Women in Science
Special 10th Anniversary Lecture & Annual Luncheon

Dr. Andrea Pfeifer

CEO of AC Immune SA

"Precision medicine to treat and prevent neurodegenerative diseases"

Thursday 10 November 2022

Fairmont Le Montreux Palace

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FREG – Fund for Research and Education in Genetics

Special 10th Anniversary

Lecture & Annual Luncheon

Program

Arrival, registration, welcome drink

Welcome – Lola Grace, Founder WiS
Words from Director of Citi Private Bank Switzerland

Lecture Dr. Andrea Pfeifer, AC Immune SA and Q & A

Lunch

Women in Science Scholarship Recipient Dr. Vittoria Mariano
with Prof: Claudia Bagni, UNIL

Dessert & coffee

Close

QR code for donation

WITH ENORMOUS GRATITUDE

to our generous sponsors, WiS committee members
and to all who sponsored scientist guests

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women in science

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A special THANK YOU to our wonderful WiS Committee who have contributed to today's tremendous success

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If you would like to become part of the Women in Science initiative – as a scientist or as a WiS advocate, please visit us online or contact Lola Grace to find out about the ways to engage!

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Guest Speaker, Dr. Andrea Pfeifer

CEO of AC Immune SA

“Neurodegenerative diseases such as Alzheimer’s are socially and economically devastating and represent one of the biggest global healthcare challenges of our time.”

Dr. Pfeifer is one of Switzerland's leading biotech entrepreneurs and scientists. She is at the forefront of cutting edge research, new diagnostics and treatments for neurodegenerative diseases, including Alzheimer's and Parkinson's diseases. Neurodegenerative diseases are a silent, worldwide pandemic that increasingly impacts health, lifestyle and global economics. In leading AC Immune since 2003, Dr. Pfeifer has overseen the integration of deep scientific knowledge, cutting-edge technology platforms and industrial drug development capabilities, enabling the development of one of the largest and most promising pipelines focused on neurodegenerative diseases in the industry, including multiple investigational vaccines, antibodies, small molecule drugs and diagnostic agents. Her global influence and dedication in the search for treatments for neurogenerative disease are widely acknowledged.

Dr. Pfeifer holds a Ph.D. in Toxicology from the University of Würzburg, Germany and is a qualified Toxicologist and Pharmacist. She continued with post-doctoral work in Molecular Carcinogenesis at the National Institutes of Health, Human Carcinogenesis Branch, in Bethesda, USA. Dr. Pfeifer received her Habilitation from the UNIL and is an Honorary Professor at the Ecole Polytechnique Fédérale de Lausanne (EPFL). She is also a key member of the CEOi initiative on Alzheimer 's disease and the Davos Alzheimer's Collaborative (DAC). In 2020, she launched The Global BBP BrainTrust to catalyze progress in the area of women’s brain and mental health.

Dr. Pfeifer has received numerous prestigious awards including the first SEF Women Award for CEO of the Year in 2021 by the Swiss Economic Forum. She also received the Aenne Burda Award for Creative Leadership, recognizing her pioneering work in the field of neurodegenerative diseases and as a female entrepreneur who is a source of inspiration for women of all generations.

"It is important for young women to see that it is possible to get to the top, and equally that business takes full advantage of this deep talent pool that is still not being tapped to its full extent." Andrea Pfeifer

Women in Science
Annual Lecture & Luncheon

The Annual Women in Science Switzerland Lecture & Luncheon brings the field of genetic research into the lives of women in the region with a lecture by a leading, internationally renowned, female scientist. WiS is part of the initiative Fund for Education and Research in Genetics (FREG) housed at the University of Lausanne, to foster stronger interrelationships between members of the broader community and important research discoveries that impact humanity and the way we understand the world around us.

Women in Science creates a platform for scientific, corporate, philanthropic and other interested women to come together for stimulating dialogue and engagement. Proceeds support community education, public lectures, scholarships for women researchers at UNIL, EPFL and educational programs for children in genetics at l'Éprouvette.

