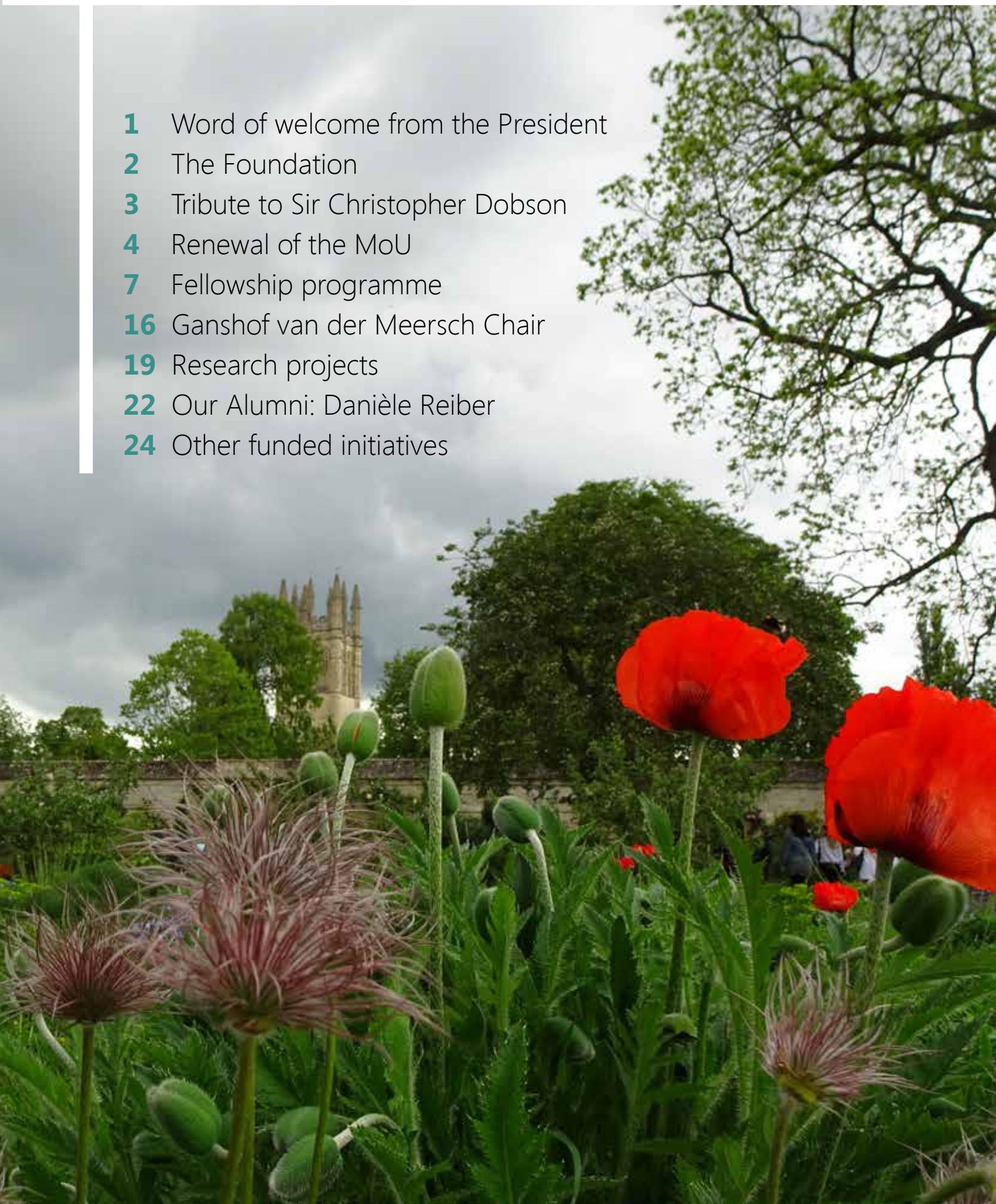


# ANNUAL REPORT | 2019



# Table of contents

- 1** Word of welcome from the President
- 2** The Foundation
- 3** Tribute to Sir Christopher Dobson
- 4** Renewal of the MoU
- 7** Fellowship programme
- 16** Ganshof van der Meersch Chair
- 19** Research projects
- 22** Our Alumni: Danièle Reiber
- 24** Other funded initiatives



# WORD OF WELCOME FROM THE PRESIDENT



By acting in favor of university collaboration and by transcending conflicts of national or identity ideologies, the Wiener-Anspach Foundation intends to encourage a model of close collaboration, with mutual respect for the partners.

We are now travelling on the Brexit road! This makes the mission of the Wiener-Anspach Foundation all the more important. More than ever there is a need, in a world which is evolving at an increasing speed, to support education and research at the transnational level. Everyone is aware of the identity discourse that is spreading across Europe and the world. The Université libre de Bruxelles and the Universities of Oxford and Cambridge have always sustained another model: one of openness and rational analysis of the real challenges that we are facing. By acting in favor of university collaboration and by transcending conflicts of national or identity ideologies, the Wiener-Anspach Foundation intends to encourage a model of close collaboration, with mutual respect for the partners.

This year again, the Foundation funded study grants, doctoral and post-doctoral fellowships, seminars and colloquia, and collaborative research projects. You will find details of all our activities and actions in this annual activity report. I would like to thank warmly the scientific committee, chaired by Prof. Luc Lemaire, which rigorously selects the best candidates

and projects to be funded. I also would like to express my gratitude and that of all the beneficiaries of the Foundation to Professor Kristin Bartik, administrator of the FWA, as well as to the small administrative team she supervises, for their commitment in the daily management of the Foundation; their work contributes greatly to the comfort of our scholarship or funding recipients.

I hope that the financial situation of the Foundation will enable us to continue our mission in the future as we have done in the past. This is our daily concern and I would like to thank the financial committee, chaired by Professor Eric De Keuleneer who effectively helps us in this task. I wish you an interesting reading and I thank all beneficiaries of the Foundation to make ever stronger the collaboration between the Université libre de Bruxelles and the universities of Oxford and Cambridge... even after the divorce between the UK and the EU.

