



Women in research

# 20<sup>th</sup> anniversary of the Marie Heim-Vögtlin programme



SWISS NATIONAL SCIENCE FOUNDATION

*This collection of portraits would like to give the MHV programme a face – or nine faces, to be precise. The programme has come to be regarded as European “best practice” as far as the substantial and successful promotion of women scientists is concerned.*



Towards the next frontier:  
Marie Heim-Vögtlin, the first female  
Swiss doctor – to whom the MHV  
programme owes its name – with her  
son and daughter.

# A success story to be continued ...

The Swiss National Science Foundation (SNSF) this year celebrates the 20<sup>th</sup> anniversary of the Marie Heim-Vögtlin (MHV) programme for the promotion of women in science. But is such a long-running programme purely for the promotion of women really a cause for celebration? Or should it rather prompt us to take a critical look at the situation of women in science, which still makes such a programme a necessity in the year 2011?

It is obvious that reconciling family commitments with an academic career continues to present problems. Compared to other European countries, the Swiss universities rank among the last third with regard to the share of female professors. Against this backdrop, the MHV programme is regrettably just as important today as in 1991, when it was launched.

The SNSF initially introduced the programme on the initiative of the Biology and Medicine division of the National Research Council to allow women to continue their careers in research after an interruption due to child care duties or other family commitments. The loss of talented and well-qualified researchers for family reasons was felt most acutely in the biomedical and clinical disciplines.

The name given to the SNSF funding scheme was inspired by the Swiss doctor Marie Heim-Vögtlin, who had to fight for the right to study medicine and take exams as a woman. The Mathematics, Natural and Engineering Sciences division joined the MHV programme in time for the first call for proposals in 1991. In 2003, the Humanities and Social Sciences also gained access to the programme.

Not only has the MHV programme enabled scores of women to continue their research careers – it has also enormously enriched Swiss science as a whole. It may hence be regarded as a success story which we aim to continue, and to which this collection of portraits of successful former MHV grantees is a fitting tribute.



**Dieter Imboden**

President of the National Research Council and the Equal Opportunities Commission of the SNSF

# Then and now

In 1991, the Swiss National Science Foundation (SNSF) launched the first call for proposals for what was then a novelty in the European scientific landscape – a programme specifically aimed at promoting women in science. It was initiated by the Biology and Medicine division of the National Research Council under the aegis of Professors Heidi Diggelmann and Joachim Seelig. The number of women dropping out of science was particularly high in this division, which therefore decided to establish a funding scheme to counteract this negative trend – the Marie Heim-Vögtlin programme had been born.

## A research comeback for women

The programme initially targeted women scientists who were compelled to give up their academic careers once their children were born and needed care. The Mathematics, Natural and Engineering Sciences division joined the programme when the initial call for proposals was launched in 1991. The goal has remained the same to this day: to encourage women to continue their research and their scientific careers in the long term. Women scientists are most likely to drop out at the doctoral or post-doctoral level, which are also the most difficult periods for attempting a comeback. The MHV programme is therefore specifically geared to these two levels.

A lot has happened since then: in 2002, it became clear that the loss of women scientists was a problem in the humanities and social sciences too, though perhaps for different reasons. Accordingly, the MHV programme was launched also in these disciplines at doctoral level, where the most frequent losses are suffered. It was now possible to finance the careers of women scientists in all disciplines supported by the SNSF and, in 2002, the MHV programme was fittingly integrated in the Individual Funding division, where a manager was appointed for the programme.

## Keeping up with the times

The SNSF amended its MHV regulations to accommodate a new development, namely the rising number of women who give up their academic career or delay it beyond measure in favour of their partners' freedom to relocate for professional reasons. As a unique feature, the SNSF also introduced an external child care allowance for grantees. This allowance is a highly significant element of career funding due to the relative scarcity and high cost of external child care in Switzerland. Crucially, it also enables women to devote appropriate time and energies to research and career development.

Graduation ceremony at the Swiss School of Nursing in Zurich: Dr Marie Heim Vögtlin around 1910 (in the foreground at right).



