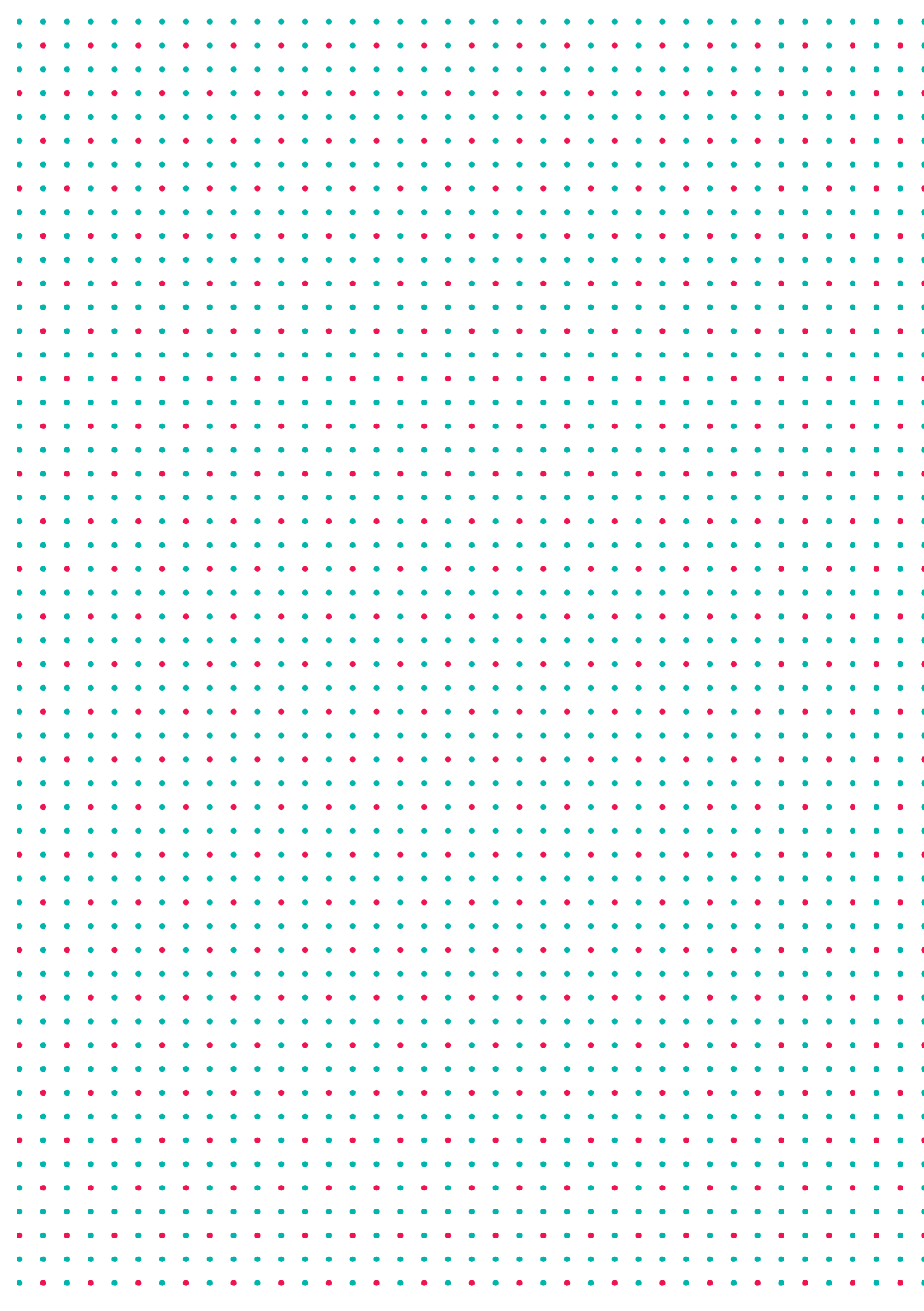


Fix the leaky pipeline!