**Didier Viviers**  
President of the Foundation

# THE FOUNDATION



The Fondation Philippe Wiener - Maurice Anspach was established by **Phyllis A. Beddington Wiener** in 1965 to honour the memory of her husband, **Philippe Wiener**, who died during World War II at Esterwegen, where he was imprisoned as a political opponent. After the death of **Maurice Anspach**, Philippe Wiener's close friend, who had taken care of her family during the war, Mrs Wiener modified the Foundation's statutes to add his name to her husband's.

## OUR ACTIVITIES

- We enable graduates from the ULB to study or undertake research at the Universities of Cambridge and Oxford and vice versa
- We support two-year collaborative research projects
- We organise lectures and chairs in Brussels, Cambridge and Oxford
- We encourage contacts between researchers and academics by funding short-term visits

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Faculty of Law and Criminology, ULB  
Professor **Philippa Watson**  
City Law School, City University, London

# TRIBUTE TO SIR CHRISTOPHER DOBSON



He was a warm and generous man and a devoted educator, mentor, and advocate for science as a public good. His scientific, but also personal, legacy will live on in the many people he welcomed into his research group.

The Fondation Wiener-Anspach was greatly saddened to learn of the passing away of Professor Sir Christopher Dobson on 8 September 2019.

As Master of St John's College, Chris helped the Foundation organise many of its activities in Cambridge. Alongside his wife Mary he also hosted us on several occasions in College and in his Master's lodge. Those who were there will all have memories of the warmth of their welcome.

Many tributes have been paid to Chris' long and very productive scientific career. His research was devoted to explaining the mechanisms that direct proteins to fold into the three-dimensional structures that allow them to engage in essential biochemical interactions. He also extensively researched the question of how they "misfold" when these mechanisms fail and form toxic amyloid fibrils.

In December 2014 the Foundation welcomed Chris at the ULB where he delivered a Philippe Wiener lecture, entitled "The molecular nature of neurodegenerative diseases: from theory to therapy".

Chris was a warm and generous man and a devoted educator, mentor, and advocate for science as a public good. He paid particular attention to promoting the careers of women in his laboratory. His scientific, but also personal, legacy will live on in the many people he welcomed into his research group. I was lucky to be one of them, back in the early 1990s, when he was still based in Oxford.

Chris is missed by all of his former students, colleagues and friends.

**Kristin Bartik**  
Executive Director of the Foundation

# REAFFIRMING THE TIES BETWEEN THE ULB AND OXBRIDGE



**Prof. Louise Richardson, Prof. Yvon Englert and Prof. Stephen Toope  
Brussels, 4 april 2019**

On April 4, 2019 the Université libre de Bruxelles renewed its privileged partnerships with the Universities of Cambridge and Oxford, launched a decade earlier. Since the signing of the first Memoranda of Understanding, dozens of collaborative research projects have brought together teams from these three universities. Students, researchers and academics have travelled across the Channel in both directions. These collaborations have greatly benefited from the support of the Fondation Wiener-Anspach. The event organized at the ULB was the occasion to celebrate these vibrant partnerships. Carlos Moedas, EU Commissioner for Research, Science, and

Innovation, delivered a keynote entitled "Universities and Horizon Europe". It was followed by a panel discussion with Prof. Louise Richardson, Vice-Chancellor of the University of Oxford, Prof. Stephen Toope, Vice-Chancellor of the University of Cambridge, and Prof. Yvon Englert, Rector of the ULB. Professor Anne Weyembergh addressed the topic "Brexit: Challenges for University Collaborations" and in her closing remarks said: "As dark as the horizon might be, there is also a silver lining which lies in the heightened awareness of what we have with each other on both sides of the Channel and of what we might lose".



**Carlos Moedas**



**Anne Weyembergh**



**Clockwise from top left:** Didier Viviers; Sophie Antoine and promoter Wim Gevers (Faculty of Psychological Science and Education, ULB); promoters Nedunchezian Swaminathan (Department of Engineering, University of Cambridge) and Alessandro Parente (Brussels School of Engineering); Professor Muriel Moser (Faculty of Sciences, ULB); Pierre Gurdjian, President of the Board, ULB; Stephen Toope and Alison Rose, at the time British Ambassador to Belgium; Marie-José Simoen (former Secretary-General of the FNRS), Philippe Busquin (former MEP and EU Commissioner for Research) and promoter Cédric Blanpain (Faculty of Medicine, ULB); promoter Mikhaïl Kissine (Centre of Research in Linguistics, ULB).

# Fellowship programme



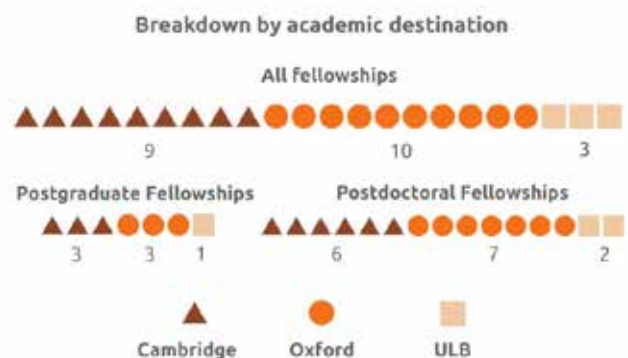
# FELLOWSHIP PROGRAMME



In line with its objectives, the Foundation promotes the development of academic activities between the ULB and the Universities of Cambridge and Oxford by awarding:

- Postgraduate fellowships to ULB graduates to enrol at the University of Cambridge or Oxford
- Doctoral fellowships to ULB students to undertake part of their research at the University of Cambridge or Oxford and vice versa
- Postdoctoral grants to researchers who have obtained their PhD from the ULB to work at the University of Cambridge or Oxford and vice versa

Applications are examined by the Scientific Committee. For the 2019-2020 academic year, the Foundation selected 22 Fellows.





# CAMBRIDGE

## Postgraduate fellow



**Mahé Wajnblum**

MA Languages and Modern Letters (ULB)

Enrolled in an MPhil in Multidisciplinary Gender Studies.

## Doctoral fellows



**Antoine Daratos**

PhD student in Philosophy (ULB)

Doctoral research on "Agency and the body in the French Reception of Nietzsche", under the supervision of Prof. Ian James (Faculty of Modern and Medieval Languages).



