

April 2020 NEWSLETTER



We welcome the new Board which will steer the MCAA for the next two years. Nearly 500 members voted online on 27-28 March for the Executive Committee and Board. They bring a wealth of experience from a diverse range of disciplines. Read our special coverage.

Around the world, universities, research institutions and laboratories have closed because of the COVID-19 pandemic, slowing the work of scientists. How are researchers tackling the crisis?

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MESSAGE FROM THE BOARD

Dear Members,

As we face the challenges of the COVID-19 global pandemic, I truly hope that you and your loved ones are safe and healthy.

We are grateful to the members who are fighting in the forefront of this unprecedented crisis within healthcare systems, research institutions, pharmaceutical companies and other essential service organisations. And our thoughts are with those many who are personally affected. This is a moment to support each other, work together on innovative solutions and use our research in response to COVID-19.

Therefore, we ask you to please consult <u>this page</u> on the MCAA portal if you feel that you could support the fight against the COVID-19 pandemic.

If you are affected by this crisis and need help with your travels, please refer to <u>EC guidelines on EU passenger rights</u>.

In better news, while we have all been facing these challenges and thanks to the effort of the Election Task Force, the MCAA election for the new <u>MCAA board</u> has taken place at the end of March 2020. You will find more information about the newly elected board members in this newsletter. I am happy to introduce the new board to you:

EXECUTIVE COMMITTEE MEMBERS

- Mostafa Moonir Shawrav, Chair
- <u>Valentina Ferro, Vice Chair</u>
- <u>Fernanda Bajanca,</u> <u>Vice-Chair</u>
- Francesco Sanna, Treasurer
- <u>Marina Rantanen Modeer,</u>
 <u>Secretary</u>

AND ORDINARY BOARD MEMBERS

- <u>Alexandra Dubini</u>
- Donata landolo
- Ana Lopes
- Sara Ricardo
- Karen Stroobants
- Esther Volz

It is a privilege being able to thank the outgoing board members for their wonderful contributions throughout the last two years. Particularly, its quick and timely decisions to cancel the Annual conference, thereby mitigating negative consequences and prioritising our members' safety.

It is, however, regretful that our flagship event could not take place this year as planned. The MCAA Annual conference is important to us as it is the opportunity for members from 140+ countries to meet, exchange, discuss, debate and learn together. Especially, following the success of <u>last year's conference</u> in Vienna, we have been looking forward to providing training opportunities, thought-provoking discussions and networking opportunities with partners. As an alternative, we are discussing potential options to hold a virtual conference before September 2020. Please check our website and social media regularly for updates.

In the upcoming months, the new board would like to focus our efforts on the following issues:

Internal Governance and Financial Stability: As an international nonprofit organization, it is essential to professionalize the internal workflow and governance of the association and ensure financial stability. Some targeted ideas and options are already set in motion, which we would like to coordinate with all chapters and working groups.

Policy: We have close to 15K members from 140+ countries. There are issues and challenges common to these researchers. As the representing organization, we want our members' direct participation within the decision making process and policy development that impact them. For example, currently the MCAA board is supporting the petition aid extensions of MSCA projects following disruptions caused by the COVID-19 pandemic. You can read the interview of Alejandro Manzano Marin, who is coordinating this effort, in this newsletter. In addition, you can read the statement of MCAA on this issue, prepared by the Policy working group.



MESSAGE FROM THE BOARD

Career: What we plan for our members in this particular area is "customized support". Researchers at different stages of their career will be provided with different training, online courses, peer-to-peer and peerfor-peer support, and overall assistance according to individual needs.

With these goals, we invite our passionate members to contribute and join in the future development of the association. You can get involved by joining the <u>working groups</u> that interest you or match your expertise the most, or participate in the <u>local</u> <u>chapters'</u> activities. Please share your thoughts and give us feedback.

I would like to express my heartfelt thanks to the MCAA members for their trust in electing me and the new board members. I look forward to working with the newly elected board, external and internal stakeholders and our volunteers to advance issues of importance to our members and to society. Finally, I hope that we will all meet again next year and that you stay safe in the meantime.

Thank you very much for your contributions.

MOSTAFA MOONIR SHAWRAV MCAA CHAIR ON BEHALF OF THE MCAA BOARD

Cancellation of the 7th MCAA Annual Conference and General Assembly

As our members have been already informed, the 7th Annual MCAA conference and General Assembly, scheduled for 28-29 March, was cancelled due to the COVID-19 outbreak. The Task force for organising the Conference and General Assembly were closely monitoring the situation with the COVID-19 outbreak from February and were in daily contacts with the Epidemiology Centre in Zagreb, Headquarters of Civil Protection of Croatia and newly established National Emergency Centre.

As situation with the outbreaks developed form the mid-February and more countries were introducing measure of quarantine and restrictions of travels, and under the strong recommendations of the Headquarters of Civil Protection of Croatia on 4 March to cancel the conference, we had no option but to follow the advice. It was not an easy decision to make, since local task force in Zagreb, together with the Board members were preparing the conference for a long time and the organisation was mostly finished.

However, safety of our members and participant of the conference was our main concern, as well as advices from Croatian authority. However, due to the Election of the new Board members and Associations' obligations toward the Article of Association, as members were informed, the Elections this year were online.

I would like to thank all our members who have planned to come to Zagreb, our speakers and sponsors and partners for their understanding and cooperation.

We, in the local task force for organisation of the 7th Annual MCAA Conference and General Assembly, are still hoping to welcome you in Zagreb later in 2020 or in 2021.

Dr Maja Mise Chair of the Local Task Force for GA 2020



PARTNER

ARE YOU LOOKING FOR CAREER OPPORTUNITIES IN BIOMEDICAL RESEARCH?

COME MEET US AT OUR MSCA-IF BOOTCAMP CHECK OUR OPEN OPPORTUNITIES <u>HERE</u>





IF YOU WANT TO PURSUE A CAREER IN EXCELLENCE SCIENCE WHILE IMPROVING PATIENTS' HEALTH, IDIBELL IS YOUR PLACE

The Bellvitge Institute of Biomedical Research (<u>IDIBELL</u>) is one of the most dynamic health research institutes in Barcelona, Spain. Striving to attain significant improvements in human health, it boasts more than 800 researchers in the fields of translational, clinical and epidemiological research. IDIBELL is a member of the International Campus of Excellence of the University of Barcelona HUBc. It is also part of the CERCA institution of the Generalitat of Catalonia.

IDIBELL is a joint research initiative that manages the research activities of researchers at the University Hospital of Bellvitge, the Catalan Institute of Oncology, and the University of Barcelona-Bellvitge Campus. The research carried out by IDIBELL is structured in four areas: cancer, neuroscience, translational medicine and regenerative medicine. There are also about 70 research groups, which are organised into nine programmes. IDIBELL is the proud recipient of the "HR Excellence in Research" logo from the European Commission. We greatly value emerging talents, and we are continuously enlarging our research community.

WE ARE CURRENTLY LOOKING FOR EXPERIENCED RESEARCHERS INTERESTED IN SECURING A POSTDOCTORAL MSCA-IF FELLOWSHIP



PARTNER GERMANY'S SOUTHWEST IS TOP IN EU RESEARCH FUNDING



Baden-Württemberg

The German Southwest.

With **18 of 52 Consolidator Grants**, Baden-Württemberg, Germany's Southwest, is the most successful country in the EU Research Council's Europe-wide competition. This is clear evidence of the excellence and innovative power of the researchers and of the best research conditions in the state.

The result puts the state at the top of the German states, well ahead of Bavaria (twelve) and North Rhine-Westphalia (seven). Consolidator Grants offer outstanding scientists the opportunity to raise up to two million euros for a research project lasting up to five years.

18 applications from universities and research institutions in Baden-Württemberg were successful in the sixth call for proposals of this funding line in the EU programme for research and innovation "Horizon 2020" (2014-2020). Among the awarded institutions is the <u>European Molecular Biology</u> <u>Laboratory (EMBL)</u>, one of the world's leading research institutions, and Europe's flagship laboratory for the life sciences. Founded in 1974, EMBL is an intergovernmental organisation with more than 80 independent research groups covering the spectrum of molecular biology. It operates across six sites: Heidelberg, Barcelona, Hamburg, Grenoble, Rome and EMBL-EBI Hinxton.



The main laboratory is located in the beautiful city of Heidelberg in the German Southwest. It was inaugurated in 1978 as the first EMBL facility dedicated to basic molecular biology research, technology development, service provision and advanced training. Today more than 800 staff members work at EMBL Heidelberg, in services and administration, in a truly international, innovative and interdisciplinary environment, and across five research units:

- Cell Biology and Biophysics
- Developmental Biology
- Genome Biology
- Structural and Computational Biology
- Directors' Research

Get to know the <u>outstanding</u> researchers who have been awarded funding across the different ERC core grant schemes during their time at EMBL.

The EMBL is one out of more than 100 research institutions in Baden-Württemberg.

Baden-Württemberg is proud to be this year's partner for the MCAA and its members.



Find out more about career opportunities in Baden-Württemberg on www.bw-career.de.



SPECIAL COVERAGE MCAA BOARD ELECTIONS NEW BOARD ELECTED IN FIRST-EVER

In an unprecedented move, nearly 500 members voted exclusively online on 27-28 March for the Executive Committee and Board that will govern the MCAA for the period 2020-2022.

Outgoing Vice-Chair Mostafa Moonir Shawrav was elected to serve at the helm of the MCAA for the next two years. A member since 2013, he was a founding member of both the Austrian Chapter and the Research Funding Working Group.

As vice-chair, Mostafa led the sponsorship team that generated nearly a 300 % increase in revenue, established synergies between

MCAA Chapters and Working Groups, collaborated with multilevel stakeholders (e.g. European Commission, AAAS, UNESCO) and represented the MCAA in international events (e.g. World Science Forum). His organisational efforts helped make 2019's MCAA GA & Annual Conference in Vienna an overwhelming success. Mostafa is also the first recipient of the 'MCAA Alumni of the Year' award.

A VISION FOR FUTURE NEEDS AND CHALLENGES

As the new chair, Mostafa has laid down a vision that centres around three specific strategies: financial sustainability, capacity building and policy development affecting researchers' lives. "For an international non-profit to run properly, it's essential to achieve financial









sustainability," he says. "I'd like to generate revenue by organising workshops, partnerships and projects with international organisations, fundraising events and donations."

"In building capacity for the MCAA and its members, I want to offer more professional and career development training opportunities," Mostafa continues. "As a result, both the association and members can exploit the learned skills and strategies to adapt to the constantly changing industrial world and the uncertain academic environment."

Detailing his plan, Mostafa says, "In terms of policy, I propose to conduct systematic studies and surveys to measure the impact of researcher contributions and career issues." These studies will "help the MCAA to work with regional and national organisations, funding agencies, academia and industry on issues impacting researchers' situations," he explains.

"I want to shine a light on issues representing gender, diversity and under-represented groups. Let's move forward together!,

MEET THE EXECUTIVE COMMITTEE VICE-CHAIRS

Fernanda Bajanca

Policy Working Group Chair (2017-2019)

"My main goal is to cement this bottom-up approach as the internal working culture of the MCAA. Adding both my MCAA and professional management experience, I believe that I'll bring added value to the board, specifically focusing on strategic planning administration, HR management, alumni engagement and internal policy development."

Valentina Ferro

MCAA Vice-Chair (2018-20) Scotland Chapter Founding Chair

"I want to continue playing a role in helping individuals explore new career opportunities, both because of the meaningful relationships they established through the MCAA and because of the new creative possibilities they are exposed to when participating in this rich community."





TREASURER

Francesco Sanna Original MCAA Board Member Head of Events and Network General Interest Group

"I wish to implement all the acquired knowledge in finance and management and to make full use of my international experience in different types of environments for the benefit of the MCAA and its researchers."