### **Success rate of just over one-third**

A total of 94 applications were submitted in 2003, in response to the first call for proposals under the new regulations. This led to the award of 30 MHV grants, a new record at the time. In subsequent years, the SNSF continually expanded the MHV programme: in 2008, post-docs from the humanities and social sciences were able to apply for MHV grants for the first time, and the budget was increased to five million Swiss francs. The success rate for the MHV programme has averaged 37% since 2003. This figure reflects the intense competition over research funding, with only the best women scientists winning an MHV grant.

The main objective of the MHV programme, to sustainably reintroduce women to science and scientific career building, would not have been achievable without the great commitment shown by the home universities, which almost always offer the grantees appropriate further employment after the expiry of the MHV grant. The share of grantees benefiting from immediate further employment is a formidable 88%.

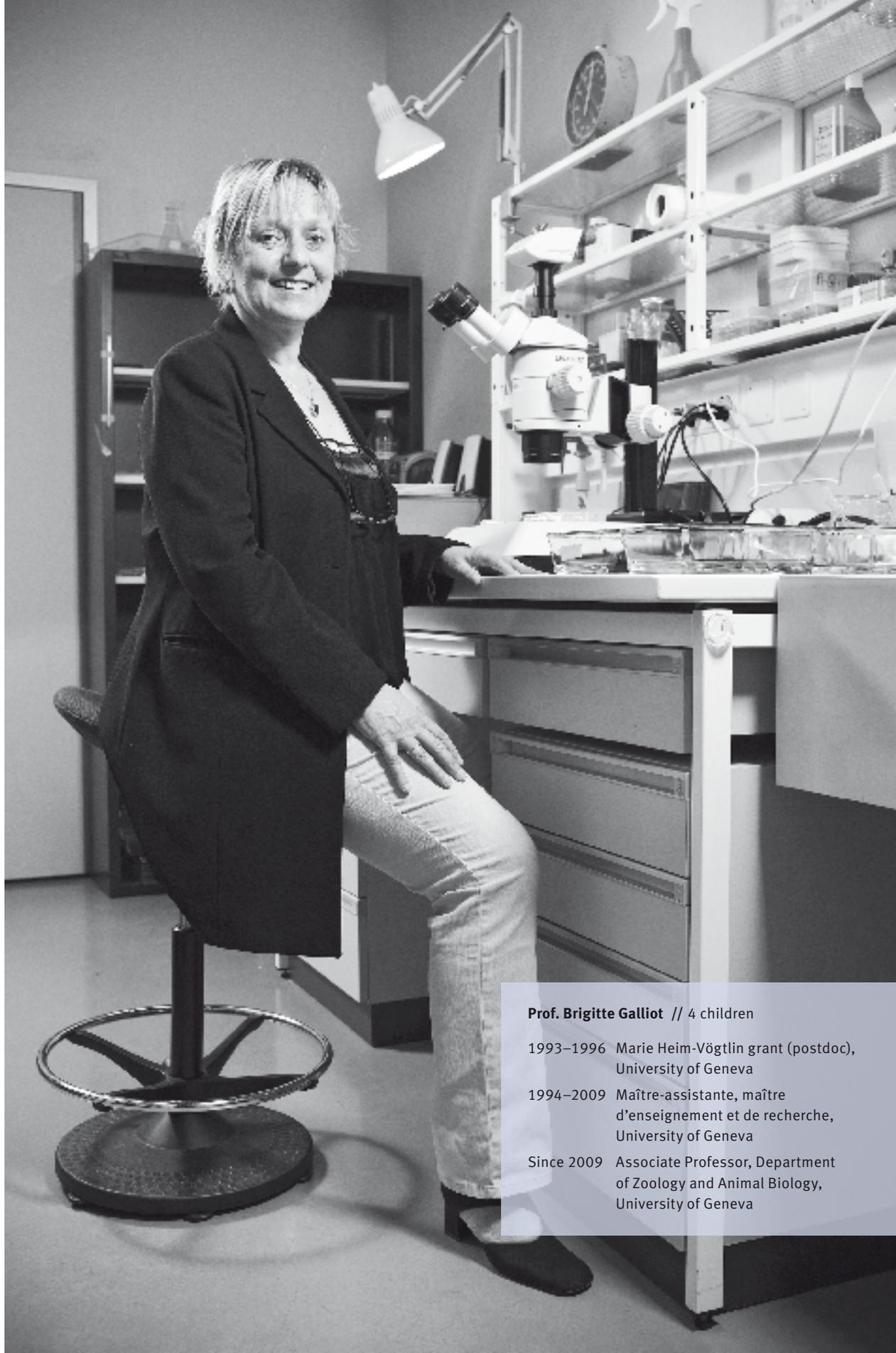
### **MHV Prize since 2009**

In 2009, the SNSF introduced the MHV Prize – worth 25 000 Swiss francs – with the aim of giving the MHV programme and the women it supports a higher profile. The Prize is awarded annually to an MHV grantee whose scientific achievements and career development during the grant period have been exceptional.

Women researchers submitted a record 101 applications in 2009, and the same number again in 2010. This shows that the need to promote women remains unchanged. In the meantime, the SNSF's MHV programme has come to be regarded as European "best practice" as far as the substantial and successful promotion of women scientists is concerned.

This collection of portraits would like to give the MHV programme a face – or nine faces, to be precise. It presents former MHV grantees who went on to become successful researchers and on whose career this SNSF programme made a decisive impact at a critical juncture.

The SNSF would like to thank the researchers for their willingness to participate in the making of this brochure.



**Prof. Brigitte Galliot** // 4 children

1993–1996 Marie Heim-Vögtlin grant (postdoc),  
University of Geneva

1994–2009 Maître-assistante, maître  
d'enseignement et de recherche,  
University of Geneva

Since 2009 Associate Professor, Department  
of Zoology and Animal Biology,  
University of Geneva

# Brigitte Galliot

Biologist, University of Geneva

I was already a project manager in Heidelberg when I decided to accompany my husband to Switzerland. Thanks to the MHV programme, I was able to continue my ongoing project in Switzerland and was acknowledged as an independent researcher from day one. For me, the funding was also an important acknowledgement of my research up to that point and of my potential as a project manager.

In Switzerland, for the first time I met people who did not understand that I wanted to work full time even though I had four children. I grew up in France, surrounded by women who pursued their careers despite motherhood. The MHV grant gave me the self-confidence I needed to succeed in this new cultural environment. Of course, having a family and pursuing a scientific career at the same time is not easy. Time was always tight. What I am most grateful for and will never forget: the support I got from my husband and children – I could not have succeeded without it.

*“She could not accept that a flower was just a flower and a stroll just a stroll... A stroll had to be a mysterious journey towards the unknown, a visit paid to the wind and the stream, a conversation with things that are mute.”*

Hermann Hesse

## **My research**

I am studying cellular and molecular mechanisms that allow an adult animal to regenerate an injured organ or severed limb. We are using simple freshwater polyps (hydra) for our research. Their genes are quite similar to that of mammals.

# Uta Paszkowski

Molecular biologist, University of Lausanne

Thanks to the MHV programme, I was able to restart my career. After a three-year break due to family commitments, I managed to find my feet again in academic research through an MHV grant for the years 1996 to 1999. This support strengthened my ability to compete in my field and eventually enabled me to apply successfully for an SNSF professorship.

My field is the molecular biology of plants, the same field as my husband's. After the birth of our children, when I was trying to regain a foothold in research, my husband already had a permanent position as leader of a research group. So I was bound geographically. Thanks to the MHV grant, I was able to find a job in Basel, where we were living at the time, and reconcile my career with family matters to a much larger extent.

*"I am convinced that my scientific career would not have been possible without the MHV grant."*

## My research

I'm investigating so-called arbuscular mycorrhiza – a root symbiosis that occurs in almost all terrestrial plants. Together with my team, I am seeking to understand how the plant recognises the symbiotic partner and distinguishes it from other, potentially "dangerous", soil organisms, and which steps it takes to actively enter into the symbiosis.