**Chloe McCarthy**

PhD student in Modern and Medieval Languages (ULB)/FNRS Research Fellow

Doctoral research on "A Study and Critical edition of Book XI of l'Ovide moralisé", under the supervision of Prof. Sylvia Huot (Faculty of Modern and Medieval Languages).

## Postdoctoral fellows



**Bruno Bonnechère**

PhD in Biomedical Sciences (ULB) and Engineering Sciences (VUB)

Research project entitled "Can mobile games be used to increase cognition in elderly subjects?", under the supervision of Prof. Barbara Sahakian (Department of Psychiatry).

### **Salvatore Iavarone**

PhD in Engineering Sciences (ULB)

Research project entitled "CAPACITY: Collaborative approaches for predictive simulations of combustion technologies", under the supervision of Prof. Epaminondas Mastorakos (Department of Engineering).



### **Michael Jabbour**

PhD in Engineering Science and Technology (ULB)

Second year of research on a project entitled "Majorization relations and entropic inequalities for the evaluation of the capacities of bosonic quantum channels", under the supervision of Dr Nilanjana Datta (Faculty of Mathematics).



### **Santiago Muñoz Moldes**

PhD in Cognition and Neuroscience (ULB)

Research project entitled "The role of interoception in decision-making and learning: A behavioural and neuroimaging approach", under the supervision of Dr Tristan Bekinschtein (Department of Psychology).



### **Nicolas Nikis**

PhD in History of Art and Archaeology (ULB)

Research project entitled "How old are the trade routes in Central Africa? Developing a history of exchange networks through the cases of Copperbelt and Niari Basin copper deposits", under the supervision of Prof. Paul J. Lane (Department of Archaeology).



### **Ekaterina Ostashchenko**

PhD in Linguistics (ULB)

Second year of research on a project entitled "Acquisition of phonetic categories in atypical language development (Autism Spectrum Disorder and Specific Language Impairment)", under the supervision of Dr Napoleon Katsos (Department of Theoretical and Applied Linguistics).



# OXFORD

## Postgraduate fellows



**Orvil Collart**

MA in Biomedical Engineering (ULB)  
MA in Translational Medicine (Berkeley & UCSF)

Enrolled in the Accelerated Medicine Course.



**Maxence Draguet**

MA in Engineering Science (ULB)

Enrolled in an MSc in Computer Science.

## Doctoral fellow



**Julien Decharneux**

PhD student in Theology and Religion (ULB) / FNRS Research Fellow

Doctoral research on "The Quranic cosmology in its late antique context: An Antichene lore in the Quran?", under the supervision of Prof. Philip Booth (Faculty of Theology and Religion).

## Postdoctoral fellows



**David Bauman**

PhD in Biology (ULB)

Second year of research on a project entitled "Influence of climate and soil constraints on the mechanisms of tropical tree metacommunity assembly. A functional and multi-scale approach", under the supervision of Prof. Yadvinder Malhi (School of Geography and Environment).

### **Luis Daniel Couto Mendonça**

PhD in Engineering Sciences (ULB)

Research project entitled "Improving lithium-ion battery safety and performance through an advanced diagnostics system", under the supervision of Prof. David Howey (Department of Engineering Science).



### **Christophe Delaere**

PhD in History, History of Art and Archaeology (ULB)

Second year of research on a project entitled "Settlement patterns and lacustrine landscape alteration of lake Titicaca during the pre-Columbia periods (800 BC- 1550 AD)", under the supervision of Prof. Damian Robinson (School of Archaeology).

### **Guillaume Delhaye**

PhD in Science (ULB)

Research project entitled "The determinants of species abundance in communities: Importance of intraspecific trait distribution and covariance", under the supervision of Prof. Yadvinder Malhi (School of Geography and the Environment).



### **Laura Di Spurio**

PhD in History (ULB)

Research project entitled "'Little girls are killed': Transnational moral panic and the making of at-risk girls in the European Belle Epoque", under the supervision of Prof. Siân Pooley (Faculty of History).

### **Eric Fabri**

PhD in Political Science (ULB)

Research project entitled "Appropriation without labour in contemporary theories of justice: A critical assessment", under the supervision of Prof. Stuart White (Department of Politics and International Relations).



### **Justine Feyereisen**

PhD in Letters, Translation and Communication (ULB) and French and francophone Literature (University of Grenoble)

Research project entitled "Poetics of cosmopolitical utopias: Challenging borders with literature", under the supervision of Prof. Matthew Reynolds (Faculty of English Language and Literature).

# BRUSSELS

## Doctoral fellow



### **Maria Chiara Vinciguerra**

PhD student in Politics and International Relations (University of Cambridge)

Doctoral research on "EU policy responses to the migration and refugee crisis: the Refugee Relocation Scheme", under the supervision of Ramona Coman (Institute for European Studies).

## Postdoctoral fellows



### **Pablo Gonzales Martin**

DPhil in History (University of Oxford)

Research project entitled "Clumsy states and failing republics: Miscommunication, inefficiency, and disengagement in the urban politics of Southern Low Countries (1470 - 1530)", under the supervision of Prof. Chloé Deligne (Faculty of Philosophy and Social Sciences).



### **Lorenzo Tabarrini**

DPhil in History (University of Oxford)

Research project entitled "Town and Country. The Lucchese notarial protocols as a mirror of everyday life in a medieval commune", under the supervision of Prof. Alexis Wilkin (Faculty of Philosophy and Social Sciences).





# Ganshof van der Meersch Chair

# KENNETH ARMSTRONG

## University of Cambridge



In 2019 the Ganshof van der Meersch Chair was held by Professor Kenneth Armstrong on the recommendation of Professor Ramona Coman, Director of the Institute for European Studies. The opening lecture, entitled “Governed by Europe or Governing through Europe. Lessons from Brexit”, was given on February 26<sup>th</sup>, 2019.

Kenneth Armstrong was elected to the Professorship of European law at the University of Cambridge in September 2013. Before joining the Faculty, he was Professor of EU law at Queen Mary, University of London. He has held visiting positions at Edinburgh University, the European University Institute and at New York University School of Law. He is a Fellow of Sidney Sussex College.

He is editor in chief of the Cambridge Yearbook of European Legal Studies.

