IRISH RESEARCH COUNCIL
An Chomhairle um Thaighde in Éirinn

2022 Starting and Consolidator Laureate Awards Programme

Life Sciences - Panel Member Biographies

CHAIR

PROFESSOR MARTINE TEULE, IRCCS FONDAZIONE SANTA LUCIA

SANTA LUCIA

Professor Martine Ammassari-Teule is a Research Director, Head of the Psychobiology Lab at IRCCS Fondazione Santa Lucia/former Deputy Director of IBCN- Cell Biology and Neurobiology Institute of the CNRNational Research Council, Rome Italy. She started her scientific career in the Institute of Neurophysiology and Psychophysiology in Marseille and then moved to the Laboratory of Neural Physiology of the National Scientific Research Center (CNRS) in Gif-sur Yvette where she earned her PhD in Natural Sciences at the University of Paris XI-Orsay. Her research activity focuses on the neurogenetic bases of learning and memory with a special interest devoted to the mechanisms regulating structural plasticity of neurons in brain regions critical for different forms of learning in healthy conditions and neurodegenerative/neurogenetic diseases (Alzheimer, Parkinson Autism, Fragile-X and amyotrophic lateral sclerosis) She has been teaching as "Invited Professor" at the University of Paris XI, Orsay, France, and as Adjunct Professor at the Universities "Sapienza" and "LUMSA", Rome, Italy. She is member of the editorial board of the scientific journals "Behaviour Genetics", "Behavioural Brain Research" and "Neurobiology of Learning and Memory", and Associate Editor of "Frontiers in Behavioural Neuroscience". She regularly serves as reviewer of grants applications for national (MIUR) and international (ERC- European Research Council, ANR- Agence Nationale pour la Recherche, Human Frontiers, Human Brain Project) granting Institutions. She has been elected President of EBBS - European Brain and Behaviour Society, member of the Executive committee of FENS (Federation of European Neuroscience Societies) and Chair of the FENS- IBRO School Program.

PANEL MEMBERS

PROFESSOR YIHAI CAO, KAROLINSKA INSTITUTE

Karolinska Institutet

Yihai Cao is professor of Viascular Biology at the Karolinska Institute, Sweden. He is also an honorary professor in Copenhagen University, Denmark, Linköping University, Sweden, Leicester University, UK, Shinshu University, Japan, Shandong University, China and Peking University, China. He is an internationally recognized and cited researcher in cancer, obesity, diabetes, cardiovascular disease, and eye disease research. His publications have been cited more than 35000 times and his h-index is 92. Cao received the Fernström research prize, the Karolinska distinguished professor award, and the Axel Hirsch Prize in medicine. Cao received an ERC-advanced research grant award, and a Novo Nordisk-advanced grant award. From 2018, Cao was elected to Academia Europaea, the European Academy of Sciences and Arts, the Chinese Academy of Engineering, the National Academy of Inventors, and The World Academy of Sciences. His research findings received broad public attentions including New York Times, Reuters and Swedish National TV broad casting.

PROFESSOR WISIA WEDZICHA, IMPERIAL COLLEGE LONDON

Wisia Wedzicha is Professor of Respiratory Medicine at the National Heart and Lung Institute, Imperial College, UK. She qualified from Somerville College, Oxford University and St Bartholomew's Hospital Medical College, University of London. She was elected as Fellow of the Academy of Medical Sciences (FMedSci) in 2013 and is an NIHR Senior Investigator. She was awarded the Helmholtz International Fellow award in 2014. Professor Wedzicha has a major interest in the causes, mechanisms, impact and prevention of chronic obstructive pulmonary disease (COPD) exacerbations, and in the role of bacterial and viral infection in COPD exacerbations. She directs an active research group specialising in COPD exacerbations, and has published extensively on this topic. Professor Wedzicha chaired the English Department of the Health Home Oxygen Clinical User Group, and was a member of the Guideline Development Group for the revision of the National Institute for Healthcare and Clinical Excellence COPD Guidelines. She was a member of the Programme Board for the COPD National Clinical Strategy. Professor Wedzicha was Editor-in-Chief of Thorax from 2002 to 2010, and is a member of the BioMed Central advisory board. She is currently Editor in Chief for the American Journal of Respiratory and Critical Care Medicine. In addition, she is on the editorial boards of a number of international journals. She was the Lancet Ombudsman till 2014, Publications Director for the European Respiratory Society (ERS) and has also previously been ERS Guidelines Director.

