

CORRECTION

Open Access



Correction to: Current outlook on radionuclide delivery systems: from design consideration to translation into clinics

Oleksii O. Peltek¹, Albert R. Muslimov¹, Mikhail V. Zyuzin² and Alexander S. Timin^{1,3*}

Correction to: *J Nanobiotechnol* (2019) 17:90

<https://doi.org/10.1186/s12951-019-0524-9>

After publication of this article [1], an error was found in the description of the holmium isotopes. ¹⁶⁵Ho is a stable isotope a fraction of which is activated to ¹⁶⁶Ho by neutron activation in a nuclear reactor [2]. In one paragraph of the published article, describing holmium containing QuiremSpheres, ¹⁶⁵Ho should be replaced with ¹⁶⁶Ho. The correct description is given below:

“QuiremSpheres are poly-L-lactic acid based microspheres, containing ¹⁶⁶Ho. The size of the particles varies from 15 to 60 μm and the use of poly-L-lactic acid allows to achieve the particle density of 1.4 g/cm³, which is closer to the density of blood (1.06 g/cm³). The ¹⁶⁵Ho is activated to ¹⁶⁶Ho with neutron activation in a nuclear reactor. Due to the short half-life period of ¹⁶⁶Ho, each patient dose of QuiremSpheres needs to be prepared separately, thus, a specific activity can differ in each dose and depends on the needs of a patient.”

Author details

¹ Russian Research Center of Radiology and Surgical Technologies (RRCRST) of Ministry of Public Health, Leningradskaya Street 70 Pesochny, Saint-Petersburg 197758, Russian Federation. ² Faculty of Physics and Engineering, ITMO University, St. Petersburg 197101, Russia. ³ Research School of Chemical

and Biomedical Engineering, National Research Tomsk Polytechnic University, Lenin Avenue 30, Tomsk 634050, Russia.

Published online: 02 January 2020

References

1. Peltek OO, Muslimov AR, Zyuzin MV, Timin AS. Current outlook on radionuclide delivery systems: from design consideration to translation into clinics. *J Nanobiotechnol*. 2019;17(1):90. <https://doi.org/10.1186/s12951-019-0524-9>.
2. Reinders MTM, Smits MLJ, van Roekel C, Braat AJAT. Holmium-166 microsphere radioembolization of hepatic malignancies. *Semin Nucl Med*. 2019;49(3):237–43. <https://doi.org/10.1053/j.semnuclmed.2019.01.008>.

Publisher's Note

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

The original article can be found online at <https://doi.org/10.1186/s12951-019-0524-9>.

*Correspondence: a_timin@mail.ru; timin@tpu.ru

¹ Russian Research Center of Radiology and Surgical Technologies (RRCRST) of Ministry of Public Health, Leningradskaya Street 70 Pesochny, Saint-Petersburg 197758, Russian Federation

Full list of author information is available at the end of the article



© The Author(s) 2020. This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated in a credit line to the data.