Professor Armstrong has written extensively in the field of European Union law and policy, with a particular focus on the evolving governance and institutional structures of the EU. His book *Governing Social Inclusion: Europeanization through Policy Coordination* was published by Oxford University Press in 2010 and won the 2011 UACES Best Book Prize. His book *Brexit Time: Leaving the EU - Why, How and When?* was published by Cambridge University Press in 2017. He writes a blog at [brexittime.com](http://brexittime.com).

Kenneth Armstrong has been awarded a Leverhulme Major Research Fellowship to analyse the dynamics of regulatory alignment and divergence after Brexit. The project will run from 2018-21.

The Ganshof van der Meersch Chair was established in 1995 in memory of Walter Jean Ganshof van der Meersch, founder and first president of the Institute for European Studies at the ULB, holder of the chair of Public Law at the ULB, attorney general at the Belgian Court of Cassation and vice-president of the European Court of Human Rights.

Prof. Ganshof van der Meersch, who understood from the very beginning the potential of the Foundation, was its second President after the death of its founder, Mrs Wiener.


The chair is held at the ULB by a visiting professor from Oxford or Cambridge. The course must focus on the economic, historical, political and legal aspects of European integration or on public law.

CHAIRE GANSHOF VAN DER MEERSCH 2018 - 2019  
Fondation Philippe Wiener - Maurice Anspach

**Prof. KENNETH ARMSTRONG**  
Faculty of Law, University of Cambridge

Opening Lecture  
**Governed by Europe  
or Governing through Europe  
Lessons from Brexit**

**Tuesday 26<sup>th</sup> February, 6pm**  
Institut d'Études européennes  
Room Spaak  
Avenue Franklin D. Roosevelt 39  
1050 Brussels



The lecture will be followed by a reception  
All welcome but registration required by February 18<sup>th</sup>  
at [kennetharmstrong.eventbrite.com](mailto:kennetharmstrong.eventbrite.com)  
Info: [fwa.ulb.ac.be](mailto:fwa.ulb.ac.be) - [fwa@ulb.ac.be](mailto:fwa@ulb.ac.be)

**Following lectures**  
27<sup>th</sup> February 4pm-6pm  
28<sup>th</sup> February 12am-2pm and 5pm-7pm  
1<sup>st</sup> March 9am-11am and 12am-2pm

ULB IEE FWA UNIVERSITY OF CAMBRIDGE

## Abstract of the opening lecture

Every democratic and constitutional order experiences the same dilemma, namely how to govern through a set of political and legal structures while at the same time being governed by those structures. The way in which we conventionally resolve this dilemma is by emphasising that these structures and the discipline that they exert are a means of self-government and self-realisation.

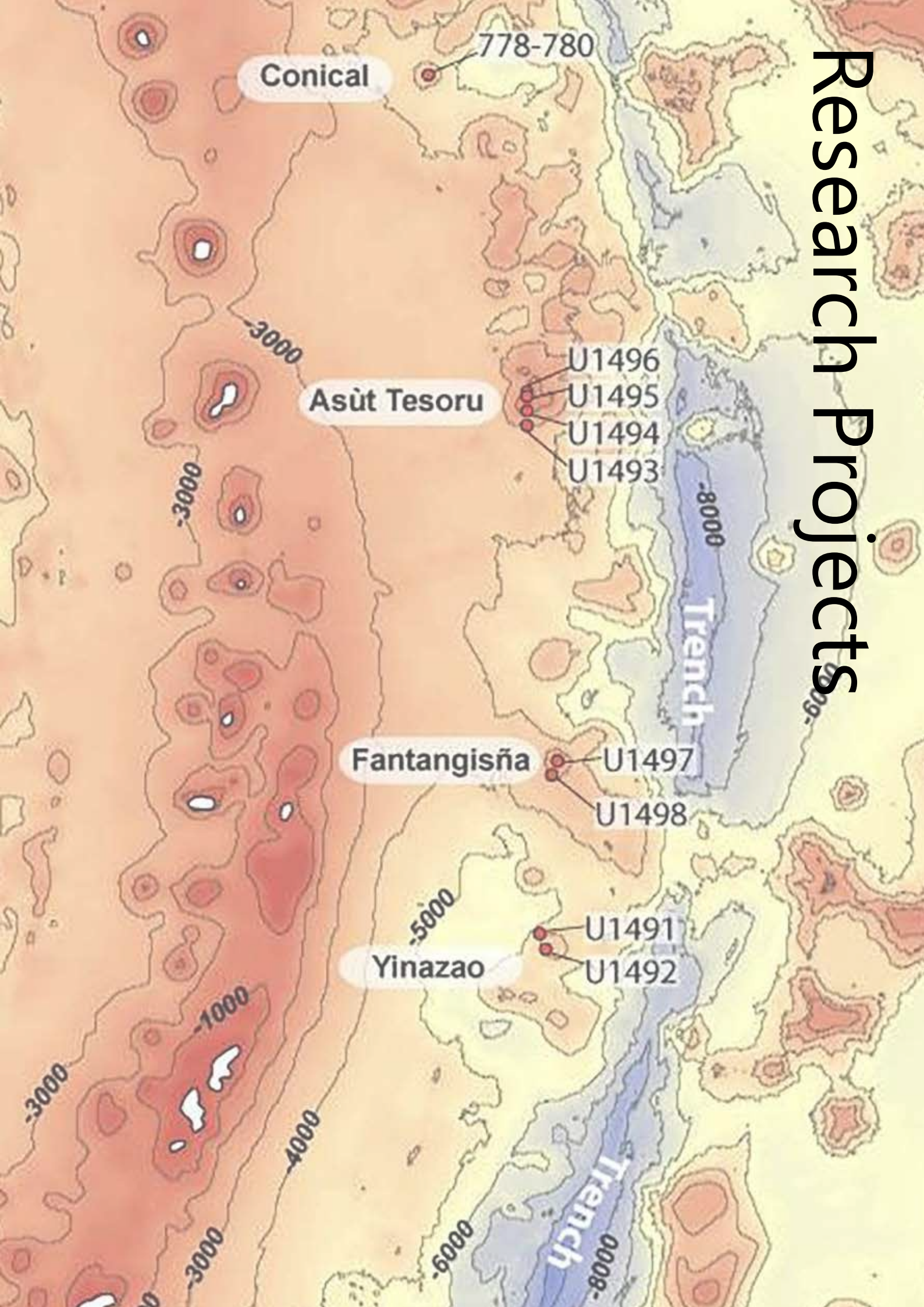
Extrapolating this idea to the European Union is more difficult. Many of the EU's recent crises seem to emphasise the disciplining aspects of membership - fiscal discipline after the financial and economic crisis; the discipline of burden-sharing and solidarity after the refugee crisis - rather than the self-realising aspects of what it means for European states to govern collectively through EU institutions.