A decade of supporting
talented female scientists
of the ETH Domain in
their career

Program
10th anniversary
2007-2017



In 2007, the Working Group for Equal Opportunities in the ETH Domain decided to offer a career-building program for young female scientists (PhD students and postdocs): the Fix the Leaky Pipeline program (FLP) was born. It is run and financed by the six institutions of the ETH Domain: ETH Zurich, EPFL, PSI, WSL, Empa and Eawag, and receives generous financial support from the ETH Board. The aim of this initiative is to offer young female scientists the opportunity to reflect on their professional situation, to develop a strategy for embarking on a career path, to receive further targeted training and to extend their personal and scientific networks.

Why does the Fix the Leaky Pipeline program continue to be of relevance? Many female researchers still give up their academic careers after obtaining their doctorate or even after doing a Postdoc. Many obstacles and reasons can offer an explanation: insecurities of a scientific career, mobility requirements, difficulties in reconciling career and family, or the lack of female role models in a male-dominated environment. The Leaky Pipeline, i.e. continuously losing an increasing number of women on an academic career path, is especially strong in STEM (Science, technology, engineering and mathematics) fields. **Losing talented and well-trained women in academic careers may reflect their unequal chances of success. This means a loss of human capital, which impairs the excellence of both Universities and economies.** We should prevent a loss that disadvantages our society.

The program has successfully run for ten years now in consecutive two-year cycles. In each cycle, about 250 female researchers from all ETH institutions took part in one or more of the courses and events on offer. The participants can select between different **courses on career development and transferable skills or participate in coaching groups with peers.** These program elements are accompanied by different networking events in order to allow participants to interact with successful female role models. In 2018, the program will also implement a pilot mentoring module for female PhD students and postdocs.

The Fix the Leaky Pipeline program celebrates its tenth anniversary this year. We are very proud that so many women were able to profit from it! This brochure offers several testimonies from former participants as well as their coaches, which show how the program supported talented women to find their specific career paths. They also unveil a variety of career paths that match individual and societal preferences.

We hope that the Fix the Leaky Pipeline program will continue to grow with the same success as in its first ten years. We look forward to a future with many more women in high level positions in STEM fields!

The Working Group for Equal Opportunities in the ETH Domain



Dr Dörte Bachmann

Sustainability Manager, SV Group

The course of the FLP program I followed was about developing a comprehensive skills profile. It allowed me to be more aware of my skills, but also to be aware of my weaknesses and to plan how to concretely improve them. With that list of skills, I was then able to easily compare if my profile suited a job announcement, but also if the job could correspond to and interest me.

After my third position at ETH Zurich, I decided to leave academia. I realized that I wanted to work in a more applied job. To be closer to society corresponded better to me. Now I work as a sustainability manager in a company, but I still use the kind of tools and skills with which I worked as a researcher. So I believe I have found a job I like a lot and I'm good at.

It seems to me that the participants of the FLP course were very motivated and proactive in their careers. But I especially encourage women who are shy or undecided to participate. It's worth the effort.

My job. I currently work as a sustainability manager in the SV Group. The company is a leading force in Swiss canteen catering. Concretely, I am responsible for the advancement of our sustainability program called ONE TWO WE, and its implementation in the restaurants. By applying a range of measures, the selection of foods offered, plus procurement, operation and logistics, can be made more sustainable overall. So I am working closely with supply, product management, marketing and operations.

2010–2014 PhD degree in Plant Ecology, ETH Zurich **2015–2016** Post-doc Fellow, Institute of Environmental Engineering, ETH Zurich **2016** Project staff, ETH Sustainability and World Food System Center, ETH Zurich **since 2016** Sustainability Manager, SV Group, Dübendorf



Dr Anja Becker

Computer scientist, EPFL

I followed one course of the FLP program in 2016. It was interesting to hear from others and to compare our problems in the construction of a career as a woman. Likewise, I like the concept of a coach.

I think it's really motivating to see and to learn from a woman who succeeded in her career. It's a bit like a mother, who comforts and shows the example.

One of the challenges for women researchers is to have a family life while keeping a dynamic position in the academic world. In my opinion, having a child is an aspect that is not integrated enough in the work process with respect to nursery and childcare. I think that's why many women who are in top positions do not have a child. Moreover, I do not have children myself. To be honest, I think of turning to the world of industry. I imagine it could provide more stability and security to plan a family life.

