Curriculum vitae: Sophien Kamoun FRS

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The Sainsbury Laboratory, Colney Lane, Norwich NR4 7UH, United Kingdom E-mail: <u>sophien.kamoun@tsl.ac.uk;</u> lab web page: http://www.kamounlab.net; Twitter: <u>@KamounLab;</u> <u>Medium</u>

Education

Pierre & Marie Curie Univ., Paris, France	Cell Biology and Genetics	Maitrise	1987
University of California, Davis, USA	Genetics	PhD	1991
NSF CEPRAP, UC Davis, USA	Molecular Plant Pathology	Postdoc	1991-94

Appointments

2007-present 2012-present 2009-2014 2009-2012 2006-2007 2002-2006 1998-2002 1994-1997 1991-1994	Senior Scientist, The Sainsbury Laboratory, John Innes Centre, Norwich Research Park, UK Professor of Biology, Univ. of East Anglia, Norwich, UK Head, The Sainsbury Laboratory, Norwich Research Park, UK Honorary Professor, Univ. of East Anglia, Norwich, UK Professor, Dept. Plant Pathology, Ohio State Univ, Ohio Ag Res Dev Center (OARDC), Wooster Associate Professor, Dept. Plant Pathology, Ohio State Univ, OARDC, Wooster Assistant Professor, Dept. Plant Pathology, Ohio State Univ, OARDC, Wooster Senior Research Scientist, Dept. Phytopathology, Wageningen Univ, The Netherlands Postdoc, NSF Ctr for Engineering Plants for Resistance Against Pathogens (CEPRAP), UC Davis
1987-1991 1986	Research Assistant, Dept. Plant Pathology and Genetics Graduate Group, UC Davis Research Assistant, The Wistar Institute, Philadelphia, Pennsylvania, USA
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Institutional responsibilities

	Professor of Biology, Univ. of East Anglia, Norwich, UK.
2014-2021	Postgraduate Research Director, The Sainsbury Laboratory, Norwich Research Park, UK.
2009-2014	Head, The Sainsbury Laboratory, Norwich Research Park, UK.
2009-2012	Honorary Professor, Univ. of East Anglia, Norwich, UK.

Awards

2021	RKS Wood prize.
2019	American Phytopathological Society (elected fellow).
2018	The Royal Society (elected fellow).
2018	Linnean Medal.
2018	Chinese Academy of Sciences President's International Fellowship Initiative (PIFI).
2016	Kuwait Prize (Applied Science: Food and Agriculture).
2014-present	Thomson Reuters Highly Cited Researcher
2014	EMBO (elected member).
2013	American Association for the Advancement of Science (elected fellow).
2013	American Phytopathological Society Noel Keen Award.
2012	Académie d'Agriculture de France (elected member "correspondant étranger").
2012	Academia Europaea (elected member).
2010	Daiwa Adrian Prize (scientific collaboration between Japanese and British research teams).
2006	WE. Krauss Director's Award for Excellence in Graduate Research Mentorship, OARDC
2004	Pomerene Teaching Award, CFAES, Ohio State University
2004	OARDC Junior Faculty Research Award
2003	American Phytopathological Society Syngenta Award.

Teaching Activities

2021-present <u>Science—a user guide</u> (Medium blog)