SECRETARY

Marina Rantanen Modeer German Chapter Chair

"I aim to further support MCAA activities and develop the communication with, and outreach to, our members. I'm also particularly interested in contributing to discussions on Open Science and stimulating more collaborations between academia and industry."

ORDINARY BOARD MEMBERS





SPECIAL COVERAGE MCAA BOARD ELECTED CHAIR TALKS ABOUT ESSENTIAL CHANGES

The MCAA has come a long way since it was founded eight years ago, and its future looks brighter than ever, according to newly elected chair Mostafa Moonir Shawrav. His goal is to leverage synergies to promote growth and capacity building.



If diversity is key to growth in today's global arena, the Marie Curie Alumni Association (MCAA) is in excellent shape. The MCAA is teeming with diversity of thought, perception, background, and experience.

Newly elected chair Mostafa Moonir Shawrav is attuned to this. He understands first-hand how important it is not only to celebrate MCAA's diversity, but also to make the most of it. Harnessing the power to create synergies will be one of the new chair's top goals during his two-year term.

"Just look at the diversity of our association," says Mostafa. "We have members from 143 countries. There are very few organisations with such an impressive number of members representing so many nationalities."

MCAA's diversity is not just about its geographical and cultural dis-

tribution, it is also about research coverage. The association boasts a diverse community of researchers exploring almost every branch of knowledge.

"While this may also be a challenge, it is also an opportunity for the MCAA," notes Mostafa. "I see it as an opportunity to work as a community on some of the most pressing global issues and to become a leading voice calling for collective and organised work on those issues."

Diversity is clearly a big buzzword for the new board. For the first time in MCAA history, women outnumber men on the board. "Having nine women on the board is brilliant," says Mostafa. "It clearly shows how diverse the association is and how much MCAA members value diversity. It is the first time I feel very glad to be in a minority position!"







GROWING IN NUMBERS, BUILDING CAPACITY

The MCAA is growing. According to Mostafa, growth can be seen not just in the number of members (currently more than 14,800) but in the breadth and depth of the association's activities. As such, capacity building is vital for the future of MCAA in empowering members to realise their full potential.

"The MCAA needs to be selfsustainable in terms of management and finances," explains Mostafa. "We will work to develop and coordinate efforts with all our Chapters and Working Groups about how to raise funds, and how to generate revenue through workshop and training services, as well as to secure funds through successful project proposals."

"It is important for the MCAA to have in place a regular revenue

generating system and to become more structured in terms of internal management and policy," he adds.

Drawing on the different strengths and expertise of the members is a vital key to achieve this goal. This is why Mostafa is eager to encourage members to get involved. "We will open the volunteer calls for different working groups or different topics," he says. "It is important for members to get involved. This is an association run by volunteers."

Mostafa also stresses that his door (that is, his email inbox) is always open. "If you want to contribute on any issue, please let us know. We are always in listening mode! We want to hear from members. We want to hear your suggestions."

Fundraising is just as important as volunteers and something that Mostafa will actively promote during his tenure as MCAA chair. A presentation he prepared for this year's General Assembly (cancelled due to the COVID-19 outbreak) will be repackaged as a webinar.

"When we talk about fundraising, we cannot just ask people to start raising their own funds," says Mostafa. "First, we need to provide the proper infrastructure and support. We need to train the brain. This is why I am currently planning a fundraising training programme. The full training was offered already at the General Assembly. It is a wonderful programme on alumni relations, fundraising, non-profit leadership, and effective communication."

"Unfortunately, this was not realised," he adds. "So, I am now working to prepare a webinar for our members and chairs."

SUPPORTING MEMBERS

As vice-chair in the previous board, Mostafa was in contact (directly or indirectly) with probably all MCAA members. This means he has an excellent sense of what members expect from the association, which can be integrated with the results of the Europe-wide survey that was done some time ago to identify the most common challenges that MCAA members face.

"Some members want more career development opportunities and others are looking for more networking opportunities," says Mostafa. "Overall, I believe our members want support. When they are looking for opportunities or find themselves in a stressful situation, they turn to MCAA for assistance."



Career development is certainly at the top of Mostafa's two-year agenda. Offering members additional career development opportunities is on the horizon. Mostafa, who organised a workshop on this topic at the World Science Forum last year, says he is keen to take the MCAA to the next level on this topic. His motto is to provide a customised solution for the assessed individual needs of each member.

Not surprisingly, mentoring is also a big part of Mostafa's vision. The MCAA Academy, which has been established by previous boards, will increasingly become key towards this goal.

Career assessment is also crucial in the landscape of Open Science. "We will closely work with the European Commission, as well as with the national governments on policy level in this direction," explains Mostafa. "I have already planned a meeting with the researchers who are affected by Covid-19 and we will ask the European Commission to offer adaptability and flexibility for the MSCA projects. We will always be the voice of the MCAA researchers and will contribute to their development," he adds.

Regular evaluation and monitoring will also be part of the strategy of the association, as Mostafa plans to open a Survey Working Group and will ensure the setting up of systematic surveys to measure the impact of the association's programmes. Depending on the results, action will be adjusted accordingly.

A GROWTH MINDSET

Mostafa is keen on taking on new initiatives for the MCAA. He explains the principles of his leadership style: "I believe in enabling people to maximise their potential. I would like to do the same for our board and our chapter chairs. I would like to give them the autonomy, the freedom and the support so that they can do what needs to be done."

To enable the autonomy of the MCAA Board members, effective communication is of paramount importance. "Our structure is complex, as we have internal and external stakeholders like the contractor. the European Commission, our chapter chairs, our members and volunteers and even external partner organisations," says Mostafa. "This complicated structure is neither top-down, nor bottom-up. It is a rather complex organism with up, down and parallel branches with different allocation of tasks and authority where specific components react and respond in their unique way. So, the communication and decision-making process is not so straightforward. Changing or creating a protocol when necessary is even more challenging. But what the MCAA has already done is to prove that we are committed to our response-ability"

"I believe we have shown our capabilities as an association," he adds. "In order to reach our full potential, we need to take new initiatives. This will be at the heart of my

"I'm originally an engineer from Bangladesh. I later studied and worked in the Netherlands. **Belgium and** Austria. Over the past 10 years, I have conducted research in nanotechnology and expanded my horizon through leadership, management personal coaching. As the vice-chair of the MCAA from 2018 to 2020. I *improved the* internal governance process, increased sponsorship and organised 2019 GA & Annual Conference of the association. In short, I am a scientist well-connected with academia, the industry and the non-profit sector with expertise in science diplomacy and entrepreneurship,,

leadership style. To enable people and help people maximise their potential."



SPECIAL COVERAGE MCAA BOARD ELECTIONS MEET FERMANDA BAJANCA, VICE-CHAIR

Fernanda, in her own words

I joined MCAA in 2013, before its official creation as an AISBL (Association without lucrative purpose, in the Belgian Law). In 2016, I became a Policy Working Group member, chairing from 2017 to 2019. I worked for about 20 years as a developmental biologist in Lisbon, Paris, Amsterdam, Braga, London, Kyoto, Toulouse. Then, I got bored with lab routine, frustrated at instability and decided to change careers. My experience at the MCAA was key to this decision. I currently manage clinical research at a children's hospital in France. I need a sense of purpose in all I do. This is a common point throughout my life choices.

CHAIR OF THE POLICY WORKING GROUP & BEST WORKING GROUP AWARD

Fernanda chaired the MCAA Policy Working Group between 2017 and 2019. She recalls the challenges involved when leading a team. "We are all volunteers, peers, and I am still nowadays far from being an expert in policy. My job was facilitated by the competence and professionalism of the most active Policy WG members. Thanks to this collective work the MCAA is becoming a respected voice in European science policy," she says. The Policy Working Group won in 2019 the "Best Working Group Award". Fernanda gives some tips for the attention of members willing to follow this example: "Nurture the people! The Best Working Group Award is never the work of an individual but that of a passionate group of active members. Second, a chair needs to know how to delegate. Finally, each WG is different, the internal governance model needs to be adapted to the requirements of each group. In the Policy WG, several task forces were created to focus on specific themes and/or activities," explains Fernanda.

Chairing the Policy WG also had a direct impact on Fernanda's career. "I realised project management was what I liked the most in my research, not so much the lab work. I changed careers to be able to do it professionally," she says.

OUTSTANDING CONTRIBUTOR AWARD

Fernanda was awarded the MCAA "Outstanding Contributor Award" in 2019. "It is always rewarding to see our efforts recognised, validated by your peers. It meant a lot. But at the same time, I was lucky to be chairing a visible WG."

According to Fernanda, the support from the other members is what matters the most. "That was in itself a very meaningful prize," she adds.





"I believe MCAA's impact and benefits to its members can be further increased by incentivising wider participation,,

MCAA REPRESENTATIVE AT INITIATIVE FOR SCIENCE IN EUROPE (ISE)

Having been an MCAA representative at ISE, Fernanda tells us about the work done in this field. "We have worked within ISE to launch a campaign at the European level, advocating for more ambitious budget allocation to the next Research Framework Programme, Horizon Europe. A <u>petition</u> is going around and efforts are being organised in many countries at the national level," she explains.

There is more to come: "We established an agreement very recently that will allow us to contribute more directly to ISE activities." Fernanda calls therefore on the participation of MCAA members: "We are also involved in setting up new ISE task forces focusing on themes of interest for the MCAA, such as Open Science, or Career Development. And I take the opportunity to call for any interested Open Science experts among our members to contact the Policy WG. We need to reinforce our team as we have many requests on the different aspects of Open Science policies and a limited number of available experts."



FOCUS ON ALUMNI ENGAGEMENT AND ETHICS

As the new MCAA vice-chair, Fernanda sees multiple priorities for the association, such as Updating the Articles of Association, self-sustainability, career development, policy and communication.

However, she believes a specific focus on alumni engagement is paramount: "I believe MCAA's impact and benefits to its members can be further increased by incentivising wider participation, which is easier said than done, considering the exponential increase in the membership," she says.

Another priority for Fernanda is to work on a Code of Conduct, both

for general members and for the elected members. "This comes together with creating an Ethics Task Force. These will be some of the projects that I believe will bring me more fulfilment, and, as I said before, finding your motivation is key when doing a volunteering job," she concludes.



SPECIAL COVERAGE MCAA BOARD ELECTIONS MEET VALENTINA FERRO, VICE-CHAIR

Valentina, in her own words

I am an experimental physicist and science illustrator. I am originally from Italy, but I have lived in five different countries because I love new experiences and challenges. I am currently based in California, at the University of Berkeley, where I am doing a postdoc on advanced microscopy techniques. When I am not in the lab, I spend my time either contributing to the MCAA community or improving my drawing skills for effective and outstanding science communication. I am always happy to share ideas and opinions with other people, especially if it is over a glass of beer.



"I try to direct members that have a particular set of skills to the right role in the Communication Working Group,,

FORMER CHAIR OF THE SCOTLAND CHAPTER

Valentina's association with the MCAA started with the Scotland Chapter. "The experience with the Scotland Chapter made me think that with such a network and community you can really be creative and think outside the box, and this helped me to come up with the



idea and the enthusiasm that can really make MCAA stand apart from other organisations," she says.

Thanks to this experience, Valentina gained new skills. "By chairing the chapter, I learned how to organise events, especially how to delegate to other key people in the group and make sure of matching their skills and interests to their task," she explains.

'THE DARK SIDE OF RESEARCH'

Valentina is happy to have contributed to the creative aspects of the association and refers to "The Dark Side of Research", a comedy show in which scientists reveal their stories with dark humour. "We have excellent science communicators within the association, and we have the sensibility, from the training received during our MSCA funding, to understand the importance of sharing knowledge with the general public," she notes. The MCAA workshop on comedy for science communication that she co-organised "received a lot of praise, with many attendees asking if MCAA offers this type of training to other events or to institutions. This is something we could build upon," Valentina says enthusiastically.