PROF. DR. CHRISTIANE PAULI-MAGNUS, UNIVERSITY OF BASEL

Professor Christiane Pauli-Magnus has been co-head of the Department of Clinical Research at Basel University Hospital and the University of Basel since 2014, and President of the Swiss Clinical Trial Organisation since 2017. She studied medicine in Heidelberg and later in Würzburg, where she received her doctorate in 1996 after spending semesters abroad in France and Chile. Following her clinical training, from 2000 to 2001 she went to the University of California, San Francisco, where she conducted research into the pharmacogenetics of drug transport processes in the intestine and at the bloodbrain barrier. She subsequently moved to Zurich University Hospital as Senior Physician for Clinical Pharmacology and Toxicology, and here she obtained her post-doctoral teaching qualification (habilitation) in 2004. In 2006 she was involved in setting up the Clinical Trial Unit at Basel University Hospital, which she still heads today. Prof. Pauli-Magnus is a specialist in general internal medicine and clinical pharmacology, and is titular professor of clinical pharmacology and toxicology at the University of Basel. She has been a member of the Swiss Science Council since 2020.

DR. ROBERT KELLY, L'UNIVERSITE D'AIX-MARSEILLE

Dr Robert Kelly of Aix Marseille University.

- BA (Mod) TCD Genetics 1986;
- PhD University of Leicester 1990 - hypervariable DNA
- Postdoc Insititut Pasteur, Paris - muscle and heart development
- Visiting Scientist Columbia University New York - T-box genes and 22q11.2 deletion syndrome mouse model

2005 – present: Developmental Biology Institute of Marseille, Aix Marseille University, INSERM Research Director position; Group leader: Genetic Control of Heart Development. Our team studies early heart morphogenesis in the mouse, heart fields, cardiac conduction system development, cardiac septation, mouse models of congenital heart defects and head muscle development (head muscles originate in a common progenitor population with parts of the heart).

Some recent papers:

- Adachi N, Bilio M, Baldini A, Kelly RG. Cardiopharyngeal mesoderm origins of musculoskeletal and connective tissues in the mammalian pharynx. Development. 2020 147:dev185256

- Choquet C et al. Nkx2-5 defines distinct scaffold and recruitment phases during formation of the murine cardiac Purkinje fiber network. Nature Communications 2020 11(1):5300

- De Bono C et al. T-box genes and retinoic acid signaling regulate the segregation of arterial and venous pole progenitor cells in the murine second heart field. Human Molecular Genetics 2018. 27(21):3747-3760.

- Francou A, De Bono C, Kelly RG. Epithelial tension in the second heart field promotes mouse heart tube elongation. Nature Communications 2017 8:14770.

- Diogo R, Kelly RG, et al. A new heart for a new head in vertebrate cardiopharyngeal evolution. Nature. 2015 520:466-73.

PROFESSOR DANIELA JEZOVA, SLOVAK ACADEMY OF SCIENCES

Professor Daniela Jezova is a full professor of pharmacology at the Medical School, Comenius University, and a leading Slovak researcher at the Institute of Experimental Endocrinology, Biomedical Research Center, Slovak Academy of Sciences, Bratislava. Field: pharmacology, neuroendocrinology. Publications: more than 250, mostly in high-impact journals. Citations: more than 5500 WOS, Hirsch-index 45. Invited lectures: more than 80. Research grants: coordinator of a project of the Centre of Excellence supported by the European Commission; principal investigator of a number of international and national projects, using both clinical studies and animal models. Scientific school: supervisor of 24 completed and 2 running PhD theses in pharmacology, physiology, or clinical pharmacy. Expert activities: reviewer of European FP and Horizon projects, panel member of European Research Council, member of several international health sciences panels (e.g. Belgium, Portugal). Scientific societies: the Academia Europaea, former President of the Slovak Physiological Society, Scientific Secretary of the Czech Neuropsychopharmacological Society, The Learned Society of the SAS. Awards: prestigious national prize Crystal Wing for Medicine and Science, Gold Jessenius Medal for advances in medical sciences, Price of the SAS for scientific work, Guoth Medal of the Slovak Medical Society.

