

**Laudatory speech of the Chairman of the Scientific Advisory Council**

**of the Robert Koch Foundation,**

**Professor Jörg Hacker,**

**on the presentation of the Robert Koch Postdoctoral Awards**

**Friday, 15 November 2013**

**4.30 p.m. – 6 p.m.**

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[Address]

As in previous years, the Robert Koch Foundation is again honouring outstanding young scientists with three postdoctoral awards this year. Each year for over 10 years, the German Societies for Immunology, Virology and Microbiology have been asked to nominate postdoctoral award candidates in their fields. They are called on to suggest suitable outstanding young scientists to be considered for the awards. Based on the shortlists submitted by the societies, the Foundation's Scientific Advisory Council and Board of Directors choose the award winners. Accordingly, the awards go to the best young scientists currently working in their fields in Germany or abroad.

[Robert Koch Postdoctoral Award for Virology]

This year's Postdoctoral Award for Virology goes to Dr. Hanna-Mari Baldauf.

HIV infection, and the AIDS syndrome that arises from it, is still one of the greatest medical challenges we face today. Ms Baldauf also directed the main focus of her still young, yet extremely successful scientific career to

understanding HIV infection. She was able to show that replication of the virus in immune cells is conditional on specific host molecules called SAMHD1. Ms Baldauf also looked into the issue of why defence cells of different species react to the virus infection in different ways. She mostly compared the cells of rabbits and mice, but she also compared human cells. These comparative studies are a significant factor in our understanding of the course taken by infection in immune cells. Furthermore, Ms Baldauf also conducted experiments to examine the role of commensal flora in T-cell-mediated immunology. At the beginning of her career she also investigated large DNA viruses, such as the cytomegalovirus.

Ms Baldauf was born in Finland and studied biotechnology in Germany, first in Mannheim then in Mainz. She completed her dissertation in 2010 in Heidelberg, where she also spent a two-year postdoctoral phase. Since 2013 she has been the independent leader of a working group at Frankfurt University. So far, Ms Baldauf has been able to publish 10 papers – five of them as lead author, for example in the medical journal *Nature Medicine*, and five as co-author. In 2009, Ms Baldauf received the Young Investigator Award of the German AIDS Society. Today, it is our great pleasure to award her the Robert Koch Postdoctoral Award, and I am absolutely sure this is not the last honour

that will be conferred on Ms Baldauf. I would like to congratulate her sincerely on winning the Robert Koch Postdoctoral Award.

[Robert Koch Postdoctoral Award for Immunology]

Dr. Stefanie Eyerich from Munich is this year's recipient of the Postdoctoral Award for Immunology.

An increasingly urgent issue in immunology and clinical microbiology is that of fungal infections, which can not only occur in immunocompromised patients, but also in persons with an intact immune system. The main focus of Ms Eyerich's work has been on infections caused by the *Candida albicans* fungus. Her research contributed toward explaining chronic mucocutaneous candidiasis (CMC). She was able to demonstrate the role played by defect immune cells in the spread of the infection, which then give rise to such diseases as psoriasis or atopic dermatitis.

Ms Eyerich studied biology, first in Regensburg and then in Munich. Following the successful defence of her doctoral thesis at the Technical University of Munich in 2008, she moved on to Imperial College London where she spent one year to apply herself to the intensive study of issues in clinical immunology and allergology. Ms Eyerich returned to Munich's Helmholtz Centre as a postdoc in 2010. Since 2013 she has been the leader of the centre's young investigators group *T-cell biology in health and disease*, which is financed jointly by the Technical University of Munich and the Helmholtz Centre there. Ms Eyerich already has a larger number of publications to her name, including five as lead author and one as last author. Her papers have been published, for example, in the *Journal of Clinical Investigation* and the *New England Journal of Medicine*.

Stefanie Eyerich has already been the recipient of a number of awards, such as the Science Prize of the German Mycology Society in 2009, the Egon Macher Prize of the Group for Dermatological Research in 2011, and the Dr. Ernst Wiethoff Prize in 2012. Today, dear Ms Eyerich, it is my great pleasure to present you with the Robert Koch Postdoctoral Award, and I am sure this will not be the last award for your outstanding research work. I would like to

congratulate you sincerely on winning the Robert Koch Postdoctoral Award for Immunology.

[Robert Koch Postdoctoral Award for Microbiology]

This year's Postdoctoral Award for Microbiology goes to Dr. Luisa Jiménez-Soto from Munich. Ms Jiménez-Soto investigated the pathogenic bacteria *Helicobacter pylori*. *Helicobacter* bacteria are capable of colonising the human stomach, where they can also survive. They are involved in the development of inflammatory stomach diseases, as well as in the induction of cancer of the stomach. These processes involve the transportation of *Helicobacter* gene products to host cells via the complex *type IV* transport system. It was these transport mechanisms that were the focus of Ms Jiménez-Soto's research. She was able to demonstrate that the CagI-CagL complex attaches to the structures of the host cells. Furthermore, she was also able to ascertain the spatial structure of a further ligand, namely of CagA. In addition, Ms Jiménez-Soto also explored the interaction between the *Neisseria meningitidis* adhesion molecules and host cells.

Ms Jiménez-Soto was born in Columbia in 1976. She studied and worked in the field of virology and cell biology at Yale University, New Haven, before moving to Munich where she joined Professor Haas' working group. Ms Jiménez-Soto was awarded a doctorate in human biology in 2009 and has worked in Munich ever since. She has a number of spectacular publications to her name, including a paper in the journal *PloS Pathogens* in 2009 and one in the National Academy of Sciences' journal *Proceedings* in 2012, in each case being the paper's lead author. Ms Jiménez-Soto was also awarded the Dissertation Prize of the German Society of Hygiene and Microbiology in 2010. And today, it is my great pleasure to present the Robert Koch Postdoctoral Award. I congratulate Ms Jiménez-Soto sincerely on this award.