BRANDING AND ALUMNI ENGAGEMENT

Working on an MCAA brand identity is key, according to Valentina. "In this next term, I would like to focus more on this aspect, as it would not only help to activate more members who respond more to the core messages, but it would enhance the effectiveness of MCAA to procure its own funds so we can become financially self-sustained," she explains.

Another big challenge she is willing to take on is alumni engagement. In this scope, the release of an alumni mobile phone application will facilitate connections among MCAA members. "Honourable mention goes to an alumni mobile app, MCAA Connect (by Lounjee). The coordination of its test run was originally done by outgoing board member Marco Masia, and I am now following up closely to ensure its release to all members. I am really confident this will have a significant impact on the way we run MCAA in the future," Valentina notes.

IMPORTANCE OF

Valentina also works as a facilitator and liaison within the association. "I try to direct members that have a particular set of skills to the right role in the Communication Working Group," she adds.

She underlines the good collaboration with Valerie Bentivegna, chair of the working group, and the role the latter played in enhancing communication within the MCAA. "The largest credit for the initiatives taken by the Communication Working Group and its members goes to the leadership of Valerie Bentivegna," says Valentina.

For the MCAA, organising workshops and events that focus on communication has multiple benefits. On the one hand, it strengthens the association's voice in the struggle for evidence-based decisions and against false news, and on the other it offers professional growth opportunities for the members, adds Valentina.

EDITORIAL SCIENCE ILLUSTRATIONS

Our vice-chair is also an illustrator who focuses mostly on editorial science illustrations. Valentina believes that this artistic outlet makes her a better scientist.

"Every researcher is creative, but we often acquire fixed mental patterns because of habits and community standards. Nurturing creativity for the sake of play and fun can stimulate our minds in unexpected ways," she concludes.



SPECIAL COVERAGE MCAA BOARD ELECTIONS MEET FRANCESCO SANNA, TREASURER

Francesco, in his own words

My name is Francesco Sanna. I am Italian aerospace engineer. I received my Ph.D. in applied physics in 2016 from the Netherlands. Because of my strong desire to contribute to the European Union and my interests in finance, I joined the European Central Bank as a Ph.D. trainee. I later worked as an analyst, and more recently a financial stability expert. I just completed a Master's in finance for professionals (MBA equivalent) at the London Business School. I am now keen to pursue a career in finance, putting to work the new skills I acquired.

INVOLVEMENT SINCE 2013

Francesco was part of the first MCAA Board in 2013. He recalls his motivation to join: "Since the very beginning, I have always been foreseeing a great future for the MCAA. There was literally nothing when we started. I was extremely young and very motivated to contribute to the development of the association. Thanks to the hard work of its members, the association has grown incredibly in the last years."

According to Francesco, the MCAA's achievements so far are twofold.

Firstly, the MCAA has built a structured organisation thanks to clear guidelines. Secondly, the association is capable of undertaking numerous activities and raising funds.

EVENTS AND NETWORK WORKING GROUP

Building on his experience as an Ordinary Board member, Francesco was also involved in the Events and Network Working Group. "I had the chance to learn several skills. First, how to organise events and projects despite a small budget. Second, how to coordinate within a team to



"Since the very beginning I have always been foreseeing a great future for the MCAA,,

organise events in remote. Lastly, I learned how to deal with cultural differences, an aspect which may further add complexity to an organisation. We tried and managed successfully to transform differences into advantages," he explains.



FROM PHYSICS TO FINANCE

It's a big leap - from physics to finance, but one that came rather easy for Francesco. He used to spend up to 60% of his time in a laboratory to research how acoustics in ducts are affected by mixtures of water and air. But a wind of change was blowing. "I realised I wanted to learn how to provide (financial) support to brilliant minds, in order to ultimately enable great projects to take place," he says. Following this impulsion, Francesco applied for a PhD traineeship at the European Central Bank and was hired. He continued after with a Master's in Finance for professionals at the London Business School.

PRIORITIES FOR THE MCAA

As treasurer, Francesco will focus on the following four priorities.

 General financial oversight: This activity consists in controlling and monitoring the association finances to make sure its record-keeping and (banking) accounts are managed properly. To this aim, it is important the association disposes of a developed accounting tool that can be used to track any transaction.

- 2. Effective communication of the financial status: With respect to the relationship with the European Commission, it is important to keep the EC informed regularly and to agree on a common plan, especially considering the Commission represents the main source of our funding. As a researcher, I also believe is fundamental for MCAA to cooperate with the EC in order to promote research. On the internal governance, to grow and become financially more independent, an important objective to be achieved is to strengthen the internal communication with the current governance.
- Self-sustainability: Internally, members could be asked to provide their own expertise for science courses (e.g., biology and medicine, engineering, science,

finance and entrepreneurship) and social subjects and soft skills courses (psychology, negotiation, ethics, gender equality, project management, etc.). Externally, more partnerships should be sought, across industries and considering different geographical areas. With such a high level of expertise, I believe we should invest more on human capital and seek support to develop a strong entrepreneurial spirit across the community.

4. Finance and Internal Audit Working Group: I wish to ask for the collaboration of active MCAA members to launch a new working group focusing on the financial development of the association. The time has come to establish our own internal rules and best practices to improve the allocation of our own resources.





SPECIAL COVERAGE MCAA BOARD ELECTIONS MEET MARINA RANTANEN MODÉER, SECRETARY

Marina, in her own words

Currently, I'm an early career researcher working on cyber-physical systems at the Technical University of Dortmund. I grew up on a small island outside of Stockholm and later studied at the Royal Institute of Technology and the Stockholm School of Economics. Professionally, I've been involved in a wide range of projects and companies, most recently as a robotics engineer at the European Space Agency and as a research engineer at Royal Institute of Technology (KTH), before I started my position at TU Dortmund. I have moved around frequently the past few years for work and have developed an intense love for getting to know new cultures, languages and people.

The MCAA has played a very important role, both socially and professionally. "My interactions with the MCAA community have given me personally a whole new and improved perspective on my challenges as a mobile researcher and I want others to get the same chance," she says.

As the new MCAA secretary, Marina believes the association should focus, among other priorities, on early stage researchers. "I see great potential in our support structures for early career researchers and how we can contribute to their well-being in their quite vulnerable situation. I believe we can collect the experiences we have in our community and find effective remedies for the difficulties our members experience in terms of both practical matters as well as moral and psychological support," she explains.

'RESEARCHERS MEET INNOVATORS'

Marina has been chairing the German Chapter since 2018. During this time, she had the opportunity to contribute to the organisation of the 'Researchers Meet Innovators' conference. "The team behind Researchers meet Innovators wanted to create a space for academics from all disciplines to meet with the start-up world and vice versa. The idea was to bring forward a concept that would pair up business knowhow with science expertise in an inspiring environment," she explains.

More than 100 attendees joined two days of talks, discussions and workshops. Many of the invited speakers and workshop facilitators were ex-researchers that had taken the step into the start-up world. Based on the success of this event, Marina emphasises the advantages researchers can obtain when they focus on innovation: "I believe we need to find ways to encourage self-employment and creative development of products, services







and businesses. Researchers meet Innovators is a great platform for just that and this concept can and should be copied to other branches of the MCAA," she notes.

CROSS-FERTILISATION OF THE CHAPTERS

When Marina was chairing the Chapter, she focused on relationships with other Chapters and Working Groups. "I believe this kind

"The MCAA has played a very important role both socially and professionally for me.,,

of cross-fertilisation makes it easier to learn from one another and copy successful concepts within an organisation like ours. Having both informal and formal ties with other chapters and working groups spurs creativity and ideas," she explains.

"Furthermore, the know-how of longtime members of different groups mixed with fresh ideas from new members, gives the best sides of both worlds combined into one. I encourage all chapter boards to seek a mix of members from within the MCAA – especially other chapters and working groups," she adds.

FOCUS ON OPEN SCIENCE

Marina underlines the work already undertaken by the MCAA as regards Open Science and believes the association should go further in this direction. "Open Science, such as, for instance, Open Access, is a structure set up for the common good. The MCAA has seen this and is already working hard on advocating open science policies in the EU," she says.

Early career researchers should also receive particular help from the association in this scope: "It is quite common that young researchers have very vague ideas about what open science means in general and more specifically could mean for them, because their beneficiaries are not prioritising the topic. This is where the MCAA can step in and help develop a trustworthy platform to promote open science amongst its members. I believe we should not only promote, but also educate our members and various stakeholders about the important advantages of open science. It is definitely the future of science," she concludes.



Alexandra, in her own words

I am a molecular biologist currently working as a distinguished researcher at the University of Córdoba, Spain. For the last 15 years (10 in the US and five in Spain) I have devoted my career to understanding how green algae can produce hydrogen and other types of biofuels. I recently joined algae/bacteria consortia, focusing on how to use this research in wastewater bioremediation and biofertilisation. Altogether my investigation focuses on developing new alternative and sustainable energy solutions and on expanding the circular bioeconomy. My goal is to contribute to the ecological transition while promoting women in science.

A 15-YEAR EXPERIENCE IN THE SECTOR OF RENEWABLE ENERGY

Alexandra devoted her work to renewable energy production, focusing on green algae and its biofuel applications for the last 15 years. Her goal is to develop environmentally friendly sources of energy to reduce carbon emission, putting the spotlight on renewable energy. "I think it is important to talk about renewable energy in general, and to put this topic on the MCAA agenda in particular," she notes.

According to Alexandra, the MCAA can play a crucial role in developing a network that will connect various experts involved in renewable energy. "Today, more than ever, science and society need to be connected. Renewable energy alternatives are key climate-safe solutions that may be adapted to societies transitioning to a new energy system," she explains.



"I hope I can bring a concrete vision of how science can bring technology and innovation to the aid of society,,







THE ROLE OF WOMEN

Alexandra supports the involvement of women in leadership roles, strategic positions and in helping shape policy and decision-making. With this scope in mind, she hopes to join the MCAA Genders, Equity, Diversity and Inclusion (GEDI) working group on specific actions for women in STEMM careers (Science, Technology, Engineering, Mathematics and Medicine).

She will also encourage women's active participation within the MCAA. "Visibility, leadership, networking and emotional ability are essential aspects that help promote women's responsibilities, and the MCAA can participate in the development of those skills," Alexandra points out.

EXPERTISE WITH THE EUROPEAN COMMISSION

Alexandra has been member of two groups of experts in the European Commission related to energy and climate. As such, this experience will provide her with guidance within the MCAA. "As an external expert of the European Commission, I hope I can bring a concrete vision of how science can bring technology and innovation to the aid of society and how together with the MCAA we can contribute to the EU research mission." she notes.

Alexandra is very keen on getting started with her new tasks. "I look forward to working with the MCAA board on those aspects, as well as on the specific mission of the MCAA, which is to help the advancement of knowledge for a global, diverse, and informed society," she concludes.



Donata, in her own words

I am a researcher from a town in Southern Italy. I am currently working in France as a senior postdoctoral fellow. My major research interests are bioelectronics and musculoskeletal regeneration.

So far I have lived in four different countries (Sweden, Singapore, France and the UK). In 2016 I started my IF initially in France and then in the UK, at the University of Cambridge. Since 2017, when I joined the MCAA, I have been involved in the activities of the UK Chapter, having organised a workshop on mental health in Cambridge in 2019.

The connection between research culture, policy and researchers' well-being and mental health is my major interest and the reason for becoming even more involved with MCAA.









INVOLVEMENT IN THE UK CHAPTER AND FOCUS ON MENTAL HEALTH

When Donata moved to the UK, the first active role she undertook within the MCAA was the organisation of an event on mental health in Cambridge in 2019. She explains her engagement: "I got involved for personal reasons and because I believe it is key to address researchers' well-being if one wants to improve the academic environment. Until recently, researchers were not given the right attention and they were mostly exploited."

According to Donata, there is an urgent need for a change in the research culture scientists experience within academia. "The change should include the different actors and should therefore involve funding bodies, PIs and researchers. Productivity is key, but one cannot forget that science is practised by people, and people need the right conditions to be creative while producing great science and having a decent life," she notes.

