



RESEARCH MODELS

Rats

Mice

Other rodents



SJL Mouse

- **Strain name:** SJL/JRj
- **Type:** Inbred mouse
- **Origin:** Zentralinstitut für Versuchstierzucht (Hannover) - 1988 (F109)
- **Colour and related genotype:** Albino mouse, A/A, Tyr^c/Tyr^c, Oca2^o/Oca2^o - MHC: Haplotype H2^s
- **Breeding:** Difficult to rear

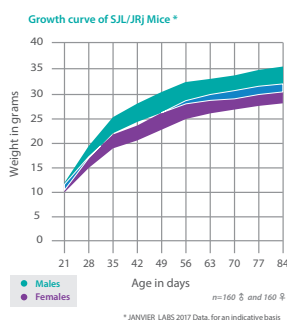
Description of our model

Created in 1955 by James Lambert (The Jackson Laboratory), from three sources of SWISS WEBSTER outbred stock that were brought to The Jackson Laboratory between 1938 and 1943, when brother-sister matings started.

SJL/JRj mice show a high incidence of reticulum cell sarcomas, as in Hodgkin's disease, around year one of age. These sarcomas first appear in aggregated lymphoid nodules (Peyer's patches) and mesenteric lymph nodes and then in the spleen and liver, the thymus and other lymph nodes. Most of these tumours are of mixed cells and classified as type B reticulum cell neoplasms but some are type A histiocytomas.

This strain is also characterized by the aggressiveness of its males and its sensitivity to experimental autoimmune encephalomyelitis (EAE) in multiple sclerosis research. It also develops spontaneous myopathy due to a mutation in the Dysferlin gene. It has been demonstrated that the *Dysf^m* allele leads to a decrease in the level of Dysferlin protein in SJL mice which renders them a good model for the study of Limb girdle muscular dystrophy 2B (LGMD 2B). This myopathy is characterized by a progressive loss of muscular mass and strength; muscular pathology can go as far as necrosis of the fibers and their replacement by fat. Although muscular weakness can be detected at 3 weeks of age, the greatest complications occur after 6 months of age.

SJL/JRj mice are immunocompetent, they show decreased NK activity and higher levels of circulating T cells. **SJL/JRj** mice are resistant to Diet-induced-obesity (DIO).



Important notices:

SJL/JRj mice are homozygous for the rd1 mutation: *Pde6b^{rd1}* (phosphodiesterase 6b, retinal degeneration 1) which leads to an early onset retinal degeneration that leads to blindness. This mutation is the result of a viral insertion and a nonsense recessive mutation of the *Pde6b* gene's exon 7 (Chromosome 5) which encodes the beta-subunit of rod cGMP-phosphodiesterase. This strain carries the *Ptprc^a* (=Ly5^a or CD45.1) mutation (protein tyrosin phosphatase receptor type C, a variant).

Reproductive data*	
Bigamous mating	
Litter size at birth	6.25
Weaning %	89
Productivity index	0.46
Sterility %	4.5
Gestation time	Between 18 and 20 days

* JANVIER LABS 2011 Data, for an indicative basis

Our added value

- The « JANVIER LABS Genetic Policy », a specific programme, guarantees homozygosity of autosomal pairs.
- Animals with the SPF or SOPF standards.
- A gentling policy for docile and easy-to-handle animals.
- Optimal stability conditions of our models during shipments, thanks to our dedicated and internal transport service.
- A scientific support with a team of Veterinarians and PhD.

The available scientific bibliography:

Research has been conducted, all over the world, from models bred in our laboratories. Discover our updated bibliography of available studies on our Internet website, heading: Customer Support.



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Main application and research fields

- Behaviour
- Cardiology
- Immunology
- Oncology: model for Hodgkin's disease
- Transgenesis

Our additional services



Laboratory Services



Transgenic Services