2011-present 2017 2015 2017	Workshop " <u>Don't Perish: Writing and publishing a scientific paper</u> " Training School of COST Action SUSTAIN " <u>Pathogenomics</u> " TSL Summer School "Plant-Microbe Interactions"	
2015,2017 TSL Summer School " <u>Plant-Microbe Interactions</u> " Professional Activities		
2021-present	INRAe Scientific Advisory Board.	
2018-present	CABANA (BBSRC-GCRF) External Advisory Committee	
2018-present	GREEN-IT Scientific Advisory Board	
2017-present	Institute of Plant and Microbial Biology (IPMB), Academia Sinica, Taiwan, Science Advisory Board.	
2017-present	Genome Biology, <u>Editorial Board</u> .	
2017-2021	BMC Biology, Editorial Board.	
2015-present 2014-2019	PLOS Biology, <u>Editorial Board</u> .	
2014-2019	Member, <u>Gregor Mendel Institute of Molecular Plant Biology Science Advisory Board</u> . Management Board, COST Action SUSTAIN "Pathogen-informed crop improvement".	
2012-2017 2012-present	Experimental Plant Science Graduate School Advisory Board (Netherlands).	
2012-2019	Adivsory Board, Center for Applied Plant Science, Ohio State University.	
2012-2019	INRA Département Santé des Plantes et Environnement Advisory Board (France).	
2012-2014	President, International Society for Molecular Plant-Microbe Interactions (IS-MPMI).	
2010-present	Member, Max Planck Institute for Terrestrial Microbiology Science Advisory Board.	
2009-present	Member, Two Blades Foundation Science Advisory Board.	
2009	Organizer, 12 th New Phytologist Symposium "Effectors in Plant-Microbe Interactions".	
2009	Think Tank "Exploiting Puccinia graminis f. sp. tritici genome information to control wheat stem	
	rust", San Diego, CA.	
2008-09	Co-editor, Oomycete Molecular Genetics and Genomics, John Wiley & Sons.	
2008	Co-editor, Current Opinion of Plant Biology.	
2008	Review of Deutsche Forschungsgemeinschaft (DFG)-Research Unit "Mechanisms of compatibility:	
	Reprogramming of plant metabolism by fungal effector molecules".	
2008	BBSRC Plant and Microbial Sciences Committee for Evaluation of Responsive Mode Portfolio.	
2008	Scientific committee and Chair "Molecular biology of host-pathogen interactions", Third	
	International late blight conference.	
2008	Chair, Workshop "Pathogen genomes", Keystone Symposium Plant Innate Immunity.	
2008-2021	Member, BASF Science Panel.	
2008	Evaluation Committee INRA Laboratory "Santé de la Vigne et Qualité du Vin", Colmar, France.	
2007	Chair, session "Plant/Environment Interactions", 4th Solanaceae Genomics Workshop.	
2007	Chair, session "Pathogenic and symbiotic interactions (fungi and oomycetes)", 13th IS-MPMI	
	Congress.	
2006-2009	Monitoring Editor, Plant Physiology.	
2006-2009	Editor In Chief, IS-MPMI Reporter.	
2005	Chair, session "Genomes and Evolution", 23d Fungal Genetics Conference.	
2004	Chair, symposium "Suppression of Host Defense Responses by Pathogens", Annual Meeting of	
	the American Phytopathological Society.	
2004-2005	Member, American Phytopathological Society committee on "Priorities for Plant Pathology".	
2003-2008	Senior Editor, Molecular Plant Pathology.	
2002	Chair, symposium "Genomics of Plant-Pathogen Interactions", Annual Meeting of the American	
	Phytopathological Society.	
2003	Topical Editor, Encyclopedia of Plant and Crop Science: Fungal and oomycete diseases.	
2003	Panel member, USDA National Research Initiative Competitive Grants Program "Functional	

Genomics of Agriculturally Important Microbes". Invited participant, colloquium on Genomes and Pathogenesis, organized by the American Academy of Microbiology.

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Public Policy Board.
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s Program "Biology of Plant-
K"conference.

Membership of Scientific Societies

I am member of major plant pathology Societies (IS-MPMI, APS, BSPP, ASBMB). I served on the Board of International Society of Molecular Plant-Microbe Interactions for >10 years, I was elected President for 2012-14 term.

Organization of International conferences

2023	Scientific Advisory Committee, International Congress of Plant Pathology in Lyon, France.
2018	Advisory Committee Chair, International Congress of Plant Pathology (ICPP18) in Boston, MA.
2014	Co-organiser, Oomycete Molecular Genetics Network Annual Meeting, Norwich, UK.
2013	Co-organiser, Keystone Symposium, Plant Immunity: Pathways and Translations, Big Sky, MT.
2012	Co-organiser, 30th New Phytol Symp "Immunomodulation by plant associated organisms", CA.
2011	Co-organiser, Plant Pathogenomics Conference, Shenzhen, China.
2009	Co-organiser, 22nd New Phytologist Symposium "Effectors in Plant Microbe Interactions", Paris.
2008	Workshop chair, Keystone Symposium, Plant Innate Immunity, Keystone, Colorado.

