MARIE CURIE ALUMNI

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Contents

Chairman's Letter

Dear Members and friends of the Marie Curie Alumni Association,

As the Marie Curie Alumni Association grows in prominence and multiplies its achievements, it is an honour to serve as the chair of the MCAA Board. As 2017 draws to a close and the Board's planning for the coming year is almost complete, now is a good time to update you on recent developments, as well as the work that your Board and Association are undertaking to support both members' careers and European Research and Innovation.

This year, there have been many excellent developments:

- The MCAA launched the 'My Super Science Heroes Series' crowd-funding campaign to publish a book for children about the life of Marie Skłodowska-Curie: "Marie Curie and the Power of Persistence". The campaign not only reached its funding target, but also attracted the attention of the US publisher Sourcebooks, which offered a contract for a publication run much larger than the 400 copies originally anticipated. The book will therefore reach many more readers around the world than we could have reached alone. This series will encourage children around the world to pursue careers in science, technology, engineering and maths (STEM), inspired by one of the best role models for women in science of all time, Marie Skłodowska-Curie. The success of this project is largely due to the outstanding engagement of the former Chair of our Policy Working Group, Dr Micaela Crespo Quesada.
- The MCAA now has almost 30 chapters globally and all are very active in promoting engagement by members at a local level. It makes me very happy to see how effectively our chapters outside Europe are working. For example, our Brazilian Chapter organised a three-day MCAA Brazil Europe Workshop that was attended by over 250 Brazilian researchers. Our Chapters outside Europe work closely together with EURAXESS Worldwide coordinators to promote EU funding and European research. In Africa, where there is no EURAXESS representation, our Chapter Chair, Dr Raelize Du Plooy, gave a presentation at the Horizon 2020 Information Day in Pretoria on 6 December. Our North America Chapter was founded in September 2017 and already has almost 150 members.
- I am personally very proud to have been involved in organising 'Career Day Academia' at the German Cancer Research Centre in Heidelberg in October. Prof. Dr Stefan Hell gave an inspirational talk on how he overcame many barriers before pursuing the research that led to him receiving the Nobel Prize.

The Marie Skłodowska-Curie Actions supported his career development at a time when he other support was hard to come by.

- I would like to invite all MCAA members to attend our Annual Conference and General Assembly on the 2-3 February 2018 at KU Leuven. This will be by far the biggest event that the MCAA has ever organised. We already have over 500 registrations. The success of this event is critical to engaging our members and collecting feedback on which direction MCAA should take in future. This year there will be an election for the General Assembly and I would like to call on members who feel they can devote time and energy to further building the MCAA over the next two years to nominate themselves Board positions.
- In 2018, MCAA will have a very strong presence at the European Science Open Forum (ESOF) 2018 in Toulouse. ESOF is a biannual event that presents scientific and technological research in such a way that Europe's developing 'scientific identity' is clear for all to see. The MCAA shares many interests with ESOF: we both want to bridge the gaps between science and society, between science and business, and we want to stimulate policies that support scientific research and in particular the career development of early- to mid-career researchers. The MCAA already has news of two successful proposals for Science Policy sessions at ESOF, as well as a Science in the City event. We are working together with the MSCA on holding a joint MSCA-ESOF satellite event and are waiting to hear whether further ESOF sessions will be successful. Our Policy Working Group Chair, Dr Fernanda Bajanca, is based in Toulouse and has been very active in coordinating the MCAA's strategy for ESOF.

I would like to take this opportunity to thank all Board members of our Board; I have been lucky to work with them and serve the needs of the MCAA and its members. I'm sure that the next Board will bring new energy and new ideas, while driving the MCAA forward, towards even greater success and further engagement with our members.

Yours sincerely,

Brian Cahill
Chair of the Marie Curie Alumni Association

High-quality sessions at the MCAA General Assembly

Hello all, I am Bala Attili, current MCAA Board member and organiser of this year's General Assembly (2-3 February 2018, KU Leuven – Belgium) and I am excited by the parallel sessions we've selected – see a brief introduction below!

CAREER CHOICE AND CAREER DEVELOPMENT

The vast majority of our members are researchers and we are aware that among our members, many are looking for 'the right' career move into either academia or industry, hence the session on Career Choice and Career Development. Sarah Glück, a dual degree holder in sociology as well as in political science and co-author of the 2016 Bratislava Declaration for Young Researchers, will be discussing career pathways for junior researchers, work-life balance and mental stress among researchers. Participants will also hear the expert opinion of Professor Katia Levecque on occupational health and well-being, work organisation and employment conditions, industrial relations, labour markets and welfare states. Professor Levecque is Assistant Professor of Industrial Relations at the Department of Personnel Management, Work and Organisational Psychology at Ghent University.

This parallel session is a great opportunity for a discussion on career choices and to gain some tips on an effective work-life balance.

SCIENCE COMMUNICATION

As scientists, we all do great research however communicating our science to the world is also of paramount importance. Effective science communication is vital to winning a grant or launching your own start-up. This session will be led by Dr Calum Mackichan, who is publications officer at the European Plant Science Organisation (EPSO) and Chair of MCAA communications. Scientists wishing to improve their skills in science communications are very much welcome to attend this session.

WRITING A SUCCESSFUL INDIVIDUAL FELLOWSHIP (IF) APPLICATION

Recent PhD graduates or candidates with at least four years of full-time research experience might feel a need

for assistance when it comes to writing grant applications. Within the MSCA actions are two types of IF open to experienced researchers from anywhere in the world looking to develop their career.

Writing a research proposal/grant application often requires a lot of preparation and any specific instructions must be both understood and followed. Are you thinking about research grants in conjunction with your next career move? If so, this session will be hugely beneficial.

WRITING AN ERC APPLICATION

An ERC grant is an excellent opportunity for an early-career scientist who has already performed significant work in his or her field and aspires to work independently in academia. Researchers from any country with experience of more than one post-doctoral position and an excellent scientific track record can apply for to the ERC. Do you want to know more? Then simply attend this session.

FUTURE INDUSTRIAL LEADERSHIP PROGRAMMES

Future Leaders Programmes offered by innovative multi national companies are a great opportunity for PhDs and early post-doctoral fellows who aspire to migrate from academia to industry. These two-year, rotational-based programmes have a steep learning curve in order to equip researchers with knowledge of industry's key business functions. This session is organised by Dr Kiran Kumar Chereddy, Manager for Project Management and Strategy at Novartis International AG and MCAA treasurer, along with Bérénice Kimpe, who is responsible for international cooperation at ABG and an editor offering career advice to PhD students. Are you looking for a career outside of academia? Then you might want to join this session.

PROTECTING INTELLECTUAL PROPERTY

Do you have questions on how to file a patent or to protect, exploit and commercialise your academic ideas? Then do not hold back from attending this session. It will focus on start-ups and IPR, and the key speakers include Dr Rudy Cuyvers, head of the Spin-off & Innovation Unit at KU Leuven R&D; Dr Isabelle François, Intellectual Property Officer at KU Leuven R&D; and Mr Benoit Verdonck, examiner for Civil Engineering, EPO, The Hague.

HUMANITIES AND SOCIAL SCIENCES

For researchers in humanities and social sciences, we have invited several excellent speakers to the 2018 GA. Participants will be able to indulge themselves in an active discussion with Dr Nina Díaz Fernández, Cultural Heritage Conservator and an expert on the conservation of Eastern European art history. Dr Gabriella Lombardo, an expert in global research funding, research and education policies, and international higher education will also be present along with Dr Justine Seran, an ESR in English Literature and 'Go Abroad' Project Administrator for Edinburgh Global at the University of Edinburgh. Finally, come and listen to Mr Dario Pelizzon, Head of the Research Office at Ca' Foscari University of Venice.

In addition to the parallel sessions described above the programme includes many other interesting sessions, such as those on mentoring, balancing professional and personal life in a research career, and Open science. Outside of the sessions, parallel activities such as a job fair and poster presentation should not be missed.

The second day of GA-2018 is solely for MCAA members and the major events forecast for this day are the election of new Board members and parallel sessions on different working groups.

Special coverage – Research in Catalonia
Towards a Catexit?

Catalonia in north-eastern Spain held a referendum on independence on 1 October 2017. Some 2.26 million Catalans voted that day and 90 % of those backed independence.