RESEARCHERS' WELL-BEING IS PARAMOUNT

The priority, according to Donata, is to support and promote initiatives targeting researchers' well-being as well as actions triggering change in terms of research culture.

As she explains: "We have already seen, in particular in the UK, a stronger attention devoted to researchers' well-being and policies put in place towards the goal of a more open and fair research environment. I hope that we will be able to extend this experience to other environments, wherever MCAA members are present and active." *"It is key to address researchers" well-being if one wants to improve the academic environment,,*



Ana, in her own words

In 2006 I graduated as a biological engineer from Minho University in Braga, and in 2014 I received a master's in Organic Agriculture at Ponte de Lima Agrarian School. In-between I carried out field work that merged my volunteer and professional skills. After completing my Environmental Education training at the Biotechnology School of the Catholic University of Porto, I joined various environmental projects that led to my traveling in Portugal and abroad and experiencing different realities. I finally got the chance to merge my experience and biotechnology academic skills with the soft skills gained along this complementary path when, in 2014, I joined SPReD Lab, in the University of Porto's Faculty of Sciences, where I began to consolidate my actual scientific path.



"I would be happy to help young researchers by listening to their needs and assisting them in fulfilling their expectations,,

FOCUS ON YOUNG RESEARCHERS

Ana Lopes has been involved in a youth organisation called <u>Youth and</u> <u>Environment Europe</u> (YEE), which provides a platform to encourage youth to engage in environmental protection. Her priority to help young researchers is paramount. As she explains: "It is of utmost importance to always be aware of their needs, because when we support youth at their level and interests, everything flows naturally, filled with good energy. Besides, offering guidance on their motivations, expectations and skills is essential, so that they do not become frustrated, and they continue on a consistently built path.





During her mandate as an ordinary board member, Ana will focus on this specific category of researchers. "I would be happy to help young researchers by listening to their needs and assisting them in meeting their expectations," she adds.

ASPIRATIONS AS AN ORDINARY BOARD MEMBER

At YEE, Ana acted as a liaison with the Portuguese national organisation of Ecoclubes. She also helped to develop international projects and to further promote communication between the international organisation of Ecoclubes and YEE, while she also occasionally assumed coordination responsibilities. Within the MCAA, she plans to make full use of the different skills gained during this experience. She notes of her interest in the issue, "When you dedicate yourself to cooperation and take on different functions and positions, there is a natural multiplying effect of added value and experience. Besides, you acquire multiple ways

of seeing things that can complement each other, providing a more comprehensive view of the work and the team."





Sara Ricardo, in her own words

I live in Barcelona where I started a Career-Track PI position in Cell Biology in 2012. I did my PhD at UCL in London and held postdoc and scientist positions at the NYU Medical Centre. I left academia in early 2019 and I am currently working at a health-tech company, where I develop partnerships and client relationships. I independently consult and coach on academic issues, working with foundations and academia. I started my involvement with the MCAA as a founding member of the Portugal-Spain Chapter. Between 2015-17, I served on the Chapter's Board and then I received my first Board mandate 2018-2020.

LOCAL INVOLVEMENT

Sara's journey with the MCAA started when she decided to join a few members who were planning to create a local Chapter in Spain. Shortly after, the Portugal-Spain Chapter was officially established and Sara attended its first meeting in Barcelona. "We were only a few members at that meeting, about 15 persons from Barcelona and other regions, but I felt that there was a lot of energy and ideas," she recalls. "And to this day it still is one of MCAA's most active chapters."

Sara continued her local involvement by becoming the coordinator of the MCAA Barcelona Hub, the regional group of the Spain-Portugal Chapter, from 2017 to 2019. She explains the importance of the regional level in an association like the MCAA: "I always felt that regional or local chapters would work better if in smaller clusters in which people could actually meet and share experiences and know-how. Also the same framework, if successful, could be used as a template for other regions, in which the building of the network would be easier as it could be replicated."

Her involvement was fruitful. In 2017, Sara was approached by an institute in Barcelona and by a UK organisation who asked for collab-

oration in training and events. "I set out to build a network and tried to build it in a way that was sustainable for the future and could be carried out by others after me. I talked to a couple of people who I thought were motivated to help and that is when the Barcelona hub started," explains Sara.

She coordinated meetups and events, as well as the links to academic and governmental organisations. "That has given its fruits and several of these are now our sponsors and collaborators and our local network has reached hundreds of members," she adds.





"I always felt that regional or local chapters would work better if people could meet and share experiences and know-how in small clusters,"

A 'LOST GENERATION OF RESEARCHERS'

As an Ordinary Board member, Sara led a session called "the lost generation" at ESOF 2018. She highlighted the challenges of experienced researchers in the current academic system. This session was a success and was featured in an article published in the <u>Angle journal</u>, as well as in the <u>MCAA IRRADIUM magazine</u>.

"The 'lost generation' refers to the mid-career scientists who, after completing many short-term contracts and temporary positions, find themselves largely excluded from research careers due to lack of opportunities for permanent positions. The term 'lost generation' was first coined by Gertrude Stein to identify writers coming of age during World War I to whom pre-war values were no longer valid," explains Sara.

It's a term that now can be used to describe the situation of many researchers. According to Sara, "it represents the mid-career academics cohort that were caught in the middle, in an age in which the old rules that governed the scientific enterprise, and by extension research careers, no longer applied and have been suffering from the consequences". The ESOF session received a lot of publicity, showing that it is an issue that still needs to be addressed.



COLLABORATION WITH EIT ALUMNI

Sara is currently contributing to the organisation of a leadership intensive workshop in collaboration with the European Institute of Innovation & Technology (EIT) Alumni, one of MCAA's partners. It's here where Sarah learned about one of its groups, Women@EIT, which is led by Maria Kanov. "Maria and her team had already done one leadership intensive workshop that had been very successful. I originally talked to Maria as I thought some of their ideas on leader empowerment within the network could be also applied to the MCAA," explains Sara. "The model that they have created to empower members to lead is of great value and I am happy to be part of it."

Due to the COVID-19 pandemic, the workshop will likely become a webinar.



Karen, in her own words

I am a former chemist with an interest in policy that affects researchers as well as a research background that can inform policy. Originally from Belgium, I moved to the UK five years ago to work in Cambridge as a Marie Skłodowska-Curie post-doctoral fellow. I have since transitioned to a full-time career in policy and am currently Science Policy Unit Lead at the Royal Society of Chemistry. I joined MCAA in 2016 and since 2018 have been vice-chair of the MCAA policy working group, where I've been able to share insights from my experience as a policy professional.

FORMER VICE-CHAIR OF THE MCAA POLICY WORKING GROUP

Karen's association with the MCAA started in 2016, when she attended her first General Assembly in Salamanca (Spain) and became aware of the MCAA's activities.

She then became involved with the association when she was elected vice-chair of the Policy Working Group. She was happy to contribute. "I am known by colleagues as someone who shares insights, knowledge and connections generously. I have advised on tone and language, and provided tips and tricks for effective policy writing with many members of the Policy Working Group," she explains.

She developed a good collaboration with Fernanda Bajanca, who was the chair of the working group and who has become one of the MCAA Board's vice-chairs. "Fernanda had really given the group great momentum, lots was happening, and my contribution was ensuring that more professional and effective outputs were consistently developed by the group. I have also provided advice on issues that I work on now or have worked on professionally, including research culture and open science," says Karen. Our interviewee also had the opportunity to represent the MCAA and present its views on topics such as the new framework for the European Research Area.

THE VOICE OF RESEARCHERS

Karen realised the potential of the association when she attended the 2016 General Assembly. "The MCAA has grown a lot since then, and the previous board deserves much credit for the important work it has done, increasingly engaging with stakeholders, including policymakers at the EU level," she says enthusiastically.





"I am known by colleagues as someone who shares insights, knowledge and connections generously,, Now that she is an Ordinary Board Member, Karen will focus her strategy on "further building on this strong foundation, to ensure the MCAA is increasingly recognised as the voice for researchers in the policy landscape."

COMMITMENTS AS AN ORDINARY BOARD MEMBER

Karen has already been involved in volunteer organisations and will use this experience in her activities as an ordinary board member of the MCAA. As she says: "I have a lot to offer, and I will support the MCAA in any way I can. I have previously been president and vice-president of volunteer organisations, and of course I've picked up a thing or two on governance of non-profit organisations during my professional life, working for large member organisations such as the Royal Society, London and Royal Society of Chemistry. I will definitely use this knowledge to contribute to improving MCAA's governance and member engagement."

She also suggests that the MCAA should develop its own voice in science policy, the area of informing decision-makers about relevant scientific evidence (for example on coronavirus or climate change). She will also focus on a toolkit to enable MCAA members to write effective policy documents related to their area of expertise as "part of a broader suite of tools for continued researcher development," she concludes.





Esther, in her own words

Hello everyone! I am Esther and recently I became an official member of the new MCAA board. I am curious about molecular biology and engineering and enjoy organising and planning things, which is why I studied bioengineering, pursued a PhD in molecular biotechnology and am now coordinating research projects in the fields of bioeconomy and biotechnology.



EXPERIENCE AS THE BENELUX CHAPTER CHAIR

In 2018, Esther became the chair of the Benelux Chapter and enjoyed particularly the freedom she had to implement her ideas. "As we are all volunteers, things can take much longer than expected, which might not only kill your own motivation but often results in members becoming inactive. You therefore need a great amount of personal motivation to keep things going," she explains.

Esther however underlines the importance of the human factor within

"It is crucial to foster the dialogue among scientists and entrepreneurs,,



the association. "You will meet people in MCAA that inspire and support you. As a chair, you can learn new skills you were never taught at university and broaden your horizon tremendously. Besides those clear practical benefits, it is mostly the people you meet that make all of this a very rewarding and fun experience," she underlines.

At the 2019 General Assembly, the Benelux Chapter was elected "Chapter of the Year". For Esther, this recognition encouraged her to move forward. "I was a bit stunned, but felt honoured. It motivated me to push the chapter even further," she says enthusiastically.

SYNERGIES BETWEEN SCIENTISTS AND ENTREPRENEURS

Esther contributed to the organisation of the "Researchers meet innovators" event in Berlin, in 2019. She strongly believes that many solutions to current global challenges lie at the intersection of different scientific disciplines.

"However, scientists are rarely trained to focus on the commercialisation of their research," explains Esther. "This is why it is crucial to foster the dialogue among scientists and entrepreneurs. We currently see great interest from both sides in collaborating and working on innovative solutions, which is why events like 'Researchers meet innovators' are very successful," she adds.

FOSTERING COLLABORATION BETWEEN THE CHAPTERS AND WORKING GROUPS

According to Esther, chairing a chapter often can pose specific challenges, which differ from the challenges encountered by working group chairs. "I would first like to further improve inter-chapter communication and collaboration by updating the 'Strategic Document for Chapter Chairs' and by organising more Q&A sessions, as Mostafa and others did before," she explains.

As a next step, Esther would like to give a new life to the 'Chair Management Working Group' on the MCAA portal. "Normally, the General Assembly is a great event for chairs to meet, discuss and connect. I really hope we will be able to find a new date for the GA2020 in the upcoming weeks, so that we can have a productive chair-collaboration kick-off in the near future," she concludes.





SPECIAL COVERAGE COVERAGE COVID-19 CORONAVIRUS: INFORMATION FOR THE MSCA COMMUNITY

The Marie Skłodowska-Curie Actions are providing up-to-date, responsive information related to the COVID-19 crisis to MSCA fellows and project managers.



