBEL project, which aims to harmonise access to the plethora of services available across Europe.

The CORBEL project partners are now pleased to announce their second Open Call!

For this Open Call, more than 20 European facilities from 10 different research infrastructures across Biological and Medical Sciences have joined forces and combine their technologies and scientific expertise to support advanced research projects. Applications can be submitted online with an open-ended deadline. Successful applicants will be offered up to €5 000 to access cutting-edge technologies and services available in fields such as biobanking, translational medicine, clinical research, curated databases, systems biology, mouse mutant phenotyping, marine model organisms, advanced imaging technologies, high-throughput screening, or structural biology. Click here to find out more about the call and submit your application.

To help you prepare for this opportu-

nity you can also visit the CORBEL Catalogue of Services. This easy-to-use tool aims to help life scientists to easily view, understand and access the main services of the 13 research infrastructures.

Follow @EuroBioImaging and @ CORBEL on Twitter for the latest news, updates and funding opportunities.

³ https://idr.openmicroscopy.org