* * *

La Conférence-Déjeuner Annuelle
Women in Science

La conférence-déjeuner annuelle « *Women in Science* » réunit le domaine de la recherche génétique avec une communauté de femmes. L'objectif est de sensibiliser les femmes de la région à ce type de problématique à travers l'intervention d'une scientifique de renommée internationale. Ceci tout en favorisant les échanges entre elles. WIS est partie prenante de l'initiative Fonds pour l'Éducation et la Recherche en Génétique (FREG) initiée par l'Université de Lausanne. Elle favorise les interactions entre les membres de cette communauté élargie et les découvertes scientifiques importantes qui ont une incidence sur l'humanité, la façon dont nous comprenons le monde qui nous entoure.

« Women in Science » crée une interface entre femmes scientifiques, entreprises et philanthropes afin de les rassembler et stimuler l'échange d'idées. Les bénéfices de l'événement permettent de contribuer au financement de programmes éducatifs pour les enfants proposés par L'Éprouvette - laboratoire public de l'Université de Lausanne (UNIL), EPFL - des conférences publiques et aussi des bourses attribuées à des femmes scientifiques actives dans la recherche sous la supervision du Centre Intégratif de Génomique à l'UNIL.

The Fund for Research & Education in Genetics at UNIL

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FREG – Fund for Research and Education in Genetics

The Fund for Research and Education in Genetics was established in 2010 to promote interactions between the private and philanthropic sectors and the scientific community. Its mission is to disseminate information on the latest advances in genetic research through the Center for Integrative Genomics (CIG) in its activities for research in genetics. Women In Science is one of two initiatives to promote opportunities for networking and information transfer. The other is a public lecture series featuring a notable scientist attending the annual CIG symposium where scientific leaders meet at UNIL to present the latest research in the field of genetics.

The Center for Integrative Genomics (CIG) is a department of the Faculty of Biology and Medicine of the University of Lausanne (UNIL). The research at the CIG centers on genome structure and function, in different experimental systems and different techniques, performed by an international community of scientists, in an integrated research center, where interactions are numerous both in formal and informal settings. 55% of the CIG 180 team are women, among them 88 are scientists (4 Professors, 2 Honorary Professors, 23 Postdoctoral, 26 PhD students, 34 technicians).

Proceeds from the Women in Science Lunch support outstanding young women scientists at critical points of their career to advance in their competitive field. We have funded research, travel grants and scholarships for summer educational programs. In addition to numerous research grants, 25 PhD students have received travel grants to attend important meetings where they can present their research. Nine students have been given scholarships to attend the Summer Undergraduate Research Programs at the CIG. Women in Science has also supported a full-time teacher and curriculum development in STEM education at the UNIL public laboratory, L'Éprouvette, for its activities to promote science for children and a dialogue between science and society with a special focus on genetics. We believe that it is important to continue to inspire and create opportunities for girls to enter STEM careers.

Today, several scholarship recipients are with us. Proceeds from this luncheon will be benefitting Dr. Vittoria Mariano's important research on autism spectrum disorder enabling to publish her work in prestigious scientific journals.

women in science

Vittoria Mariano

Women in Science 2022 Research Grant

Vittoria Mariano obtained in 2021 a joint Ph.D. in Neuroscience - University of Lausanne and the University of Leuven - under the dual supervision of Prof. Claudia Bagni (University of Lausanne) and Prof. Eric Legius (University of Leuven), a world-leading human geneticist who discovered the *Legius Syndrome*.

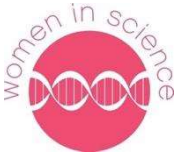
Vittoria's passion is the study of brain development and the events causing neurodevelopmental disorders. She joined Prof. Bagni's laboratory initially as Ph.D. student, and currently as postdoctoral fellow aiming to understand three major questions in the field of autism spectrum disorder ASD: 1) the relation between brain metabolic dysfunctions and sleep deficits; 2) the impact of risk gene variants on brain development and behaviors; 3) the role of mitochondrial homeostasis in social deficits.
The strength of her work, that propelled her to become an excellent neuroscientist, is the use of multidisciplinary approaches that combine the fly model and human patient cells with genetic manipulations, behavioral, and biochemical assays. With her work, she made impactful contributions to the field of ASD summarized as follows:

First, she discovered how brain lipid homeostasis impacts on sleep behavior, identifying a mechanism that might have an impact on human quality of sleep. Manipulation of this mechanism rescues sleep deficits in a biological fly model of neurodevelopmental disorders, opening a new avenue for therapeutic intervention in sleep disorders (*Mariano et al., in revision at Nature Communications*).