**Prof. Uta Paszkowski** // 3 children

1996–1999 Marie Heim-Vögtlin grant (postdoc),  
University of Basel

2000–2003 Staff Scientist at the Torrey Mesa Research  
Institute, San Diego (USA)

2003–2006 Maître-assistante, University of Geneva

Since 2006 SNSF Professorship, Department  
of Plant Molecular Biology, University of  
Lausanne



# Marguerite Neerman-Arbez

Geneticist, University of Geneva

The application for an MHV grant was my first submission to the SNSF. Getting that grant was crucial for my career. A few years later, I requested – and received – funding for a project of my own, and between 2002 and 2008 I held an SNSF professorship. My son, Maxime, was still a baby when I submitted my first application. I applied for an 80% job as postdoc so that I could continue my research and still spend time with my family. My daughter, Tess, was born a year later. As my husband is not a researcher, we never faced the problem of finding compatible jobs. However, I chose not to apply for a job abroad after finishing my dissertation so that we could accommodate both the family and our respective careers. Thanks to the MHV grant, I was able to work as a postdoc in a superb laboratory in Geneva.

*“Even the stars look brighter tonight –  
nothing’s impossible.”*

## My research

My research group is studying human genetic problems of homeostasis, in particular fibrinogen deficiency. We are looking at molecular mechanisms that cause mutations to trigger diseases. At the same time, we are interested in fibrinogen levels, which can vary a lot between different human beings.

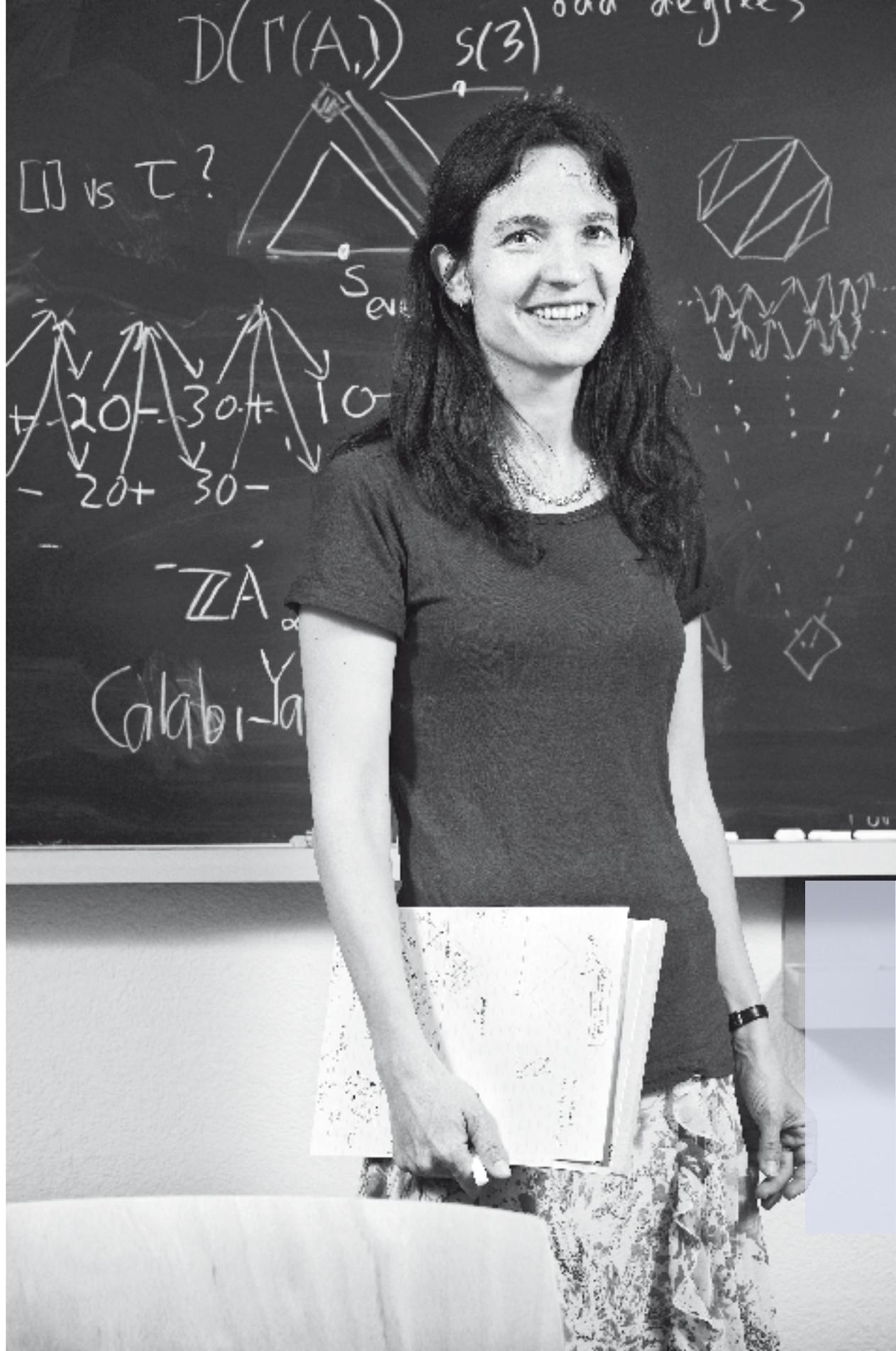
**Prof. Marguerite Neerman-Arbez // 2 children**