My research. During my postdoc, I worked in the domain of lattice cryptography, which will exist as long as quantum computers exist. Lattice cryptography is based on hard mathematical problems: the shortest and closest vector problem. I developed new algorithmic methods to attack the mathematical problems in a more efficient way and did implementation (C/C++, libraries, Xeon Phi) to show the functionality in practice.

2001-2006 Master degree in mathematics, Technische Universität Darmstadt, Germany **2009-2012** PhD degree in Computer science, Université de Versailles Saint-Quentin-en-Yvelines, France **2012-2016** Postdoc Fellow, Laboratory for Cryptologic Algorithms, EPFL

Prof. Dr Kerry Mauck

Entomologist, University of California

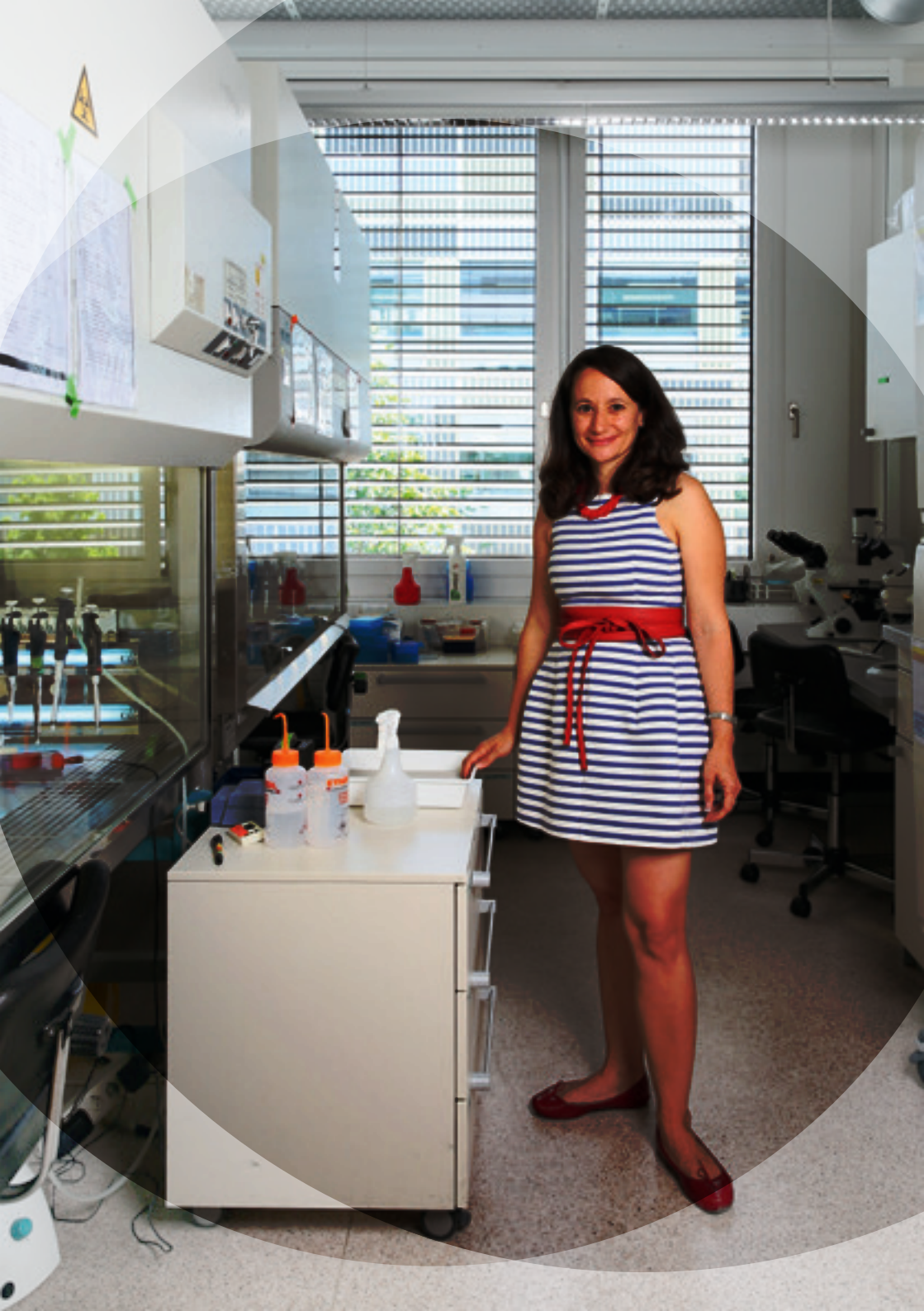
I participated in many events and courses of the FLP program when I was in Switzerland. All of them offered opportunities to network with other women who faced challenges in STEM (Science, technology, engineering and mathematics) fields. It was nice to exchange stories and strategies for overcoming challenges and maintaining productivity. The coaching group in particular was critical for maintaining my motivation. I joined the coaching group shortly after my daughter was born. At the time, I found it challenging to focus on work while enduring the sleepless nights associated with an infant. The other mothers in the coaching group – all of them women around my age – gave a new perspective to my situation and helped me to prioritize and balance my responsibilities. At the same time, the facilitator of the coaching group led us all, through exercises, to realize our potential, recognize our skills and manage difficult interpersonal situations. I am very glad to have had this group as a resource during a difficult time in my career.