Second, in collaboration with clinicians, she characterized the first gene variant for the ASD risk gene *CYFIP1* (Cytoplasmic FMRP interacting protein 1) causing severe intellectual disability and modelled these conditions in biological models (flies and mice). Here, she was able to understand the contribution of these mutations to ASD features (*Mariano et al., in revision at Biological Psychiatry; Kanellopoulos, Woo, Mariano et al., in revision at Molecular Psychiatry*).

Third, in collaboration with a postdoctoral fellow in Prof. Bagni's laboratory, she contributed to the identification, in a fly model of ASD, of a key player (transporter) causing hyperactive mitochondria and social behavior deficits (*Kanellopoulos, Mariano et al., Cell 2020*). Importantly, these findings published in the prestigious journal *Cell*, have been patented at the University of Lausanne because of the potential to develop therapeutic approaches for ASD and other neuropsychiatric disorders.

Vittoria is highly committed to continue her academic career in neuroscience. For her next step, she plans to investigate the role of brain lipid metabolism in neurodevelopment, expanding her scientific approaches using sophisticated mammalian systems such as the human "cerebral organoids". These in vitro 3D brain models are derived from human induced pluripotent stem cells (iPSCs) and recapitulate several developmental processes and organization of the developing human brain. These 'brain models- often called « mini brains » provide a physiologically relevant approach for the study of brain development and processes affected in neurological disorders that are unique to the human/ mammalian nervous system.



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Distinguished Speakers & Topics

2012
Prof. Nouria HERNANDEZ
The Genetic Era in Biology Impact on Knowledge and Health

2013
Prof. Lana KANDALAFT
Developing Personalized Vaccines to Treat Ovarian and Other Cancers affecting Women

2014
Prof. Liliane MICHALIK
Skin Repair and Skin Cancers: from research to clinical applications

2015
Prof. Cathrin BRISKEN
Hormones: Keys to Breast Cancer Prevention and Treatment

2016
Prof. Johanna JOYCE
A Paradigm Shift in Cancer Research and Treatment: Attacking Cancer Through Microenvironment-Directed Therapy

2017
Prof. Carmen SANDI
Stress and the Social Brain

2018
Prof. Claudia BAGNI
What Synapses Can Teach Us about Alzheimer's Disease, Autism & Schizophrenia: Insights into Cognitive Disabilities & Social Behaviour

2019
Prof. Solange PETERS
Treating Cancer Today: Innovations, Promises and Limitations

2021
Prof. Melanie Blokesch
The Forgotten Pandemic of the 21st Century

2022 List of Scientists

Chiara Auwerx, PhD student in the lab of Prof. Alexandre Reymond at the Center for Integrative Genomics, UNIL

Chiara Auwerx completed a Bachelor (2017) and Master (2019) in biology at the ETH Zürich (CH). There, she completed various projects in the fields of experimental and computational biology before moving to Princeton University (USA) for her Master thesis, where she investigated how novel Alzheimer's disease genes modulate short term memory. During her studies, she realized that all questions that had fascinated her so far were aimed at understanding how genetic variation resulted in the tremendous diversity observed in populations and decided to start a PhD in human genetics under the supervision of Prof. Alexandre Reymond and Prof. Zoltán Kutalik at the University of Lausanne (CH). For her PhD research, Chiara Auwerx works with data from a cohort of 500,000 individuals from the UK for which DNA samples and information on their physical appearance, lifestyle, and health records have been collected. She focuses on detecting copy number variants (CNVs; i.e., a type of genetic mutation where a given DNA fragment is either duplicated or deleted and which is typically linked with early-onset, severe diseases) and assessing whether they modify physical traits or disease susceptibility in affected individuals of the general population. Furthermore, she is interested in evaluating whether the impact of CNVs on complex traits is modulated by the individual's sex and/or other types of genetic mutations. Overall, her research contributes to a better understanding of the genetic basis of diversity in human populations and the identification of DNA regions that play a crucial role in health and diseases.