PROFESSOR MICHELLE PLOUGHMAN, MEMORIAL UNIVERSITY OF NEWFOUNDLAND

Dr. Michelle Ploughman is Associate professor of Medicine at Memorial University, St. John's NL and Canada Research Chair in Rehabilitation, Neuroplasticity and Brain Recovery. She is an experienced physiotherapist, a neuroscientist and a recognized expert in neuroplasticity and neurorehabilitation in stroke and multiple sclerosis. Located at the Miller Centre in St. John's, NL. Dr. Ploughman's Recovery & Performance Laboratory provides a superb training ground for Canada's next generation of scientists and research-minded clinicians. Her research focuses on the effects of brain stimulation, aerobic exercise, intensive training paradigms and lifestyle habits on the brain challenged by injury, disease and aging. Dr. Ploughman's expertise ranges from measuring the effects of upper limb training on structural plasticity in animal models to testing innovative rehabilitation approaches in clinical trials. She is an expert in measuring the effects of neurorehabilitation using functional brain imaging techniques such as transcranial magnetic stimulation and functional near infrared spectroscopy. Dr. Ploughman also contributes as a volunteer for the NL Brain Injury Association, the Heart and Stroke Foundation, the March of Dimes and the MS Society of Canada.

PROFESSOR BRIAN CHEN, McGILL UNIVERSITY

Dr. Brian Chen is Associate Professor in Neuroscience at McGill University.

"I started my lab at McGill University in 2009. I performed my graduate work with Dr. Karel Svoboda at Cold Spring Harbor Laboratory and then worked with Dr. Dietmar Schmucker at the Dana-Farber Cancer Institute and then Dr. Josh Sanes at Harvard University for my post-doctoral research.

I am interested in how to build a brain. Fortunately, the instructions on building a brain are written molecularly in the genome, and so my research focuses on deciphering these instructions by uncovering the different molecules and strategies that neurons in the brain use to connect with each other. This will then help us understand how these wiring instructions can go awry in abnormal brain development. One of the central puzzles in neuroscience is how a neuron chooses the correct synaptic contacts during development when faced with tens of thousands of potential targets. My previous research interests have centered on how the experience of an animal can refine neural circuits, and more recently I have investigated how hard-wired neural circuits underlying innate behaviors wire up. To uncover the different molecules and strategies underlying the wiring instructions neurons use to self-assemble into a neural circuit, my lab combines high-resolution imaging techniques with advanced molecular genetics in different model systems to look inside living animals while their neurons form synapses. My research uses the fruit fly Drosophila melanogasterto identify underlying genetic mechanisms of neural wiring, and we apply these findings to the mouse neocortex to investigate the common molecular rules that might be used to wire up the human brain".

PROFESSOR RAZA ABIDI, DALHOUSIE UNIVERSITY

Dr Raza Abidi is professor at the Faculty of Computer Science, Dalhousie University, Canada.

"I am also the Director of the ***health informatics graduate program****. I lead the* ***NICHE (kNowledge Intensive Computing for Healthcare Enterprises)*** *research group. My research interest span across three areas: (1) Health Informatics, (2) Knowledge Management, and (3) Health Data Analytics. My research projects have been funded by both government agencies, organizations and industry, such as CANARIE, National Sciences and Engineering Research Council of Canada (NSERC), Canadian Foundation of Innovation (CFI), Canadian Institute for Health Research (CIHR), Nova Scotia Health Research Foundation (NSHRF), Green Shield Foundation Canada and Agfa Healthcare Canada.I teach specialized topics in health informatics such as healthcare knowledge management and healthcare data mining".*

PROFESSOR DEIRDRE LANE, UNIVERSITY OF LIVERPOOL

Professor Deirdre Lane (PhD, FRCP Edin, FHEA, FESC) Reader in Cardiovascular Health, University of Liverpool, United Kingdom; Adjunct Professor, Aalborg University, Denmark.