A short timeline (source: BBC)

September 2015
Separatist parties win the regional election, which they say gives them a mandate to push for independence.

November 2015
Catalonia's parliament adopts a resolution which supports independence.

December 2015
Spain's constitutional court revokes Catalonia's bid to begin the process of separating from the rest of Spain.

January 2016
Regional assembly chooses staunch separatist Carles Puigdemont to head government.

March 2017
A court bars the former leader of Catalonia, Artur Mas, from public office for two years for staging the 2014 referendum.

October 2017
Spanish police disrupt a planned independence referendum, injuring hundreds of people. The vote backs separation from Spain, and the government declares independence. Spain imposes direct rule.

December 2017
Regional elections were organised by the Spanish government. Pro-independence parties secured a renewed majority in the Catalan parliament.

THE OCTOBER REFERENDUM (1 OCTOBER 2017)

Carles Puigdemont announced in June 2017 that a referendum would take place. A symbolic vote led by Puigdemont's predecessor Artur Mas had already taken place in November 2014, and 80 % of those who voted – 1.8 million people had voted in favour of Catalan sovereignty.

Two weeks later, the police arrested 14 Catalans officials suspected of organising the October referendum and announced they had seized nearly 10 million ballots papers. Some 40 000 people protested against the police crackdown and Puigdemont accused the Spanish government of suspending regional autonomy.

On the day of the referendum, 1 October, 900 people were injured as police tried to stop the vote. This generated frustration and anger, even among those against independence.

On 27 October, the Spanish government took control of Catalonia and dissolved its parliament after some Catalan MPs voted to establish an independent republic. Spanish Prime Minister Mariano Rajoy fired regional president Carles Puigdemont and ordered regional elections to be held on 21 December.

Puigdemont travelled to Belgium with several members of his former government to avoid charges of sedition, rebellion and misuse of public funds. In Belgium, he campaigned for the next regional elections.

The former Vice President of Catalonia, Oriol Junqueras, as campaigned – from jail.

THE REGIONAL ELECTIONS (21 DECEMBER 2017)

The three separatist parties won a total of 70 seats in the 135-seat regional parliament, even though the centre-right, pro-unionist Citizens party was the single biggest winner, taking 36 seats. Between them, the three parties have enough seats to reassemble the parliamentary majority that put them into office after the 2015 elections if they can form a new coalition.

SOURCES:

https://elpais.com/elpais/2017/12/14/inenglish/1513252578_550246.html

https://www.theguardian.com/world/2017/oct/01/dozens-injured-as-riot-police-storm-catalan-ref-polling-stations

http://edition.cnn.com/2017/10/02/europe/catalonia-independence-referendum-explainer/index.html

http://edition.cnn.com/2017/12/19/europe/catalonia-youth-election-spain-intl/index.html

http://www.bbc.com/news/world-europe-20345073

https://www.theguardian.com/world/2017/oct/04/can-catalonia-declare-independence-from-spain

https://www.thetimes.co.uk/article/catalan-pro-independence-leaders-oriol-junqueras-and-carles-puigdemont-at-odds-8klr9zvlq

https://www.politico.eu/article/7-contenders-in-the-catalan-election/

NOTA BENE FROM THE AUTHOR

This article was written in December 2017, the day after the regional elections on 22 December. If the situation has changed in the meantime we ask you for your understanding.

Special coverage – Research in Catalonia
What about research?

Catalonia's 1 October independence referendum led to numerous questions within the region's scientific community.

Yoran Beldengrün is one of those concerned. A PhD student in Barcelona, he organised a debate about research in Catalonia on 25 October and invited Eric Banda, Lluis Rovira Pato and Pere Puigdomenech as speakers. Here they share with us their thoughts on the event and the issues raised.

ABOUT THE DEBATE

ABOUT YORAN BELDENGRÜN, ORGANISER OF THE DEBATE

Yoran is Swiss (with a French/Israeli family background) and has lived in Barcelona for three years. He is currently working on his PhD at Catalonia's Institute for Advanced Chemistry, which is part of the Consejo Superior de Investigaciones Científicas (CSIC). His PhD is being carried out within the MSCA Initial Training Network (ITN) on 'Biopolymer BAsed FOOd Delivery Systems. (BIBAFOODS).

Yoran is also the founder and president of the Scientists Dating Forum.

ABOUT THE SPEAKERS


Enric Banda

Enric Banda is senior advisor at Barcelona Supercomputing Center (BSC).

Pere Puigdomènech, works as a research professor at the Centre for Research in Agricultural Genomics (CRAG-CSIC).

Lluís Rovira is the director of Fundació Institució dels Centres de Recerca de Catalunya (I-CERCA).


Pere Puigdomènech


Lluís Rovira

BEHIND THE SCENES OF THE EVENT

"We wanted decision makers to inform the scientific community how the next steps will look like"
(Yoran)

Yoran and the Scientist Dating Forum came up with the idea of organising a debate in September. *"The independence of Catalonia was on the table and the consequences of such a scenario for the scientific sector could be significant. Publicly however, no one was really talking what could happen next and it did not seem like the scientific community was prepared for possible Catalan independence. We wanted decision-makers to inform the scientific community how the next steps will look,"* he says.

When organising the event, on the one hand it seemed very important to preserve a certain balance among the speakers (political opinions, gender, public/private sectors), but on the other hand, Yoran received many refusals from people who did not want to talk publicly about their views, either because this may put their position at risk, or because their employers – research centres – had policies prohibiting involvement in political affairs. *"This particularly concerned especially people who were against the independence of Catalonia,"* he adds.

A FRUITFUL DEBATE WITH DIFFERENT OPINIONS

The plan was to hold the debate in a bar with 130 seats. Huge interest meant that live streaming was also needed however. "*We had people from all over Spain and the world watching us online. As such a young organisation, involving young volunteers from the scientific community, we are very proud to have put on such an important event,"* says Yoran enthusiastically. *"It was excellent for both the panellists and the public,"* echoes Pere.

"Spain, in terms of science policy, is a huge system that is slowly sinking like the Titanic"
(Lluis)

Lluis found all the participants to be very respectful. According to him, *"Spain, in terms of science policy, is a huge system that is slowly sinking like the Titanic because of a lack of political commitment and bad decisions taken in past years."* He thinks that an alternative to Spain is possible for Catalonia's scientific sector, and cites Denmark as a role model: *"a small country with a comparable population size and scientific production level, generating high impact in the world of knowledge with a lot of success, reforming the universities and research systems, and launching interesting R&D programmes such as the centres of competence."* His perception was that *"the arguments for maintaining Catalonia united within Spain, in terms of research and technology, were weak or out of focus."*

"Such a period would be, in my opinion, very damaging for the science system in Catalonia."
(Enric)

Enric was also very positive about the debate: *"The organisers are to be congratulated. It was the first debate on the topic of science/independence."* He does however see trouble ahead: *"An exit from Spain would have to be agreed with the Spanish State. I think this will take a protracted period of time. Such a period would be, in my opinion, very damaging for the science system in Catalonia."*

THE REFERENDUM AND ITS POTENTIAL CONSEQUENCES

POLICE'S VIOLENCE

"We were mostly very angry with the Spanish Government to send the brutality of Police" (Lluis)

All our interviewees agree that the response of the police during the referendum was disproportionate. *"We were mostly very angry with the Spanish Government about the police brutality towards the crowds of voters. About 1 000 people were injured, 20 % of them aged over 70!"* says Lluis regretfully. *"I have huge respect for the Catalan people leading the campaign for independence in such a peaceful manner. This is an opportunity that the central government does not realise it has. In many other countries, violent subgroups of such a movement would appear quickly,"* says Yoran.

AFTER THE REFERENDUM

"Uncertainty, unity and tension" are the three words Yoran uses to describe the situation after the referendum. *"Uncertainty as nobody knew what would come next. Unity, as you saw so many people going together onto the streets and demonstrating for the same cause. And tension between pro- and anti-independence backers – from the political scene to family living rooms."* He sees pro-unity marches as a good sign, however, as evidence of a *"healthy democracy"* and he says that the Catalan Government has repeatedly supported democracy.

For Lluis and many other Catalans, the region is currently at a historical crossroads *"And finally we have taken the right turning,"* he claims enthusiastically.