Dr. Claudia Bagni, Department of Fundamental Neurosciences and Vice-Dean for Research and Innovation, UNIL
– WiS Speaker 2018

Neurobiologist Claudia Bagni received her Ph.D. in Cellular and Molecular Biology from the University of Rome Tor Vergata, Italy. Following postdoctoral positions in France, Germany, and the United States, she established her own laboratory at the University of Rome Tor Vergata and later also at the KU Leuven, Belgium. In 2016, Claudia was appointed Director of the Department of Fundamental Neurosciences at the University of Lausanne, Switzerland, where her group continues to work on the mechanisms of two synaptopathies - such as autism and Fragile X syndrome, affecting brain development and wiring using different model systems and in collaboration with clinicians. Since August 1st, 2021, she took over the position of Vice-Dean Research & Innovation at the Faculty of Biology and Medicine of the University of Lausanne.

Dr. Bejarano Bosque, Postdoctoral fellow in the lab of Prof. Johanna Joyce at the Department of oncology, UNIL CHUV

PhD in Molecular Biosciences performed at the CNIO and Autonomous University of Madrid, completed after a BSc in Biotechnology (University of Salamanca) and MSc in Biomedical Research (Pompeu Fabra University of Barcelona). My research interests focus on finding new therapeutic strategies for the treatment of brain malignancies. At present I’m a postdoctoral researcher in Johanna Joyce’s laboratory (University of Lausanne, Ludwig Institute for Cancer Research), where we study the role of the tumor microenvironment in primary and metastatic brain tumors.

Noémie Chabot, PhD student in the lab of Prof. Nadine Vastenhouw at the Center for Integrative Genomics, UNIL
Vertebrates start their development with a quiescent genome, i.e. no copy of DNA into RNA is happening at the start of development. Instead, embryos rely on the maternally deposited proteins and RNA through the egg to drive their development. At a point in time, variable for each species, the embryo starts to copy its own DNA into RNA (like a book and a photocopy) to become independent of the maternal products and take care of its own development. I am interested in understanding how these first events of copy are happening in early embryos using the zebrafish as an organism model.

Dr. Judit Castillo Armengol, Postdoctoral fellow in the lab of Prof. Bernard Thorens at the Center for Integrative Genomics, UNIL
Judit obtained her Bachelor in Biology from the University of Barcelona in 2013 and her Master's degree in Biomedical Research from the University Pompeu Fabra (Barcelona) in 2014. Then, she joined the lab of Prof. Lluis Fajas Coll to focus on the role of cell cycle regulators in adipose tissue metabolism, where she completed her PhD in Life Sciences in 2019. Currently, she is working in the lab of Prof. Bernard Thorens as an IMI Novo Nordisk Postdoctoral Research Fellow focusing on the central control of glucose homeostasis.

Dr. Sophie Croizier, Assistant Professor at the Center for Integrative Genomics, UNIL
Sophie is an assistant professor at UNIL who is interested to better understand how hypothalamic neuronal circuits control feeding and glucose homeostasis, and how alteration of these circuits can lead to obesity and type 2 diabetes.

Dr. Shanaz Diessler, research officer hosted in the laboratory of Prof. Paul Franken; Center for Integrative Genomics, UNIL
Shanaz Diessler, is a doctor in neuroscience specialized in sleep research. She did her PhD at the University of Lausanne in 2016, studying how gene expression can influence the way you are coping with sleep loss. She then developed her industry knowledge by working as a consultant in healthcare market study and in 2021 launches the project SleepSensor in partnership with the University of Lausanne. With this project, Dr. Diessler has the ambition to revolutionize the way we are recording sleep today.

Dr. Natália Drebes Dörr, post-doctoral researcher in the lab of Prof. Melanie Blokesch at the Global Health Institute, EPFL
She obtained her Master's in Genetics and Molecular Biology from Universidade Federal do Rio Grande do Sul, in Brazil, where she worked with symbiosis between Drosophila and a Wolbachia, a bacterium that manipulates host reproduction. She then moved to Switzerland to pursue her PhD in Molecular Life Sciences with Prof. Blokesch at EPFL, which she defended in 2021. During her PhD and now post-doc, Natália is working with the causative agent of cholera, Vibrio cholerae. Her research tries to elucidate how this bacterium has become a deadly pathogen. Over the years, Natália has also been involved in different initiatives related to science communication, such as different events, a science podcast and a science blog.