The COVID-19 outbreak has caused major disruptions for many researchers, projects and organisations, including those working with EU funding. The Marie Skłodowska-Curie Actions (MSCA) are therefore seeking to provide responsive, upto-date information for all MSCA researchers and projects. Researchers, project managers and interested stakeholders can access information on relevant news and initiatives, call updates or frequently asked questions, and also learn about inspiring stories on how MSCA researchers and projects are working to tackle the spread of coronavirus and its wider effects on our society. INFORMATION FOR MSCA FELLOWS AND PROJECT MANAGERS

Research/Innovation Corona
 Platform FAQs



SPECIAL COVERAGE COVID-19

The European Research Area (ERA) operates a central <u>Corona Platform</u> for all information on how the current crisis may effect research and innovation projects.Some of the most frequently asked questions (FAQs) by MSCA project coordinators and fellows can be found on the <u>platform's</u> <u>FAQ page</u>.

New MSCA FAQs have been added on 17 April 2020, additional FAQs might be published in the future.

REA News

The Research Executive Agency (REA)'s news on the coronavirus can offer advice to MSCA project coordinators and fellows whose projects and activities may be affected by the coronavirus outbreak.

In order to minimise disruptions caused by COVID-19 on business continuity, The REA has also published <u>a news item detailing the latest</u> <u>decisions</u> taken at the European Commission level that have an impact on its research management activities. The news item also contains relevant links and information on calls for proposals, evaluations and experts, grant management and links to FAQs for project managers and fellows.

Call extensions

In light of the COVID-19 outbreak and the difficulties applicants may have experienced in submitting their proposals, the Commission has decided to Extend the RISE 2020 call deadline by two weeks, until 12 May 2020, 17:00 Brussels time.

RELATED INFORMATION

Common European
 Response

The European Commission (EC) is coordinating a Common European Response to the COVID-19 outbreak. For more information about the EC's work to mitigate its effects across Europe, please visit the <u>EC's</u> <u>Coordinated Response page</u>.

Coronavirus: online learning resources

The Education and Training website of the European Commission (EC) has prepared a selection of <u>online</u> <u>resources and tools</u> for learners, teachers and educators during the outbreak of COVID-19.

Commission-funded c oronavirus and pandemic research

The European Commission has been at the forefront of supporting research and coordination of European and global efforts to tackle the spread of coronavirus, including preparedness for pandemics and other outbreaks. Some of this amazing research can be referenced via the <u>coronavirus research and innnovation</u> <u>pages</u>.

Information on other research and innovation actions in can also be found on the <u>research areas support page</u>.

• EUvsVirus Pan-European Hackathon

The European Commission, in close collaboration with EU member states,

will host the <u>Pan-European hackathon</u> <u>#EUvsVirus</u> to work in developing innovative solutions for coronavirusrelated challenges. The event will take place from 24-26 April 2020.

Applications can be sent through the hackathon's website.

THE MSCA ON SOCIAL MEDIA

The MSCA social media are continuously updated with relevant information for MSCA project coordinators and fellows, as well as testimonials of top-notch MSCA fellows and projects working to find solutions to challenges posed by coronaviruses and other infectious diseases.

The MSCA can found on social media at:

- MSCA on Twitter
- MSCA Facebook page
- <u>Testimonials of leading MSCA</u> <u>fellows</u>



SPECIAL COVERAGE COVID-19 COPING WITH THE CORONAVIRUS CHAOS IN SCIENTIFIC RESEARCH

Research meetings are being postponed and/or cancelled because of COVID-19, slowing down or even delaying the work of scientists. An established professor, a postdoctoral researcher and a doctoral student discuss how they're dealing with this new normal.



"So far, although all physical meetings and classes have been cancelled in Spain because of COVID-19, we can carry on with online classes, tutorials and small meetings," says Asun López-Varela, Associate Professor and Deputy Head of the Department of English Studies at Complutense University of Madrid. She's also an external evaluator for the European Commission in the social sciences and humanities domain. "It's a huge amount of work, but I'm recording all my classes on video and putting them online. Small meetings are still taking place. Large conferences or meetings with a greater number of people are very difficult to hold online and they are all being postponed."

López-Varela sees logistical issues arising in the near future. "As Deputy Head, I'll soon need to make decisions about programming classes for next year, renewing staff contracts and so on. For some decisions, we need approval of all department members and it's going to be difficult to hold an online meeting. We're postponing everything since our Faculty's administrative department is also delayed with programming. Before long, we'll need to make decisions and might have to hold some kind of online meeting with all 80 staff members. I think it can be done."

"In Spain the situation is going to continue for some time, so it's very likely that we won't have faceto-face classes this term," adds López-Varela. "We postponed a large conference and still need to decide when to hold it. Agreements have been made for the publication of papers, and we're continuing with these compromises as scheduled. For example, prospective attendees are sending their papers in April for publication in July even if the conference takes place later."

For Mingjie Duan, a second-year PhD student in epidemiology at the University of Groningen, all unit meetings, weekly meetings with supervisors, other research meetings and small seminar meetings have been cancelled. "In the Netherlands, coronavirus measures have just been put in place, so we're still trying to see how we can manage with applications like Skype. Our small research group has decided to set up a shared Google drive file so that we can keep each other updated on our schedules."

Monica Lopez-Vicente, a postdoc at the Erasmus University Medical Center in Rotterdam who conducts research in the development of brain connectivity with respect to mental health in the general paediatric population, hasn't had any



SPECIAL COVERAGE COVID-19



relevant meetings cancelled yet. "I'm planning to attend a meeting in September to present my research results. If this is cancelled, it will have an effect on my connections. However, virtual meetings are also very useful – and good for the environment!"

EARLY-STAGE RESEARCHERS HARDEST HIT

As an established scholar with a permanent academic position, López-Varela explains that the cancellations and postponements aren't drastically affecting her professional career. in contrast with voung researchers. "It can be catastrophic for people in the early stages of their career development, particularly those working in the labs. The Commission should start working on ways to safeguard all research actions being delayed because of COVID-19. In particular, the MSCA-IF panels should have a backup plan to help all researchers in difficult situations and extend their mobility research periods whenever possible." She continues: "As evaluators, we are always asked to check the contingency plans in funding applications. It's one of the key points in the implementation criterion of applications. This is just as important as emphasising the impact of research and other aspects."

According to Duan, research meetings held on a regular basis will continue, just not in the form of physical gatherings. What's more key is continuous communication. "It's important for us to share progress and ideas at least every week."

PLAN B

López-Varela has always had backup plans in place. "I use for instance multimodal alternatives in teaching and education innovation. I have been building up a contingency plan for years, putting a lot of materials online for my students and using online applications for my classes." All her research team's work can be found <u>online</u>. "No online tool can replace physical contact. Virtual environments can never replace the emotional input we receive from face-to-face communication that impacts motivation in the classroom or networking in congresses and other events. I think this is a particularly important consideration when planning our futures in education and research."

For now, Duan is using a digital workspace platform to conduct his research on data analysis. He's unsure about what the future holds. "I'm always using Citrix to get access to my database, so it makes no difference actually where I work from. Meetings seem to be going fine, but I'm not sure if we'll lose opportunities in the future, like presenting at an international conference."

"I plan to take advantage of my current contacts and focus on performing analyses and writing papers," says Lopez-Vicente about her future plans.

More than 30 leading publishers from countries around the world have agreed to make coronavirus (COVID-19) content freely accessible.



SPECIAL COVERAGE COVERAGE COVERAGE COVERAGE COVERAGE STORES A PETITION ASKS FOR EXTRAORDINARY MEASURES TO MITIGATE THE IMPACT OF COVID-19 PANDEMIC IN MSCA PROJECTS

Alejandro Manzano Marín is one of the main fellows behind a <u>petition</u> asking for extraordinary measures to mitigate the impact of COVID-19 pandemic in MSCA projects. Read his interview.

Alejandro, in his own words

Born in the UK (of Mexican nationality though), is currently an MSCA Postdoctoral fellow at the Division of Microbial Ecology, University of Vienna. He obtained a PhD at the University of Valencia, Spain (MC ITN fellow FP7 SYMBIOMICS) and recently finished his first Postdoc at INRAE, France (MC COFUND fellow FP7 AgreenSkills+).

How has COVID-19 pandemic impacted MSCA fellows?

The lockdown measures implemented have led to a restructuring of personal lives as well as projects, creating very challenging situations for some fellows. Many projects in fact, heavily depend on laboratory, field, and/or archival work, which has now been suspended. Central principles of the MSCA, such as training, mobility, and networking, have similarly been affected. Specifically, I've communicated with fellows that are currently stuck outside their country of residence due to both recommendations and travel restrictions. In addition, fellows' situations are further impacted for those with children, some solo-parenting, or other family obligations. While posing a significant risk to the project development and the career opportunity an MSCA fellowship represents, the current situation is also affecting the mental health of many MSCA fellows in ITN, COFUND, and IF schemes.

What was the response of the MSCA/REA to fellows?

The MSCA first released a public statement on the 13th of March announcing "Consequences for Marie Skłodowska-Curie Actions"^{1,2}. An email to MSCA fellows followed stating that "Projects could also be exceptionally extended, if necessary." These communications led many to understand that (paid) extension would be a reality. By then, other European funding

¹ https://ec.europa.eu/research/mariecurieactions/news/corona-virus-impact en

² https://ec.europa.eu/info/news/covid-19-implications-your-msca-project-2020-mar-16_en







bodies announced extending the paid periods of their grantees. For example, the <u>Portuguese FCT</u>, the <u>EMBO</u>, and the <u>German DFG</u> have all openly announced extensions for their PhD or Postdoc fellows of one³, two⁴, and three months⁵, respectively (FCT and EMBO with a provision to revise in case the situation changes).

Much to our surprise, our project officers confirmed non-costed extensions, leading to an unpaid work period. This has been reiterated by Commissioner Mariya Gabriel stating that "[...] the maximum grant amount cannot be increased"⁶. In summary, the communication with the MSCA/REA has so far been unclear, insufficient, and disappointing.

Which factors were not considered in the MSCA/REA response that led to the current petition?

While we recognise that the MSCA/ REA has made the correct decision not to suspend the fellows' projects (and thus their salaries), the options being offered are, to say the least: inadequate, uninformed, and/or unrealistic solutions to a serious problem: 1. Remote working. Many projects are currently in a phase that requires lab work (my particular case), field work, or archival research. The latter is the case of fellow Francesca Tancini, whose project is heavily dependent on archival research of unpublished and uncatalogued sources. She is now in her sixth week of solo-parenting home-schooling in Italy, making any remote working impossible. Also, depending on the project stage, there might simply not be tasks that can be tackled through remote working.

- ⁴ https://www.embo.org/news/articles/2020/coronavirus-update?fbclid=IwAR2HKbjzX0NpKmoOnmXg2pcUdzLb2_ t1CrO2w-r14luPUVKgeyHlijEtykE
- ⁵ https://www.dfg.de/download/pdf/presse/download/anschreiben-corona_massnahmen_stipendien_fellows.pdf
- ⁶ https://sciencebusiness.net/news/gabriel-research-and-innovation-critical-tackle-global-crisis?fbclid=IwAR1M-Hb1-i5kC-IAH4WytAfB6TmSXoYXTMIrs-u8BoVV8V5QHvKloUYShIJo

³ https://www.fct.pt/noticias/index.phtml.en?id=510&/2020/3/FCT_extends_by_one_month_all_the_scholarship_ contracts_it_directly_finances





- 2. Temporary suspension of the MSCA. This has some serious implications. Firstly, a temporary suspension equates to a temporary salary suspension. This is not an option for fellows that depend on their salaries to pay rent, provide for their families, and meet other financial obligations. For example, fellow Francesca Lanz moved to the UK with her family and her income is the only one sustaining a family of four. Besides, suspensions lead sometimes to a mutual (temporary) termination of the work contract, translating into loss of social benefits and/or residency permits, often tied to having a valid job contract as a researcher.
- Switching to the minimum work pattern of 50% (with 50% salary). For financial reasons, this is simply not an option for a

number of fellows. Additionally, these types of contracts are not universally embraced by the different universities/institutions/ organisations many of us are directly employed by. In some cases, we are often considered separate to non-MSCA researchers, which blocks us further from benefits they decide to support their workers with.