Whatever people's political leanings, Enric points out that the referendum led to many people being politically active for the first time.

"On both sides, they took wrong decisions and the final result is a very complicated situation." (Pere)

Pere's views are less enthusiastic: *"I personally do not share the analysis offered by political parties on either side. On both sides, they took bad decisions and the final result is a very complicated situation."*

BEING A RESEARCHER IN CATALONIA

Looking ahead, what does the future hold for researchers? *"In any case the cuts to the science budget over recent years have been very negative for the system, which was not all that resilient. Some believe that a new situation would be good for Catalonia,"* says Enric. *"Others are very reluctant because leaving Europe would be devastating for their research."* He adds that there is no guarantee that any future government would be "science-friendly". *"I believe the economy would be weak for quite some time and therefore Catalonia would lose a good part of the strength it has previously enjoyed."*

"The conflict between both Governments make any compromise very difficult." (Pere)

"All of us are very worried," says Pere. "In my opinion, the politics of the Spanish Government over the last five

years have brought us to one of the worst situations faced by science in recent years in terms of funding, positions for young scientists and university professors and the general organisation of science, which has become more bureaucratic and rigid. The conflict between both Governments make any compromise very difficult."

"Research would flourish even more in Catalan institutions. We need to adapt to the new situation."
(Lluis)

For Lluis, the future looks bright, *"Research would flourish even more in Catalan institutions. We need to adapt to the new situation and hopefully this transition will be short. Catalonia already has the agencies (AGAUR, AQU, CERCA, CSUC, ICREA, ACCIO) and infrastructure to sustain scientific activity, the point is how important research and technology would be for the new Catalan authorities,"* he muses.

WHAT ABOUT THE EUROPEAN UNION?

The EU represents an important aspect of the debate. If Catalonia separates from Spain it would also leave the EU. *"A significant amount of Catalan research money comes from national or international sources. Following a transition period, a new financing model of Catalan science would have to be created,"* says Yoran. The future of the 23 National Research Council research centres located in Catalonia is also uncertain: *"What would happen to them? Will they move to other Spanish regions? Will they get special treatment? Would they be 'sold' to the Catalan government which would then set up similar state structures?"*. The same questions would apply to the Catalonia-based Barcelona Supercomputing Centre and the ALBA Synchrotron, which largely belong to the Spanish government. And the questions continue: *"What would happen to foreign researchers and attracting outside talent? Would mobility still be so easy?"* wonders Yoran.

"I would expect that eventually the situation would be similar to Switzerland, Norway or other associated countries."
(Enric)

Lluis sees a role for the EU in Catalonia's future *"Catalonia would probably not become an EU member state the day after independence because of the Spanish veto. However, the option of becoming an Associated Country is very high and attractive. Concerning research, minor changes are to be expected."*

Enric also supports the idea of Catalonia as an Associated Country, adding however that *"the devil is in the detail!"* He also predicts a long period of negotiation, which could be damaging for Catalonia.

WHAT'S NEXT?

"The recent past has shown, however, that collaboration between Spain and Catalonia has been rewarding from a scientific viewpoint," says Enric. With this in mind, all three agree on the importance of negotiations.

Pere seems worried about the future of science in Catalonia, calling for the preservation and consolidation of the Catalan system, as well as the Spanish system. *"Politicians do not care too much about science at the moment and I hope that not much harm is done in the short term."*

Lluis is more optimistic, predicting that Catalonia will retain its strong reputation in science. He sees the best possible outcome to be an agreement between the Republic of Catalonia and Kingdom of Spain on certain science questions *"I'm sure Catalonia will continue being as attractive for talented researchers from all over the world as it is today,"* he adds.

"Catalonia is currently living a volcano life."
(Yoran)

"As long as there are no concessions from either side (central government or Catalonia) and political prisoners are not released, the Catalan volcano will continue to erupt," concludes Yoran.

The 21D: # TambéVotemCiència campaign

The Scientists Dating Forum launched a campaign for the regional elections on 21st December.

The organisation prepared a template for the political parties, which was intended to serve them to present their position on scientific issues.

Five questions on science, innovation and educational policy and five questions on scientific areas were sent.

The aim was first to get official support from the majority of Catalan scientific entities and then, end of November, to approach the political parties.

Results are available here:

http://scientistsdatingforum.org/21d-per-temes/

Want to know more about the debate? Read the blog post:

http://scientistsdatingforum.org/bars-scientific-sector-in-dependence-catalonia/

natureindex.com talked about it as well:

https://www.natureindex.com/news-blog/where-next-for-catalonian-science

Pictures of the debate:
https://www.facebook.com/pg/ScientistsDatingForum/photos/?tab=album&album_id=1893817047601796

Video of the debate:

https://youtu.be/2roJWDp-Hzw
https://www.facebook.com/pg/ScientistsDatingForum/videos/?ref=page_int

NOTA BENE FROM THE AUTHOR

The interviews were carried out in November 2017. This article was finalised in December 2017, the day after the regional elections on 22 December. If any changes have occurred in the meantime we ask you for your understanding.

Special coverage: ESOF 2018
The MCAA is ready for ESOF 2018!

This year's well-known EuroScience Open Forum (ESOF) will take place from 9 to 14 July in Toulouse - France's 'Pink City'. The event will gather more than 4 000 delegates from over 80 countries, plus 400 journalists and science communicators. Around 35 000 participants are expected to attend 200 satellite events, conferences, workshops and scientific sessions.

And of course, the MCAA will also be there! Fernanda Bajanca unveils what the association has been doing to ensure a strong presence at the event.

HOW WILL THE MCAA BE REPRESENTED AT ESOF 2018?

The MCAA has mobilised all possible resources to guarantee a strong presence at ESOF 2018. Nearly all MCAA working groups are participating in this project and some MCAA Chapters and Board Members are actively involved. We are proposing sessions for all ESOF 2018 programme streams - scientific, careers, science to business, science in the city - and we are also collaborating with the Commission on a satellite event. Among our members are experts in a variety of themes and a wide network of contacts, which makes it possible to organise high-quality panels on a variety of hot topics. Our proposed sessions will be led by an MCAA member and the panels are composed mainly of external partners and high-profile representatives of the most important stakeholders. We have involved both young and experienced people in the organisation of the sessions, which will of course have gender- and regional-balance.

WHAT SESSIONS ARE YOU PLANNING?

We submitted two proposals for the Scientific programme and both were selected:

- Reaching for Openness. Implementation - The next

step for open science, roundtable discussion proposed by Maja Mise;

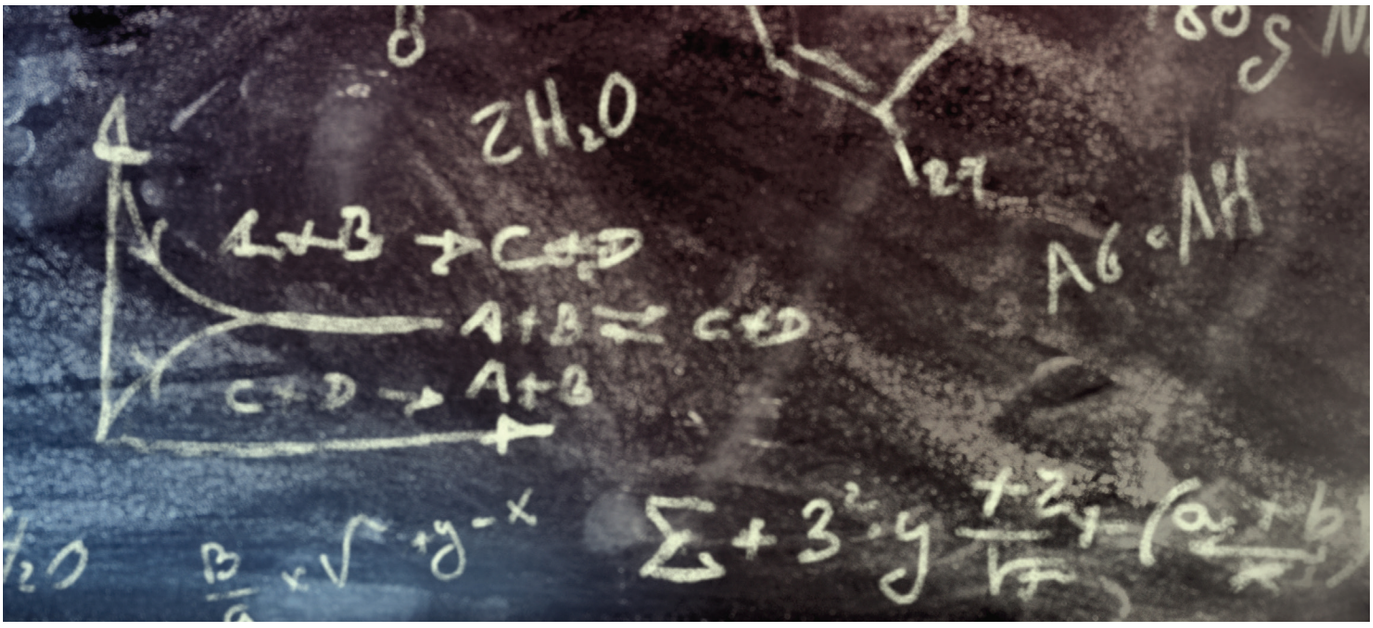
- Refugees and Higher Education. A discussion of best practices to integrate displaced students and academics in higher education, roundtable discussion proposed by Miguel Antonio Lim and Andreina Laera.