"I am a Reader in Cardiovascular Health at the University of Liverpool and an Adjunct Professor of Cardiovascular Health at Aalborg University, Denmark. I am an alumni of the University of Liverpool having received my BSc (Hons) in Psychology in 1995. I completed my PhD at the University of Birmingham in 2000 and worked as an Academic Fellow and Non-Clinical Lecturer in the University Department of Medicine, City Hospital, Birmingham, before joining the University of Birmingham as a

Lecturer in Cardiovascular Health in February 2010. I was promoted to Senior Lecturer in April 2014 and Reader in March 2018. I joined the University of Liverpool in February 2019 as part of the newly formed Liverpool Centre for Cardiovascular Science. My background is in health psychology and cardiovascular epidemiology and my research examines how cardiovascular disease affects patients' quality of life and psychological well-being, their perceptions' of the condition(s) and treatment, and how patient education impacts treatment adherence, using quantitative and qualitative methodology. My main research interest is atrial fibrillation, with two major themes: patient-centred research and stroke and bleeding risk stratification and stroke prevention. Together with clinical colleagues I have been integral in refining the risk stratification of atrial fibrillation patients requiring oral anticoagulant therapy based on their bleeding and stroke risk, deriving and validating stroke (CHA2DS2-VASc) and bleeding (HAS-BLED) risk schemas which are widely used both nationally and internationally in clinical practice. This has had a significant impact on patient care globally. I am also involved in clinical trials and international registry studies related to atrial fibrillation. My programme of research is focussed on stroke prevention and improving the management of atrial fibrillation through the promotion and implementation of guideline-adherent clinical practice and patient and physician education, in collaboration with hospital Trusts, primary care, patients, patient organisations, and industry, both nationally and internationally. I am currently rated as one of the top 10 world experts in atrial fibrillation by Expertscape and I am regularly invited to speak at national and international conferences on atrial fibrillation".

PROFESSOR ABDELWAHAB OMRI, LAURENTIAN UNIVERSITY

Dr Abdelwahab Omri is currently a Full Professor in the Department of Chemistry and Biochemistry with a cross appointment to the Department of Biology, the Biomolecular Sciences PhD Programme, School of Rural and Northern Health PhD. He has been active in the vaccine and drug delivery field for over 20 years, and has made important contributions to the development of liposomes and nanomedicines for anti-infective drugs. He has over 150 peer-reviewed publications and is an inventor on 3 patents. He is frequently an invited speaker at national and international conferences. In addition to research, Dr. Omri is actively involved in the research training of both undergraduate and graduate students. Dr. Omri has served in administrative capacities in several national and international scientific societies. He has served on a number of Editorial Boards and Granting Agencies in Canada and abroad. He was an Academic Colleague to the Council of Ontario Universities for 2 terms.

PROFESSOR THOMAS I. MICHALAK, MEMORIAL UNIVERSITY OF NEWFOUNDLAND

Professor Thomas I. Michalak is currently an Honorary and University Research Professor at Memorial University, St. John's, NL Canada. He is former Senior Canada Research Chair in Viral Hepatitis / Immunology and was both the Professor of Molecular Virology and Medicine (Hepatology). He also served as the coordinator of Graduate Programme in Immunology and Infectious Diseases at Memorial University. Dr. Michalak is an internationally recognized expert in viral hepatitis, molecular and immunological mechanisms of viral persistence and cellular injury, and models of human infections. He graduated medical school at the Warsaw Medical University in 1973 and completed his PhD in immunopathology in 1976. He became the Senior Research Fellow at the Institute of Liver Studies, King's College of London, UK and the Visiting Investigator in the Department of Molecular and Experimental Medicine at the Scripps Research Institute, La Jolla, CA, USA. He is elected fellow of the Canadian Academy of Health Sciences and the American Association for the Study of Liver Diseases, recipient of the Queen Elizabeth II Diamond Jubilee Medal for contributions to the fight against liver diseases and the Gold Medal from the Canadian Association for Study of the Liver and the Canadian Liver Foundation for achievements in research and science in hepatology. He has severed on a number

of research granting agencies in Canada, USA and other countries, editorial boards, and as an invited reviewer of several hundreds of scientific papers.