4. Using "Research, training and networking unit" costs to extend contracts. This is simply impossible for some projects whose budgets are already tight (resulting in incomplete projects) or that are beyond the point of having such a surplus to re-allocate.

Do you have a final message to the MSCA/REA and fellows?

While some EU countries have announced measures to mitigate the job loss related to the COVID-19 pandemic, the MSCA/REA must be aware that access to such social benefits are not often reachable by MSCA fellows due to the mobility pre-requisite (having only worked for a brief period in our host country), which often renders us in some respects "stateless".

I have launched an online petition on the 23rd of March, which has now raised over 528 signatures. We are asking the appropriate authorities to take responsibility for their fellows' well-being and careers and support them following the leading examples of the FCT, EMBO, and DFG.

INTERESTED? Join the campaign and sign the <u>petition</u>!



SPECIAL COVERAGE COVID-19 A RAY OF HOPE AS RESEARCH SLOWS DOWN

COVID-19 is forcing labs in universities and research institutes around the world to shut down. Dr Radenka Krsmanović Whiffen provides much food for thought on this widespread and lengthy closure.



How will an extensive and prolonged shutdown have tremendous implications for the rate of scientific discovery?

Research is often about day-by-day incremental gains. As such, there's an opportunity cost that comes from any kind of extended shutdown. Due to the COVID-19 pandemic, a whole range of researchers might not be able to complete their experiments, test their theories, or see the results of research that requires evolution over the medium to long term. This will obviously slow the pace of scientific discovery. However, the negative impact can be reduced in a situation where research has a global dimension. That's assuming we are talking about projects involving international cooperation and collaboration that share data and available resources. Overall. I do think opportunities will be missed and research slowed down if we are looking at widespread restrictions for more than a few months.



Universities are the engines of research (basic and applied). It's not as essential as maintaining core health and human services, but just how important is scientific research really?

Research is not core in the sense that hospitals, supermarkets and schools are, but it does have an enormous impact on everyday lives. Research drives progress, be that in health, as we are seeing with the amount of research and investment into COVID-19 in just a few weeks, or in other areas like green energy, AI or behavioural science. In a crisis, people look to experts for solutions, expecting science to have all the answers immediately. Sometimes, I think the general public doesn't understand the fact that the process of research is both complex and time-consuming; there are no short cuts. What we do have are numerous examples showing that knowledge is essential in shaping and driving our lives, in both ordinary and extraordinary times. Indeed, government responses to the COVID-19 outbreak are, generally speaking, being driven by research and scientific evidence, which can only be a good thing. It's vital that we hear from experts about their research and the evidence they can provide if we want our leaders to make informed decisions.

What do you believe is the silver lining in this uncertain future? What are the lessons to take forward?

Firstly, the crisis has highlighted the importance of research as a means of providing evidence for policy. Governments everywhere are following scientific advice in their COVID-19 policy responses. Research doesn't make policy, but it does have a role in helping to shape policy in any area by giving politicians the evidence they need. Hopefully, this will mean that going forward research is seen as a key element of applied public policy.

The other major impact of the crisis is to show the vital importance of open science and freedom of information. Collaboration between research groups is key here, rather than secrecy and competition. That should help embed open science and responsible research and innovation as the standard way of working across disciplines.

I think the biggest lesson for researchers is that science and its application really is important, and that knowledge is power. People trust researchers to give them the facts and offer informed opinions. By providing evidence to support informed decision-making, research plays a key public role in offering a factual basis as an antidote to scare-stories and fake news. That's a role I believe all researchers should embrace.

What messages do you have for MCAA members?

To start with, I hope all our members stay safe by following local advice wherever they are and ensuring they help minimise the effects of the crisis. We must all act responsibly to protect ourselves and others.

My message to members is simple. Please be optimistic. I know that seems difficult when you are faced with the potential for extended disruption to your lives and livelihoods, not to mention your research, and when things are so uncertain for all of us. But optimism is one of the most powerful weapons we have. This situation is very frightening, but it won't last forever, and once it's over we will all have a new perspective. We must all stay safe, support each other and prepare for the world that is coming after COVID-19, where research and data are going to be more important than ever before. None of us can predict what the ongoing impact of COVID-19 will be, but we can, perhaps, start to imagine what we would like the future of research to look like.

Ihope the lasting legacy of the coronavirus outbreak for research will be a more open, more dynamic and more globally collaborative environment, with an increased awareness of the fundamental role that research, at all levels, plays in helping to shape our responses to the global challenges we face. We can all play a part in making that a reality, and I would encourage every member to think carefully about how best they can help shape the post-COVID-19 research environment to support this vision.

Radenka Krsmanović Whiffen is an MSCA Individual Fellow in physics at the ENEA Casaccia Research Centre in Rome. Her project deals with pyroelectric materials for waste heat energy harvesting. She's also the founding Chair of the Western Balkans Chapter.



The spreading of the COVID-19 pandemic has completely changed the way of working for a large part of the world's workforce. From the office to their home, researchers and scientists have had to reinvent their workflow and routine. <u>Valerie Bentivegna</u> and <u>Valentina Ferro</u> shared with us what has changed for them, and what could be learned from this unusual situation.

Valerie Bentivegna, in her own words

I am a former Early Stage Researcher (ESR) in the PHOQUS Innovative Training Network (ITN). I am currently working for a biotechnology company in Seattle as a researcher/science writer and also organise science comedy shows and workshops in the area. I'm the chair of the communication workgroup.

Valentina Ferro, in her own words

Iam Valentina Ferro, a postdoctoral scholar at UC Berkeley. Specifically, I work as instrumentation scientist for the Advanced Bioimaging Center with Prof. Gokul Upadhayaula and Prof. Erik Betzig, where I build and utilise a novel generation of microscopes called MOSAIC (Multi-modal Optical Scope with Adaptive Imaging Corrections).

FROM THE OFFICE TO HOME

Our two interviewees are currently living in the United States. Their working habits have already been impacted by the COVID-19 pandemic. "I'm currently working from home on writing projects and research & development that can be done remotely. I'm relying more on our lab technician to maintain cell lines andset up and conduct experiments. Currently, I'm able to access remotely the microscope computer, so as long as everything is set up, I can run the imaging experiments and perform analysis from my home office," explains Valerie.

Specific rules have been set in the State where Valentina lives: "I currently live in California, one of the US states with the highest incidence





of Covid-19 cases. Alameda County has ordered a shelter-in-place since 16 March, forcing the University of Berkeley to issue a mandate to all research groups to slowly reduce the research work until reaching a complete halt. Except that for critical research (evaluated on a case-bycase basis by the University Departments) and for animal care. The university halls are now empty." She

now has to focus on other tasks. "I typically spend my day hands-on with instrumentations, standing and moving around the microscope and carrying imaging sections whenever we have biological samples. Now, I have to find meaningful and productive tasks I can conduct from home. Thanks to teamwork established by our PI, we can immediately identify useful activities to carry out, like writing documentation for the microscopes or working on data analysis," explains Valentina.

CHALLENGES

Adapting to these changes within the working environment at such short notice can be challenging. Valerie misses the direct contact with colleagues. "Jumping on a phone call is a higher barrier," she deplores.

TIPS ON WORKING FROM HOME

- Get dressed up: avoid the temptation to stay in pyjamas the entire day. Take a shower, put on make-up if you normally do, get dressed. Maintaining your standard routine will help you to shift your mindset from "relaxing at home" to "be productive at work."
- Have a schedule: work with your team to maintain a healthy schedule. Decide a time to start and stop working, and try to create boundaries between working and just staying at home, either physical boundaries (only working in a specific room in your house) or symbolic ones (switch to a different account on your laptop between work time and leisure time).
- Move and rest: stretch regularly every hour, stand up, take a short walk around the house, and rest your eyes. This is particularly important if your workstation at home is not ergonomic as it would be at your workplace. If your health conditions allow it, do some other type of regular exercise that can be done at home, like calisthenics and yoga.





For Valentina, working remotely without a proper day-to-day routine is not recommended. She shares with us some advice (see the frame page 40 "TIPS ON WORKING FROM HOME").

OPPORTUNITIES

As the Chair of the Communication Working Group since 2018, Valerie already had the opportunity to attend numerous MCAA virtual meetings. She considers however 'digital networking' as an opportunity for researchers. "I do think it's interest-



ing to see many conferences (and comedy open mics for that matter) switch to virtual and online," she says.

This is what Valentina echoes, as each challenge comes with the opportunity for a creative solution. "We live in the best possible time to face a pandemic like COVID-19. We have all the tools we need to have online meetings, symposium and conferences. Many tech companies are playing their part in this overall effort against the virus, by providing their videoconferencing software for free during this difficult time. It is up to us to test these tools and to gauge the type of engagement and network we can generate during virtual events," she observes.

DIGITAL SOLUTIONS

To Valentina, maintaining contact with team workers is key in these times of quarantine. "If you are participating in a conference, do not shy away from the message board or chat room that might be put in place by the organiser," she recommends. Organising an online game with the laboratory team can also be a fun digital alternative.

Twitter has also a role to play according to Valerie. "I'm really enjoying the science community on twitter and as long as I restrict my times to go check, it's been a really cool way to network," she explains.

LIFE AFTER THE COVID-19

Both our interviewees agree that the COVID-19 pandemic will lead to numerous lessons learned. According to Valentina, this is an opportunity to test and to learn new media. It is also crucial to reflect on certain aspects "How can we cultivate lasting forms of collaboration and communication between international research groups to reduce fragmented knowledge and increase universal research that benefit humanity as a whole without being bound by political and financial constraints," she muses.

To Valerie, the COVID-19 will lead to opportunities to meet people one would never had met in normal times. She concludes with humour: "Maintaining those new relationships after COVID-19 will allow us to say: So how do you two know each other? – We met online during COVID-19!"



RESEARCH EMBRACING THE CHALLENGE OF DIGITAL HUMANITIES



The world is becoming digital and the situation is similar for the arts and humanities. <u>Federica</u> <u>Bressan</u> is one of many researchers working in the area of digital humanities. She talks to us about her journey from her Marie Skłodowska-Curie actions (MSCA) project to her career as a Producer and Host at Technoculture podcast.

Federica in her own words

I am an Italian-Slovenian researcher and podcaster, with a background in music and technology. I received my training in Italy. In 2016, I relocated to Belgium thanks to a Marie Curie individual fellowship. This experience boosted my career in ways I didn't even think possible. Among other things, it allowed me to engage with science communication, and to start my first podcast (<u>Technoculture</u>) which you could say is a spinoff of my Marie Curie project.

DEFINING THE DIGITAL HUMANITIES

Imagine how many disciplines have been impacted by digital transformation technology. The list is long and still growing. And it includes the humanities. Digital humanities is a term used to describe a broad field that covers the use of digital methods by arts and humanities researchers. According to the University of Cambridge, a pioneer in the development of humanities computing, an increasingly important element of the Digital Humanities is discussion of the way in which the digital landscape has changed our view of the humanities and, conversely, the insights that the humanities offer on such central issues of the digital age.

For Federica, the Digital Humanities is an umbrella term, above all: it's not a discipline per se, but it connects



many disciplines. "Much research that is now labelled under this term has existed for a long time, so there is a strong continuity with the past," she says. The Digital Humanities can, therefore, be defined as a phenomenon that evolves with society. "You will get a different definition of Digital Humanities depending on who you ask," she adds.

DAPHNET PROJECT

Federica works in a 'niche' area of the Digital Humanities. Her MSCA project DaphNet was launched with the following problem: most multimedia artwork produced since the 1990s is lost due to the lack of adequate preservation strategies.

To tackle this issue, Federica worked on a multidisciplinary approach to preservation. The DaphNet project aimed to reach a definition of a framework for the preservation of interactive artworks, as well as to ensure their future re-use and flexible access.