One session already confirmed at the Science in the City programme:

- European Science Slam @ESOF2018: Smart nights on stage - science in 10 minutes, co-proposed by Marie Curie Alumni Association (MCAA), Wissenschaft im Dialog (WiD) and Centre for Genomic Regulation (CRG).

The remaining programme sessions are still under evaluation. For the Careers programme, we submitted the following:

- Volunteering as a way to develop 21st century skills for early stage researchers, workshop proposed by Zsofia Buttel;
- The lost generation. A discussion on solutions for the overproduction of overqualified researchers without permanent positions, roundtable discussion proposed by Sara Ricardo;
- Family-Friendly Research to boost Women's Research



Career – How to address work-life conflicts and balance professional and personal life in career development in research, roundtable discussion proposed by Giovanna Avellis;

- Perspective of Humanities and Social Sciences Researchers. Challenges, Prosperity and Guidance, roundtable discussion proposed by Nina Díaz Fernández;
- Increasing Awareness of Researcher Mental Health, workshop proposed by Brian Cahill.
- Researchers Associations beyond borders: how many computations to design an interactive constellation?, proposed by Maria-Antonietta Buccheri

One session submitted for the Science to Business program:

- Environmental impact of transportation on Europe: view of science and industry, roundtable discussion proposed by Pavlo Bazilinskyy.

WHY DOES ESOF 2018 FEATURE SO PROMINENTLY ON YOUR AGENDA?

ESOF has already established itself as the largest interdisciplinary science meeting in Europe. It offers a unique framework not only for debate, but also for networking among researchers, educators, business people, policy-makers, journalists and, importantly, brings science to the general public. Many ideas for scientific progress come from ESOF debates - you can meet so many of the top experts in so many different subjects in the same week, all of them debating with science policy actors, and with the public also present; this is rare! The MCAA is committed to becoming a strong force at ESOF. We want our members to take part in the most influential, topical discussions on science in Europe. Their voices can be heard in this Forum. The sessions we are proposing already bring to the table some of the topics for discussion that we, as researchers, feel need to be seriously addressed by the community in a timely manner. Just by contacting partners to participate in the panels, we have already initiated collaborations and established networks that are proving fruitful.

THE ESOF THEME FOR 2018 IS 'SHARING SCIENCE: TOWARDS NEW HORIZONS'. WOULD YOU PUT THESE TWO CONCEPTS TOGETHER?

Absolutely. The MCAA Policy working group has Open Science (OS) as one of its main focuses for 2018. This is a movement about sharing science - among researchers and with society - that has long been missing. We do think that the future is Open Science (see https://medium.com/marie-curie-alumni/the-future-is-open-science-dd9484463be6). We are committed to taking an active part in this movement, not only individually as researchers, but also collectively, as an association. We recently co-organised a webinar with EuroScientist entitled 'What does Open Science really mean?' (accessible at https://www.youtube.com/watch?v=u05E-sl_40A), in which Michele Catanzaro, a physicist and renowned science journalist, interviewed a panel of experts on OS. The panel also took questions from an online audience. The interest within the community was immense and we had many requests for follow-up webinars focusing on specific questions related to the implementation of OS. The scientific community is not only ready to share science, it is looking forward to doing so and wants to know how. One of our ESOF 2018 sessions is on the steps required to fully implement Open Science. We have joined together with Open Scholar, FOSTER, Eurodoc, EMBO and representatives from the European Commission to embark on a dynamic discussion with the audience about what is already in place and what we dream about achieving.

WHAT WOULD YOU SAY TO MCAA MEMBERS TO CONVINCE THEM THAT ATTENDING ESOF 2018, AND ESPECIALLY THE MCAA SESSIONS, IS WORTHWHILE?

As a colleague and participant in one of the MCAA sessions put it: ESOF is the place to be in 2018! There are lively discussions on hot topics in all fields. There is networking in every corner and opportunities waiting to be discovered. Many workshops will address a variety of themes. You can contribute to discussions that continue outside of the room. Plus there is a rich social programme. All this at the beginning of summer in the south of France, what could be better?! Follow here: https://www.esof.eu/en/

Special coverage: ESOF 2018
Interview with ESOF Champion Anne Cambon-Thomsen

As the ESOF Champion, Anne Cambon-Thomsen is expected to play a key role in organising the event. She took time out from a busy agenda to tell us all about her role and expectations.

TOULOUSE, THE PINK CITY, WILL HOST ESOF 2018. WHAT ARE YOUR EXPECTATIONS FOR THIS SPECIAL EVENT?

We expect more than 4 000 participants, from more than 80 countries, including scientists of all ages and disciplines, students, PhD candidates, journalists, science writers, policy-makers, editors and publishers, entrepreneurs, managers, social actors, politicians. The science festival taking place in the city is open to the general public and should encourage more than 30 000 people to participate.

A specific feature of ESOF 2018 is YESOF (ESOF for youth) that represents a full section of this ESOF edition and targets school age and early stage students. The quality of the programme relies on an excellent Programme Committee; the Science call already led to more than 300 proposals, of which 110 were selected with difficulty as many more were of excellent quality. To date we have in excess of 600 speakers from more than 50 countries. Two other calls recently closed (Careers and Science to Business) and we plan a total of 200 sessions over the 6 days, with a remarkable diversity of themes and excellent examples of interdisciplinarity. The exhibition will be on the three levels of the Congress Centre and will be organised in various 'villages' with a lively agora at each centre.

Another specific feature of ESOF 2018 is a general call

for posters, which is new as a full component of ESOF. It is more specifically directed towards students, PhD candidates and young researchers who are often insufficiently represented in session panels. There will be a poster competition and flash talks, plus we are brainstorming the best ways to highlight the posters throughout the forum. Therefore, we expect a lot of exchanges in all possible formats.

CAN YOU TELL US ABOUT YOUR ROLE AS ESOF CHAMPION?

The ESOF Champion is the representative for a given ESOF, the figure who personifies ESOF and leads its realisation. As a high-profile scientist and strongly European-minded person, the Champion is expected to play a key role in attracting academia, industry, government and media, and to ensure a strong local, regional and national visibility. The ESOF Champion is expected to deliver the project of ESOF 2018, including post-event activities such as the final report to EuroScience. They also lead the delivery team with the support of the local organisation, which for the Toulouse edition is the Université Fédérale Toulouse Midi-Pyrénées. In addition the ESOF Champion ensures the link between EuroScience and the local organisation, and is of course a EuroScience member. My own research discipline and scientific field as MD and research director at the CNRS (the National Centre for Scientific Research in France) in the areas of human immunogenetics, genomics, public health and bioethics of course influences the way in which I perform this role. One extremely interesting aspect is the broadening of the scope and the opportunity to interact with many different domains and stakeholders. The difficulty is to coordinate in a balanced way the many facets of such an event and the many levels which are all important, from local to national, European and beyond. As a Toulouse native, who studied and spent a great part of her career in the city, I am putting all my energy and enthusiasm into preparing ESOF 2018.