CORINNE LIONNE, CENTRE DE BIOLOGIE STRUCTURALE (CBS) MONTPELLIER

Corinne Lionne is research director (CNRS) at the 'Centre de Biologie Structurale (CBS) in Montpellier, France. She obtained a PhD in Enzymology in 1995 and the habilitation to supervise research (HDR) in Transient Kinetics in 2010. She has developed stateof-the-art equipment for cryoenzymology. She has a long-standing expertise in the steady-state and transient kinetics, enzyme inhibition, drug design and thermodynamics and structural studies of nucleotide-binding proteins (e.g., aminoglycoside modifying enzymes, 3phosphoglycerate kinase). Her current research topics focus on the design of innovative drugs with applications in infectious diseases and antibiotic resistance. She is the author of 49 publications and 1 patent dealing with enzymology. She currently coordinates an ANR project and participates in a joint ANR project with Germany, both relating to the design of bacterial enzyme inhibitors for application in antibiotic therapy. She supervised 4 post-doctoral fellows, 3 PhD and 15 Master students. She has been President of the group "Enzymes" of the Biochemistry and Molecular Biology French Society and treasurer of the French Biophysical Society. She regularly serves as reviewer of grants applications for funding agencies, for example, Agence Nationale pour la Recherche (ANR), European Science Foundation, France-Berkeley Fund or National Science Foundation.

PROFESSOR NATALIA GROMAK, UNIVERSITY OF OXFORD

Dr Natalia Gromak: Associate Professor, Royal Society University Research Fellow.

"I gained my Honours BSc degree in Molecular Biology from the University of Edinburgh in 1997. I completed my PhD at the University of Cambridge in 2001, under supervision of Prof. C.W.J.Smith, studying the regulation of alternative splicing in mammals. Since then I have been working in the Sir William Dunn School of Pathology in the group of Prof. N.J. Proudfoot, FRS. I have been a Biochemistry tutor in the college since 2004. I teach Biochemistry to 1st year Medical and Biology students, and also Molecular Biology to 1-4th year Biochemistry students. My tutorials cover various aspects of regulation of gene expression in prokaryotic and eukaryotic cells. My research is focused on studies of transcription in humans. In particular, I have been looking at the regulation of transcription termination and interplay between transcription and various RNA processing reactions in the cell. In May 2011 I was awarded a Royal Society University Research Fellowship, allowing me to start my independent group in the Sir William Dunn School of Pathology. My research project will investigate regulation of RNA metabolism in neurodegenerative diseases".

PROFESSOR TANYA VAVOURI, JOSEP CARRERAS LEUKEMIA RESEARCH INSTITUTE IN BARCELONA

Dr. Tanya Vavouri is a Research Group Leader at the Josep Carreras Leukemia Research Institute in Barcelona, Spain.

Her research interests are in Gene Regulation, Computational Biology, Bioinformatics, Genomics, Comparative Genomics, Male Germline, Transposons, Small noncoding RNAs, Epigenetics.

Education:
2003-2007 University of Cambridge, UK. PhD in Comparative Genomics.
2000-2001 University of Manchester, UK. MSc in Bioinformatics.

1997-2000 University of Wales, Bangor, UK. BSc(Hons) in Biomolecular Sciences.

PROFESSOR CATHIE MARTIN, UNIVERSITY OF EAST ANGLIA

Professor Cathie Martin: Honorary Professor in the School of Biological Sciences at the University of East Anglia.

"I have been a group leader at the John Innes Centre, Norwich UK since 1983. The John Innes Centre is the leading Research Institute in Plant Sciences in Europe. I am Professor at the University of East Anglia and I hold a chair as Niels Bohr Visiting Professor in the Faculty of Life Science, University of Copenhagen, Denmark. My research has focused on cellular specialisation in plants and I was the first to identify genes regulating cell shaping in plants. I have been a plenary speaker and session organiser at several international biotechnology meetings, and I have been asked to present the work I co-ordinate on the European Unionsponsored FLORA project at many international biotechnology meetings. I am inventor on seven patents and I recently co-founded a spin-out company (Norfolk Plant Sciences) with Professor Jonathan Jones FRS, to bring the benefits of plant biotechnology to Europe and the US. I have been involved in setting up the Centre for Preventative Medicine in Norwich UK which is supported by a unique combination of internationally leading researchers who are developing the scientific understanding of how diet can help to maintain health, lead to healthy ageing and reduce the risk of chronic disease. My interests span the entire spectrum of plant biology, and in biological questions from the fundamental right to the applied ends of plant science. I am Editor-in-Chief of Plant Cell, the highest ranking international journal for research on plants sponsored by the American Society of Plant Biologists. I am the first woman and the first non-American to hold this post".