Nina Đukanović, PhD student in the lab of Prof. Paul Franken at the Center for Integrative Genomics, UNIL
Nina Đukanović comes from Serbia and she has obtained her Masters of Science from the École Normale Supérieure in Paris, France. Since 2019 she works at University of Lausanne in Prof. Paul Franken's lab. Her research has always focused on sleep and currently she is investigating how the lack of sleep affects energy and lipid metabolism. Besides research, Nina is passionate about creative ways of communicating and promoting neuroscience, especially in her home country and some of her hobbies include art and photography.

Dr. Andrea Pfeifer, AC Immune
Speaker, see profile

Dr. Emma Fiorini, Senior team Leader for in vivo pharmacology and non-clinical safety, AC Immune
Emma is responsible of leading the research activities on vaccines against Alzheimer's Disease and the development of immune assays to characterize the vaccine antibody response in pre-clinical and clinical trial studies. Before joining AC Immune in 2013, Dr. Fiorini worked in the Ludwig Institute for Cancer Research in Lausanne as Research Associate and previously she spent 5 years in the Department of Cancer, Immunology and AIDS at Dana-Farber Cancer Institute (Harvard Medical School) in Boston, as postdoctoral fellow. Dr. Fiorini holds a PhD in Immunology and a Master's Degree in Biology from the University of Padova, Italy.

Dr. Cathie Hill, King's College Hospital NHS Foundation, London, UK
Originally born in New Zealand, Cathie is living in London working as a pediatric intensivist and anesthetist and has a special interest in paediatric pain.

Dr. Linh Ho, PhD student in the lab of Prof. Jolanda van Leeuwen at the Center for Integrative Genomics, UNIL
Dr. Linh is a PhD student from the Van Leeuwen Lab. Studied Molecular Biotechnology for Bachelor and Master at the University of Bielefeld. During my master thesis, she went to the University of Queensland in Brisbane, where she engineered a cell line with increased productivity that is used to produce therapeutics. Then she spent a one year internship at ETH in the field of synthetic biology. For her PhD, she worked in the Van Leeuwen Lab to identify uncharacterized mutations that might cause disease or alter their function. This knowledge can be used for example to prevent or treat diseases.

Dr. Paris Jafari, Senior Scientist hosted in the laboratory of Prof. Liliane Michalik; Center for Integrative Genomics, UNIL

Paris is a Pharmacy Doctor with a PhD in Life Sciences since 2014 from University of Lausanne. Originally from Iran, where she grew up and got her Doctor of Pharmacy degree before she moved to Switzerland in 2004. Upon arrival, she studied French for one year before starting a Masters in Cellular Biology at the University of Geneva, followed by a doctoral thesis on studying the mechanisms of neuropathogenesis in two inborn neurometabolic diseases, at Lausanne University Hospital (CHUV). After PhD, she joined a National Research Consortium on developing biological antibacterial bandages for burns and wounds as a Post-doctoral fellow and platform manager. Next she moved to Boston to continue my research on skin, at the Cutaneous Biology Research Center at Harvard Medical School for one year. Then Paris joined the College of Pharmacy at the University of Utah as an Assistant Professor of Research, where she still hold a position. Her team is developing treatments to prevent aggressive forms of melanoma in vulnerable population. Paris joined the University of Lausanne as a Senior Scientist since November 2021, where she is investigating the role of regulatory molecules in the development of skin cancer.

Dr. Marta Jordão, Postdoctoral fellow in the lab of Prof. Johanna Joyce at the Department of oncology, UNIL CHUV

PhD in Neuroimmunology performed at the University Medical Center of Freiburg (Germany), completed after a BSc in Genetics and Biotechnology (University of Trás-os-Montes and Alto Douro, Portugal) and MSc in Cellular and Molecular Biology (University of Coimbra, Portugal). I am continuing my research career as a postdoc at the lab of Prof. Johanna Joyce (University of Lausanne) and I'm currently focusing on understanding the role of tumor-associated macrophages in the formation of brain malignancies.

