Introduction

There is a scientific policy and regulatory desire for validated and internationally accepted *in vitro* methods (e.g., OECD test guidelines or ISO standards). To accommodate the needs of receiving authorities, a number of *in vitro* methods, often based on the use of human cells and tissues, have been submitted to international validation bodies during the last two decennia. It was agreed that technical guidance is needed to standardise and advance the development of robust and reliable *in vitro* methods suitable for regulatory purposes. The OECD approached EURL ECVAM to coordinate the drafting of GIVIMP for the development and implementation of *in vitro* methods for regulatory use in human safety assessment which is also equally applicable to non-guideline or not internationally recognised *in vitro* methods.

An Expert Group was established in 2015 to develop such a guidance document. The first draft of the guidance document was prepared following a GIVIMP meeting on the 24 and 25 February 2015 in Ispra, Italy (Annex C: EURL ECVAM GIVIMP meeting 24-25 February 2015) with additional input from experts who could not be present at the meeting. Expert input was received from EURL ECVAM, European receiving authorities (European Food Safety Authority EFSA, European Medicine Agency EMA, European Chemicals Agency ECHA), from the European Union Network of Laboratories for the Validation of Alternative Methods (EU-NETVAL, e.g., from the Belgian, Dutch, Italian, Spanish and Swedish laboratories), from ECVAM's Stakeholder Forum (ESTAF, e.g., the European Society of *In vitro* Toxicology), from the EU and OECD Working Group on Good Laboratory Practice GLP (e.g., delegates from Belgium, The Netherlands, The United Kingdom, Poland, Italy, France, Singapore), from Replacement, Reduction and Refinement (3Rs) Centres (e.g., Centre for Alternatives to Animal Testing, CAAT), from regulatory agencies (e.g., RIVM), from scientists from large industries, Small and Medium Enterprises (SMEs) and from international scientists with expertise in stem cells, cell biology, GLP and *in vitro* methods.

Following the first OECD commenting round of the draft document that took place in the autumn of 2016, a draft version, revised by the OECD Working Group on GLP (WG GLP) and the nominated experts from the Working Group of the National Coordinators of the Test Guidelines Programme (WNT), was circulated in September and November 2016 for review by all 37 members of EU-NETVAL. The OECD GIVIMP Expert Group provided input through teleconferences, a face-to-face meeting (Annex D: OECD GIVIMP meeting 23-24 March, 2017), and two rounds of written comment. The group agreed on content, structure, and wording of the GIVIMP. A further commenting round following revision of Chapter 4.3 on media (specifically, the use of animal serum in cell culture) and Chapter 8 on method performance, by the VMG-NA and GIVIMP Expert Groups, took place in November 2017.

GIVIMP has been updated by Sandra Coecke and Gerard Bowe, and the members of the OECD GIVIMP expert group.

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