PROFESSOR PAUL ANGERS, LAVAL UNIVERSITY

Dr. Paul Angers is currently a Full Professor in the Department of Food Science at Laval University (Québec, Canada). He graduated in chemistry and obtained his Ph.D. in organic synthesis from Laval University, followed by two years of postdoctoral fellowships in natural product chemistry and in lipid chemistry as an NSERC Postdoctoral Fellow (Purdue University, Laval University). His research interests include food chemistry, more specifically the chemistry of fats and oils, and of plant and natural products. In fats and oils, he has contributed towards the understanding of the chemical mechanisms by which fatty acids degrade in frying oils and their health effects - notably cyclic fatty acid monomers and their oxidation products, and in products high in labile oils such as marine oils, and in the stabilization of marine oils and high-CLA milk fats. He has also contributed to the development and improvement of methods in lipid analysis. Of particular note are his work on direct derivatization of triglycerides and fatty acid methyl esters into picolinyl derivatives for mass spectrometry analysis, which is now a reference method. He also contributed in lipid technology, including fractionation of milk fat and marine oils and fat modification by interesterification. In the field of plant chemistry, he is mostly involved in the biorefining of fruits and vegetables wastes. Many of his projects are performed in collaboration with industry. Plant extracts developed from the research projects are now commercialized as food ingredients and as dietary supplements.

PROFESSOR HIDDE PLOEGH, BOSTON CHILDREN'S HOSPITAL

Professor Hidde Ploegh (born in the Netherlands) is an immunologist at Boston Children's Hospital. He is well-known for his contributions in understanding antigen processing and the evasion of the immune system by viruses. Ploegh received a Bachelor of Science degree in 1975, and a Master of Science

degree in biology and chemistry in 1977, from the University of Groningen. Having worked for six months in Jack Strominger's lab at that time, he was able to continue his PhD studies under Strominger and received a doctorate from the University of Leiden. Ploegh then proceeded with several positions at a number of institutions such as the University of Cologne, the Netherlands Cancer Institute, Utrecht University (2012-15), Harvard Medical School, and the Whitehead Institute. In 1986 Ploegh became a member of EMBO. In 1997, Hidde Ploegh became a correspondent of the Royal Netherlands Academy of Arts and Sciences and was elected to the National Academy of Sciences in 2016. Much of the research in the Ploegh lab is in the fields of biochemistry and immunology, which started with a specific focus on the unraveling the mechanisms by which MHC molecules interact with antigens inside a cell. Later, while at the Whitehead Institute, the Ploegh lab began using a technique called 'sortagging' to look at the pathways through which viruses are able to avoid detection by the immune system. Ploegh has been involved in further developing therapeutic roles for sortagging. Additionally, the Ploegh lab now focuses on utilizing 'nanobodies,' derived from the antibodies of alpacas. Much of the research currently done in the lab uses these nanobodies for fundamental research and therapeutic applications.

PROFESSOR DONALD FRASER, UNIVERSITY OF EAST ANGLIA

Professor Donald Fraser is Director of the Division of Infection and Immunity, Cardiff University, and Director of Wales Kidney Research Unit. He studied medicine at Bristol University and then trained in posts in Manchester and Wales. His doctoral research in Cardiff focussed on post-transcriptional gene regulation. His lab remains focussed on RNA, with current work centring on microRNAs as post-transcriptional regulators and on single cell sequencing as a means of examining cell states. He is clinically active as a consultant nephrologist.

PROFESSOR MARTIN PETER LOWE, UNIVERSITY OF MANCHESTER

Professor Martin Peter Lowe is professor of cell biology in the faculty of Life Sciences at the University of Manchester.