The aim of this lecture is to analyse the discipline of membership against the backdrop of the challenges facing the European Union, including the challenge of Brexit. It addresses concerns that the EU has lost its 'mission legitimacy' and considers how the EU might seek to address that problem in ways that make the discipline of membership a means of self-government and self-realisation.

**Clockwise, from top left:** Ramona Coman; Kristin Bartik; Pierre Francotte, former President of the Foundation, and Wiener-Anspach Alumnus Jérôme Dohet-Eraly; Wiener-Anspach Alumnus Guillaume Valette; Kenneth Armstrong.



# Research Projects



The Foundation supports two-year collaborative research projects in all fields between teams from the Université libre de Bruxelles and the Universities of Cambridge or Oxford. In 2019 there were eight ongoing projects from the 2018-2020 period.

### **ALCHEMY - MACHINE LEARNING FOR COMPLEX MULTIPHYSICS PROBLEMS**

The overall aim of ALChEMY (mAchine Learning for ComplEx MultiphYsics problems) is to develop a unified modelling approach for predicting the behavior of low-emission combustion devices using a combination of experimental and computational methods tied together by machine learning (ML) techniques. Within development, the outputs of high-fidelity simulations are transformed into reduced-order models that can accurately represent the system behaviours under a wide range of conditions without heavy computational burden and ready to use in real-time operation. The development of ML approaches for the development of digital twins is the core of ALChEMY, both to improve the fidelity of numerical simulations and to develop accurate and reliable reduced-order models. To this end, the initial phase of this project involved the analyses of direct numerical simulation data of MILD combustion, which is known to be highly efficient with low pollution and thus "greener", generated at Cambridge to develop a ML algorithm using deep neural nets. A preliminary version of this algorithm to predict the required probability density function needed to estimate the fuel consumption rate has been developed and tested. Laterally, the algorithms required to setup a digital twin of an experimental combustor have also been explored and tested at ULB quite successfully. The next phase involves further testing of these algorithms thoroughly and to explore ways to use the fuel consumption rate algorithm developed using DNS for the digital twin.

**Cambridge Promoter:** Nedunchezian Swaminathan (Department of Engineering)

**ULB Promoter:** Alessandro Parente (Brussels School of Engineering)

**Postdoctoral researcher:** Golnoush Ghiasi and Veeraraghavan Kannan

### **HOW MAGNESIUM SETS THE TIME OF DAY IN PLANTS**

We investigated the effect of magnesium (Mg) on the circadian clock of the model plant *Arabidopsis*. Dr Annelie Gutsch found Mg concentration regulates circadian period and phase, measured using several transgenic reporters. The effect of Mg deficiency on the circadian clock is greatest when sucrose is at high levels and in the presence of light. This suggested that the effects of Mg might be related to photosynthesis. However, testing demonstrated this not to be the case. We tested predictions from a mathematical model to find that the effects of Mg deficiency are due to changes in protein translation. We conclude that Mg does not act as a time giving signal to set circadian timing but the Mg status affects the circadian clock by disrupting the synthesis of proteins involved in the oscillator. Dr Gutsch is preparing her first manuscript for publication as a result of the work.

**Cambridge Promoter:** Alex Webb (Department of Plant Sciences)

**ULB Promoters:** Nathalie Verbruggen (Interfaculty School of Bioengineering)

**Postdoctoral researcher:** Annelie Gutsch

### **CONFLICTS OF SOVEREIGNTY IN A EUROPEAN UNION IN CRISIS (SOVEU)**

During the first year of the project, we published the special issue "Understanding conflicts of Sovereignty in the EU" in the peer-reviewed Journal of European Integration (Volume 41, 2019, Issue 7). The issue, with contributions by both established and young authors, introduced the framework of the project and outlined a new research agenda in the field of European studies. Furthermore, we organized a symposium on "Conflicts of Sovereignty in the European Union" at the Conference of the Council of European Studies in Madrid (20-22 June, 2019) and an internal workshop for our group in Cambridge (16 December, 2019). We prepared an annotated bibliography and started developing a concept paper on the politicization of sovereignty to be discussed at our project conference in May 2020 attended by top scholars of sovereignty.

A first conceptual paper was published as a working paper of the Cevipol. We also started empirical work on all three case studies, collecting data from UK newspapers, parliamentary debates in the European Parliament and in the Belgian federal Parliament. Finally, we publicized the project through social media platforms and a publication in the Washington Post ("Boris Johnson's campaign rhetoric reveals why there's a constitutional crisis over Brexit", 4 December, 2019).

**Cambridge Promoter:** Christopher Bickerton (Department of Politics and International Studies)

**ULB Promoters:** Nathalie Brack, Ramona Coman and Amandine Crespy (Department of Political Science)

**Postdoctoral researcher:** Julia Rone

### **DEFINING THE MOLECULAR CONSEQUENCES OF MUTATIONS THAT DISRUPT EARLY HEART DEVELOPMENT**

Heart malformation stands out as one of the major complications requiring medical intervention in infants, yet the molecular mechanisms are often not well understood.

During the first part of this joint ULB/Cambridge project, the teams of Professors Blanpain and Gottgens have focused on analyzing the consequences of mutations in the *Zic3* gene. Mutations in the human *Zic3* gene are associated with congenital heart defects in patients. The teams have spent the first year developing a new model system where they can study the molecular consequences of mutations in *Zic3* during the earliest stages of heart development, using parallel analysis of thousands of single cells.

Full analysis of this dataset will be performed during the remainder of the project. Initial results however already indicate that the expected results will be directly relevant to improve our understanding of congenital heart disease in newborns.

