Curriculum vitae: Sophien Kamoun FRS MAE

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

Institutional responsibilities

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

Awards

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)
2014-2016	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 (selected)

2017	Training School of COST Action SUSTAIN "Pathogenomics"
2015, 2017	TSL Summer School "Plant-Microbe Interactions"
2011-2017	Workshop "Don't Perish: Writing and publishing a scientific paper"

Professional Activities (selected)

2017-present	Institute of Plant and Microbial Biology (IPMB), Academia Sinica, Taiwan, Science Advisory Board.
2017-present	Genome Biology, Editorial Board.
2017-present	BMC Biology, Editorial Board.
2015-present	PLOS Biology, Editorial Board.
2014-present	Member, Gregor Mendel Institute of Molecular Plant Biology Science Advisory Board.
2012-2017	Management Board, COST Action SUSTAIN "Pathogen-informed crop improvement".
2012-present	Experimental Plant Science Graduate School Advisory Board (Netherlands).
2012-present	Adivsory Board, Center for Applied Plant Science, Ohio State University.
2011-present	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	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-present	Member, BASF Science Panel.

Membership of Scientific Societies

I am a member of major plant and plant pathology Societies (IS-MPMI, APS, BSPP, ASPB, ASBMB). I served on the Board of the International Society of Molecular Plant-Microbe Interactions for >10 years, and I was elected President in 2010 (for the 2012-14 term).

Organization of International conferences (selected)

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.

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 Mark Banfield (John Innes Centre, UK) on structural biology, Ryohei Terauchi (Kyoto University, Japan) on rice genomics and rice blast, and Renier van der Hoorn (Oxford University, UK) on plant proteases. The collaboration with Ryohei Terauchi on using genomics to study plant-pathogen interactions was recognized by the Daiwa Adrian Prize 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

Since I moved to The Sainsbury Laboratory in 2007, I supervised 18 students and 25 postdocs. Prior to that during my tenure at Ohio State University, I supervised 22 students and 12 postdocs. 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). ***Five previous lab members who currently hold independent research positions received ERC Starting Grants***: Jorunn Bos (James Hutton Institute, Scotland, APHIDHOST 2012), Edgar Huitema (James Hutton Institute, Scotland, RETRaIN 2012), Sylvain Raffaele (INRA, France, VariWhiM 2013), Sebastian Schornack (TSL Cambridge, UK, ACHILLES-HEEL 2014) and Diane Saunders (John Innes centre, UK, DeMMYR 2016).

Research Funding (selected)

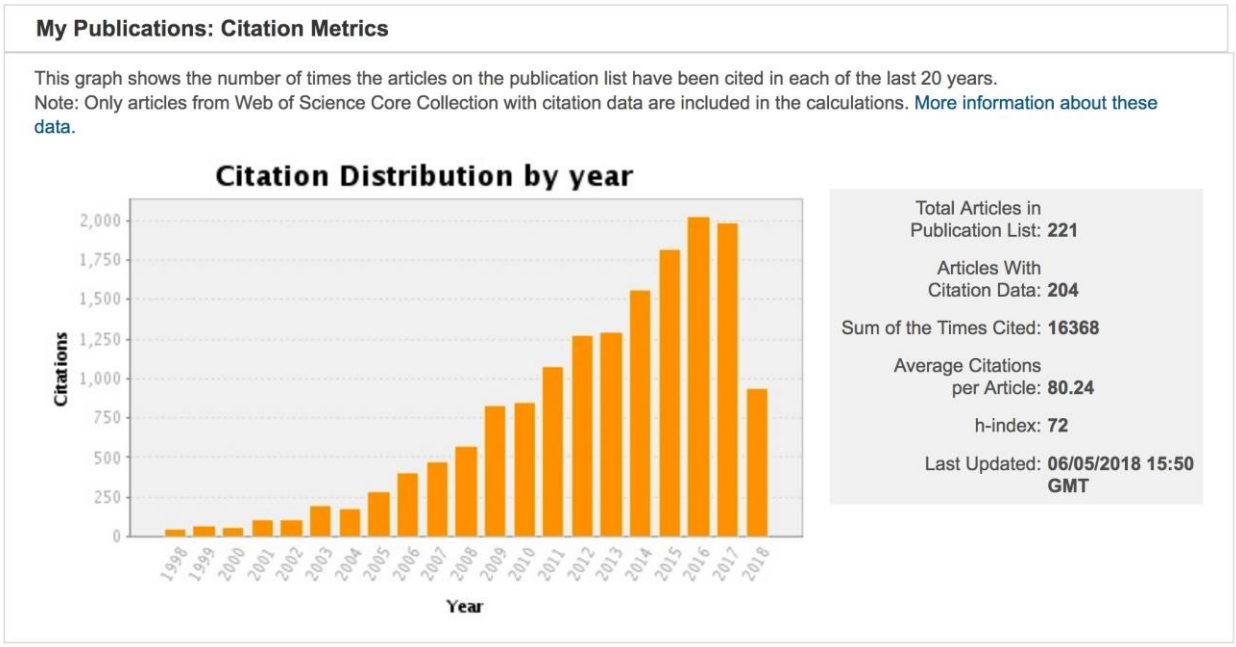
2018-2023 "Retooling plant immunity for resistance to blast fungi". ERC Advanced Investigator. €2,500,000.
2017-2019 "Development of novel blast resistant wheat varieties for Bangladesh by genome editing". BBSRC. £223,000.
2015-2018 "An effector-detector domain in a rice immune receptor: towards structure-guided design of new disease resistance proteins". 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 *P. infestans* secreted kinase CRN8 in plant disease". BBSRC, £353,325.12.