1996–1999 Marie Heim-Vögtlin grant (postdoc),  
University of Geneva

2002–2008 SNSF Professorship, University of Geneva

Since 2008 Associate Professor, Department  
of Genetic Medicine and Development,  
University of Geneva





# Karin Baur

Mathematician, ETH Zurich

As a grantee of the MHV programme, I was able to free myself from the usual duties of assistants. This allowed me to focus on my research project and complete my doctoral thesis in good time. The grant also gave me valuable insights into research funding, which was an added benefit. Thanks to the MHV grant, I was able to look after my first – and later also my second – child one day a week and experience their early development at first hand.

*“The award of the MHV grant reinforces my desire to make research the central aspect of my professional life.”*

## My research

My mathematical research focuses on representation theory. This abstract field, which deals with the transformation of vector spaces, can be applied to other areas in mathematics as well as to physics and biology. This work brings me into contact with algebra, geometry, combinatorics and other sub-disciplines of mathematics, between which I can forge useful links.

### Prof. Karin Bauer // 4 children

- 1999–2002 Marie Heim-Vögtlin grant (as a doctoral candidate), University of Basel
- 2003–2004 Fellowship for prospective researchers, University of California, San Diego (USA)
- 2004–2005 Postdoctoral Researcher, University of California, San Diego (USA)
- 2005–2007 Research Associate, University of Leicester (UK)
- 2007–2011 SNSF Professorship, Department of Mathematics, ETH Zurich
- Since 2011 Professor, Institute of Mathematics, University of Graz (Austria)

# Julia Fritz-Steuber

Microbiologist, University of Hohenheim (Germany)

The MHV grant I received in 2002 and 2003 gave me scientific and financial independence and it was this independence, above all else, that jump-started my academic career and led to the setup of my own research group. As a result, I could set my working hours flexibly, which helped me to reconcile my career development with family commitments. Of course, the problems faced by “dual career couples” have not gone away. But this is not the fault of the MHV programme.

*“I’m glad I was able to benefit from this instrument for the promotion of junior scientists just after the birth of our daughter, which was a particularly cherished and exciting time.”*

## My research

I’m studying the structure and function of the NADH dehydrogenase complex, an enzyme that plays an important role in cellular respiration. Dysfunctions of this complex in humans have been linked to neurodegenerative diseases.

**Prof. Julia Fritz-Steuber** // 1 child

2002–2003 Marie Heim-Vögtlin grant (postdoc),  
ETH Zurich

2004–2009 SNSF Professorship, University of Zurich

Since 2009 Professor of Cellular Microbiology,  
University of Hohenheim (Germany)





# Brenda Kwak

Physiologist, University of Geneva

Thanks to the MHV grant I received in 2002 and 2003, I was able to make decisive progress with my research on atherosclerosis. On the strength of some initial articles and promising research results, I subsequently gained an SNSF professorship. So the MHV programme had a profound impact on my career.

I worked 80% during the MHV grant period. I would spend Wednesdays with my daughter, who had then just started school. Working four days a week gave me the perfect combination of career and family, and I kept it up during my SNSF professorship. I am fortunate to have been able to combine work and family life in this way. I don't feel my career has suffered because I spent less time in the laboratory for eight years.