Prof. Fanny Langlet, Ph.D. in Neurosciences, Eccellenza Assistant Professor, Group Leader, UNIL

Fanny Langlet earned her Ph.D. in Neurosciences in 2013 at the University of Lille, France, where she investigated the role of tanycytes in the control of energy balance. After completing her Ph.D., Dr. Langlet worked as a postdoc at Columbia University, USA, in the Naomi Berrie Diabetes Center under the supervision of Domenico Accili (2014-2017). During this time, she studied the molecular mechanisms underlying the transcriptional and posttranscriptional control of hepatic gene expression to maintain glucose homeostasis. In 2017, Dr. Langlet got an SFNS Ambizione fellowship at the Center of Integrative genomics (Thorens Laboratory, University of Lausanne). She developed her team, focusing on the gene expression profile for tanycyte glucose-sensing. In 2020, she obtained a SFNS Eccellenza fellowship and an ERC starting grant to investigate the molecular mechanisms underlying tanycyte/neuron communication.

Dr. Isabel Lopez Mejia, SNFS Ambizone recipient, hosted by Lluis Fajas Coll at the Center for Integrative Genomics, UNIL
Isabel is from Colombia. She moved to France for university and obtained her PhD in 2011 from the University of Montpellier, at the Institute of Molecular Genetics (IGMM). During her PhD, under the supervision of Pr. Jamal Tazi, Isabel studied the regulation of the alternative splicing in host cell invasion, aging and metabolism. In 2012 she joined the lab of Pr. Lluis Fajas at UNIL and investigated the role of the cell cycle regulator CDK4 in metabolism. Her contributions place CDK4 as a key molecular hub, that regulates key signaling pathways to coordinate cell metabolism and cellular function and overall promote anabolism in the context of cycling cells and in differentiated tissues. From September 2017 develops her independent research program at the Center for Integrative Genomics (CIG). Since 2021 she studies the role of RNA binding proteins and alternative splicing in white adipose tissue function as SNSF Prima Assistant Professor.

Ana Lopez Vazquez, PhD student in the lab of Prof. Christian Fankhauser at the Center for Integrative Genomics, UNIL
Ana performed her bachelor and master studies at the University of Sevilla, Spain, where she worked on several projects including the study of the effects of treatments in breast cancer cells and protein quality control in the cell secretory pathway as an undergraduate student and enzymatic engineering leading to increasing the production of second-generation bioethanol as a master student. Later, after moving to The Sainsbury Laboratory in England to acquire large experience on plant proteomics, she joined the lab of Prof. Christian Fankhauser, where she studied the molecular mode of action of a protein family that is very important for plant development in response to light.

Roeltje Maas, PhD Student in the lab of Prof. Johanna Joyce at the Department of oncology, UNIL CHUV
MD obtained from the Radboud University in Nijmegen, The Netherlands. PhD in tumor-immunology performed in the lab of Prof. Johanna Joyce at the University of Lausanne and the Ludwig institute for cancer research in Switzerland. Currently I am continuing my academic career as a research fellow in the lab of Prof. Johanna Joyce, where we explore the role of the tumor microenvironment in human brain tumors.

Dr. Vittoria Mariano, Postdoctoral fellow in the lab of Prof. Claudia Bagni at the Department of Fundamental Neurosciences, UNIL
WiS grant recipient 2022, see profile.

Dr. Elisa Oricchio, Associate Professor, EPFL
Elisa has been recently appointed as Director of the Swiss Institute for Experimental Cancer Research (ISREC). Her research focuses on cancer genomics and B-cell malignancies. Over the course of her career, she has identified oncogenes or tumor suppressor genes as new therapeutic targets or as biomarkers to better classify cancer patients. She has integrated linear cancer genomic analyses with tridimensional analyses of the genome to better understand tumor development and evolution. Her work has been recognized with the Blavatnik Award for Young Scientist by the New York Academy of Science, the Lorini Award for Italian Scientist in Cancer Research and in 2021 she received the Prix Leenaards for Translation Research. She is a board member of the European Association of Cancer Research (EACR), which is the major association for cancer research in Europe.