Invited presentations (selected from >250)

2017 53rd Meeting of the Norwegian Biochemical Society, Storefjell, Norway
2016 TEDx Talk at Sexey's School, Bruton, UK
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 Cellular & Molecular Fungal Biology Gordon Research Conference, Plymouth, New Hampshire
2016 William Dewar Cooper Lecture, University of British Columbia
2016 Department of Biology, Stanford University
2015 Max Planck Institute for Evolutionary Biology, Plön, Germany.
2015 10th DOE Joint Genome Institute Genomics of Energy & Environment Meeting, Walnut Creek, CA.
2015 Donald Danforth Plant Science Center, St. Louis, MO.
2015 Molecular Microbiology, Washington University Medical School, St Louis, MO.
2014 Tübingen International PhD Programme (TIPP) Retreat.
2014 International Congress of Molecular Plant-Microbe Interactions, Rhodes Greece.
2013 Keynote presentation at the International Congress of Plant Pathology, Beijing, China..
2012 Keynote presentation at 50th Anniversary Meeting of Korean Society of Plant Pathology, Seoul, Korea.
2012 Keynote presentation at 5th Croatian Congress of Microbiology, Primošten, Croatia.
2012 CSHL Quantitative Biology Symposium "The Biology of Plants"
2012 Whetzel Westcott Dimock Lecture, Cornell University, Ithaca, NY.

Sophien Kamoun Publications

A. ResearcherID Profile B-3529-2009



B. Full list of articles in peer-reviewed journals (top 20 marked with *)

210. Dagdas, Y., Pandey, P., Tumtas, Y., Sanguankiattichai, N., Belhaj, K., Duggan, C., Leary, A.Y., Segretin, M.E., Contreras, M., Savage, Z., Khandare, V.S., Kamoun, S., and Bozkurt, T.O. 2018. Host autophagosomes are diverted to the pathogen interface to mediate focal defense responses against the Irish potato famine pathogen. eLife, in press.

209. De la Concepcion, J.C., Franceschetti, M., Maqbool, A., Saitoh, H., Terauchi, R., Kamoun, S., and Banfield, M.J. 2018. Polymorphic residues in rice NLRs expand binding and response to effectors of the blast pathogen. Nature Plants, in press.

208. Wu, C.H., Derevnina, L., and Kamoun, S. 2018. Receptor networks underpin plant immunity. Science, in press.

207. Pais, M., Yoshida, K., Giannakopoulou, A., Pel, M.A., Cano, L.M., Oliva, R.F., Witek, K., Lindqvist-Kreuze, H., Vleeshouwers, V.G.A.A., and Kamoun, S. 2018. Gene expression polymorphism underpins evasion of host immunity in an asexual lineage of the Irish potato famine pathogen. BMC Evolutionary Biology, in press.