I think it is important for women to share the stories of their journeys as scientists with other women. So many times, we obscure our struggles when interacting with peers for fear that they will reveal weaknesses. But these struggles make us human and sharing them lets others know that they are not alone. It is life-changing to hear some of these stories. To internalize them and relate them to your own scientific journey is extremely valuable.

My research. My work focuses on investigating the biochemical mechanisms that mediate plant pathogen transmission in ecological settings and their implications for host plant interactions with other organisms. I am particularly interested in studying how vector-borne pathogens of plants might evolve to alter traits of their hosts in ways that influence the frequency and nature of interactions between host plants and insect vectors. I also explore how pathogen-induced phenotypic shifts affect interactions between hosts and other organisms.

2012 PhD degree in Entomology, The Pennsylvania State University, USA **2013–2016** Postdoctoral Lecturer and Fellow, Biocommunication & Entomology group, ETH Zurich **since 2016** Assistant Professor of Vector Biology, Dept. of Entomology, University of California, USA.
One child





Prof. Dr Olaia Naveiras

Clinician-Researcher, Lausanne University Hospital (CHUV)

I have followed some events organized by the FLP. Last year, they proposed that I be a role model for one of their events. I was pleased to participate in a program that has significantly helped me.

My status is quite particular. As I work as a clinician at the CHUV but also as a researcher at EPFL, I must divide my time between these two jobs and, in addition, my two children. That was tricky at first. Thanks to the FLP program, I learned some tools for not feeling overwhelmed and being more effective, but also not to feel inadequate when having to perform with other colleagues who are assertive.

There are many women in my field, so I was not always aware of the gender bias. But as I have grown in responsibility, I realize that gender biases do exist and are often unconscious. Now I try to look more critically at decisions made in my field of science and influence them in a way that they become more gender neutral.

My research. In my lab, we try to understand the regulation of the reversible transition between yellow bone marrow (adipocytic) to red bone marrow (hematopoietic). This naturally occurring process has tremendous impact on the efficiency of hematopoietic stem cell (HSC) engraftment and hematopoiesis. We focus on studying how manipulations of the HSC niche can enhance hematopoiesis. The relevance of this research relies on the early mortality associated with HSC transplantation. Reducing the toxicity of the preparative regimen and accelerating the time to engraftment is critical to improving the safety of bone marrow transplantation.