THE EVENT'S MOTTO IS: "SHARING SCIENCE: TOWARDS NEW HORIZONS". WHY WAS THIS CHOSEN?

The sharing of science is of fundamental importance. This is the necessary step that today allows science to be openly available, to cross barriers between disciplines, communities and countries, to be conveyed to citizens, to welcome their ideas and expectations and to be the anchor of a knowledge based society. Far from being a passive process, sharing science is an active endeavour that needs tools, methods, political will, imagination, curiosity, evaluation and reward; it is a new way to practice science but also to convey the values of research and innovation throughout society. It implies recognising the necessity of a proactive attitude towards crossing traditional barriers to sharing knowledge and also to incorporating the contribution of citizens into both science production and science policy. This requires an impulse, a vision, hence "towards new horizons", which is also a nod to Toulouse's renowned aeronautics and space activity, but goes beyond that. Europe has been and is still being constructed through shared diversity and open-mindedness. Especially in difficult periods, sharing is the action that allows us to be constructive. We had three formulations before finalising the motto and we organised a public vote, before finally choosing the 'winner'. Democracy is very present! We will break down this motto at different levels: sharing science between disciplines, between generations, between the academic world and the public, between academia and industry, between scientists and policy-makers. The proposal from the Commission for the EU's framework programme for research and innovation post Horizon 2020 will be published in June 2018 and largely discussed at ESOF 2018 in July, giving another flavour to "towards new horizons"!

AS THE ESOF CHAMPION, YOU ARE RESPONSIBLE FOR THE SUCCESS OF ESOF, BOTH IN TERMS OF ORGANISATION AND IMPACT. HOW WILL YOU MAKE IT A SUCCESS?

You cannot do something of that dimension alone. So my first response was to gather a team, committees and working groups of high quality that would allow us to address the many challenges we face. Then we relied on the experience of previous ESOF events, as their input and advice are very useful. Each ESOF is unique but they have a common structure so the handover is not just a moment but a process and I am very grateful to our colleagues from Manchester, Copenhagen, Dublin and especially Barcelona, for their invaluable input, and I also wish to acknowledge the collaboration with EuroScience. With this collective effort and enthusiasm, and the support of many institutions and partners, regionally, nationally and internationally, I am confident that we will deliver a memorable ESOF for each participant. I wish to underline the very active support from the European Commission, which is extremely encouraging. Overall, I hope my own capacity to mobilise various stakeholders, sources of energy and networks will also play its role. One of our aims is to get a high proportion of young investigators and students to share their energy and ideas with others: they have a role to play in the success of ESOF 2018!

YOU SAID, "TOULOUSE IS KNOWN FOR ITS AERONAUTICS AND SPACE RESEARCH BUT IT HAS MANY MORE SCIENTIFIC FACETS TO OFFER." COULD YOU TELL US ABOUT THESE?

The leading position of Toulouse and its region in aeronautics and space research and industry is of course well known and these themes will be well represented in ESOF. However, there is also the Toulouse School of Economics, now known worldwide thanks to a Nobel Prize in Economics (Jean Tirole, 2014); also think about Mercator Ocean, which has made a huge contribution to European leadership in operational oceanography, especially in the context of its leadership of the Copernicus Earth observation programme. Consider also health research, including the 'Oncopole', a unique endeavour that gathers research, hospitals and industry on the same site, and then there's biotechnology with renowned labs and projects such as Toulouse White Biotechnology (TWB). Note also students from INSA (an engineering school for applied sciences) recieved a gold medal for the 5th consecutive year at the iGEM, the premiere international competition in Synthetic Biology for student teams.

In addition, Toulouse is a major centre for agrosciences, (traditional, agro-resources, and agro-food industries). Furthermore, some of France's most important laboratories dealing with automatic control and robotics are in Toulouse, along with the richest collections in a natural science museum after Paris, and the most ancient literary institution in Europe: 'l'académie des jeux floraux'. These are examples of the variety of remarkable activities in Toulouse that are joining forces to make ESOF a success.

WHAT WOULD YOU SAY TO MCAA MEMBERS TO CONVINCE THEM TO ATTEND ESOF 2018?

MCAA members will enjoy France's lively fourth-largest city that boasts more than 100 000 students, including the location of the forum close to the city centre, the attractive programme with speakers from all over the world, the lively exhibition, and the opportunity to meet experts not only in science, but also in business, policy making, and journalism. The will also have the opportunity to take part in discussions on FP9 as well as networking with colleagues from all over Europe and beyond in a friendly atmosphere. These are all reasons to attend ESOF! Coming to Toulouse in the south-west of France in July is, without a doubt, a good choice and you can plan a unique tour of the scientific 'sights' that includes taking in the festival. I shall say nothing here about the social programme, in order to keep it a surprise, but everybody knows that we will be celebrating the end of ESOF 2018 on 14 July in France…

COULD SAY A FEW WORDS ABOUT TOULOUSE'S 'ART DE VIVRE'?

Words can't really convey the essence of life in Toulouse, but there are a few things you should know: take your time, smile, expect anyone giving you information to underline that they are doing so "with pleasure" [note from the journalist: when you say "merci" – thank you – in Toulouse, the usual response, "avec plaisir" – literally, with pleasure – is used instead of "you're welcome"], learn what a 'chocolatine' is, be prepared to change the world on a café terrace, and more than once. With such conviviality, pleasant interactions between culture and science, a proud tradition of good food, sports, music and the great outdoors, you might want to stay!

Special coverage: the EURAXIND project When academia meets industry

EURAXIND is a Horizon 2020 project that aims to increase industry and research collaboration opportunities, as well as mobility between academia and non-academic sectors. It can be considered a 'EURAXESS for Industry'. Svetlana Dimitrova (Project Manager) and three members of the researcher panel, Margaux Kersschot, Fernando Josa Prado and Lawrence David Finger, tell us about the project and the academic context that is driving it.


Svetlana Dimitrova

WORKING FOR THE ACADEMIA TODAY

The number of PhD students in European universities and research institutes is increasing. This is a good thing – qualified human resources and talented individuals make for a stronger economy. In 2015 there were 5.4 million master's students and 725 000 doctoral students, echoes Fernando, and the percentage of the population going on to tertiary education in the future is expected to continue growing.

However, the number of academic positions available is not growing as fast as the PhD student population. Fernando refers to the Royal Society's 2010 report, which pointed out that only around 3.5 % of doctoral candidates were likely to secure a stable job in academia. He pleads for *"a renewed strategy for managing the expectations of doctoral candidates"*.

"In the recent EURAXIND project survey of researchers, 78 % indicated that they would like to pursue an academic career. We also know from Vitae surveys that most expect to achieve this. They also show little awareness of the other options available," explains Svetlana.

And yet there are other options. There is an increasing number of research positions in industry- *"so many*

Margaux Kersschot

Lawrence David Finger

opportunities for researchers do exist!" says Margaux.

SKILLS

So far, academia has focused on *"high-profiles and big-impact research"*, says Lawrence, and skills like the ability to manage a team have been overlooked.

However, this situation is currently evolving. The EURAXIND survey on employers' needs showed that researchers' skills are similar to those sought by employers. *"Employers also valued the harder research skills much higher than researchers perceived they would,"* says Svetlana. How researchers present different kinds of skills in CVs, application forms or during an interview needs further thought however, and the survey indeed revealed a lack of confidence in this area.

For Margaux, one of the most valuable skills is the ability to adapt to a fast-changing world.

STRENGTHENING THE RELATIONSHIP BETWEEN ACADEMIA AND INDUSTRY

"On the one hand we have that exponential increase of technology development and use that requires industry to create products that will use those technologies to benefit society," says Fernando *"So industry will need a workforce that understands, creates, develops, improves, manufactures and markets those technologies."* Employees with an adequate level of education will be needed and a closer relationship between academia and industry will favour mutual understanding, according to Fernando.

The relationship between academia and industry is at the heart of the EURAXIND project. *"We need to start by changing the perception of researchers that careers outside of academia are somehow a worse option,"* says Svetlana *"In our recent survey of Alumni, satisfaction levels in these careers were significantly higher than for those still in academia, with only 6 % indicating a preference for returning to academia."*

But how can perceptions be changed? "Relations can be strengthened through joint research projects with business partners and universities, mobility of staff between industries, joint events, a strong valorisation of scientific projects and results to broad audiences and so on," suggests Margaux.