**Cambridge Promoter:** Bertie Gottgens (Department of Haematology)

**ULB Promoter:** Cédric Blanpain (Faculty of Medicine)

## SYSTEMS BIOLOGY OF INTRACELLULAR SIGNALS - EXPERIMENTAL AND COMPUTATIONAL ANALYSES OF THE INTERPLAY BETWEEN CALCIUM AND CAMP SIGNALLING PATHWAYS IN SPECIALISED ENZYME-CHANNELS JUNCTIONS

We aim to provide quantitative models of interactions between  $\text{Ca}^{2+}$  and cAMP signalling in membrane junctions. A more fundamental feature of  $\text{Ca}^{2+}$  signalling, which we needed to resolve first, is the unusual pattern of  $\text{Ca}^{2+}$  release evoked by a ubiquitous family of intracellular  $\text{Ca}^{2+}$  channels,  $\text{IP}_3$  receptors ( $\text{IP}_3\text{Rs}$ ).  $\text{IP}_3\text{Rs}$  mediate 'incremental' responses to  $\text{IP}_3$ , wherein  $\text{Ca}^{2+}$  release by a low concentration of  $\text{IP}_3$  rapidly terminates without affecting subsequent responses.

Electrophysiology, optical analyses of  $\text{Ca}^{2+}$  signalling and a new ligand of  $\text{IP}_3\text{Rs}$  showed that activation of  $\text{IP}_3\text{Rs}$  is rapidly followed by inactivation. Modelling based on the experimental data showed that the inactivation does not prevent a subsequent response to an incremental addition of  $\text{IP}_3$  because only a tiny fraction of the  $\text{IP}_3\text{R}$  population is required to elicit  $\text{Ca}^{2+}$  signals.

Our experimental and theoretical analyses explain the universal, but hitherto enigmatic, phenomenon of incremental responses from  $\text{IP}_3\text{R}$ .

**Cambridge Promoter:** Colin Taylor (Department of Pharmacology)

**ULB Promoter:** Geneviève Dupont (Faculty of Sciences)

## CAT19 - PANORAMA OF THE FRENCH-LANGUAGE NOVEL IN THE EARLY 19TH CENTURY

This project seeks to build up a full picture of all aspects of the French-language novel in the early 19th-century, drawing up a comprehensive catalogue and initiating research into formal and thematic trends, authorial identities and publishing practices, materiality, readership, critical reception, and the geographical, social and political trajectories of the novel-as-object.

In this first phase, we set up the processes of definition and data collection via the analysis of general and specialised bibliographies for the period 1801-1820. Secondly, we carried out an extensive associated research process in order to verify and complete initial data, and, in parallel, a systematic revision and standardisation of all entries in order to facilitate its automatic extraction by the IT team. Once all entries have been completed, the aim is then to consult, when possible, a copy of each novel listed in CAT19 catalogue in order to complete materiality-related data and to provide content description.

Thirdly, we defined a selection of search criteria for the online database, and launched the database interface and website design procedures. 'Finally, we detailed the different ways in which research has been initiated by the project and disseminated via conferences and publications.

**Oxford Promoter:** Catriona Seth (Faculty of Medieval and Modern Languages)

**ULB Promoter:** Valérie André (Faculty of Philosophy and Social Sciences)

**Postdoctoral researchers:** Chanel de Halleux and Fanny Lacote

## ROLE OF THE MANTLE WEDGE FOR THE FLUID DYNAMICS IN THE SUBDUCTION ZONES: CONTRIBUTIONS FROM THE STUDY OF THE MARIANA AND JAPAN CONVERGENT MARGINS

Subduction zones are sites of major chemical exchange between the Earth's surface and deep interior. Magmas erupted at these zones are enriched in volatile and redox sensitive elements (Fe, S, C) relative to other mantle derived magmas. However, the origin of this distinct signature remains unclear.

We propose to explore the role of the serpentinized fore arc mantle, formed by the interaction of slab derived fluids with sub-arc mantle peridotite at shallow depth (< 80 km), as a major global reservoir for Fe, S and C in subduction zones.

To address this, we have collected a sample suite of serpentinites from the Marianas and the Sanbagawa (Japan) fore arcs. These record varying degrees of reaction between forearc mantle rocks and slab-derived fluids. We propose to combine novel stable isotope (Fe, Zn) analyses and in situ X-ray Absorption Near Edge Structure measurements to understand the origin and distribution of Fe, C and S in these rocks.

**Cambridge Promoter:** Helen Williams (Department of Earth Sciences)

**ULB Promoter:** Nadine Mattielli (Faculty of Sciences)

## M-THEORY/F-THEORY: GEOMETRIC ENGINEERING OF SUPERCONFORMAL FIELD THEORIES

During this first phase of the collaboration, Dr Martin Bies has written one publication with Dr Sebastian Posur from the University of Siegen on category theory, namely, on tensor products of finitely presented functors. He has also published several software packages for mathematical calculations on github.

Several topics have been explored: four-dimensional supersymmetric field theories from F-theory on non-minimal singularities; G2-manifolds in relation to three-dimensional field theories with two supercharges; and further developments in category theory.

Prof. Schäfer-Nameki and Prof. A. Collinucci have initiated a research program to understand five-dimensional superconformal field theories from the geometric perspective of singular Calabi-Yau threefolds. This work will extend well past 2020.

Finally, various new researchers have gotten involved in these collaborations, coming from Oxford, University of Pennsylvania, Siegen University and Imperial College.

**Oxford Promoter:** Sakura Schäfer-Nameki (Oxford Mathematical Institute)

**ULB Promoter:** Andrés Collinucci (Faculty of Sciences)

**Postdoctoral researcher:** Martin Bies

# Our Alumni



*Wiener-Anspach Alumna Danièle Reiber at her degree ceremony in Oxford, 22 July 2000.*

# DANIÈLE REIBER

## The art of communicating art

Danièle Reiber is the founder and director of Reiber PR, a public relations company operating in the arts world. She graduated from the ULB, but her passion for musicology – together with a Wiener-Anspach fellowship – made her cross the Channel over twenty years ago.