206. Langner, T., Bialas, A., and Kamoun, S. 2018. The blast fungus decoded: genomes in flux. mBio, 9:e00571-18.

205. Domazakis, E., Wouters, D., Visser, R., Kamoun, S., Joosten, M.H., and Vleeshouwers, V.G.A.A. 2018. The ELR-SOBIR1 complex functions as a two-component RLK to mount defense against *Phytophthora infestans*. Molecular Plant-Microbe Interactions, in press.

204. Weiss, C.L., Pais, M., Cano, L.M., Kamoun, S., and Burbano, H.A. 2018. nQuire: a statistical framework for ploidy estimation using next generation sequencing. BMC Bioinformatics, 19:122.

203. Upson, J.L., Zess, E.K., Bialas, A., Wu, C.H., and Kamoun, S. 2018. The coming of age of EvoMPMI: evolutionary molecular plant-microbe interactions across multiple timescales. Current Opinion in Plant Biology, 44:108-116.

202. Bialas, A., Zess, E.K., De la Concepcion, J.C., Franceschetti, M., Pennington, H.G., Yoshida, K., Upson, J.L., Chanclud, E., Wu, C.-H., Langner, T., Maqbool, A., Varden, F.A., Derevnina, L., Belhaj, K., Fujisaki, K., Saitoh, H., Terauchi, R., Banfield, M.J., and Kamoun, S. 2017. Lessons in effector and NLR biology of plant-microbe systems. Molecular Plant-Microbe Interactions, 31:34-45.

201. Kobayashi, M., Hiraka, Y., Abe, A., Yaegashi, H., Natsume, S., Kikuchi, H., Takagi, H., Saitoh, H., Win, J., Kamoun, S., and Terauchi, R. 2017. Genome analysis of the foxtail millet pathogen Sclerospora graminicola reveals the complex effector repertoire of graminicolous downy mildews. BMC Genomics, 18:897.

200. Tamiru, M., Natsume, S., Takagi, H., White, B., Yaegashi, H., Shimizu, M., Yoshida, K., Uemura, A., Oikawa, K., Abe, A., Urasaki, N., Matsumura, H., Babil, P., Yamanaka, S., Matsumoto, R., Muranaka, S., Girma, G., Lopez-Montes, A., Gedil, M., Bhattacharjee, R., Abberton, M., Kumar, P.L., Rabbi, I., Tsujimura, M., Terachi, T., Haerty, W., Corpas, M., Kamoun, S., Kahl, G., Takagi, H., Asiedu, R., and Terauchi, R. 2017. Genome sequencing of the staple food crop white Guinea yam enables the development of a molecular marker for sex determination. BMC Biology, 15:86.

*** 199. Wu, C.-H., Abd-El-Haliem, A., Bozkurt, T.O., Belhaj, K., Terauchi, R., Vossen, J.H., and Kamoun, S.** 2017. NLR network mediates immunity to diverse plant pathogens. Proceedings of the National Academy of Sciences USA, 114:8113-8118.

198. Kamoun, S. 2017. Can a biologist fix a smartphone? –Just hack it! BMC Biology, 15:37.

197. Michelmore, R.W., Coaker, G., Bart, R., Beattie, G.A., Bent, A., Bruce, T., Cameron, D., Dangl, J., Dinesh-Kumar, S., Edwards, R., Eves-van den Akker, S., Gassmann, W., Greenberg, J., Harrison, R., He, P., Harvey, J., Huffaker, A., Hulbert, S., Innes, R., Jones, J.D., Kaloshian, I., Kamoun, S., Katagiri, F., Leach, J.E., Ma, W., McDowell, J.M., Medford, J., Meyers, B., Nelson, R., Oliver, R.P., Qi, Y., Saunders, D., Shaw, M., Subudhi, P., Torrance, L., Tyler, B.M., Walsh, J. 2017. Foundational and translational research opportunities to improve plant health. Molecular Plant-Microbe Interactions, 30:515-516.

196. Franceschetti, M., Maqbool, A., Jimenez-Dalmaroni, M.J., Pennington, H.G., Kamoun, S., and Banfield, M.J. 2017. Effectors of filamentous plant pathogens: commonalities amid diversity. Microbiology Molecular Biology Reviews, 81:e00066-16.