TRAINING

Universities currently offer PhD holders workshops, seminars and even courses to develop the skills needed by industry, such as management skills, team work, entrepreneurial and financial skills. Lawrence sees one of the main challenges to be getting PhD holders to avail themselves of these training opportunities.

For those who prefer an online option, tools such as the *Vitae Researcher Development Framework* are available. Svetlana would like to see institutions using similar tools and encourage additional training to prepare researchers for the wider world.

Communication (intercultural, oral, delivering a complex message to a broad audience, visualisation), team work, project management, self-management and effectiveness, leadership and developing your own business are priority areas for skills development according to Margaux. It is then important to transfer these skills from the research context in which they were developed into a new context, which is why these types of skills are often referred to as 'transferable skills'.

THE EURAXIND PROJECT

The EURAXESS network is a European Commission initiative that supports career development and researchers mobility. It names more than 500 research organisations as members and has 1 100 contact points in 40 European countries.

The EURAXIND project is a network coordinated by Vitae (UK). It aims to strengthen relationships between industry and academia by increasing employer engagement with existing EURAXESS networks with a focus on expertise, practical toolkits, benchmarking surveys and workshops. EURAXIND will provide opportunities for collaboration and strategic partnerships and promote the recruitment of highly skilled researchers into all employment sectors.

The project's objectives are to:

- identify employers' and researchers' needs so as to support intersectoral mobility and collaboration;
- provide online resources to support institutional engagement with employers;
- encourage researchers to consider career and research opportunities within industry;
- attract more employers beyond academia to use EURAXESS services.

TOOLKITS

The EURAXIND interface will be part of the EURAXESS portal and will offer:

A TOOLKIT FOR RESEARCHERS LOOKING TO EXPLORE OTHER CAREER OPTIONS, INCLUDING:

- information on working outside of academia;
- career stories – 40 stories from individuals who were previously researchers and are now working in other sectors – the stories focus on what they do, how they did it and the advice they would offer;
- labour market information on 15 sectors providing real data for employers about what they can expect, where they might work and what they might do;

- summary of researcher competences by occupation;
- self-reflection tools for individuals to discern what they want from their careers;
- guides to identifying opportunities;
- guides to securing non-academic jobs – interviews, CVs etc.

A TOOLKIT FOR INSTITUTIONS LOOKING FOR WAYS TO PROMOTE COLLABORATION WITH EMPLOYERS, INCLUDING:

- joint research with researchers working in business;
- work placement schemes;
- consultancy work for a business/company;
- the commercialisation of research results;
- temporary mobility into another sector;
- business focused research;
- sharing facilities with business;
- industrial PhD funded in collaboration with business.

AFTER EURAXIND

EURAXIND is expected to end in 2018, but the network will remain active. *"We will use the outcomes of the project in our everyday work as EURAXESS Contact Points and as EURAXESS Career Development Centres. We are constantly considering expanding and developing our services,"* says Svetlana. The team plans further network projects and hopes to tap into organisational and national resources.

MORE INFORMATION:

The EURAXIND project
https://www.vitae.ac.uk/researcher-careers/euraxess-uk-career-development-centre/euraxind

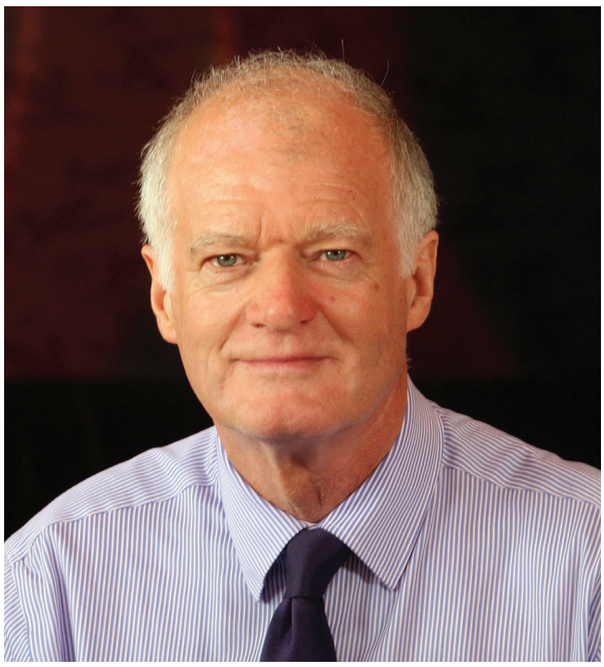
EURAXIND on CORDIS
http://cordis.europa.eu/project/rcn/203166_en.html

Special coverage EURAXIND
Intersectoral mobility: interview with Professor Kenneth Wann

Professor Wann is involved in the EURAXIND project. Having started his career in academia he moved to industry and then back to academia. Intrigued by his circuitous route we asked him to share a few tips for those researchers wanting to follow his example.

About Kenneth Wann

I was born in St Andrews, Scotland and attended University in Aberdeen where my Undergraduate training was in Physiology. I graduated with BSc Hons 1st class (1970). My PhD (Aberdeen University, 1970-74) was directed at understanding the contribution of an electrogenic pump to the resting membrane potential of skeletal muscle cells. I have a long-standing interest in the field of membrane ion channels and their role in convulsive states and stroke in the brain, pain in peripheral nerves, and arrhythmias in the heart. More recently I have turned my attention to their role in non-excitable cells such as in cancer and bacterial cells. I have worked on the academic staff of the University of Aberdeen (1972-1982), / Royal Free/University College London (1990-1995), and Cardiff University (1995-2017). I was a senior scientist at the Wellcome Foundation (1982-1986) and a Reader at the Medical Research Council (MRC) Clinical Research Centre (1986-1990). I was Professor of Cell Physiology and Deputy Dean of the University Graduate College in Cardiff University until 2017.



PROF. WANN, WHERE WOULD WE FIND YOU TODAY?

I have just retired and am currently Honorary Professor of Cell Physiology in Cardiff and I still have a 'mixed economy'. I am Director of a small start-up company, Ionotica Ltd. As such, I am primarily focused on a programme of work in the private sector that requires investment. The immediate goals are therefore to attract investors and to plan a recruitment strategy. On the scholarship front, I have a book contract with Oxford University Press to deliver one volume in their Biology Primer Series. I enjoy retaining my links with the Doctoral Education agenda in Europe and currently contribute to projects such as PRIDE and EURAXIND.

WHY DID YOU DECIDE TO LEAVE ACADEMIA IN THE 1980S?

I had a strong desire to see whether any of my drug

discovery ideas could deliver new medicines. In 1982 the university environment was not an optimal one in which to pursue such a goal.

WHAT WERE THE CHALLENGES DURING YOUR TRANSITION BETWEEN ACADEMIA AND INDUSTRY?

In 1982, the pharmaceutical company world was a big unknown to many of my university scientific colleagues. I believe that some took the view that I was 'jumping ship' and giving up my freedom solely in order to better my salary. In the company to which I moved (The Wellcome Foundation), there was in general a different mindset. For example, there were fixed working hours and the idea of working in the laboratory in the evening, or over the weekend, was far from normal. A more "softly softly" approach was also evident in the culture.

WHY DID YOU DECIDE TO RETURN TO ACADEMIA?

The Wellcome Foundation changed the direction of its research and closed various programmes of work. I moved to the MRC Clinical Research Centre (a government scientific unit) to revisit an area of research in which I had been active previously. The MRC unit closed with the retirement of one of its key staff and I elected to return to university to assume once again a mixed role of teaching, research and administration. I believe that part of me had missed engagement with young minds, while part of me also welcomed the more obvious security and control over one's future.

WAS THE MOVE CHALLENGING?

It was not a straightforward 'reverse step'. In the eight years that I had been outside the academic world it was not always possible to publish or to apply for grants. Hence, my CV was not the normal one, for someone of my seniority. Furthermore, I had switched research areas several times, working with quite different people, such that my reputation was 'diluted' in any one area. Firstly then, I had to find personal support and funding for my kind of research, which was not a simple task. Secondly, I had to re-establish myself within the university community. Finally, I had the sense that in some quarters the view might be that I had failed in the 'outside' world, or that I did not know what I wanted.

