

# Preface

## Editorial Note

*Dear Reader,*

Even though I was a member of this editorial board for almost five years, I never wrote the editorial of an issue. Since I finished my university education and will soon start my industrial career, forcing me to leave JUnQ, it is my pleasure to write it for the current issue.

The feature topic this time deals with a problem, which has been in the press a lot lately: Misuse of Statistics. The highly fitting cover for this subject was once again designed by former editorial board member Robert Lindner.

Especially in the life sciences, many published results are not reproducible. But these publications are the foundation for further studies. Without being too negative, but this situation is highly critical, especially in the medical context, and corrections are of utmost importance. To allow a good overview of the scientific misconduct in statistics we contacted several experts of the field for interviews. Dr. Gerta Rücker, a biostatistician at the Medical Center of the University of Freiburg and associate of Cochrane Germany, was interviewed about the errors regularly observed in life science studies. She presents the reasons for misbehavior as well as some solutions on page XXXII.

But not only the life science are fields of erroneous statistics. Also physics and mathematics itself have to deal with this problem. Due to the similarity of both fields, two representatives of the respective fields were asked the same interview questions. Dr. Nicolai Bissantz is a mathematician and head of the work group “Inverse Problems” at the chair of stochastics at the University of Bochum. His answers from the mathematical point of view are presented on page XXXI. Our other interviewee is Dr. Rainer Wanke of

the Institute of Physics of the University of Mainz. He is an experimental physicist, who works in particle detector development. His interview about the importance of statistics in physics can be found on page XXIX.

Starting this month, July 2016, we begin a cooperation with the Wiley-VCH journal “Chemie in unserer Zeit” (ChiuZ).<sup>1</sup> This German, bimonthly journal presents current topics of chemical research, which are presented in a way to allow laymen to understand the articles. We will present tidbits of JUnQ content to spread the message of the importance of negative results. Thank you, Dr. Fischer-Henningsen, editor in chief of ChiuZ, for the assistance in our challenge.

Furthermore, I am very happy to present three scientific contributions in this issue. A study about pretreatment of steel and zinc surfaces with phytic acid of M. Dornbusch *et al.* can be found in the Articles section at pages 1–7. We were also allowed to reprint an outstanding study of K. Roth *et al.* about chemical free household products on pages 8–9. This manuscript was originally published in ChiuZ and poses an interesting question to society about what an average person defines as chemical free or what he/she is afraid of in chemical containing products. Lastly, a study about waste water treatment in Pernambuco, Brazil vs. Hof, Germany by C. Pahl *et al.* is part of our Views on Life section on page 1.

I hope you will enjoy the second issue of JUnQ in 2016. It was a very educational, entertaining, and creative time for me in this team. Thank you very much!

—Andreas Neidlinger

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<sup>1</sup>[http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1521-3781](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1521-3781)