EANM reply to Concept paper on the revision of the Guideline on the principles of regulatory acceptance of 3Rs (replacement, reduction, refinement) testing approaches (EMA/CHMP/CVMP/JEG-3Rs/450091/2012)

February 2024

The European Association of Nuclear Medicine (EANM) would like to express its appreciation for the opportunity to provide feedback on the revision of the Scientific Guideline on Regulatory Acceptance of 3R Testing Approaches.

The EANM supports the initiative to revise the guideline to include a section on 3Rs terminology, as well as annexed guidance for regulatory acceptance of Microphysiological Systems (MPS), including Organ-on-Chip (OoC) models, for specific Contexts of Use (COUs) within the pharmaceutical area. We recognise the importance of establishing clear definitions for 3Rs-related terms to facilitate alignment among stakeholders and to provide clarity on regulatory requirements for the qualification of New Approach Methodologies (NAMs).

Regarding the proposed revisions, we would like to offer the following insights and suggestions from the nuclear medicine perspective:

- **Alignment with Nuclear Medicine Practices**: It is essential to ensure that the guidelines align with the principles and practices of nuclear medicine, particularly concerning the development and use of radiopharmaceuticals and imaging agents. Any terminology or criteria should consider the unique aspects of nuclear medicine research and clinical applications.
- **Inclusion of Imaging Biomarkers**: The guideline should acknowledge the role of imaging biomarkers in preclinical and clinical research within nuclear medicine. Imaging biomarkers play a crucial role in assessing the efficacy and safety of new pharmaceuticals, and their use should be supported within the framework of 3Rs testing approaches.
- **Consideration of Radiation Safety**: Given the inherent use of ionising radiation in nuclear medicine procedures, the guideline should incorporate considerations for radiation safety and protection. Any MPS or OoC models used in nuclear medicine research should adhere to appropriate radiation safety standards and regulations.
- **Collaboration and Harmonisation**: We encourage collaboration and harmonisation efforts between regulatory agencies, industry stakeholders, and scientific communities involved in nuclear medicine research. Aligning terminology and acceptance criteria internationally would streamline the regulatory process and promote innovation in the field.
- **Transparency and Accessibility:** In a context of many discussions on the 3Rs, the revised guideline should prioritise transparency and accessibility to ensure that stakeholders, including researchers, developers, and healthcare professionals, can easily understand and comply with the regulatory requirements.

The EANM welcomes the suggested process for revision, and hope that EANM can play a constructive role in shaping the revision of the guideline and ensuring that the specific needs and considerations of the nuclear medicine community are taken into account.
First, the EANM endorses the Concept Paper, expressing its support for the revision process and its commitment to contributing to the development of the guideline.
Additionally, EANM would be pleased to provide any needed expertise within the drafting group so that experts have the relevant experience in the application of 3Rs principles in the field of nuclear medicine and should be able to provide valuable insights and perspectives.
Finally, EANM commits to participating into the related Multistakeholder Workshops.

The nuclear medicine community looks forward to engaging in the 3months public consultation once the draft revised guideline including this new section on 3Rs-related terminology will be released.