2004-2008 PhD degree in Experimental Pathology, Harvard Medical School, Boston, USA **2009-2010** Medical intern, Hôpital du Chablais, Monthey **2010-2013** Postdoctoral Fellow (20-50%), Institute of Bioengineering, EPFL **since 2010** Internal Medicine and Hematology Medical fellow (50-80%), CHUV, Lausanne **since 2014** Assistant Professor (50%), Head of the Laboratory of Regenerative Hematopoiesis, EPFL. Two children

Dr Diana Coman Schmid

Personalized Health Data Services Manager, ETH Zurich

When I participated in the coaching group program of the FLP, I was about to realize a big switch in my career. During the FLP program, I was encouraged to define my goals clearly and establish a concrete strategy. In that sense, I think FLP is great in helping women make actionable plans to manage their career successfully.

I can only encourage women to remain curious about learning beyond their formal education. In my case, I chose a two-year certified program in Advanced Applied Statistics offered by ETH Zurich. Eawag, my employer at the time, kindly agreed to contribute to this in-work training, which allowed me to use my working and studying time efficiently. Working four days a week and following the statistics courses on a fifth day further consolidated my self-confidence and my motivation for a work-life balance. In fact, I also gave birth to my first daughter at that time. A prerequisite to managing all this was simply the employee-employer communication of intentions regarding career planning and time management. Programs like the FLP coaching group are excellent opportunities for speaking out about both expected career steps and bold, risky plans. From there, success is often only a few steps away.

In my opinion, women should not hesitate to follow this kind of program and to benefit fully from timely and strategic career planning already in the early stages of their work life.

My job. I am dedicated to making Data Driven Personalized Health common practice. With many years of experience in Bioinformatics and Statistics, I now commit to support the biomedical and personalized health research community of the ETH Domain and beyond with Big Data and scientific computing services. What brings us together is data (sensitive patient data) and creating value from data using clever algorithms on high performance computers in a secure environment.

2007-2010 PhD degree in Molecular Biology, ETH Zurich **2011-2013** Postdoc Fellow, Research Scientist Bioinformatics, Plant Biotechnology, ETH Zurich **2014-2016** Bioinformatician, Ecotoxicology, Eawag, ETH Domain **since 2017** Personalized Health Data Services Manager, Scientific IT Services, ETH Zurich.

Two children



Dr Laura M. J. Fernandez

Neuroscientist, University of Lausanne

I followed one course of the FLP program in 2014. As a non-EPFL member, I paid the fee and I was very motivated to follow this course and to gain from it. I found answers and the support that I had been looking for. It helped me to clarify my reasoning and my thoughts about my career, as well as to gain self-confidence and a perspective on further developing my career.

Thanks to the FLP coaching and to my work within a very supportive group at the University of Lausanne, I foresee my future as a junior neuroscientist evolving into a more senior position. With the FLP coaching, I also gained good friends, persons with the same questioning as me, and we continue to meet from time to time since then.

I wish this program will continue with great courses proposed to young women scientists, from EPFL or ETH Zurich, but also from Swiss Universities. Female participants would gain a lot if there was much more cooperation between institutions, in particular when they are located in the same area. I hope that equal opportunity offices within those institutions will be able to build the next program together, as they share having to deal with common obstacles to women's careers.

My research. I'm interested in how brain states are controlled. I record the neuronal activity of the mouse brain during the sleep-wake cycle, in order to decipher some important features during vigilance states. At the moment, I am focusing on a peculiar and prominent activity of slow wave sleep, important in cognition and memory consolidation. Our recent research provides new elements about sleep, showing that this essential brain state is not as homogeneous in time and in space as believed for decades.

2010 Ten-month internship in the Laboratory of Sensory Processing (LSENS) at EPFL, Lausanne **2008-2012** PhD degree in Neuroscience, University Claude Bernard Lyon, France **since 2012** First Assistant (postdoc), Faculty of Biology and Medicine, University of Lausanne.
One child





Prof. Dr Lucie Tajcmanová

Geologist, ETH Zurich

The FLP program helped me in a big step of my career. At the time, I was considering quitting academia because I had innovative ideas that were not encouraged by my colleagues. I wanted to explore things from a different point of view and not just go with the main crowd. Thanks to the FLP, I gained confidence in myself. Afterwards I obtained an ERC Starting Grant, which encourages people who take risks, and thus I was able to follow my ideas.