195. Nekrasov, V., Wang, C., Win, J., Lanz, C., Weigel, D., and Kamoun, S. 2017. Rapid generation of a transgene-free powdery mildew resistant tomato by genome deletion. Scientific Reports, 7:482.

194. Prince, D.C., Rallapalli, G., Xu, D., Schoonbeek, H.J., Cevik, V., Asai, S., Kemen, E., Cruz-Mireles, N., Kemen, A., Belhaj, K., Schornack, S., Kamoun, S., Holub, E.B., Halkier, B.A., and Jones, J.D. 2017. *Albugo*-imposed changes to tryptophan-derived antimicrobial metabolite biosynthesis may contribute to suppression of non-host resistance to *Phytophthora infestans* in *Arabidopsis thaliana*. BMC Biology, 15:20.

193. Kellner, R. De la Concepcion, J.C., Maqbool, A., Kamoun, S., and Dagdas, Y.F. 2017. ATG8 expansion: a driver of selective autophagy diversification? Trends in Plant Science, 22:204-214.

192. Hopes, A., Nekrasov, V., Kamoun, S., and Mock, T. 2016. Editing of the urease gene by CRISPR-Cas in the diatom *Thalassiosira pseudonana*. Plant Methods, 12:49.

191. Derevnina, L., Petre, B., Kellner, R., Dagdas, Y.F., Sarowar, M.N., Giannakopoulou, A., De la Concepcion, J.C., Chaparro-Garcia, A., Pennington, H.G., van West, P., and Kamoun, S. 2016. Emerging oomycete threats to plants and animals. Philosophical Transactions of the Royal Society B, 371:20150459.

190. Islam, T., Croll, D., Gladieux, P., Soanes, D., Persoons, A., Bhattacharjee, P., Hossain, S., Gupta, D., Rahman, Md.M., Mahboob, M.G., Cook, N., Salam, M., Bueno Sancho, V., Maciel, J.N., Nani, A., Castroagudin, V., de Assis Reges, J.T., Ceresini, P., Ravel, S., Kellner, R., Fournier, E., Tharreau, D., Lebrun, M.-H., McDonald, B., Stitt, T., Swan, D., Talbot, N., Saunders, D., Win, J., and Kamoun, S. 2016. Emergence of wheat blast in Bangladesh was caused by a South American lineage of *Magnaporthe oryzae*. BMC Biology, 14:84.

189. Derevnina, L., Dagdas, Y.F., De la Concepcion, J.C., Bialas, A., Kellner, R., Petre, B., Domazakis, E., Du, J., Wu, C.-H., Lin, X., Aguilera-Galvez, C., Cruz-Mireles, N., Vleeshouwers, V.G.A.A. and Kamoun, S. 2016. Nine things to know about elicitins. New Phytologist, 212:888-895.

188. Maqbool, A., Hughes, R.K., Dagdas, Y.F., Tregidgo, N., Zess, E., Belhaj, K., Round, A., Bozkurt, T.O., Kamoun, S., and Banfield, M.J. 2016. Structural basis of host Autophagy-related protein 8 (ATG8) binding by the Irish potato famine pathogen effector protein PexRD54. Journal of Biological Chemistry, 291:20270-20282.

187. Belhaj, K., Cano, L.M., Prince, D.C., Kemen, A., Yoshida, K., Dagdas, Y.F., Etherington, G.J., Schoonbeek, H.-J., van Esse, H.P., Jones, J.D.G., Kamoun, S., and Schornack, S. 2016. Arabidopsis late blight: Infection of a nonhost plant by *Albugo laibachii* enables full colonization by *Phytophthora infestans*. Cellular Microbiology, 19:e12628.

186. Kamoun, S., and Zipfel, C. 2016. Host modulation every which way. Nature Microbiology, 1:16075.

185. Yoshida, K., Saunders, D.G., Mitsuoka, C., Natsume, S., Kosugi, S., Saitoh, H., Inoue, Y., Chuma, I., Tosa, Y., Cano, L.M., Kamoun, S., and Terauchi, R. 2016. Host specialization of the blast fungus *Magnaporthe oryzae* is associated with dynamic gain and loss of genes linked to transposable elements. BMC Genomics, 18:370.