*"If we knew what it was we were doing,  
it would not be called research, would it?"*

Albert Einstein

## My research

In my research, I am looking at connexins – transmembrane proteins that occur throughout the human body. They play an important role in cell-to-cell communication and in the homeostasis of different tissues. Connexines form so-called gap junctions, which allow for the direct exchange of molecules. I'm studying their role in cardiovascular diseases and in atherosclerosis in particular.

**Prof. Brenda Kwak** // 1 child

2002–2003 Marie Heim-Vögtlin grant (postdoc),  
University Hospital of Geneva

2003–2009 SNSF Professorship, University of Geneva

Since 2010 Associate Professor, Department of  
Pathology and Immunology, Department  
of Medicine, Cardiology Division,  
University of Geneva

# Jennifer Keiser

Pharmacologist, Swiss Tropical and Public Health Institute, Basel

During a turbulent phase of my life – I had just returned from the USA with two little boys in tow – the MHV programme was a great help, and it paved my path as a successful scientist. Between 2004 and 2007, the MHV grant enabled me to fully reestablish myself in the world of science and to subsequently begin an SNSF professorship. I feel extremely lucky to have been able to pursue my research interests, which also mean a lot to me personally, and still have time for my two children.

*“The MHV grant enables you to work part-time and helps finance child care, which I think is unique.”*

