

# NC3Rs Toxicology and Regulatory Sciences Bibliography and Resources

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An introduction to the NC3Rs and an overview of our office-led programmes of work in Toxicology and Regulatory Sciences can be found in the *Journal of the American Association for Laboratory Animal Science*:

- Burden N, Chapman K, Sewell F, Robinson V (2015). Pioneering better science through the 3Rs: An introduction to the National Centre for the Replacement, Refinement, and Reduction of Animals in Research (NC3Rs). *Journal of the American Association for Laboratory Animal Science* 54(2): 198-208. No DOI: available to download at [www.ncbi.nlm.nih.gov/pmc/articles/PMC4382625](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4382625).

**Pioneering Better Science**



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# 1. Animals in chemical safety assessment

## 1.1 Non-animal approaches and chemical safety assessment

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## 1.2 Redundancy in acute toxicity testing

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- NC3Rs Leaflet: Acute toxicity testing of chemicals: opportunities to avoid redundant testing and use alternative approaches. Available to download at [www.nc3rs.org.uk/redundancy-acute-toxicity-testing-chemicals](http://www.nc3rs.org.uk/redundancy-acute-toxicity-testing-chemicals).

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## 2. Animals in environmental safety assessment

### 2.1 Promoting the 3Rs in ecotoxicology

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### 2.3 Applying the one concentration approach in fish bioaccumulation studies

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## 3. Animals in drug discovery and development

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### 3.2 Single dose acute toxicity studies

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### 3.3 Refining regulatory toxicology studies

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## 4. Web-based resources

Web resource 'hubs' pull together information, publications and guidance in specific areas that have resulted from NC3Rs office-led projects:

- Animals in chemical safety testing:  
[www.nc3rs.org.uk/animals-chemical-safety-testing](http://www.nc3rs.org.uk/animals-chemical-safety-testing)
- Animals in environmental safety testing:  
[www.nc3rs.org.uk/animals-environmental-safety-testing](http://www.nc3rs.org.uk/animals-environmental-safety-testing)
- Animals in drug discovery and development:  
[www.nc3rs.org.uk/animals-drug-discovery-and-development](http://www.nc3rs.org.uk/animals-drug-discovery-and-development)

Resource webpages focus on key aspects of our projects:

- Pathways-based approaches resource page:  
[www.nc3rs.org.uk/pathways-based-approaches-resource-page](http://www.nc3rs.org.uk/pathways-based-approaches-resource-page)  
Supports scientists and regulators interested in developing and applying pathways-based/mechanistic approaches for safety assessment. As part of this resource we provide a regular periodical called Adverse Outcome Pathway (AOP) News, which aims to keep interested parties updated on the latest information and opportunities related to pathways-based approaches and AOPs.
- Microsampling resource page:  
[www.nc3rs.org.uk/microsampling](http://www.nc3rs.org.uk/microsampling)  
Provides guidance on using microsampling in toxicology studies.