Our Alumna had to overcome numerous challenges to achieve her project in January 2019. "I stepped outside my field of expertise, moving from audio to multimedia. I think I initially underestimated some implications of this transition, but I am proud of the skillset I possess now as a result of the process," she says.

THE EUROPEANA JOURNEY

Working now as a producer and host at Technoculture podcast, Federica has had the opportunity to become familiarised with Europeana, a European collection which provides access to 50 million digitised items.

"Europeana is the largest digital repository of cultural data in the world," explains Federica. "It aggregates digitised books, paintings, photographs, recordings and films, and it offers a variety of services to dedicated communities: teachers, journalists, scholars and others."

Intrigued by this collection, she recently interviewed Harry Verwayen (executive director of the Europeana Foundation) at the annual Europeana Conference in November 2019, which took place in Lisbon. Verwayen defined Europeana as a "co-creation space, where the user community helps to improve and build new narratives through the data."

What's more, in this interview, Verwayen quotes the co-founder of the Museum for the United Nations and keynote speaker at the conference, Michael Edson: "In the next 10-20 years, nobody will remember the product. They will remember the network that came up with new solutions for the challenges we're facing today."

Europeana faced numerous challenges, including climate change. "Harry Verwayen talks about the commitment of Europeana to decrease the carbon footprint of its digital infrastructure, by working with service providers that only work with renewable energy, setting a great example for every other cultural organisation in Europe and in the world," says Federica.

SHARING IS CARING

Federica stresses the importance of the research community in tackling challenges related to digital humanities. "Nobody works in isolation today, so it is important to be aware that we share data and tools just like we share our history and identity, and most of all it is important to belong to a community," she concludes.

INTERESTED?

Listen to the podcast "<u>Creating value from cultural data in</u> the age of digital transformation"

Explore Technoculture

Explore Europeana



RESEARCH MANNA: NUTRITION AND IMMUNITY: MOLECULAR APPROACHES

Discover Project 2 of the MANNA network. You will find out that nutrition does have an impact on immunity.



The European Joint Doctorate in Molecular Animal Nutrition (MANNA) is an EU network whose mission is to provide a Double Doctorate level training programme, valid throughout all Europe, on innovative technologies applied to animal science and nutrition. The MANNA Joint Doctoral project is a Marie-Skłodowska Curie Innovative Training Network funded by the European Commission under the Horizon 2020 Programme. This is the third of a series of articles on the MANNA doctorate, through which we will discover in detail its projects and the related Early Stage Researchers (ESRs).

WHO I AM

My name is Gabriela Ávila and I come from Costa Rica, a wonderful place in Central America filled with nature, and most importantly with kind and hardworking people. I did my bachelor's in Biotechnology at the Technological Institute of Costa Rica (TEC), and then I moved to Barcelona to do my Master in Biochemistry, Molecular Biology and Biomedicine at the Autonomous University of Barcelona (UAB). Spending a whole year abroad represented for me a very valuable experience as it allowed me to grow both professionally and personally. It gave me not only the opportunity to know different educational and research



environments, but also new cultures and persons that I now have the pleasure to call friends. After finishing my master, I realized that I wanted to continue with my academic career and to deepen my knowledge and expertise in the OMICs field, so, I decided to apply for a position in the MANNA programme which fits perfectly with these interests. Now, I am the ESR of the Project 2: "Nutrition and immunity: molecular approaches," under the supervision of Fabrizio Ceciliani (University of Milan), Armand Sánchez (Autonomous University of Barcelona) and Muriel Bonet (INRA - National Institute of Agricultural Research, France).

PROJECT OVERVIEW

The host immune system is composed by a group of cells and molecules specialized to identify and destroy potentially dangerous microorganisms, toxins, cancer, and dead cells. The intestinal immune system is the largest immune organ in mammalian and avian species and constitutes the primary site of interaction between the host immune system, microbiota¹, and nutrients.

Nutrition has shown to play a pivotal role in the modulation of intestinal immunity indirectly by changing the composition and abundance of microbiota and/or by exerting a direct effect in immune cell populations and their functions. For such reason, diet supplementation with a wide range of nutrition molecules has been a common and widely used approach by farmers and animal production companies to achieve an improvement in animal performance, health, and welfare. Fatty acids like conjugated linoleic acid (CLA), polyunsaturated fatty acids (PUFAs) like the docosahexaenoic acid (DHA) and the eicosapentaenoic acid (EPA), dietary fibres like citrus pectin, and exosomes have all demonstrated to have immunomodulatory properties both in humans and animals.

Therefore, we aim to mimic what truly happens within the intestinal immune system of the animals when their diets are supplemented with those molecules. Thus, we will work with the most predominant subsets of immune cells there found, namely peripheral mononuclear cells (PBMCs). Moreover, to have more realistic and accurate information of which effects these molecules have on the animals' immunity, at a cellular and molecular level, we also aim to include proteomic² and transcriptomic³ analyses. The inclusion of these last approaches into our study are highly valuable and constitute the novelty of the work, as none of the studies carried out on these molecules so far had focused on the OMICs⁴ level.

Finally, we predict that through this integral assessment, using both in vitro and system biology⁵ approaches, we can have access to more transcendental and binding information on the impact of nutrition in the immune system of the animals, and consequently choose the best dietary supplements to assure their improvement in health and performance.

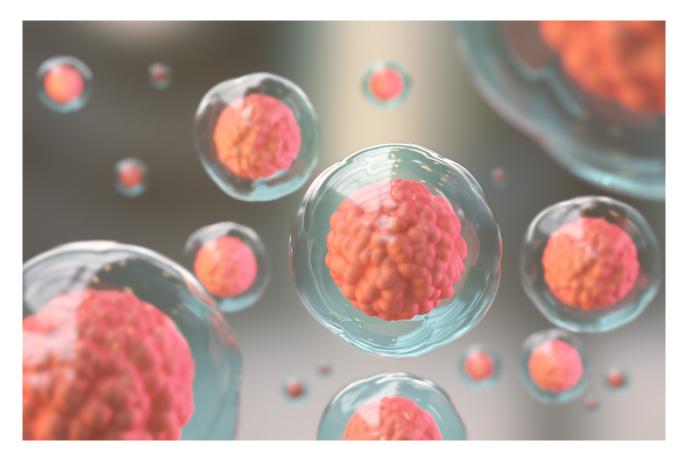
MY PROJECT SO FAR

During my first year at the University of Milan, I have set up protocols for the isolation and purification of different immune cells from cows' and chickens' whole blood. I have also studied the in vitro effects of fatty acids like the CLA and dietary fibres such as citrus pectin on bovine and chicken immune response, respectively. Specifically, I have tested how these molecules impact several immune functions (e.g. apoptosis, viability, chemotaxis, phagocytosis, killing capability...) of bovine and chicken mononuclear cells (lymphocytes and monocytes). In the next months, I will also perform the

- ¹ Microbiota is formed by ecological communities of commensal, symbiotic and pathogenic microorganisms [found in and on all multicellular organisms studied to date from plants to animals].
- ² Proteomics is the large-scale study of proteomes—set of proteins produced in an organism, system, or biological context.
- ³ Transcriptomics is the study of the transcriptome—the complete set of RNA transcripts that are produced by the genome, under specific circumstances or in a specific cell.
- ⁴ OMICs refers to the collective technologies used to explore the roles, relationships, and actions of the various types of molecules that make up the cells of an organism.
- ⁵ System biology is the study of the interactions of the components of various biological entities (including molecules, cells, organs, and organisms).







purification of exosomes from sows' milk to test the in vitro effects of these and PUFAs (DHA and EPA) on porcine immune cells. I have also started the collection of samples to perform transcriptomic analyses during my second year at the Autonomous University of Barcelona (UAB), and proteomic analyses on my third year at the INRA in France.

HOW DOES BEING PART OF AN MSCA ITN IMPACT ME?

Being part of the European Joint Doctorate on Molecular Animal Nutrition (MANNA), a MSCA ITN, has been of great value for my professional and personal growth. It has not only given me the opportunity to acquire new technical skills on cellular and molecular biology, by working in high quality scientific laboratories all around Europe. But it has also given me the opportunity to get to know a great group of scientists and persons who work towards the same objective.

The creation of collaborations, bonds, and exchanges of knowledge between each other is one of the most rewarding things for me in all of this process. Moreover, the acquisition of soft skills for a more efficient communication of my research and teaching opportunities has also been possible. Indisputably, the experience of living abroad, discovering new cultures, languages and people has made me grown as a person.

Finally, being part of a prestigious and respected funding programme such as the Marie-Skłodowska Curie Innovative Training Network has provided me with great recognition within the scientific community.

GABRIELA ÁVILA MORALES, EARLY STAGE RESEARCHER OF THE MANNA PROJECT 2



RESEARCH MANNA: WHAT HAPPENS WHEN YOU

SUPPLEMENT THE DIET OF BROILER CHICKENS WITH EXTRACTS OF CUCUMBER AND CITRUS?

Discover the Project 3 of the MANNA network. You will find out that novel plant extracts could be an alternative to the use of antibiotics.

The European Joint Doctorate in Molecular Animal Nutrition (MANNA) is an EU network whose mission is to provide a double doctorate-level training programme, valid throughout Europe, on innovative technologies applied to animal science and nutrition. The MANNA Joint Doctoral project is a Marie Skłodowska-Curie Innovative Training Network funded by the European Commission under the Horizon 2020 Programme. This is the fourth of a series of articles on the MANNA doctorate, through which we will discover in detail its projects and introducing the related Early Stage Researchers (ESRs).

WHO I AM

I'm Francesca Riva and I was born in Italy, where in 2015 I graduated in Veterinary Biotechnology at the University of Milan after a fellowship period in the laboratory of parasitology. Continuing my studies, I obtained an MSc in Veterinary Biotechnology Sciences at the same university, where I discovered my greatest passion in Omics technologies. In 2016, I was selected for an Erasmus+ international exchange programme and I had the opportunity to acquire seven months of practical experience at the Department of Veterinary Molecular Genetics of the Autonomous University of Barcelona (Spain), where I developed my final dissertation project. In 2017, I attended a master course in "clinical research" at the Mario Negri Institute for Pharmacological Research in order to deepen my knowledge on different aspects related to the planning of a clinical trial. When I discovered the MANNA project, I was particularly keen to join it as its research field is an excellent match for my academic background and my passion for Omics.



NEWSLETTER



RESEARCH

I am the ESR of Project 3 of the MANNA network, and I am working under the supervision of Maureen Bain (University of Glasgow), Vladimir Mrljak (University of Zagreb) and Geert Bruggerman (Nutrition Science, Belgium) on the project titled "Effect of novel plant extracts on gut microbiota, metabolome and immune system of broiler chickens pre and post E.coli LPS challenge."

PROJECT OVERVIEW

The poultry industry has grown significantly over the last few decades due to genetic improvements and intensive production methods, and it is predicted it will continue to increase. Nowadays, the primary aim is to maximize production; however, chickens are raised in intensive farming conditions with a high risk of epidemic outbreaks. Prevention and control of poultry diseases have led during the last decades to a substantial increase in the prophylactic use of antibiotics. When antibiotics are not properly used, they may lead to antibiotic resistance. For this reason, antibiotics were outlawed in poultry and pig diets around the world, beginning in Sweden from 1986. From that moment, many researches have been carried out to look for natural agents with similar beneficial effects to antimicrobial growth promoters and antimicrobial substances. Probiotics, prebiotics, enzymes, medium-chain fatty acids, essential oils and vitamins are al-



ready used as alternatives but, during the last few years, plant extracts have attracted the attention of the research community for their promising properties. However, the active compounds of plant extracts and their mechanism of action is not well known, so, the identification and standardisation of their beneficial chemical and/or biological molecules is one of the major challenge for animal industries. Among the variety of novel plant extracts, citrus and cucumber extracts have been chosen to be tested in my MSCA PhD project thanks to their availability, cost, active molecules (i.e. pectin, flavonoids, limonene, carotenoids, polyphenols, dietary fibres, essential oils) and the existing evidence of beneficial effects in poultry. Having a full picture of how these novel dietary ingredients interact with the bird's microbiota¹, metabolism and immune system could develop new dietary plans that would enhance bird growth, maximise feed efficiency and protect the birds from diseases.