When I got the position of leader of the research group, I wanted to assume more than the role of a boss. In line with my character, I saw myself as a supportive and motivating team leader, and not a dictator. The FLP courses also gave me confidence in this sense.

In my opinion, the kind of courses proposed by the FLP are very helpful for both women and men. However, I think that the “small group” coaching program is especially important for female students and young researchers and contributes to their empowerment. Here, I would like to take the opportunity to acknowledge the FLP team for their enthusiasm and efforts in organizing the events.

My research. My work focuses on how the mineral microstructures observed in a rock can be used to determine the mechanisms and conditions under which they were originally formed. The models hitherto used for this purpose are in need of improvement. Therefore, my research group conducts in-depth chemical-mechanical analyses of the interactions between metamorphism and deformation of rocks in the Earth's lithosphere. The results should directly contribute to geodynamic reconstructions and thus significantly increase our understanding of key processes in the Earth's lithosphere.

2004-2007 PhD degree in Petrology and Structural Geology, Charles University, Prague, Czech Republic **2007-2009** Postdoc Fellow, University of Padova, Italy **2009-2011** Humboldt Fellow, Freie Universität, Berlin **2011-2013** Marie Curie (IEF) Fellow, ETH Zurich **since 2013** Assistant Professor for Metamorphic Petrology, ETH Zurich



Dr Martina Hobi

Environmental Scientist, Swiss Federal Research Institute WSL

During my PhD, I attended courses which focused on developing a skills profile and time management offered by the FLP program.

In my opinion, such courses are generally useful for all genders, but the exchange between women in similar career stages is what makes them highly rewarding.

Even though we were not working in the same field, we all had similar experiences. We were happy to share our stories about successes and failures, and about ways to approach specific challenges we encountered in our careers. Later on, when I was in my postdoc in the USA, I was able to share the experiences I had made with my colleagues there.

When the time came to take up a new challenge, I was already prepared thanks to the course focusing on the skills profile and I knew how to keep a track record of what I have achieved in my career. I had the opportunity to travel from the USA to Switzerland for an interview. This was the start of a new step in my career, and I am now leading a team of twenty people at the WSL. In this position, I am juggling many new tasks and I can now put into practice some of the advice about time management I learned in the FLP courses. I am interested in one day taking coaching sessions offered by the FLP.

My research. I have a background in environmental sciences with a focus on forest and landscape management. My passion is primeval forests, which are forests untouched by humans. I study the processes underlying long-term forest dynamics, how such forests are influenced by natural disturbances and how these shape their structure.

2010-2013 PhD degree in Environmental Sciences, ETH Zurich conducted at the WSL, Birmensdorf **2015-2017** Postdoc Fellow, Department of Forest and Wildlife Ecology, University of Wisconsin-Madison, USA since **2017** Group Leader, Stand Dynamics and Silviculture group, WSL, Birmensdorf

Prof. Dr Margot Thome-Miazza

Biochemist, University of Lausanne

When I participated in the FLP course in 2007, I was a SNF assistant professor in my 4th year, getting ready to apply for a tenure position. The course I followed was extremely helpful because it opened my eyes to the stakes of the selection procedure and also because it included a performance of the interview situation, which turned out to be very close to what I experienced afterwards in the real situation.

Moreover, I remember that I was the first female assistant professor appointed in my department. Since I had no close example of a female professor who could have mentored me, it was important for me to be able to exchange with other female candidates at a similar career stage, but also to be encouraged to go for it with confidence, based on the feedback that I got on my CV. Now, I am happy to see that a growing number of women manage to build an academic career at my university, even if some obstacles (such as insufficient childcare options and paternity leave) remain to be overcome.

My research. I have always been fascinated by intracellular signaling mechanisms that serve to transmit signals from cell surface receptors to the cell's nucleus in order to control gene expression. In my lab, we study in detail how antigen receptors, which are present on the surface of immune cells, detect the dangerous presence of infected or cancerous cells. This triggers a powerful response of the immune cells during which the immune cells start expressing dozens of genes that serve to fight the danger.