Prof. Rosa Chiara Paolicelli, Assistant Professor, UNIL
Rosa Paolicelli earned her bachelor of Medical Biotechnology at the University of Bologna, Italy, in 2006, and her MSc in Molecular Neuroscience at the University of Bristol, UK, in 2007. She graduated in 2011 with a PhD in Cellular and Molecular Biology, from the European Molecular Biology Laboratory (EMBL), where she investigated the role of microglia in refining neural circuits during development. After completing her PhD, Dr. Paolicelli worked as postdoc at the University of Zurich, Switzerland, in the Department of Systems and Cell Biology of Neurodegeneration (2012-2018). During this time, she studied the cellular and molecular mechanisms underlying microglia-mediated synapse loss in neurodegenerative diseases, by using a combination of in vitro and in vivo approaches. In 2018 Dr. Paolicelli got a position as Assistant Professor at the Department of Physiology, University of Lausanne, where she established her lab on microglia biology, focusing on the molecular mechanisms regulating microglia-synapse interaction in physiological and pathological contexts. She recently obtained an ERC starting grant to investigate the role of microglia in neurodegeneration.

Dr. Kasia Piorkowska is the Team Leader DMPK at AC Immune.
Kasia is leading the ADME, DMPK and in vitro safety activities for the Company's small molecule and monoclonal antibody candidates. She also serves as a DMPK Lead for the Morphomer®-Tau and mAb-TDP-43 programs. Previously, she served as Research Scientist, working primarily on monoclonal antibody projects, targeting Amyloid-beta and Tau for both therapeutic and diagnostic applications. Before joining AC Immune in 2008, Dr. Piorkowska worked in the Laboratory of Neurodegeneration (LEN) at the École Polytechnique Fédérale de Lausanne (EPFL), where she obtained her PhD in life science focusing on new therapeutic approaches for Parkinson's Disease using lentiviral and adeno-associated vectors. Prior to this, she obtained her Master's degree in the Biotechnology and Genetics from the Warsaw University in Poland.

Dr. Silvie R. Ruigrok, Postdoctoral fellow in the laboratory of Prof. Carmen Sandi, EPFL
Silvie completed her PhD studies at the University of Amsterdam (supervision of Dr. Aniko Korosi and Prof. Paul J. Lucassen), where she investigated the peripheral and central metabolic consequences of early-life stress with an emphasis on sex differences. During a six-month exchange with Yale University (laboratory of Prof. Sabrina Diano), she further studied brain mitochondria as an underlying substrate of programming by early-life stress. Her current interest is to understand the neurometabolic underpinnings of social behaviors, which she aims to achieve by combining deep behavioral phenotyping with magnetic resonance spectroscopy, cell-type specific gene expression analysis and machine learning. She was granted a two-year SNSF postdoctoral fellowship to conduct this research.

Helena Slama, MD, MBA, Master of Translational Medicine and Biomedical Entrepreneurship

Helena Slama brings longstanding expertise in clinical healthcare including:

- Digital Health and EHealth platform development
- Setting up structures for Translational and Entrepreneurial Medicine and business modelling in private-public partnerships
- Implementation of Swiss Health Policy for Highly Specialized Medicine
- Constructing, reorganizing, and merging of hospitals
- Knowledge management and postgraduate training
- Internal audits of healthcare structures

She integrated several think tanks dealing with personalized healthcare and health system development. Her principal interest lies in the management of problems that learning organizations are facing.

Dr. Aurélie Stephan, Postdoctoral fellow in neuroscience, CHUV

Aurélie did her PhD on neurophysiological markers of functional movement disorders and is now working on sleep disorders at CHUV. Her main interest in research is to apply computer science tools and technology to improve the understanding of neuroscientific and psychiatric disorders as well as develop innovative therapeutic solutions. Her most recent discovery demonstrated that paradoxical insomniacs – people who feel they do not sleep at all, but do sleep according to classical polysomnography – actually have an intrusion of wake-like activity in their sleep, which is undetectable by standard clinical measures.

Dr. Anastasiya Strembitska, Postdoctoral fellow in the lab of Prof. Bernard Thorens at the Center for Integrative Genomics, UNIL

A Ukrainian-born, Portuguese-raised, Scottish-trained scientist, passionate about everything related to mitochondrial function in diabetes. Background in Biomedical Engineering, PhD in Cardiovascular Sciences and currently working on hypothalamic glucose sensing and glycemia regulation. Part-time amatour linguist & translator.