Public Engagement

I have a well-documented track record of broadly communicating my research and enhancing the impact of my studies. I regularly give talks to public audiences (Science Café, Schools etc.) on topics such as Food Security, and I contribute to relevant debates using social media, e.g. <u>Twitter</u> (>30,000 followers) and <u>Scooplt</u> ~500,000 page views). I also regularly <u>blog on Medium</u> on various science and career development topics (35 articles, up to 15,000 views per month). My lab maintains a <u>YouTube channel</u>. Our outreach animation video "<u>Plants have an immune</u> <u>system</u>, and it's complicated" has been viewed ~100,000 times.

Major collaborations

I maintain an extensive worldwide network of interdisciplinary collaborators, including Nick Talbot and Matt Moscou (UK), Hernan Burbano and Detlef Weigel (Germany), Vivianne Vleeshouwers and Jack Vossen (NL) and Tofazzal Islam (Bangladesh). I have had highly productive collaborations with <u>Mark Banfield</u> (John Innes Centre, UK) on structural biology, <u>Ryohei Terauchi</u> (Kyoto University, Japan) on rice genomics and rice blast, and <u>Renier van der Hoorn</u> (Oxford University, UK) on plant proteases. The collaboration with Ryohei Terauchi on using genomics to study plant-pathogen interactions was recognized by the <u>Daiwa Adrian Prize</u> and a JSPS Fellowship to past lab-member Kentaro Yoshida who is now a Group Leader at Kobe University.

Major contributions to early careers of excellent researchers

I am dedicated to helping my students and postdocs fulfil their potential to establish independent careers. The great majority (>90%) of my laboratory's alumni have gone on to successful careers of their own. These include: Edgar Huitema (James Hutton Institute, Scotland), Elodie Gaulin (Paul Sabatier University, Toulouse, France), Jorunn Bos (James Hutton Institute, Scotland), Miaoying Tian (University of Hawaii, USA), Nicolas Champouret (JR Simplot Co., USA), Lina Quesada (North Carolina State University, USA), Thirumala Devi Kanneganti (St. Jude Children's Research Hospital, USA), Carolyn Young (The Samuel Roberts Noble Foundation, USA), Sang-Keun Oh (Chungnam National University, Korea), Liliana Cano (University of Florida, USA), Ricardo Oliva (International Rice Research Institute, Philippines), Carla Garzon (Oklahoma State University, USA), Tolga Bozkurt (Imperial College, UK), Maria

Eugenia Segretin (CONICET, Argentina), Sebastian Schornack (Sainsbury Laboratory at Cambridge University), Sylvain Raffaele (INRA Toulouse), Kentaro Yoshida (Kobe University, Japan), Diane Saunders (Earlham Institute/John Innes Centre, UK), Vladimir Nekrasov (Rothamsted Research, UK), Suomeng Dong (Nanjing University, China), Yasin Dagdas (Gregor Mendel Institute, Austria), Chih-hang Wu (Academia Sinica, Taiwan). *Nine previous lab members received ERC Grants*: Jorunn Bos (James Hutton Institute, Scotland, APHIDHOST 2012 and APHIDTRAP 2020), Edgar Huitema (James Hutton Institute, Scotland, RETRaIN 2012), Sylvain Raffaele (INRA, France, VariWhiM 2013), Sebastian Schornack (Cambridge, UK, ACHILLES-HEEL 2014), Diane Saunders (John Innes Centre, UK, DeMMYR 2016), Yasin Dagdas (Gregor Mendel Institute, Vienna, RIBORESCUEPHAGY 2021), Thorsten Langner (Tuebingen, PANDEMIC 2023), Myriam Oses-Ruiz (Navarre, CELL-ENEITY 2023) and Annis Richardson (Edinburgh, DynaLines 2023). *Lab members/alumni listed as Highly Cited Researchers*: Joe Win, Sebastian Schornack, Liliana Cano, Sylvain Raffaele and Thirumala Devi Kanneganti.

