

**Log of updates to the SciRAP approach for evaluating *in vivo* studies, listed in order of most recent.**

Date	Tool version	Updates
November 2021	2.2	<p>Addition of Reporting Quality open comment criterion: “Was all information that is indispensable for evaluating the reliability of data given? This includes information on the test compound and controls, test system, study design or study performance.”</p> <p>This criterion added to ensure alignment with the <i>in vitro</i> tool, for which this criterion was added based on feedback in an expert test round (see Roth et al. 2021. <a href="https://doi.org/10.3389/ftox.2021.746430">https://doi.org/10.3389/ftox.2021.746430</a>).</p>
28 January 2018	2.1	<p>The algorithm for how the online tool calculates the numerical score for reporting and methodological quality has been updated. Scores calculated with the tool before and after this date are not comparable.</p> <p>Reference: Beronius A, Molander L, Zilliacus J, Rudén C, Hanberg A. 2018. Testing and refining the Science in Risk Assessment and Policy (SciRAP) web-based platform for evaluating the reliability and relevance of <i>in vivo</i> toxicity studies. <i>J Appl Toxicol.</i> 1-11.</p>
May 2017	2.0	<p>The new version of the SciRAP approach to evaluate <i>in vivo</i> studies include significant changes and enhancements to the original approach based on an expert assessment carried out among scientists and professionals from authorities, academia and industry with expertise in toxicology and risk assessment. Updates in version 2.0:</p> <ul style="list-style-type: none"> <li>– The tiered approach has been abandoned, the evaluation of reliability is instead separated into an evaluation of the study’s reporting quality and methodological quality.</li> <li>– Some reliability and relevance criteria have been re-worded, removed or added to increase clarity.</li> <li>– Guidance items have been added for each methodology quality criterion and relevance criteria to aid in the evaluation of study reliability and to improve consistency between evaluators.</li> <li>– A function to increase the weight of criteria that are specifically critical to the case at hand, or to remove criteria considered not applicable to the evaluation being conducted, has been added. NOTE! The weights of criteria need to be the same if evaluations of different studies are to be compared.</li> <li>– The tool now also calculates a numerical score for reporting and methodological quality. NOTE! The score is not intended to be used on its own but together with the colour profile to draw conclusions about study reliability.</li> <li>– The evaluation of relevance is now conducted in the online colour-coding tool and added to the summary and colour profile generated by the tool.</li> </ul> <p>Reference: Beronius A, Molander L, Zilliacus J, Rudén C, Hanberg A. 2018. Testing and refining the Science in Risk Assessment and Policy (SciRAP)</p>

		web-based platform for evaluating the reliability and relevance of <i>in vivo</i> toxicity studies. J Appl Toxicol. 1-11. <i>NOTE: this article describes the latest update of the algorithm for calculating the scores for reporting and methodological quality (see version 2.1).</i>
January 2014	1.0	<p>The first version of SciRAP describes a two-tiered approach to evaluating reliability and relevance of <i>in vivo</i> toxicity studies. There are 11 criteria deemed as critical for study reliability to be evaluated in Tier I, with the intention to provide a method for quickly identifying studies of very poor reliability that could be excluded from further evaluation. Studies fulfilling Tier I continue to a more thorough evaluation of 32 reliability criteria in Tier II. Tier II criteria relate to 1) the description of the purpose of the study, 2) the characterisation of the test substance, 3) animals, housing and feed, 4) administration of the test substance, 5) measurements and data collection, 6) statistics, and 7) the discussion. The evaluation of reliability is carried out in an online colour-coding tool available at SciRAP-org. The results are exported to an Excel file that summarises the evaluation of reliability and provides a colour profile in the form of diagrams. In parallel, studies are evaluated for relevance according to 8 criteria intended as guidance to promote structure and transparency in this process. SciRAP criteria are primarily based on requirements and recommendations in relevant OECD test guidelines for <i>in vivo</i> studies.</p> <p><i>Reference:</i> Beronius A, Molander L, Rudén C, Hanberg A. 2014. "Facilitating the use of non-standard <i>in vivo</i> studies in health risk assessment of chemicals – a proposal to improve evaluation criteria and reporting." J Appl Toxicol. 34(6):607-17.</p>