Education:

- 1979-1984 Harris Academy, Dundee. 8 'O' grades and 5 'H' grades.
- 1984-1988 Department of Biochemistry, University of Dundee. B.Sc. First Class Honours.
- 1988-1991 School of Biochemistry, University of Birmingham. Ph.D.

Selected recent publications:

- Liu, C., Mei, M., Li, Q., Roboti, P., Pang, Q., Ying, Z., Gao, F., Lowe, M.*, Bao, S.* (2017). Loss of the golgin GM130 causes Golgi disruption, Purkinje neuron loss, and ataxia in mice. Proc. Natl. Acad. Sci. 114, 346-351.
- Witkos, T.M., Lowe, M. (2017). Recognition and tethering of transport vesicles at the Golgi apparatus. Curr. Op. Cell Biol. 47, 16-23.
- Wehrle, A., Witkos, T.M., Schneider, J., Hoppmann, A., Behringer, S., Kottgen, A., Elting, M., Spranger, J., Lowe, M.*, Lausch. E.* (2018). A common pathomechanism in GMAP-210 and LBR-related diseases. JCI Insight 3, 121150.

- Witkos, T.M., Chan, W.L., Joensuu, M., Rhiel, M., Pallister, E., Thomas-Oates, J., Mould, A.P., Mironov, A.A., …… Lowe, M. (2019). GORAB scaffolds COPI at the trans-Golgi for efficient enzyme recycling and correct protein glycosylation. Nature Commun. 10, 127.
- Carim, S.C., Ben El Kadhi, K., Yan, G., Sweeney, S.T., Hickson, G.R., Carreno, S.*, Lowe, M.* (2019). IPIP27 coordinates PtdIns(4,5)P2 homeostasis for successful cytokinesis. Curr. Biol. 29, 775-789.
- Yarwood, R., Hellicar, J., Woodman, P.G.*, and Lowe, M.* (2020). Membrane trafficking in health and disease. Dis. Mod. Mech. 13: dmm043448
- Oltrabella, F., Jackson-Crawford, A., Yan, G., Rixham, S., Starborg, T., and Lowe, M. (2021). IPIP27A cooperates with OCRL to support endocytic traffic in the zebrafish pronephric tubule. Hum. Mol. Gen.
- Hellicar, J., Stevenson, N.L., Stephens, D.J.*, and Lowe, M.* (2022). Supply chain logistics: The role of the Golgi apparatus in extracellular matrix production and maintenance. J. Cell Sci.

PROFESSOR CRISTINA FERRANDIZ, FERRANDIZ LAB + UNIVERITY OF VALENCIA + SPANISH COUNCIL OF RESEARCH

Professor Cristina Ferrándiz is currently project leader of the Lab of *Evolution and Development of Flowers, Fruits and Reproductive Meristems* at Instituto de Biologia Molecular y Celular de Plantas (IBMCP) in Valencia, Spain, since 2002 and Head of Department of Plant Development annd Hormone Signaling. She has worked for almost 25 years on different aspects of Plant Developmental Genetics, focusing on the genetics of carpel and fruit development in several plant species including Arabidopsis, solanaceae, crop legumes and, more recently, rice. Her work aims to better understand the genetic and molecular interactions leading to coordinated patterning of the pistil and the fruit in model systems as well as the functional conservation of these networks in different crop and non-crop species. Her major contributions in this field have been the characterization of several key transcription factors required for dehiscence in Arabidopsis and other crops; she also has identified the NGATHA factors, which are essential for the formation of the stigma and style both in Arabidopsis and other species, and to control the distribution of auxin during development gynoecium regulating the synthesis and transport. It has also contributed to develop non-hierarchical genetic models that explain gynoecium morphogenesis through the formation of protein complexes involving members of several families of transcription factors and how variations in these networks affect the morphological evolution. More recently, her work has also focused in the regulation of the length of the reproductive period in monocarpic species, which are those with a single reproductive cycle in their lives, and that after producing a certain number of fruits enter senescence and die: the work of the lab has uncovered a novel genetic mechanism that controls the length of the reproductive phase and hence fruit production and is currently applying this knowledge to develop biotechnological strategies to increase yield in several crops.