1993-1995 PhD degree in Biology, Pasteur Institute, Paris, France
2004-2009 Assistant Professor, SNF Fellow Professorship, University of Lausanne (UNIL)
2009-2017 Associate Professor, UNIL **since 2015** Co-Director, Department of Biochemistry, UNIL **since 2017** Ordinary Professor, Department of Biochemistry, UNIL.
Two children



Case setting

-  tells us about the case
 - explains the issue, actors/roles, involved people, ...
-  Questions to "understand" the situation
 - get enough info, clarification, NO advice, ...
-  Sharing of the first impressions
 - feeling, perspective, case issue, feedback, ...
-  discussing the case - find solutions - make
 - ... ideas, objectives, compliance
 - ... what has been
-  Our take home -

Dr Monika Clausen

Coach, independant

I have been a coach for the FLP program since 2007. My role is to empower female senior scientists to identify and solve issues they have in their career. As I was working in the scientific domain until I was 38 years old, I have experienced many pitfalls myself, got them confirmed by (female) colleagues and spotted them in various gender studies as well.

During the FLP group coaching sessions, I try to make participants realize just how many obstacles they have already overcome and value the big accomplishments just as much as the little ones that are sometimes neglected. I encourage them to speak freely about their personal issues. Encouragements and possible solutions are then debated jointly. By sharing moments of joy, worries and uncertainties, the participants lose the feeling of seclusion and build a bond of trust. As far as I know, some groups have formed a really strong network and keep meeting.

Coaching is my job and women empowerment is my passion. I engage wholeheartedly in the FLP program. This work is very rewarding and allows me to meet great women and to help them to go serenely through a big transition time in their life.

My job. Self employed, I am active in coaching, training and as a facilitator. I support organizations in structural, and individuals in personal, transition phases. My clients are educational institutions, public service providers, companies and individuals.

1988-1992 PhD degree in Biology, Salk Institute San Diego, USA

1993-1998 Postdoc Fellow, Plant Biology at ETH and University of Zurich

1999-2002 Senior Consultant, Coni and Partner **2002-2005** Head of Payroll & Policy, Swiss Reinsurance Company **since 2005** CEO of Dr Monika Clausen & Netzwerkpartner GmbH



③

goals

My personal coaching GOALS

learning process



Proactivity

- Finding ways to deal with negative voices
- making good + creative choices
- independent of external environment
- anticipating situations that might arise ≠ reactive
- ≠ passive. ≠ hiding/avoiding
- forward-looking → vision

DESS

Dr Sarah Shephard

Coach, independent

In my life, I have had the wonderful opportunity to train and work in three very different fields, namely scientific research, singing & musical theatre, and coaching. These three sides help me to encourage other women to strive to live all their dreams. For almost 10 years now, I have been a coach and course leader for the FLP and I must say that I find this work incredibly moving and rewarding.

I love supporting people to find the courage to try something new, helping them find their own inner power to live richer lives. Many participants have had an epiphany moment, where they have realized once again: "I love science! I'm good at it and I'm a woman! And I want to make this my life's work!"

One of the most wonderful aspects of the FLP program is that now the older alumnae are beginning to become mentors for the next generation of women graduate students and post-docs. They are sharing what they learned and experienced, making it available to the women (and men) in their groups and their research community. I remember back when they were participants, I told them: "If you are grateful for the support from the FLP program, then pay it forward." I meant that one of the best ways to say thank you is to become a mentor yourself and give support and encouragement to another younger woman who is following on the same path. I'm happy to see that this is indeed starting to happen!

My job. I currently divide my time between a part-time position as faculty developer at ETH, my private coaching practice (coaching in communication in science, career development, leadership and self-leadership in academia) and giving freelance seminars in these themes at universities (including my work as trainer and coach for FLP).