184. Giannakopoulou, A., Bialas, A., Kamoun, S., and Vleeshouwers, V.G.A.A. 2016. Plant immunity switched from bacteria to virus. Nature Biotechnology, 34:391-392.

183. Petre, B., Saunders, D.G.O., Sklenar, J., Lorrain, C., Krasileva, K.V., Win, J., Duplessis, S., and Kamoun, S. 2016. Heterologous expression screens in *Nicotiana benthamiana* identify a candidate effector of the wheat yellow rust pathogen that associates with processing bodies. PLOS ONE, 11:e0149035.

*** 182. Dagdas, Y.F., Belhaj, K., Maqbool, A., Chaparro-Garcia, A., Pandey, P., Petre, B., Tabassum, N., Cruz-Mireles, N., Hughes, R.K., Sklenar, J., Win, J., Menke, F., Findlay, K., Banfield, M.J., Kamoun, S., and Bozkurt, T.O.** 2016. An effector of the Irish potato famine pathogen antagonizes a host autophagy cargo receptor. eLife, 5:e10856.

*** 181. Wu, C.-H., Belhaj, K., Bozkurt, T.O., Birk, M.S., and Kamoun, S.** 2016. Helper NLR proteins NRC2a/b and NRC3 but not NRC1 are required for Pto-mediated cell death and resistance in *Nicotiana benthamiana*. New Phytologist, 209:1344-1352.

180. Chaparro-Garcia, A., Kamoun, S., and Nekrasov, V. 2015. Boosting plant immunity with CRISPR/Cas. Genome Biology, 16:254.

179. Dong, S., Raffaele, S., and Kamoun, S. 2015. The two-speed genomes of filamentous pathogens: waltz with plants. Current Opinion in Genetics and Development, 35:57-65.

178. Sharma, R., Xia, X., Cano, L.M., Evangelisti, E., Kemen, E., Judelson, H., Oome, S., Sambles, C., van den Hoogen, D.J., Kitner, M., Klein, J., Meijer, H.J., Spring, O., Win, J., Zipper, R., Bode, H.B., Govers, F., Kamoun, S., Schornack, S., Studholme, D.J., Van den Ackerveken, G., and Thines, M. 2015. Genome analyses of the sunflower pathogen *Plasmopara halstedii* provide insights into effector evolution in downy mildews and *Phytophthora*. BMC Genomics, 16:741.

178. Petre, B., Lorrain, C., Saunders, D.G., Win, J., Sklenar, J., Duplessis, S., and Kamoun, S. 2015. Rust fungal effectors mimic host transit peptides to translocate into chloroplasts. Cellular Microbiology, 18:453-465.

177. Rickett, L.M., Pullen, N., Hartley, M., Zipfel, C., Kamoun, S., Baranyi, J., and Morris, R.J. 2015. Incorporating prior knowledge improves detection of differences in bacterial growth rate. BMC Systems Biology, 9:60.

176. Giannakopoulou, A., Steele, J.F., Segretin, M.E., Bozkurt, T., Zhou, J., Robatzek, S., Banfield, M.J., Pais, M., and Kamoun, S. 2015. Tomato I2 immune receptor can be engineered to confer partial resistance to the oomycete *Phytophthora infestans* in addition to the fungus *Fusarium oxysporum*. Molecular Plant-Microbe Interactions, 28:1316-29.

175. Chaparro-Garcia, A., Schwizer, S., Sklenar, J., Yoshida, K., Petre, B., Bos, J.I., Schornack, S., Jones, A.M., Bozkurt, T.O., Kamoun, S. 2015. *Phytophthora infestans* RXLR-WY effector AVR3a associates with Dynamin-Related Protein 2 required for endocytosis of the plant pattern recognition receptor FLS2. PLOS ONE, 10:e0137071.

174. Yoshida, Y., Sasaki, E., and Kamoun, S. 2015. Computational analyses of ancient pathogen DNA from herbarium samples: challenges and prospects. Frontiers in Plant Science, 6:771.

173. Terauchi, R., Abe, A., Takagi, H., Tamiru, M., Fekih, R., Natsume, S., Yaegashi, H., Kosugi, S., Kanzaki, H., Matsumura, H., Saitoh, H., Yoshida, K., Cano, L., and Kamoun, S. 2015. Whole genome sequencing to identify genes and QTL in rice. In Advances in the Understanding of Biological Sciences Using Next Generation Sequencing (NGS) Approaches, pp. 33-41.