Therefore, the main aim of my study is to test the hypothesis that supplementing the feed of broiler chickens with citrus or cucumber extracts can improve gut health through the modulatory effects of the microbiota, metabolome², and immune system under standard and E. coli lipopolysaccharide (LPS) challenge conditions; LPS being

¹ Microbiota is formed by ecological communities of commensal, symbiotic and pathogenic microorganisms found in and on all multicellular organisms studied to date, from plants to animals.

² Metabolome refers to the complete set of small-molecule chemicals found within a biological sample (blood, urine, faeces).



an endotoxin able to stimulate the innate immune response. To investigate the aims, two in vivo trials have been carried out at Cochno farm, in Glasgow, to explore if each dietary supplement influences:

- the growth performance of healthy chickens (zootechnical data);
- the intestinal microbiota of healthy chickens;
- the gut morphology of healthy chickens (histology-morphometric measurements);
- the immune system of challenged chickens (acute-phase proteins investigation);
- the metabolome of challenged chickens (metabolomics study).

MY PROJECT SO FAR

During my first year at the University of Glasgow, I ran two in vivo trials on broiler chickens. The basal diet used in the trials was formulated and prepared at the Nuscience company in Belgium, while the experimental extracts (citrus and cucumber) were blended with the control diet directly at Cochno farm. During the trials, various biological samples (e.g. tissue and blood) and zootechnical data were collected to evaluate the growth performance of chickens depending on different dietary regiments (control, citrus or cucumber).

Samples collected from healthy chickens were used to study the microbiota and evaluate the microbial population at gut level of healthy chickens during a period of 28 days. The connection between the status of intestinal villi and the microbiota, as influenced by the diet, was also evaluated through a histology study based on the assessment of morphometric measurements at the gut level.

Samples collected from chickens challenged with E. coli LPS were used to study the acute phase response (APR), evaluating some biomarkers of toxicity (acute phase proteins, APP, in plasma) to understand the effects of LPS on the immune system of chicken fed with different diets. Novel APPs will also be explored and assessed in collaboration with Life Diagnostics, USA, a company partner of my PhD project.

Next year, my study will mainly focus on metabolomics at the University of Zagreb, where the unexplored metabolome of challenged chickens will be used to identify metabolites that could be used as biomarkers of health.

HOW DOES BEING PART OF AN MSCA ITN IMPACT ME?

Having a chance to participate in an MSCA ITN such as the MANNA programme is one of the greatest professional experiences an Early Stage Researcher could have and will remain a milestone of my career's development. MANNA is giving me the opportunity to link Animal Sciences to OMIC technologies, expanding my scientific prospects as a researcher. I had the opportunity to run in vivo trials on chickens, increasing my knowledge on nutritional and management requirements to conduct a good experiment on the animals. I also had the opportunity to carry out experimental feed planning and production on my company's secondment in Belgium (Nuscience), which allowed me to integrate academic and commercial interests.

MANNA is providing me with the opportunity to participate in trainings and conferences that boost my knowledge in Animal Sciences in association with OMIC technologies while also improving my communication and scientific skills.

Next years, I will travel to my second university (University of Zagreb) and one of my industrial partners (Life Diagnostics) to carry out part of my PhD work. So I will have the opportunity to work in different laboratories and environments. Through these collaborations, MANNA will offer me a real-world experience, which is very useful in building my future as a researcher.

FRANCESCA RIVA, EARLY STAGE RESEARCHER OF THE MANNA PROJECT 3



RESEARCH PARTNERING WITH THE NON-ACADEMICS: IS IT AS EASY AS ON PAPER?

PhD training in neglected tropical diseases (NTDs) – The necessary and challenging collaboration between academic and non-academic institutions.

EuroLeish¹, an MSCA ITN focusing on the control of parasitic disease leishmaniasis, organised a thoughtprovoking session during the 12th European Congress of Tropical Medicine and International Health (ECTMIH) in Liverpool, UK in September 2019. Although there are good reasons behind the recent shift towards collaboration between academic and non-academic partners, the experience and lessons learned rarely get the spotlight. The aim of this session was to have a frank discussion about this topic, based on the fellows' experiences. This was relevant, as at least 4 out of the 15 PhD projects within the EuroLeish network (2015-2018) were designed with partnership in mind. These non-academic partners range from private pharmaceutical companies, small-to-medium enterprises (SME) and non-governmental organisations (NGO). They were involved since the beginning of the network and played an active role,



¹ The EuroLeish (<u>http://www.euroleish.net/</u>) project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie International Training Network grant agreement No 642609.

NEWSLETTER



RESEARCH

including training and secondment of the fellows for a period of maximum 11 months (remember that mobility clause?).

EuroLeish was ambitious, with its slogan "control of leishmaniasis, from bench to bedside to community," incorporating basic, translational and implementation research projects. The project drew from different scientific disciplines (i.e. molecular biology and epidemiology, drug discovery, vector control and immunology) but focused on a common goal, leishmaniasis control. As of end-2019, 10 PhDs were successfully completed.

In the session in Liverpool, Aya Hefnawy and Joana Pissarra, who worked respectively on drug resistance and developing a new vaccine, presented their experience about collaborating with pharmaceutical companies. Aya worked with GSK, using one of their compounds to explore the utility of including drug resistance studies early on in the R&D pipeline for a new anti-leishmanial drug. She described how the company's policy also applied to her: results must be scrutinised and greenlighted, often much earlier than public presentation is made or a paper is out. Her thesis is still under embargo for that very reason. Joana was supposed to visit the company's facility but due to mishaps in coordination this could not take place.

As experienced by Bruno Hinckel, whose PhD was mostly based at an SME, the pros include well-equipped laboratories and infrastructure fitting to the corporate culture. However, the 'academic'-driven evaluation – e.g. in terms of a rigid publications



target – seems to neglect transferable skills obtained in a different cocoon. Temmy Sunyoto, whose PhD focused on access to leishmaniasis care in Africa, reported positive synergy with Médecins Sans Frontières' advocacy wing, the MSF Access Campaign, especially in regard to being able to interact with the users of her research results. Secondment proved useful in sharpening her advocacy and science communication skills.

What stood out as the common good of being in a mixed academic and non-academic collaborative set-up was the breaking out from the silos, the possibility of glimpsing a different atmosphere, work ethos and situations besides an academic context. The incorporation of trainees' mobility into the network, together with the commitment, strong affiliations and technology transfer between the participants, provided a highly synergistic framework for success. The pitfalls were many, but fellows coped by adopting a "what can't kill us only makes us stronger" attitude.

All the speakers noted that it is paramount that everything is well-defined from the beginning, avoiding administrative hassles. Secondment at these partners also involved meticulous planning related to clearances, and, if in another country logistical and administrative arrangements. The continuous engagements, in terms of annual meetings and retreats, proved to be useful also in solving communication issues. Furthermore, the experience gained in the non-academic partner was considered an advantage instead of a barrier, becoming an added value to their non-conventional PhDs. The fellows are now more ready than ever to take on new challenges!

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RESEARCH SYNTHETIC BIOLOGY AND BIO-ANALYTICS FOR THE FUTURE: BNACT

Developing a green economy is a top European priority. This creates an urgent need to train European researchers in the fields of synthetic biology and bio-analytics, focusing particularly on the ability to solve complex challenges in the design of relevant proteins. The Marie Skłodowska-Curie Innovative Training Network "RNAct - Enabling proteins with RNA recognition motifs for synthetic biology and bio-analytics" addresses this need by creating a comprehensive and cross-disciplinary consortium of 10 Early Stage Researchers (ESRs) at the forefront of their research. The RNAct project's main goal is to post-transcriptionally regulate gene expression and to detect specific RNAs by designing and characterising proteins containing RNA Recognition Motifs (RRM), which are regions that recognise these biomolecules.

THE CONSORTIUM

RNAct brings together seven beneficiary institutions from five different European countries. Four academic organizations (VUB, CNRS, CSIC, and HMGU) and three companies (Giotto Biotech, Dynamic Biosensors and Ridgeview Instruments AB) join forces with the support of six partner universities (University of Liège, Lorraine University, Technical University of Munich, University of Florence, Polytechnic University of Valencia and Uppsala University) to build up a highly interdisciplinary network to tackle the ambitious goals of the project.

THE COMPUTATIONAL/ EXPERIMENTAL BINOMIAL

The project promotes and integrates interactions between the computational and experimental fields as well as academic and industrial settings. ESRs 1-5 are developing computational methods whereas ESRs 6-10 are working on in vitro and in-cell experiments. All the data and results obtained from both sides are integrated in a central database, favouring the crossfertilisation of wet and dry disciplines. On one hand, computational and experimental ESRs will be paired with each other to gain interdisciplinary insights through buddy visits; on the other hand, secondments will allow the fellows to be exposed to innovation both in academy and industry.

THE WORK PACKAGES

The RNAct research is organised in three connected scientific work packages to accomplish the main goals of the project:

Work package 1 aims to design and characterise **RRMs**. The ESRs

will work with proteins containing one RRM and proteins containing several of these domains.

Work package 2 aims to represent and design dynamic proteins. Since dynamic regions of proteins adopt different conformations, obtaining accurate in silico structural models from experimental data is a difficult challenge. Here the ESRs will integrate experimental data in computational approaches at the protein sequence, structure and interaction levels, and will study how these data can be actively used for protein design.

Work package 3 is focused on the **bio-analytics and synthetic biology** fields. The ESRs will test the designed RRMs in cells and will incorporate them in biosensors to detect specific RNAs. All the results generated in this part will be useful to keep improving the RRM design cycle.







THE DESIGN CYCLE IN A NUTSHELL

The three work packages are connected in a yearly design cycle. This 'RRM design cycle' starts with computational approaches at the sequence and structure levels of proteins and RNA. In this way, we identify positions and mutations along the proteins and check how they might affect the RNA binding. After an experimental validation with high-throughput methods, the best performing RRMs will be further investigated at the atomic level with structural biology approaches and will be applied in (i) synthetic biology (e.g., incorporate an RRM in bacteria to enable post-translational regulation) and in (ii) bio-analytics (e.g., incorporate the selected RRMs in disruptive technologies such as switchSENSE® and LigandTrace® to detect specific RNAs in vitro and in vivo, respectively).

RNAct introduces new elements in existing computational approaches to enable the incorporation of protein dynamics and RNA interactions in protein design, and connects this new computational methodology via a tight feedback loop with experimental approaches at the molecular and cell levels.

CURRENT STATUS

All the ESRs have started working on their respective projects and **InteR3M**, the first version of the database, is already up and running. It includes all the available information about RRM and RNA binding, and all the ESRs will provide new data from their computational or experimental assays to keep improving it.

The RNAct ESRs are now reaching their scientific cruising speed and are ready for the challenges ahead by collaboratively looking for the best solutions and innovations in both the synthetic biology and bio-analytics fields.

Don't forget to <u>subscribe to our newsletter</u> to receive updates on this exciting project!

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The MCAA Newsletter is the main communication channel for and about the MCAA community. It provides information about the activities of our national chapters and working groups, as well as events, projects and partners.

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Any request concerning the newsletter, including suggestions about new topics and articles, should be sent to <u>news@mariecuriealumni.eu</u>.

INSTRUCTIONS FOR SUBMISSION

We welcome articles on any activity related to MCAA, local chapters, initiatives, events and so forth.

We especially welcome articles on MSCA projects, where one can either provide a general overview of a project or present initial/mid/final results.

Articles should be max 750 words, written in a clear, lay language, and possibly provide one or two images (copyright-free and high definition).

Articles should be sent to <u>news@mariecuriealumni.eu</u>.

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