



Reply to the Letter-to-the-editor written by J. J. Bevelacqua and S. M. J. Mortazavi on: “Radon survey in the kindergartens of three Visegrad countries (Hungary, Poland and Slovakia)” (DOI 10.1007/s10967-018-6374-3)

Monika Müllerová¹ · Jadwiga Mazur² · Anita Csordás³ · Karol Holý¹ · Dominik Grządziel² · Tibor Kovács³ · Krzysztof Kozak² · Iveta Smetanová⁴ · Karolina Danyłec² · Patrícia Kureková¹ · Erika Nagy³ · Matej Neznal⁵

Published online: 8 April 2019
© Akadémiai Kiadó, Budapest, Hungary 2019

Dear Editor-in-Chief,

Radiation protection is based on a conservative approach, which is still valid in Visegrad countries. It means that the motivation for radon monitoring in the kindergartens was based on a valid radiation protection for inhabitants. The aim of our paper was not to compare models describing the relation dose–effect.

It is still not clear and is still being discussed which of the models is correct for low doses. The idea that low doses are not harmful is controversial and there are papers confirming both approaches. The extensive research (lasting for decades) should be made to confirm credibly the effect of low doses. Investigations indicate that also LNT model probably should have a threshold, but in the radiation protection LNT model is still valid and used.

The main goal of the article was to study the radon levels in kindergartens in V4 countries in a view of the Directive (No. 2013/59/EURATOM). The authors did not intend to discuss the strengths and weaknesses of LNT and hormesis hypotheses. Another reason why LNT model was mentioned is that in EU countries the radon action plan was approved and member countries incorporated it in their legislation and lowered their reference levels for indoor radon from 400 to 300 Bq m⁻³.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This is Reply from Author to Letter to the Editor for the <https://doi.org/10.1007/s10967-019-06488-8>.

✉ Monika Müllerová
mullerova@fmph.uniba.sk

- ¹ Department of Nuclear Physics and Biophysics, Faculty of Mathematics, Physics and Informatics, Comenius University, Mlynská dolina F1, Bratislava 4 842 48, Slovak Republic
- ² Laboratory of Radiometric Expertise, Institute of Nuclear Physics PAN, Radzikowskiego 152, 31-342 Kraków, Poland
- ³ Social Organisation for Radioecological Cleanliness, Egyetem str 10, Veszprem 8200, Hungary
- ⁴ Division of Geophysics, Earth Science Institute, Slovak Academy of Sciences, Dúbravská cesta 9, P.O.Box 106, Bratislava 840 05, Slovak Republic
- ⁵ RADON, v.o.s., Novákových 6, Prague 8 180 00, Czech Republic