WHAT WOULD YOU ADVISE MCAA FELLOWS WANTING TO MOVE OUT OF ACADEMIA?

Only move if you are really enthusiastic about the position on offer and the work that it entails. Do a SWOT analysis of the pros and cons of the move. Ask yourself where this new job might lead you in terms of career advancement. In industry, there is more prospect of you working as part of a team. Is this something you would embrace or enjoy? Don't expect that any offer will be perfect. There is always risk in changing direction and engaging in something challenging and worthwhile. So imagine how you will feel if it all fails, and you have to look around for alternative employment. Will you be able to deal with that? Recognise that events may not be totally under your control and ask yourself how resilient or adaptable you are. Can you cope with changes that you don't agree with or see the sense of? Try not to be afraid to try something new, perhaps outside your comfort zone, and recognise that what might be perceived in the future as less than successful (or failure), is something that you can learn and grow from.

Special coverage: Mental health challenges
Study: mental health problems among PhD students

Katia Leveque, Frederik Anseel, Alain De Beuckelaer, Johan Van der Heyden and Lydia Gisle worked together on the study 'Work organisation and mental health problems in PhD students', which was published in May 2017. The study unveils the harsh reality experienced by students struggling to balance work-family conflicts, professional demands, control over their job, and their supervisor's leadership style. These challenges expose the students to high levels of stress, and can lead to mental health issues.

CONTEXT

The study is based on a sample of PhD students based at Dutch-language universities in Belgium. In 2013, the researchers published an online questionnaire in English and in Dutch for the attention of 12 191 junior researchers. There were 4 069 participants (response rate of 33%) in total.

This sample was then compared to mental health data for Flanders as a whole; the data were extracted from the National Health Interview Surveys. Data for three specific groups were used:

- highly educated individuals in the general population;
- highly educated employees;
- higher education students.

SCOPE

The aims of the study were to:

- assess the prevalence of mental health problems in a representative sample of PhD students in Flanders (Belgium);
- compare PhD students with three other groups;
- assess organisational factors relevant to PhD students that predict mental health status.

RESULTS: AROUND ONE IN THREE PHD STUDENTS AT RISK

The study states that 32 % of PhD students are at risk of having or developing a common psychiatric disorder, especially depression. This number was significantly higher than those for the comparison groups.

These disorders can be linked to the work-family interface, job demands and job control, the supervisor's leadership style, team decision-making culture, and perceptions of a career outside of academia.

Other factors also contribute, such as increased workloads intensification and the pace of change.

What's more, PhD students are increasingly under pressure due to labour-supply demand, an increase in short-term contracts, budget cuts and increased competition for research resources. This feeling tends to be more prevalent among younger academics.

But not all PhD students in all disciplines experience the same level of stress. Writing a doctoral dissertation in the natural sciences domain may entail working as part of a large team within a specific and well-defined project, and operating with pre-defined publication criteria, whereas PhD students in the humanities and social sciences are more likely to work in isolation, with less consensus over the quality criteria of their work.

WHY THIS IS A SERIOUS PROBLEM

The results are worrying for science for three reasons:

- the work of PhD students constitutes a major source of scientific advancement, it is therefore crucial to protect and support it;
- PhD students with mental health issues may pose a considerable cost to research institutions and teams;
- those problems may impact the supply of researchers for the research industry. If students are not helped in an adequate manner, they may turn their backs on their PhD studies, or even leave research altogether.

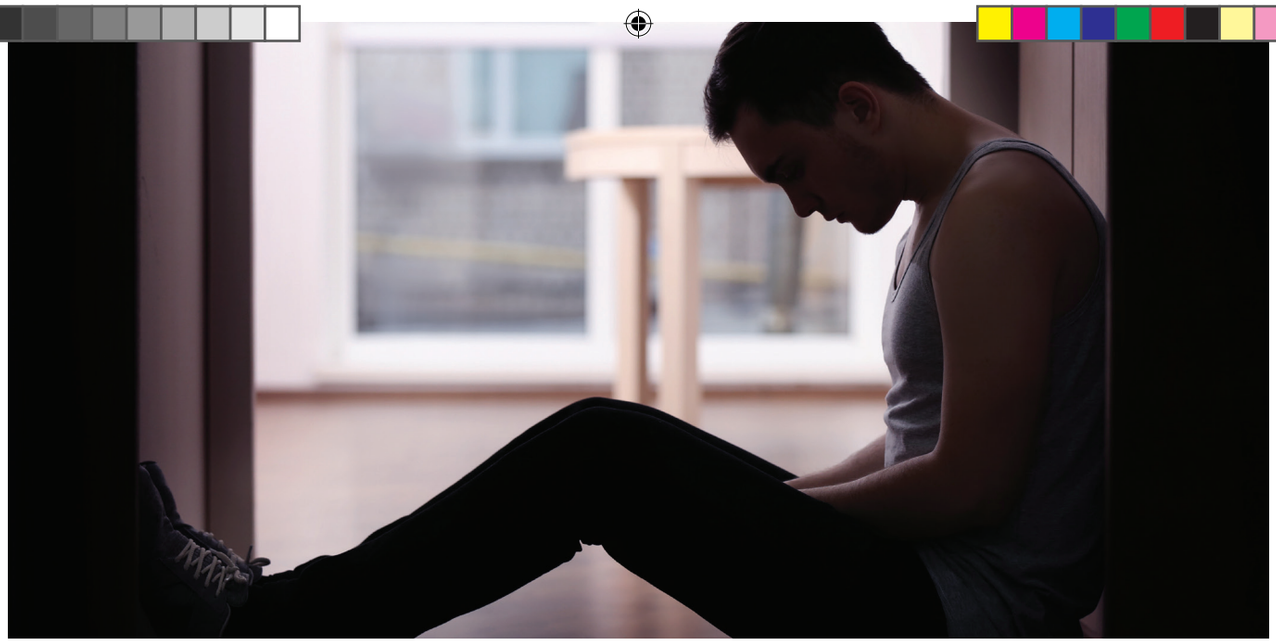
The study emphasised the need for more empirical data that makes it possible to identify solutions to the problem.

RECOMMENDATIONS

Policy-makers should work on prevention by raising awareness and by developing competences in recognising and dealing with mental health problems. They should also re-examine policies on research funding and employment conditions. The protection of employees' mental health should be the number one priority, and supported through data collection.

Universities should develop a risk-management approach to identifying the risks likely to affect the mental health of employees. The OiRA website provides an introduction to risk assessments.

Read the study at:
http://www.sciencedirect.com/science/article/pii/S0048733317300422



Special coverage: Mental health challenges Spotlight on the start-up rumo

Francisco Gonçalves is behind the start-up rumo, which aims to support researchers based abroad, in their native language. For researchers working far from their home country rumo creates an opportunity for them to speak to a professional in their mother tongue. Francisco explains how his own experience inspired him to create the company. He is also proud to announce the impending launch of the platform.

MENTAL HEALTH CHALLENGES

Scientific literature tends to categorise mental health challenges by clinical category: syndromes, disorders or even conditions. For example, panic attacks, depression, anxiety, mental disorders (where you can include eating disorders, personality disorders, and others).

I would make a differentiation between two branches:

Consciousness of the challenge:

- one is aware of the problem, i.e., he/she knows (or has a very good idea) why the challenge is arising, and what the smart link is with his/her mental health;
- one is not conscious of such a challenge being associated with his/her mental health condition.

Type of impediment:

- the challenge completely impedes someone from continuing his/her life and daily tasks;
- the problem is to some extent impeding the individual from having the level of well-being that he or she aspires to.

People who are conscious of small impediments in their life tend to wait until they disappear. I have observed that this does not happen often and when one decides to seek professional support the time needed to help the person to find solutions is longer than it would have been.

WHEN RESEARCHERS WORK ABROAD

Studies show us that researchers belong to one of the population groups for whom mental health challenges are more likely to occur. This happens due to a wide range of variables to which we are exposed, such as:

- constant stress regarding their publications;

- experimental activities;
- searching for good positions;
- rankings;
- changing from academia to the private sector;
- constant mobility;
- working in an isolated way.

Then there are the more traditional conflicts that add additional stress, such as relationship problems, family or existential issues. These are also often part of the trigger and make people suffer, feel pain and find themselves in a situation that leads them to seek help.