Research Funding

- 2022-2024 "Genome evolution of a pandemic clonal lineage of the wheat blast fungus." BBSRC, £614,138.
- 2022-2025 "Engineering CC-HMA-NLR immune receptors for disease resistance in crops." BBSRC, £373,718.
- 2021-2026 "Corn NLR-X genes for fungal resistance." Limagrain, £1,321,235.
- 2021-2023 "Mechanisms of pathogen suppression of NLR immunity." BBSRC, £380,172.
- 2020-2025 "NLR networks of leafy vegetables." Rijk-Zwaan, £1,068,358.
- 2019-2024 "Synthetic R genes for fungal resistance." BASF Plant Science, €1,126,165.
- 2018-2023 "Retooling plant immunity for resistance to blast fungi." ERC Advanced Investigator. €2,500,000.
- 2017-2019 "Novel blast resistant wheat varieties for Bangladesh by genome editing." BBSRC. £223,000.
- 2015-2018 "An effector-detector domain in a rice immune receptor." BBSRC. £247,000.
- 2014-2016 "Genes for oomycete resistance." Enza Zaden £690,000.
- 2013-2018 "Maximising the potential for resistance to the wheat yellow rust pathogen." BBSRC. £358,000.
- 2012-2017 "Next generation disease resistance breeding in plants". ERC Advanced Investigator. €2,500,000.
- 2011-2014 "Mechanisms of virulence and avirulence in the Avr3a family of *Phytophthora*". BBSRC, £280,000.
- 2011-2014 "A pipeline to identify durable late blight disease resistance in potato". BBSRC, £300,000.
- 2008-2011 "Role of the *Phytophthora infestans* secreted kinase CRN8 in plant disease". BBSRC, £353,325.12.
- 2008-2010 "Monitoring of *AvrBlb1* and *AvrBlb2* genes in *Phytophthora infestans* populations". BASF Plant Science, £110,725.
- 2005-2007 "Genome Sequence of *P. infestans*". NSF-USDA Microbial Genome Sequencing. \$3,745,458.
- 2005-2007 "Genome sequence of *P. capsici*". NSF-USDA Microbial Genome Sequencing. \$1,729,226.
- 2005-2006 *"Avr* genes of *Phytopthora infestans"*. BASF Plant Science, \$140,022.
- 2004-2007 *"P. infestans* protease inhibitors". USDA-NRICGP Biology of Plant Microbe Associations, \$365,606.
- 2003-2004 "Microbial Genome Sequencing: *Phytophthora*". NSF Emerging Frontiers. \$457,000.
- 2002-2006 "Functional Genomics of *Phytophthora*". NSF Plant Genome Research Program, \$1,891,617.
- 1999-2002 *"P. infestans* transcriptome" Syngenta Crop Protection, \$666,635.

Named and Keynote Lectures

- 2023 13th Arab Congress of Crop Protection, Hammamet, Tunisia.
- 2022 University of Oxford Botanic Garden and Arboretum, Autumn Lecture.
- 2022 South African Society of Plant Pathology, JE Vanderplank Lecture.
- 2021 BSPP Presidential Meeting, RKS Wood Award Lecture, Birmingham
- 2020 School of Integrative Plant Science, Cornell, Ithaca
- 2019 Australasian Plant Pathology Conference, Melbourne
- 2019 Plant Genomes in a Changing Environment, Wellcome Genome Campus, Hinxton, Cambridge
- 2019 The Italian Society of Plant Pathology (SIPaV) Congress, Milan
- 2019 LXIII SIGA (Italian Society of Agricultural Genetics) Annual Congress, Naples
- 2019 IC-MPMI Glasgow
- 2018 Chinese Academy of Sciences President's International Fellowship Initiative (PIFI), Beijing and Shanghai.