Dr. Elpida Tsika, AC Immune

Elpida has been conducting research in the field of Parkinson's disease for more than 15 years, both in academia and industry. She completed her graduate studies at the University of Pennsylvania, where she focused her research in understanding the selective vulnerability of dopamine-producing neurons to alpha-synuclein aggregates. She then moved to the Ecole Polytechnique Fédéral de Lausanne (EPFL) where she has generated and characterized several preclinical models of Parkinson's which can serve for evaluating new therapies, as well as for advancing the understanding of molecular mechanisms governing disease. At AC Immune, she is leading the alpha-synuclein biology team working towards the development of therapeutics and diagnostics for Parkinson's and other diseases caused by toxic accumulation of alpha-synuclein.

Dr. Betül Ünlü, Postdoctoral fellow in the lab of Prof. Jolanda van Leeuwen at the Center for Integrative Genomics, UNIL

During her PhD research, Betül has investigated the interplay between cancer and thrombosis in the laboratory of Prof. Dr. Henri Versteeg at the Leiden University Medical Center in the Netherlands. Blood coagulation factors can promote tumor progression, and on its turn, tumor cells also affect blood coagulation of cancer patients.

Since 2018, Dr. Betül has worked with mapping genetic interactions in baker's yeast as a model system. Our ability to predict phenotype based on genotype alone remains limited, in part because the effect of a mutation can depend on the genetic background in which it occurs. For example, people carrying mutations associated with Mendelian diseases can display differences in disease severity or age-of-onset. These differences can result from the presence of modifier mutations elsewhere in the genome. This type of genetic interaction is called genetic suppression. Although suppressor interactions involving a single suppressor mutation have been studied on a large scale, higher-order genetic interactions involving multiple suppressor mutations are likely to play a major role in determining genotype-to-phenotype relationships in natural populations.

Dr. Betül is investigating higher-order suppression interactions, to decipher general mechanisms of complex genetic interactions which will be of relevance for understanding both the genotype-to-phenotype relationships underlying genetic traits as well as evolutionary trajectories. This research will increase our knowledge on various genetic diseases and might give insight on potential treatment strategies.

Dr. Lina Worpenberg, PhD student in the lab of Prof. Jean-Yves Roignant at the Center for Integrative Genomics, UNIL

Lina obtained her Master in Biochemistry from the Free University Berlin in 2016. During her degree, she joined the Hietakangas lab at the University of Helsinki for a systematic genetic analysis of genes involved in sugar metabolism of Drosophila melanogaster, and the Hamann lab at the German Rheumatism Research Centre Berlin (DRFZ) to identify novel immunoregulatory substances. Moreover, she worked for a few months at the Pasteur Institute in Paris to help identifying the activator of Pseudomonas aeruginosa ExoY nucleotidyl cyclase toxins. Afterwards, she joined the Grabowski lab at the Charite Berlin to work on gastroenteropancreatic neuroendocrine tumors. In 2017, she started as a PhD student in the lab of Jean-Yves Roignant to investigate the role of RNA modifications in neurological disorders using Drosophila as model organism. In her main research project, Lina could link functions of a specific chemical RNA mark, called N6-methyladenosine (m6A), to aspects of the fragile X syndrome (FXS), an inherited neuronal disorder accompanied by an increase in autism spectrum disorder specific traits. While currently efficient therapeutic treatments lack, her work opens new avenues for the design of complementary treatments of FXS.

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Naseem Merali at Fairmont le Montreux Palace is a founding partner of Women in Science since inception. Naseem and Fairmont le Montreux Palace instantly believed in the energy, power and need for this initiative i.e. women supporting women through education, science and community.

This is the first time in the Swiss Romande that an initiative emerged to educate and build bridges between different communities of women by focusing on the achievements of women researchers in genetics. WiS has showcased world renowned female scientists living in our region.

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We, at Fairmont le Montreux Palace are very honored to be a founding partner of Women in Science and wish everyone present continuous success

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Lobnek Wealth Management is proud to sponsor Women in Science in their effort to support female scientists by creating links between communities of extraordinary women in the field of genetics. Women in Science gives these outstanding ladies a platform to shine and be recognized for their great achievements, thereby inspiring other women to follow in their footsteps. As women are becoming increasingly active in many sectors, including science, they contribute to a more balanced workforce and offer a wealth of experiences to our society, from which we all benefit, regardless of our gender.

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We at Citi Private Bank are proud to be sponsoring the Women in Science Conference.

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