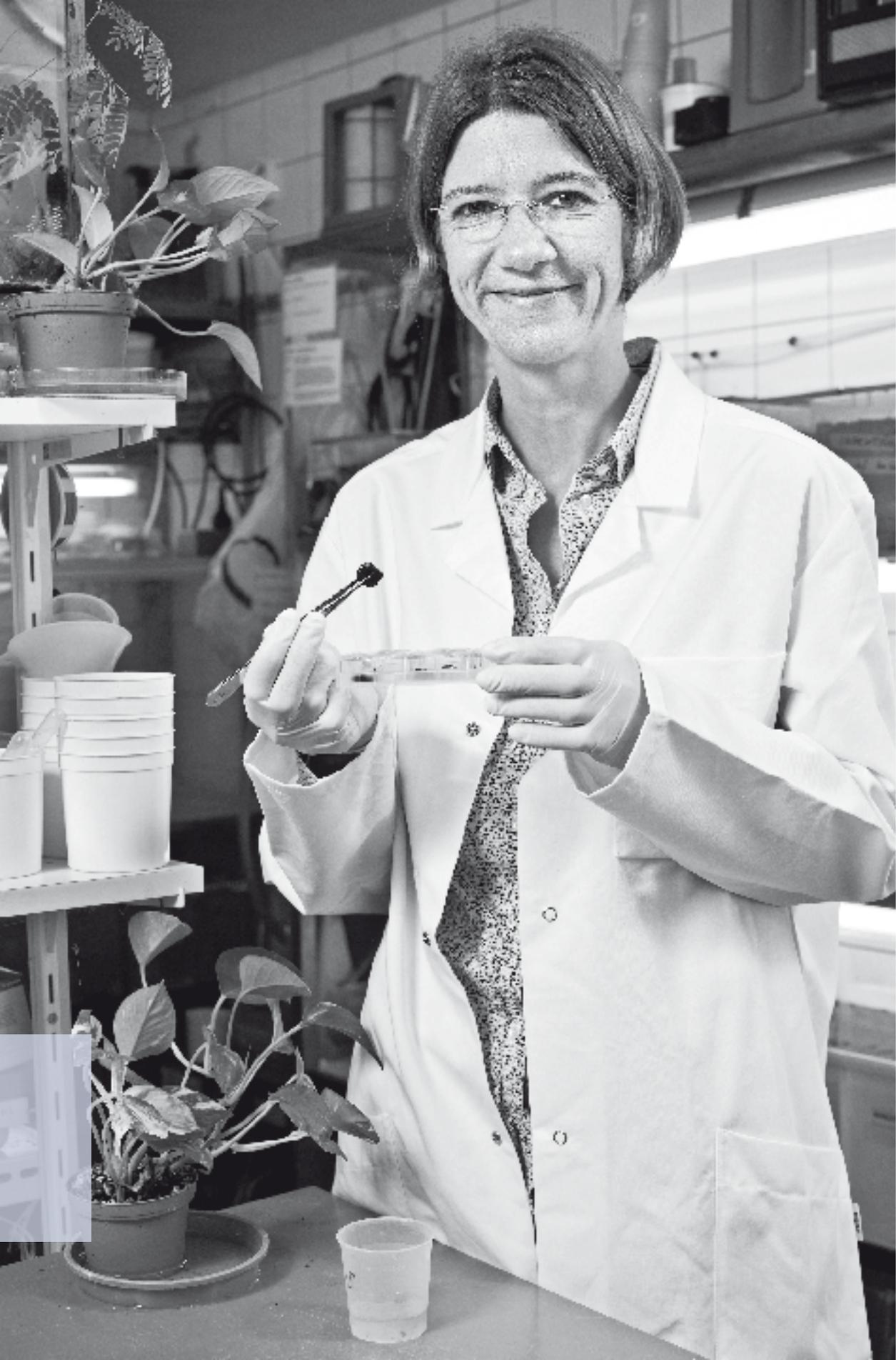
## My research

In my research work, I am trying to develop new medicines for parasitic worm infections that occur primarily in developing countries. The focus is on both in vitro analyses and studies with living organisms as well as clinical on-site studies. I am also investigating what happens to the drug after it is administered, including metabolic and other processes that affect medicines in the body.

**Prof. Jennifer Keiser** // 2 children

2004–2007 Marie Heim-Vögtlin grant (postdoc),  
Swiss Tropical and Public Health Institute  
and University of Basel

