

# Juvenile Toxicology

Sequani is a UK based CRO with its heritage dating back over 40 years. We are positioned at the forefront of pharmaceutical and biotechnology product developments and chemical safety testing. Bursting with experience, excellence and expertise, we take pride in offering superior value for money, greater flexibility and speed of response- turning data into decisions and defining the way forward. We thrive upon joining our clients upon their mission to achieve high quality data derived by undertaking each project to the highest regulatory standard. Our flexibility, adaptability, strategic programme management and scientific rigour guarantees our customer satisfaction.



**Sequani have now completed over 65 regulatory juvenile studies, and so are uniquely placed to provide authoritative, top quality scientific and practical support.**

As guidelines around the use of new medicines intended for paediatric use tighten, Sequani understands the importance of juvenile toxicity. Built on our extensive experience of general and reproductive toxicity, with more than four decades' worth of experience, we are veterans of conducting, designing and interpreting toxicity studies in juvenile rats. We are particularly adept at pragmatic management and scheduling. This means that, whatever a study's scope, size and challenges, we are equipped to ensure on-time execution.

Our specialist teams include a study director group cross-trained in both reproduction and general toxicology, supported by our principal toxicologists who can advise on study design within the context of European and USA regulatory requirements.

We pioneered a unique cross-fostering approach which is applied for juvenile rodent studies, refining the quality of the data by increasing genetic diversity and reducing typical total animal usage by more than 65%. In some instances, this approach can also decrease study initiation times. Our outstanding technical expertise includes oral gavage dosing in rats from Day 4 of age and mice from day 14.

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**sequani**  
NON CLINICAL  
great people, great work, real results

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Research projects have been undertaken to develop the use of microsampling techniques to further reduce animal use in juvenile rat studies. We have developed an extensive collection of comparative pathology data in juvenile rats at a range of ages, including scanned digital images for training and reference use. Our unique experience in comparative pathology enables us to provide informed advice regarding appropriate dosing age. Collaborative research is on-going leading to enhanced understanding of toxic effects in the developing juvenile rat brain. We are actively undertaking research projects in house to investigate development in juvenile mice that will enable us to elucidate potential mechanisms of toxicity.

## DOSING ROUTES

|              |
|--------------|
| Oral gavage  |
| Subcutaneous |
| Intravenous  |

## SPECIES

|        |
|--------|
| Rat    |
| Mouse  |
| Rabbit |

## ENDPOINTS

|                          |                            |
|--------------------------|----------------------------|
| Toxicity                 | Developmental observations |
| Learning and development | Long bone growth           |
| Motor activity           | Sexual development         |
| Functional observations  |                            |

Sequani can offer bespoke packages at competitive prices to suit your needs.  
For further information, please contact: [business.development@sequani.com](mailto:business.development@sequani.com)

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