172. Maqbool, A., Saitoh, H., Franceschetti, M., Stevenson, C.E.M., Uemura, A., Kanzaki, H., Kamoun, S., Terauchi, R., and Banfield, M.J. 2015. Structural basis of pathogen recognition by an integrated HMA domain in a plant NLR immune receptor. eLife, 4:e08709.

171. Ilyas, M., Horger, A.C., Bozkurt, T.O., van den Burg, H.A., Kaschani, F., Kaiser, M., Belhaj, K., Smoker, M., Joosten, M.H.A.J., Kamoun, S., and van der Hoorn, R.A.L. 2015. Functional divergence of two secreted immune proteases of tomato. Current Biology, 25:2300-2306.

170. Rallapalli G., Fraxinus Players, Saunders, D.G., Yoshida, K., Edwards, A., Lugo, C.A., Collin, S., Clavijo, B., Corpas, M., Swarbreck, D., Clark, M., Downie, J.A., Kamoun, S., Team Cooper, and MacLean, D. 2015. Lessons from Fraxinus, a crowd-sourced citizen science game in genomics. eLife, 4:e07460.

169. Fujisaki, K., Abe, Y., Ito, A., Saitoh, H., Yoshida, K., Kanzaki, H., Kanzaki, E., Utsushi, H., Yamashita, T., Kamoun, S., and Terauchi, R. 2015. Rice Exo70 interacts with a fungal effector, AVR-Pii and is required for AVR-Pii-triggered immunity. Plant Journal, 83:875-887.

168. Patron, N.J., Orzaez, D., Marillonnet, S., Warzecha, H., Matthewman, C., Youles, M., Raitskin, O., Leveau, A., Farre, G., Rogers, C., Smith, A., Hibberd, J., Webb, A.A., Locke, J., Schornack, S., Ajioka, J., Baulcombe, D.C., Zipfel, C., Kamoun, S., Jones, J.D., Kuhn, H., Robatzek, S., Van Esse, H.P., Sanders, D., Oldroyd, G., Martin, C., Field, R., O'Connor, S., Fox, S., Wulff, B., Miller, B., Breakspear, A., Radhakrishnan, G., Delaux, P.M., Loque, D., Granell, A., Tissier, A., Shih, P., Brutnell, T.P., Quick, W.P., Rischer, H., Fraser, P.D., Aharoni, A., Raines, C., South, P.F., Ane, J.M., Hamberger, B.R., Langdale, J., Stougaard, J., Bouwmeester, H., Udvardi, M., Murray, J.A., Ntoukakis, V., Schafer, P., Denby, K., Edwards, K.J., Osbourn, A., Haseloff, J. 2015. Standards for plant synthetic biology: a common syntax for exchange of DNA parts. New Phytologist, 208:13-19.

167. Solovyeva, I., Schmuker, A., Cano, L.M., van Damme, M., Ploch, S., Kamoun, S., and Thines, M. 2015. Evolution of Hyaloperonospora effectors: ATR1 effector homologs from sister species of the downy mildew pathogen H. arabidopsidis are not recognised by RPP1WsB. Mycological Progress, 14:53-62.

166. Oliva, R.F., Cano, L., Raffaele, S., Win, J., Bozkurt, T.O., Belhaj, K., Oh, S., Thines, M., and Kamoun, S. 2015. A recent expansion of the RXLR effector gene Avrblb2 is maintained in global populations of *Phytophthora infestans* indicating different contributions to virulence. Molecular Plant-Microbe Interactions, 28:901-912.

165. Du, J., Verzaux, E., Chaparro-Garcia, A., Bijsterbosch, G., Keizer, L.C.P., Zhou, J., Liebrand, T.W.H., Xie, C., Govers, F., Robatzek, S., van der Vossen, E.A.G., Jacobsen, E., Visser, R.G.F., Kamoun, S., and Vleeshouwers, V.G.A.A. 2015. Elicitin recognition confers enhanced resistance to *Phytophthora infestans* in potato. Nature Plants, 1:15034.

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