Pipeline 1

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https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3463797/

The aim of the two phenotyping programmes was to perform a comprehensive phenotyping workflow to generate data covering most body systems, physiology and behaviour. The EUMODIC and SANGER-MGP programmes were set up independently to carry out a comprehensive analysis and a screen of mouse mutant lines, respectively.

The EUMODIC programme used the SOPs developed within the EUMORPHIA consortium (www.eumorphia.org; Brown et al. 2005).

It was shaped around two independent pipelines: the first one was devoted to morphology, metabolism and skeletal and cardiovascular systems, while the second was oriented toward neurobehavioural and sensory systems, haematology, biochemistry and baseline immune responses (Eumodic consortium, unpublished). The analysis began at age 9 weeks and was completed by 15 weeks of age. Its design was based on the use of two separate sets of mice, each composed of at least seven mutants of each sex, to detect differences in physiology or diseases, recognising that sex may have a considerable impact upon disease prevalence. It was also recommended that control mice be analysed through the phenotyping pipelines at the same time as mutants. Usually C57BL/6N mice were used. Mice were born within a timeframe of 7–10 days. The phenotyping assays that were chosen for the EMPReSSslim [European Mouse Phenotyping Resource of Standardised Screens (EMPReSS) Slim] workflow were limited, but robust, providing a relatively broad-based first pass phenotype assessment, both high-throughput and cost-effective.

EUMODIC Pipeline 1

Procedure	**Age (weeks)**
Weekly weights	3
High-fat diet	4
Dysmorphology	9
Non-invasive blood pressure	11
Calorimetry	12
Simplified IPGTT	13
Core temperature	14
DEXA	14
X-ray	14
Fasted metabolic clinical chemistry	15
Heart weight	15