Researchers who work abroad also risk facing new challenges, such as the need for cultural adaptation.

Psychological studies on Ulysses Syndrome have shown why many variables regarded as stressors are found among migrants and we can now use this knowledge to understand how to work with mobile researchers.

From there we are able to work on different thematic axes, such as cultural intelligence, emotional intelligence and of course, mental health well-being strategies.

HOW TO TACKLE MENTAL HEALTH CHALLENGES

Different cultures take different approaches to mental health support. We have observed that for certain nationalities, talking about these types of issues is extremely difficult.

I would suggest that those recognising themselves in the description above share their experience – or at least part of the painful experience – with friends, colleagues or even bosses/supervisors. Talking about these issues is a very big step and when we talk, we become conscious of the problems and obviously one feels better after talking about problems, but this is only transitory and not enough.

People do need to seek professional help, either within their workplace or outside of it. The most important step is to understand that help is needed, to share that with colleagues or friends and then to seek help. For this last step the individual might want to be accompanied by a friend or colleague, but after contact has been made with a professional the process is something that the person needs to follow on his/her own.

BEHIND THE CREATION OF RUMO

As a migrant researcher I had personal challenges that I became conscious of and I understood that I needed to deal with them with the help of professional support in the form of a counsellor or psychologist.

I was having severe panic attacks. My first panic attack took me to the hospital as I felt I was having a heart attack. Those who have had this will recognise the symptoms: chest pain, arrhythmia and stomach pain. And even though I was already a certified psychologist with years of experience and supervision I never thought I was having a panic attack. That was my very last hypothesis. During a panic attack, the brain stops working properly and it's like a short circuit and you can't see clearly. Not only had I studied that –I had also worked with people who suffer from these types of problems, I felt it at that point. So I started to talk with friends, colleagues and with my supervisor. I was extremely lucky because I could count on all of these people 100 %.

But I knew that professional help was the next step in the therapeutic process. I couldn't find a therapeutic programme exclusively for expats so I had counselling at my university. However, there were moments when I wanted

to share some thoughts or feelings and even though I believe I have an average level of English I couldn't find the 'right words'.

It was clear that a platform such as rumo was needed and after finishing my therapy I started to work on the idea with colleagues.

ABOUT RUMO

In Portuguese, 'rumo' means the route or the direction that a means of transport, usually a boat, is taking. Semantically, it can be seen as the orientation that something needs in order to reach the desired destiny. The word describes extremely well what we are aiming to do with rumo: to provide orientation direction for people who are moving, or have perhaps moved already, and are far from the place where they started their journey.

We have two premises and one precondition at rumo:

- The service is exclusively for migrants. We have a focused and specialised framework for working with migrants. It's somehow different to working with non-migrants.
- We put huge weight on the culture. This means that we follow a cultural intelligence approach. We do this by only putting clients in touch with professionals who have the same type of cultural background as that person and who can speak the client's language. Some might feel that this is not important, but let's take some examples, such as silence, or sayings. Each language and culture has its own. Our experience to date supports this reasoning.

We only work online because it is more comfortable for clients and they can use our services anywhere Furthermore, our prices are competitive and affordable because we don't need to rent a physical space.

We currently have two major action areas:

- clinical services;
- career development actions.

WHAT'S NEXT?

We completed a pilot phase, which involved Portuguese speakers only and it went extremely well.

We launched the rumo platform in December 2016 and two months later we already had returns on all of the investment. The investment mainly concerned new services and pilots.

We are now almost ready to launch the pilots for other

languages, such as English, German and French. In early 2018, we also plan to have Spanish, Italian and Greek speakers onboard.

In terms of partnerships we are already working with Portuguese postgrad associations, embassies, and community associations.

> I cannot allow this opportunity to propose a partnership with the Marie Curie association to pass me by. We could deliver our services to this community, of which I am part, in a way that benefits all members of one of the biggest associations for migrant researchers. We would provide what our clients refer to as 'cultural comfort'.

rumo's website:
https://www.rumo.solutions/

Want to know more? Contact rumo:
info@rumo.solutions

Francisco Gonçalves

Tackling endocrine disruptors: the PROTECTED project

Endocrine disruptors are chemicals that can interfere with our hormones and affect our health. They can be found in pesticides, plastics, household cleaners, cosmetics, paints, metals and flame retardants.

Concern is growing in the EU and elsewhere over the potential impact of endocrine disruptors in both the short and long term.

The PROTECTED project aims to develop expertise on endocrine disruptors, as well as defences against them. The PROTECTED Innovative Training Network [ITN] is supporting 15 individual and personalised research projects. Anteneh Assefa Desalegn is one of the beneficiaries, and is behind the project 'Identifying mixtures of contaminants associated with adverse child health outcomes'.

PRESENTING THE PROTECTED PROJECT

PROTECTED is one of the Innovative Training Networks (ITN) under the Marie Skłodowska-Curie actions receiving funding from the European Union's research and innovation programme, Horizon 2020.

The network comprises 12 training sites at universites, research centres, and SMEs.

The objectives are to train Early Stage Researchers (ESRs) in the multidisciplinary skills needed for the emerging field of endocrine disrupters/their mixtures, to develop innovative analysis capabilities, establish/grow new risk assessment tools, develop communication strategies, and share knowledge and skills among partners, beneficiaries, and ESRs.

ANTENEH'S ROLE IDENTIFYING CONTAMINANTS LINKED TO HEALTH PROBLEMS IN CHILDREN

My role is to identify mixtures of contaminants associated with adverse child health outcomes using the Norwegian Human Milk Study (HUMIS) cohort. The challenges involved in such an environmental epidemiology project are linked to studying a low concentration of a large number of intercorrelated chemical exposures. Low-level exposure also means a small effect in terms of size.

In addition, exposure is complex and exposure profiles often do not significantly differ among individuals exposed in a given area.

Focusing on mixture assessment is also a novel approach since previous testing approaches and the risk assessment of chemicals have focused on a single chemical even though humans are in a reality exposed to a mixture of chemicals.

Furthermore, rare adverse child health outcomes require larger sample sizes to have sufficient sway, and makes cohort studies more expensive. So these are some of the challenges I am facing.

CHILDREN AT RISK

Children are the most vulnerable to endocrine disrupters. Both animal and human evidence show that the impact of endocrine disruption is highest during sensitive phases of development (foetal development, early childhood, and puberty).

Exposure during childhood also leads to a particularly high concentration within the body since children have a surface area to volume ratio that is three times greater than that of adults. Children also engage in hand-to-mouth and object-to-mouth behaviours, which again increases their exposure. Furthermore, children have immature organs and systems when it comes to dealing with chemicals.

Moreover, exposure to endocrine disrupters during critical periods early in life can have a significant health impact, even at a very low dose – often with lifelong consequences.

HOW TO AVOID ENDOCRINE DISRUPTORS

Exposure to endocrine disrupters can occur before or after a child is born. Reducing exposure is good for children's health, as well as for that of future generations.

Known endocrine disrupters such as bisphenol A, parabens and pesticides can be avoided by not buying or using products containing them.

Tips for avoiding endocrine disruptors:

Food

- Organic food is free from pesticides
- Eat fresh food whenever possible
- Avoid tinned foods
- Don't store foods/fatty foods in plastic containers
- Never microwave food in plastic containers

Cosmetics

- Buy natural cosmetics with an ecolabel

Toys

- Buy dolls/toys with ecolabels
- Wash toys and dolls before use
- Don't buy perfumed toys

Paints

- Choose products with ecolabels
- Be aware of paints containing heavy metals such as lead
- Let others renovate rooms, especially during pregnancy
- Ventilate rooms after renovation

Cleaning products

- Choose products with an ecolabel

Ecolabels to look out for include:

- "BPA-free"
- "PVC-free"
- "Phthalate-free"
- "Paraben free"

THE ROLE OF SCIENCE AND RESEARCH

At least 800 chemicals are known to have the potential to become endocrine disruptors; however, most have not been studied in relation to humans and wildlife.

Further studies are therefore required, along with resulting evidence, to support legislation that will limit the use and production of endocrine disruptors. Scientists also have a role to play in communicating to the general public about the health risks linked to exposure to endocrine disruptors, for our children and future generations.

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