*What prompted you to study musicology at the ULB?*

Music has been an important part of my life since the age of ten, when I started playing the piano, and has definitely influenced my choice of studies. At the time I was equally interested in the history of art and the history of music, and nurtured interdisciplinarity, the way the arts would connect with one another and mirror society. When I realised I could take some history of art modules as part of the musicology course, I didn't hesitate.

*After obtaining your degree at the ULB in 1992, you started a PhD in musicology and spent a year in Oxford as an Erasmus student. Why Oxford?*

As an Erasmus student I was given the choice between Boston or Oxford, and I knew I wanted to write about Mahler. It was a hard choice. After careful consideration, I chose Oxford as I wasn't ready to live in the US. This is when I met Dr Bojan Bujic, my first tutor at the Oxford Music Faculty. Because of his cultural background (he was born in Sarajevo), rooted in the rich history of the Habsburg Empire, he instantly responded to Mahler, to the broader topic of fin de siècle Vienna and to the socio-cultural route I was intending to take in my research.

*In 1994, you applied for a Wiener-Anspach fellowship to return to Oxford within the framework of your PhD.*

Yes, I applied with the support of Dr Bujic and this has had an enormous impact on the course of my life. Applying to a fellowship is one thing, being selected is another but the fundamental step – and you never realise it when you apply – is the impact that this experience will have on your life.

*Two other academics guided you during this second research stay in Oxford: Prof. Parker and Prof. Franklin. What are your memories of them?*

Roger Parker was a very charismatic tutor, providing a wealth of knowledge at all levels, with specific expertise in opera. While his field of interest was miles away from mine, I learnt a huge amount from him on a personal level: his classes were very dynamic, he would challenge students, encourage them to build up arguments and voice their opinion, and reflect upon them critically. It was both exciting and intimidating for a student like me, more reserved, used to a different teaching system and more comfortable with written expression. And then Prof. Franklin who arrived from Leeds University... a dream come true. Not only was he a reputed specialist in late 19thC symphonic music but also wrote extensively on Mahler. He was an incredibly warm, sensitive and inspiring mentor. I am forever grateful to all three.

*Your doctoral dissertation was entitled «From Utopia to anti-Utopia: the narrative journey of Mahler's Fourth Symphony». What did you wish to bring to light in this work?*

As mentioned earlier I have always been interested in how art reflects society; the way painting or music can mirror the zeitgeist through very defined semiotic patterns. My thesis provided a socio-cultural reading of Mahler's music, more specifically the Fourth Symphony, which unlike his other more grandiose or darker symphonies, takes us to a whole different world – that of the 'child'. The child-like innocence that pervades the entire work, continuously disrupted by bursts of irony and a frightening loss of direction, is deceptive and ominous; the anti-utopian discourse is verified in the unsettling song in the finale – 'the child's vision of heaven' – that brings no resolution, a mere disconcerting 'laughter' shattering the hope and innocence suggested in the earlier movements. It was fascinating to be able to use the work's broader socio-cultural context to decipher its content and the images emanating from it; and to identify a specific lexicon proper to fin de siècle Vienna that would also transpire in Gustav Klimt's paintings, Robert Musil's novels or Sigmund Freud's psychoanalysis. My thesis was not meant to provide conclusive answers. Like Mahler's Fourth Symphony, it ends on a question mark.

*Soon after completing your PhD, you founded a public relations company operating in the art world. How did this professional project originate?*

Like all PhD students, opportunities to teach after graduation came up, but I was never attracted to academia as such. I was more interested in connecting with the exciting world of arts more broadly. While in Oxford, I took real pleasure in organising a series of conferences on Mahler, inviting leading figures from the world of art and music, as well as members of his family,

to come and speak. It was extremely rewarding and revealing of the type of work I enjoyed. When I arrived in London in 1998, the Labour party was in full force, funding for the arts was like never before, museums were investing and opening new extensions, job opportunities in the cultural sector were endless. London was the perfect propelling platform for someone like me, eager to put my entrepreneurial spirit at work, loving to communicate and bringing people together. I then married the Head of Press at the National Portrait Gallery. After several press campaigns for the museum, the Royal Academy of Arts, the Victoria and Albert Museum, the British Museum, the National Gallery all heard of my work and asked for my services. The business took off rapidly. I opened my first office on Savile Row in Mayfair. I was blessed to have such a prestigious address. I kept a relatively small team for a while, concentrating primarily on European press services. Then I strengthened our offer to include the UK, US, Asia, Latin America and expanded the team. Today our team is made of ten incredible multilingual professionals and we promote small to large-scale cultural events across the commercial and non-profit sectors, working with artists, galleries, museums, foundations, biennials and fairs internationally.

### ***What were the milestones in these twenty years?***

Because of the company's unique business model, i.e. boutique in size, flexible and adaptable, and distinct in its approach, we have managed to thrive over the past twenty years despite the recession of 2008 that hit a lot of art businesses. Our agency has the capacity to grow or downsize if need be. I have opted to keep the business mid-size, however, to ensure its smooth and sustained cruising speed over time. With the ever fluctuating political and economic climate, I prefer not to take risks. In terms of milestones, private clients such as Fondazione Prada in Milan or Fondation Cartier in Paris, along with major London-based museums, have helped position the agency amongst the leading ones in Europe. We don't only promote exhibitions but also work on corporate communications and are regularly approached by major institutions to take care of their development projects, anniversaries and other landmark events. The rise of the art market over the last fifteen years has also helped art PR companies thrive financially but our work remains primarily focused on the non-profit sector. I see more relevance in supporting their initiatives.

### ***And today, what are the main challenges in your industry?***

The main challenge is to keep the offering fresh and high-end at all times, and ensure it remains distinct from others as competition grows rapidly. A recent challenge has been to adapt to the digital world and include digital marketing as part of our services. Most of our clients are aged 50 and over and still appreciative of traditional PR. But there is the new generation of clients, younger, tech-savvy and hungry for wide digital exposure that we needed to cater for, so we have had to equip ourselves accordingly. Today this is what we enjoy most: working on exciting rich media content including podcasts, videos and social media plans.