Since 2007 SNSF Professorship, Swiss Tropical  
and Public Health Institute and University  
of Basel



# Aude Gehrman-De Ridder

Physicist, ETH Zurich

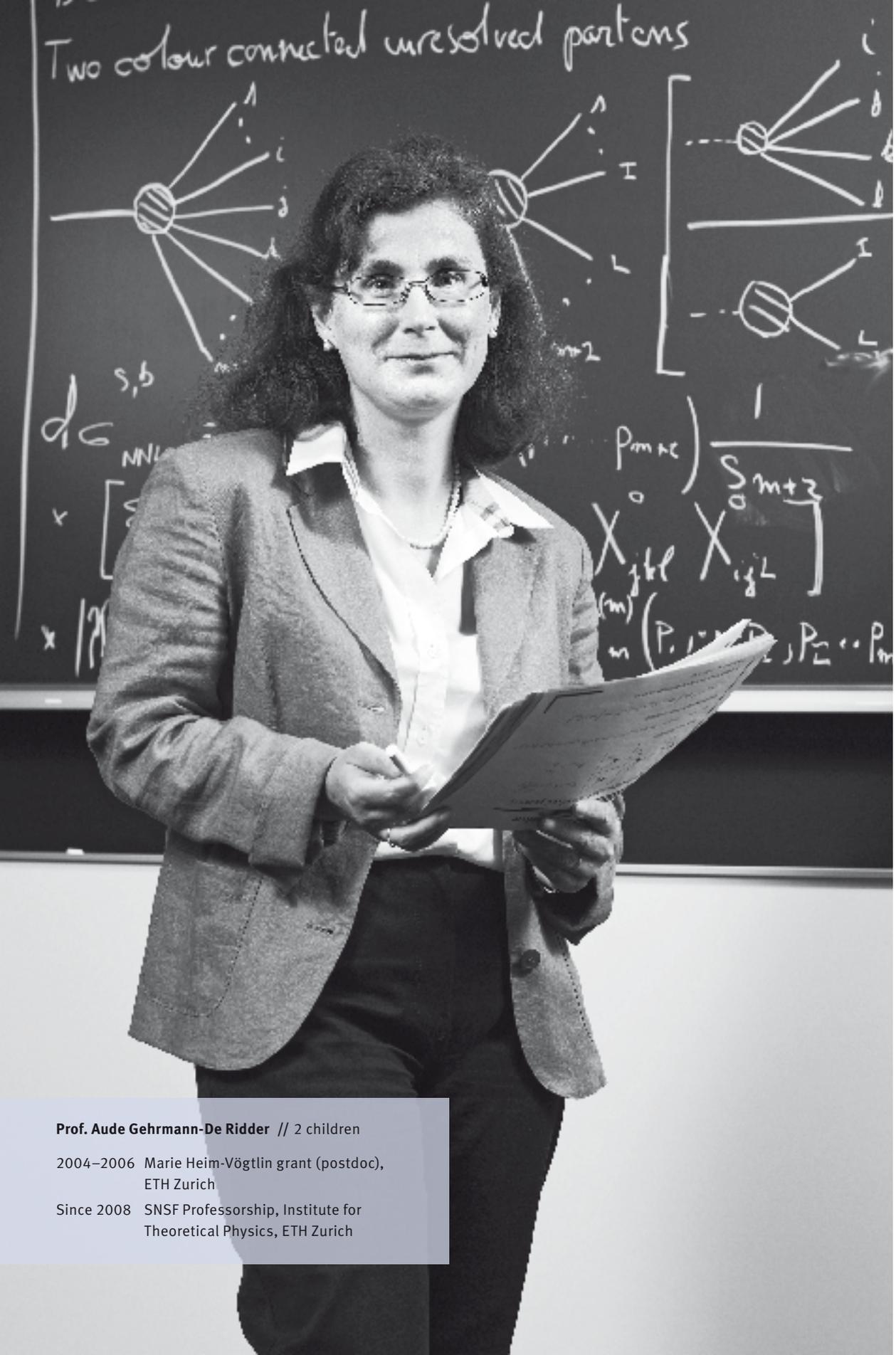
The biggest benefit I gained from the MHV grant was that it helped me make an academic comeback and continue my research after a period spent caring primarily for my children. I was thus able to establish a competitive research programme between 2004 and 2006, which served as a basis for the SNSF professorship I was awarded later. Had it not been for the MHV grant, I would not have been able to take up my career in research again.