- 2018 EMBO Keynote Lecture at 14th European Conference on Fungal Genetics, Haifa, Israel.
- 2017 Distinguished Lecture, University of Dundee.
- 2017 5th Annual Retreat of the URPP Evolution in Action, Switzerland.
- 2017 NLRs Sans Frontieres, Banbury, Cold Spring Harbor Laboratory.
- 2017 5th Annual Retreat of the URPP Evolution in Action, Switzerland.
- 2017 JGI Secondary Metabolite Conference, Walnut Creek, California
- 2017 5th International Congress of Plant Biotic Interactions, Xiamen, China.
- 2017 53rd Meeting of the Norwegian Biochemical Society, Storefjell, Norway
- 2017 Japanese Society of Plant Physiology, Kagoshima, Japan
- 2017 53rd Meeting of the Norwegian Biochemical Society, Storefjell, Norway
- 2017 Winter School "Plant Biotechnology and Environmental Sustainability", Alba di Canazei, Italy
- 2016 6th Conference on Physiology of Yeasts and Filamentous Fungi, Lisbon, Portugal
- 2016 Cellular & Molecular Fungal Biology Gordon Research Conference, Plymouth, New Hampshire
- 2016 Oomycete Molecular Genetics Network Annual Meeting, Malmo, Sweden
- 2016 William Dewar Cooper Lecture, University of British Columbia
- 2016 University of Georgia Athens Plant Center Retreat
- 2016 Korean Society of Plant Pathology Meeting, Pyeongchang, South Korea
- 2016 7th International Rice Blast Conference, Manila, Philippines
- 2016 Royal Society 'Tackling emerging fungal threats to animal health, food security and ecosystem resilience'
- 2015 3rd International Symposium on Phytophthora, Bengaluru, India
- 2015 Workshop "Evolutionary genomics of plant pathogens", Kiel, Germany
- 2015 12th New Phytologist Workshop "The apoplast as battleground for plant-microbe interactions", Germany
- 2015 Keynote lecture, Society for Experimental Biology, Prague, Czech Republic
- 2015 BASF Science Symposium, Chicago
- 2015 10th DOE Joint Genome Institute Genomics of Energy & Environment Meeting, Walnut Creek, CA.
- 2015 Keynote speaker at Workshop: Genomics on Plant-Parasite Interactions UK-MX, Leon, Mexico.
- 2015 Workshop on Genomics, Cesky Krumlov, Czech Republic.
- 2014 12th European Conference on Fungal Genetics, Seville, Spain.
- 2014 UK-JAPAN Workshop, Yokohama.
- 2013 Keynote Speaker and Session Chair at International Congress of Plant Pathology, ICPP, Beijing.
- 2013 Keynote Speaker at Rice Blast Conference at Jeju Island, Korea.
- 2013 Plant Proteases "Death" Conference, Barcelona, Spain.
- 2013 30th Annual Interdisciplinary Plant Group Symposium, University of Missouri, Columbia.
- 2013 Wellcome Trust Conference: "Evolution of Parasitism", Hinxton, UK.
- 2013 Keystone Symposium "Plant Immunity: Pathways and Translation", Big Sky, MT.
- 2013 Frontiers in Genomics, Cuernavaca, Mexico.

Link to full publication list

Statement of competing interests

I consult for the biotech and plant breeding industries, e.g. BASF, Limagrain, Rijk Zwaan. I'm a member of the Two Blades Foundation Science Advisory Board.

I'm a cofounder of Resurrect Bio.

I serve on the Editorial Board of PLOS Biology. I'm an affiliate of bioRxiv.

I hold strong views on scientific publishing, and I frequently blog on the topic. My position is that <u>funding bodies and public institutions waste an outrageous amount of money on Article Processing</u> <u>Charges and journal subscriptions</u>.

I stand by the principle that excellence in science is determined by the test of time rather than where the science gets published. Therefore, I was naturally an early supporter of the San Francisco Declaration on Research Assessment (DORA). In my position as Head of TSL and President of the IS-MPMI, I lobbied these institutions to sign DORA.

I hold little sympathy for commercial science publishers. I started the Twitter hashtags <u>#Elsevil</u> and <u>#NatureRipoffs</u>.

The current publishing ethos of my lab is described here.

My other professional activities and research funding are listed on my CV, which is available online.