

MEET THE SCIENTIST

EMBO Young Investigators & Installation Grantees



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Jan-Willem Veening

2013 EMBO Young Investigator | University of Groningen, Netherlands

Recent research. In 2009, I established my own research and teaching group in the Groningen Biomolecular Sciences and Biotechnology Institute at the University of Groningen. My laboratory studies chromosome segregation, mechanisms of antibiotic tolerance, and noise in gene expression in *Streptococcus pneumoniae*.

Streptococcus pneumoniae is one of the main human pathogens killing nearly one million children each year. My lab uses molecular genetics and single cell analysis to study fundamental aspects of its biology such as cell division and chromosome segregation. Another goal is to find out why and how it switches from a commensal to a pathogen.

Changing directions. I was originally trained to work with the model bacterium *Bacillus subtilis*. I continued working with *Bacillus* during my postdoctoral research, but I was always interested in *Streptococcus pneumoniae*, since this is the organism that was instrumental in showing that DNA is the carrier of genetic information. This little organism set the stage for modern molecular genetics. At the Centre for Bacterial Cell Biology (CBCB) I got the opportunity to set-up the first cell biological tools for *S. pneumoniae* and now my whole research is focused on this amazing bacterium.

Turning point in my career. My postdoctoral research at the Centre for Bacterial Cell Biology (CBCB) in Newcastle was certainly a major turning point. Coming from a teaching oriented university where most of the research is performed by master and graduate students to an institute mainly run by top post-docs striving for big papers was really stimulating. Now I try to combine the best of both worlds: excellent research with excellent students.

Becoming a group leader. The biggest challenge for me as a group leader was to adjust to the fact that I am not doing the experiments myself anymore. I had to learn to give the responsibility to my students and postdoctoral researchers. Now it is my favourite part of the job – to discuss results and help thinking about the experiments.

Selection as EMBO Young Investigator. To be part of a network with some of the best scientists in Europe is fantastic and will open new doors for collaborations and funding possibilities. The recognition and exposure might also motivate new students and post-docs to join my team. Also, the extra funding and access to EMBO and EMBL courses and facilities will be very useful.



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Turning point in my career. Deciding to move to the University of Oxford and to work in Kim Nasmyth's laboratory. For my PhD degree I worked on *Drosophila* and very much focused on mitosis and chromosome organization. So my plan was to go to a hard-core *Drosophila* lab. I continued research on fruit fly during my postdoctoral research. However the focus of Kim's laboratory is yeast.

It was a privilege to be part of Kim's team. The set-up in his laboratory was different than in other places. Usually, people have different biological questions and use the same kind of techniques in model organisms. In his laboratory, almost everyone is focussed on the problem of sister chromatid cohesion, but they look at it from different angles, using completely different approaches.

Influence as group leader. In Oxford, I was constantly confronted with many different types of research: From hard-core biochemistry to cell biology and organism-related questions. It was a big learning period.

My time spent there hugely shaped the way I developed my scientific approach. Kim is well known for having a question-based approach and for developing new methods to do the best-controlled experiments in the cleanest way possible. This is something I inherited from him.

Challenges in setting up my own group. The biggest one is to attract very good postdocs. Usually, young group leaders are quite attractive for PhD students, who like the advantage of a small group. But postdocs are frequently looking for more established laboratories. Another one is to adapt to a new working-style. Combining the paperwork and grant writing with working at the bench is not easy. At the moment I spend less than half of my time at the bench and I need to change this.

Advice to new group leaders. To thoroughly think about what is the main question you want to pursue in your own lab and what are your unique selling points. Having a clear idea about these things is very important for writing grants, applying for jobs and for additional funds. Another piece of advice would be to gain more experience in guiding other people during your postdoctoral research. Also to learn how to write grants. It boosts your confidence when you master these skills from the beginning.