Thanks to part-time employment for the duration of the MHV grant, I was also able to appropriately divide my time between research work and looking after my children, who were two and four at the time. My husband is a professor of theoretical physics in Zurich, and the MHV grant enabled me to re-enter research at the place where we both live.

*“The MHV programme is well-suited to the promotion of equal opportunities for men and women in academia.”*

## **My research**

In my research, I am focusing on theoretical predictions and descriptions of measurable quantities in particle physics. The results of my research work are intended to facilitate the interpretation of measurement data obtained at CERN (European Organization for Nuclear Research) through the LHC (Large Hadron Collider) and in other high-energy experiments.



2004–2006 Marie Heim-Vögtlin grant (postdoc),  
ETH Zurich

Since 2008 SNSF Professorship, Institute for  
Theoretical Physics, ETH Zurich



# Kristina Schulz

Historian, University of Berne

The one-year MHV grant allowed me to take a big step forward with my habilitation. I was released from teaching duties, for which I would have had neither the time nor the energy as I was looking after my newborn daughter and commuting between the family in Zurich and my workplace in Lausanne, not to mention the long hours spent in the archives. Without the MHV grant, I'm absolutely sure I would have had to give something up, probably research. What is more, thanks to the child care contribution I was able to organise care for my daughter outside the home.

The MHV grant also significantly influenced my career as I had the support of my home university and, at the same time, the flexibility to pursue my research project for the habilitation. In a phase marked by personal and professional changes, the MHV grant gave me financial security and academic independence. This enabled – but also obliged – me to keep my eyes focused on completing the habilitation.

*“Killing the angel in the house was part of the occupation of a woman writer.”*

Virginia Woolf

## My research

I'm studying, on the one hand, the history of literary exile in Switzerland during the time of the Nazis. A first milestone in this respect are my habilitation theses that are going to be published soon. On the other hand, as the holder of an SNSF professorship, I am studying the history and social impacts of the women's movement in Switzerland from 1968 to the present, together with my team.

**Prof. Kristina Schulz** // 1 child

2008–2009 Marie Heim-Vögtlin grant (postdoc),  
University of Lausanne

Since 2009 SNSF Professorship, History Department,  
University of Berne

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