Editorial

Toxicology: The basic science for human well-being and environmental health

Aristotle, the great Greek philosopher, stated back around 350 BCE that ἄνθρωπος ἄνθρωπον ἀντικατιστά καὶ ἄνθρωπον καλεῖ to live well. My own belief, as a toxicologist with more than 30 years of experience in the field, is that the science of toxicology and its effect on people and the environment is truly such a basic discipline, both for our existence, as well as for our well-being [1].

Toxicology, as well as other related sciences, is at a turning point, where vast diversity of knowledge will be taken into account regarding exposure to harmful factors and their induced diseases. Therefore, it is essential to strengthen the science of toxicology as an academic discipline, thus reminding governments and the public of the necessity of toxicology in protecting the health of consumers, workers, the general population and the environment [2].

We live in an extraordinary age. These are times of stunning changes in social organization and economic well-being. Many countries are struggling under the weight of what is perhaps the worst economic recession in recent memory, while Europe faces a great wave of immigration. Nonetheless, today we are far better equipped to take on the challenges we face than ever before. Toxicology provides the means to come up with cures for diseases and new sources of energy, and help us build healthier, more successful societies [1,3].

The new Editor-in-Chief has a special interest in low-dose, long-term effects from combined exposures. This is a new challenge for the Toxicology of the 21st century as many recent studies have shown correlations between long-term exposure to xenobiotics and chronic diseases, even of very low doses, but none have provided until now a mechanistic interpretation of any observed effect nor have outcomes been linked with exposure to a chemical mixture. He supports the necessity for new experimental methodologies, which seek to provide at the same time multiple answers to multiple questions related to current concerns about mixtures of chemicals from many different sources at doses around or well below the regulatory limits, to which the general population is exposed daily. If the hypothesis of an increased cumulative risk from simultaneous exposures to chemicals around regulatory levels will be proven, that could be the starting point for passing from single-compound risk assessment to the era of cumulative risk assessment at low–doses that represent realistic exposures. Based on this idea, all issues that are related to these types of research will be very welcome for the journal in addition to other issues of research broadly relevant to toxicology [4,5].

The medium is the message. Scientific journals represent the most vital means for disseminating research findings. The fact that Toxicology Reports is a completely Open Access and online-only journal bestows a great advantage for its readers in comparison to other, also highly reputable journals that are published in a printed form, as being online provides greater accessibility to its entire content and thus, to knowledge and to all the latest scientific developments directly, at all places and at all times.

The previous and founding Editor-in-Chief of Toxicology Reports thanks Dr. Bart Wacek, publishing director at Elsevier, Dr. Meghan Jendrysik, publisher for toxicology journals at Elsevier at the inception of the journal, and Dr. Jagna Mirska, current publisher for toxicology journals at Elsevier, for their guidance and support in establishing the journal. Toxicology Reports, which began publishing in 2014, has to date published more than 400 peer-reviewed scientific manuscripts. The journal is unique in its broad scope and seeks to provide an opportunity for scientists from both developed and developing countries to publish high quality work that includes both novel and mechanistic toxicology but also other work that, while new, may be considered descriptive and thus not have an outlet in other top-tier toxicology journals. The guiding principles of the journal in all cases are peer review and publishing of high-quality, original research [6].

The new Editor expresses his sincere appreciation to the previous Editor-in-Chief and all members of the Editorial Board for their contributions and great endeavours in the development of this great journal. He also thanks Dr. Jagna Mirska for her continued support and guidance. On assuming the role of the new Editor-in-Chief, the goal will be to move Toxicology Reports into a new phase of its development, towards a more global profile, with a growing reputation and standing as a distinctive international journal, provide the means for its abstraction in PubMed and Web of Science, SCI, and thus to be the first option for scientific researchers and readers worldwide in the field of toxicological research.

The new Editor looks forward to the next several years as Editor-in-Chief of Toxicology Reports with a commitment to lead the journal towards its stated goals, working closely with the editorial board and the publishers.

References


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Available online xxx