1983-1987 PhD degree in Toxicology, ETH Zurich **1989-2001** Senior Scientist, Toxicology and Pharmacology, ETH and University Hospital Zurich **since 2000** Private practice **since 2001** Part-time position as faculty developer, ETH Zurich **since 2008** Coach and trainer for the FLP program

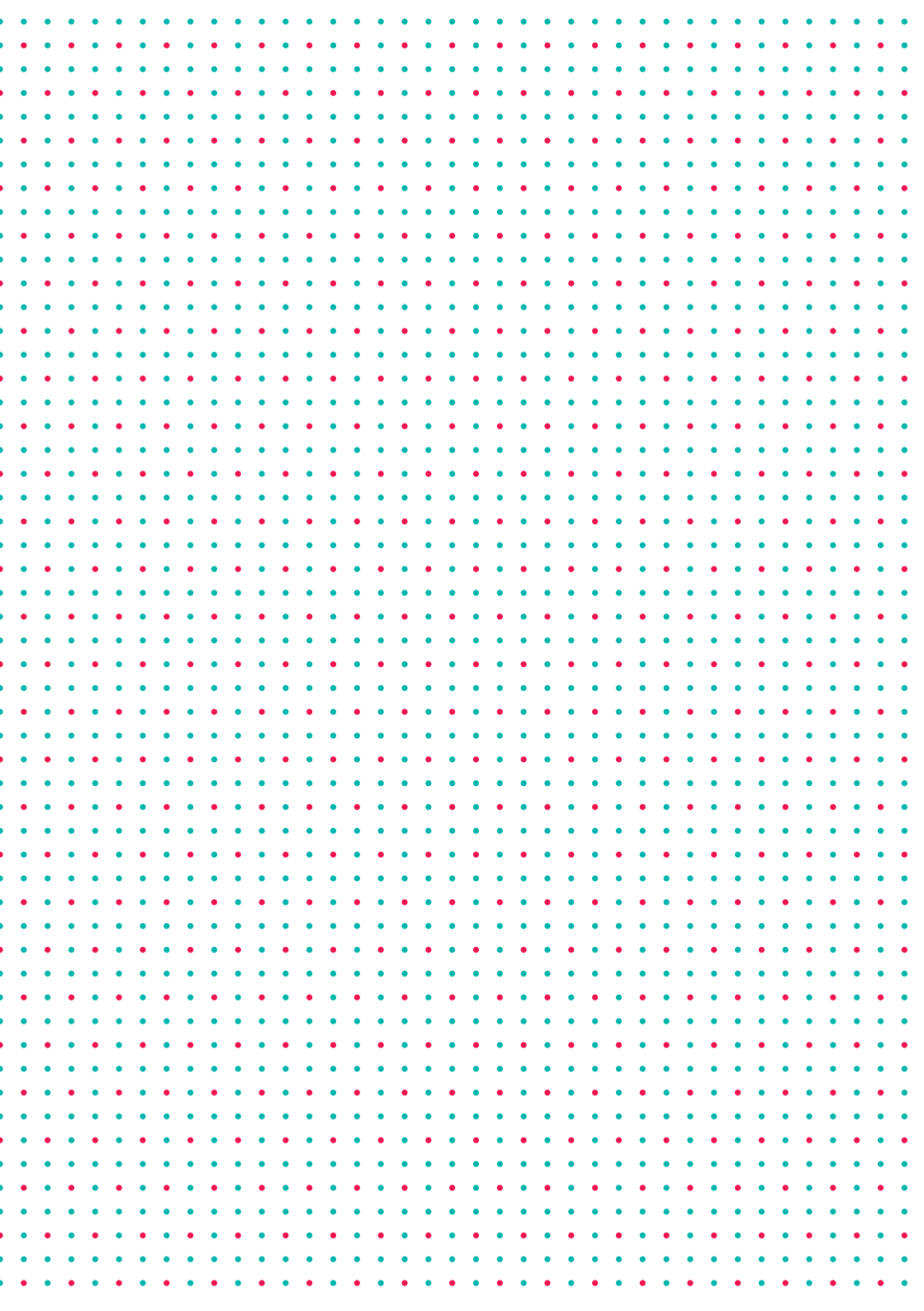
fix-the-leaky-pipeline.ch

Project: Daniela Hansen & Alexandra von Schack

Texts: Nathalie Jollien

Photos: Alain Herzog

Layout: Anne-Sylvie Borter



ETH zürich