### ***What do you think are the current trends in your sector?***

Broadly speaking, I would say that common concerns such as the place of women in society, race equality, the importance of ethics, human rights and environmental awareness have all impacted on our sector. As an agency we have to behave ethically and remain cautious about the type of clients we

take on board; the art world and more specifically the market for art is very opaque, and companies and clients are under scrutiny all the time. We also undertake more and more projects addressing gender and race equality. An example is the rise of African art. The same goes for the place and voice of women in the arts, alongside feminist discourses which pervade a lot of our projects. With regards to the environment, it is wonderful to see so many organisations, artists, designers, curators engaging in climate, environmental and human rights issues and adopting a radically green approach to art and art making. Additional trends and topics embraced by my industry include philanthropy and a return to craftsmanship and timeless values in art and design.

### ***Could Brexit affect your activities?***

Brexit has not affected our business so far and we know very little about the months ahead. I would say that London has been a fertile ground for art PR agencies for decades, with clients from all over Europe and the US buying our services. Objectively the network and level of PR services in our field is stronger in the UK than anywhere else in Europe, and I just hope Brexit won't lure foreign clients away. With the current rise of nationalism that we are facing globally, we might see a form of withdrawal on their part; PR agencies in continental Europe might strengthen their offering and create a more local market, attractive enough to local clients. This is why having a distinct signature is key to success.

### ***In 2018 you opened an office in Brussels. Does this confirm the importance gained by the Belgian capital on the European contemporary art scene?***

The opening of our outpost in Brussels is more coincidental than a deliberate choice. With Brexit looming, one of my associates had to relocate in Brussels. I seized the opportunity to look back at my hometown, explore potential avenues for new business and reconnect with my roots. In twenty years, Belgium has undoubtedly shaped up into an exciting and vibrant city for culture. With the power to erase all linguistic divides, the arts have had an incredible uniting effect on artistic communities, creating more fluidity between regions, encouraging joint initiatives between institutions etc. Art and design fairs provide further support to these forms of collaborations. With the help and determination of key players in the field as well as increased private funding, the country has really positioned itself among the most exciting destinations for art and culture in Europe.

### ***Did you stay in touch with people from your Oxford years?***

I am still in touch with old friends from Oxford, some live in London, some abroad. I recently went back with my son to attend a conference. I was moved to the core, remembering how happy I was in Oxford and blessed to have been given the opportunity to study there. I also got married at Magdalen College, in its gorgeous chapel filled with the magical voices of Magdalen College Choir, so Oxford will forever remain associated with incredibly fulfilling moments in my life.

### ***One last question to close the loop on this interview... What role does music play in your life today?***

Music is my passion. Whether playing, dancing or listening to it, it continues to bring the same joy and emotions. It is the beautiful garden where I can safely retreat.

# OTHER FUNDED INITIATIVES

## The Ganshof van der Meersch Prize



Established in 1994, the Ganshof van der Meersch Prize rewards a student from the Faculty of Law and Criminology of the ULB who achieved academic excellence in the study of public law and who obtained a Master's degree in this field with at least a "Grande Distinction" (magna cum laude).

In 2019 the prize was awarded to Léna Wanlin.

*From left to right: Léna Wanlin, Kristin Bartik (Executive Director of the Foundation) and Julie Allard (Dean of the Faculty of Law and Criminology).*

## Short Stays - 2019 Recipients

Academics and researchers from the ULB, Oxford and Cambridge who wish to conduct research for a limited period of time or participate in conferences organised by one of these universities can apply for funding.

► **14 January 2019.** **Marc-Antoine Sabaté**, PhD student in Political Sciences (ULB), presented a paper entitled "Activating the unemployed or liberating the employed ? Universal Basic Income in the French welfare reform debate (1988 – 2018)" in the framework of the international conference "An Intellectual History of Universal Basic Income" at the University of Cambridge. He was welcomed by Prof. Pedro Ramos Pinto (Faculty of History).

► **January-February 2019.** Wiener-Anspach Alumna **Federica Infantino**, PhD in Political Sciences (ULB) and FNRS Postdoctoral Researcher, received funding for her research stay at the University of Oxford, where she was welcomed by Prof. Mary Bosworth (Director of the Centre for Criminology). Federica's research focused on "Detention and deportation practices in Europe".

► **20 March 2019.** **Dan Hicks**, Professor of Contemporary Archaeology at the University of Oxford, gave a seminar at the ULB entitled "LANDE: the Calais 'Jungle' and Beyond. A contemporary archaeology of the refugee crisis". He was welcomed by Wiener-Anspach Alumna Agnès Vokaer (CréA-Patrimoine).

► **6 May 2019.** Prof. **Iain Fenlon** (Emeritus Professor of Historical Musicology, University of Cambridge) gave a lecture on "Music and Popular Piety" at the ULB. He was welcomed by Prof. Marie-Alexis Colin (Laboratoire de Musicologie).

► **14 October 2019.** Dr **Daniel Luban** (Junior Research Fellow in Politics at University College, Oxford) gave a presentation entitled "What is a spontaneous order?" in the framework of the international conference "How neoliberalism reinvented democracy". He was welcomed by Wiener-Anspach Alumnus Daniel Zamora (Group for research on ethnic relations, migration and equality, ULB).

► **October-November 2019.** In the framework of her doctoral research in Political Sciences at the ULB, **Neha Tayshete** did a research stay at the University of Oxford, where she was welcomed by Prof. Stuart White (Department of Politics and International Relations). Neha's thesis is entitled: "Original thought experiments and meta-ethics to reformulate work and desert, incentives, self esteem in John Rawls' distributive justice".

► **December 2019.** Prof. **Jean-Manuel Roubineau** (Département d'enseignement d'Histoire, Arts et Archéologie, ULB) received funding for his research stay at the University of Oxford. He completed his literature search at the Beazley Archive and progressed in the iconographic and iconological analysis preliminary to the writing of a book on the history of boxing in the Greco-Roman world.

**Photo credits:** Maxence Dragnet (cover); David Bauman (table of contents); Pietro Bruni (pages 1 and 6-14); Eric Danhier (pages 4-5); Francesca Spinelli (pages 16-17); Aurore Delsoir (page 24). The cover picture was taken in Oxford. The photo illustrating the table of contents was taken in the Oxford Botanic Garden and Arboretum, with Magdalen College in the back.

