



Wistar Furth Rats

Nomenclature

WF/IcoCrI (inbred)

Strain origin

Furth developed this strain at Roswell Park Memorial Institute, Buffalo, NY, USA in 1945 starting from a commercial colony of Wistar rats. Acquired by Charles River Laboratories from Microbiological Associates, Bethesda, Maryland, USA. Introduced to Charles River Laboratories France in 1970.

Appearance

Albino

Major histocompatibility complex

RT1^u

Strain characteristics

Lifespan and spontaneous disease

- Mean life span 21 months in females and 23 months in males.
- Carcinoma of the colon found in males and females
- In females tumours include 27% pituitary, 21% mammary, 3% adrenal, 9% leukaemia (generalised), 7% lymphoma (malignant), 3% lipomas and 4% unclassified
- Leukaemia 15-22% characterised by an unusual type of mononuclear cell containing reddish granules
- Incidence of spontaneous pituitary tumours 38% in rats older than 10 months of age, increasing to a maximum of 69% at 28-32 months of age. Higher incidence in females (71%) than in males (35%)
- WF rats develop retinal dystrophy from about 3-months of age. By about 7 months all rats are affected
- Have an hereditary macrothrombocytopenia, with approximately one third of the normal number of platelets, which are larger than normal. The condition appears to be inherited as a simple recessive.

Research applications

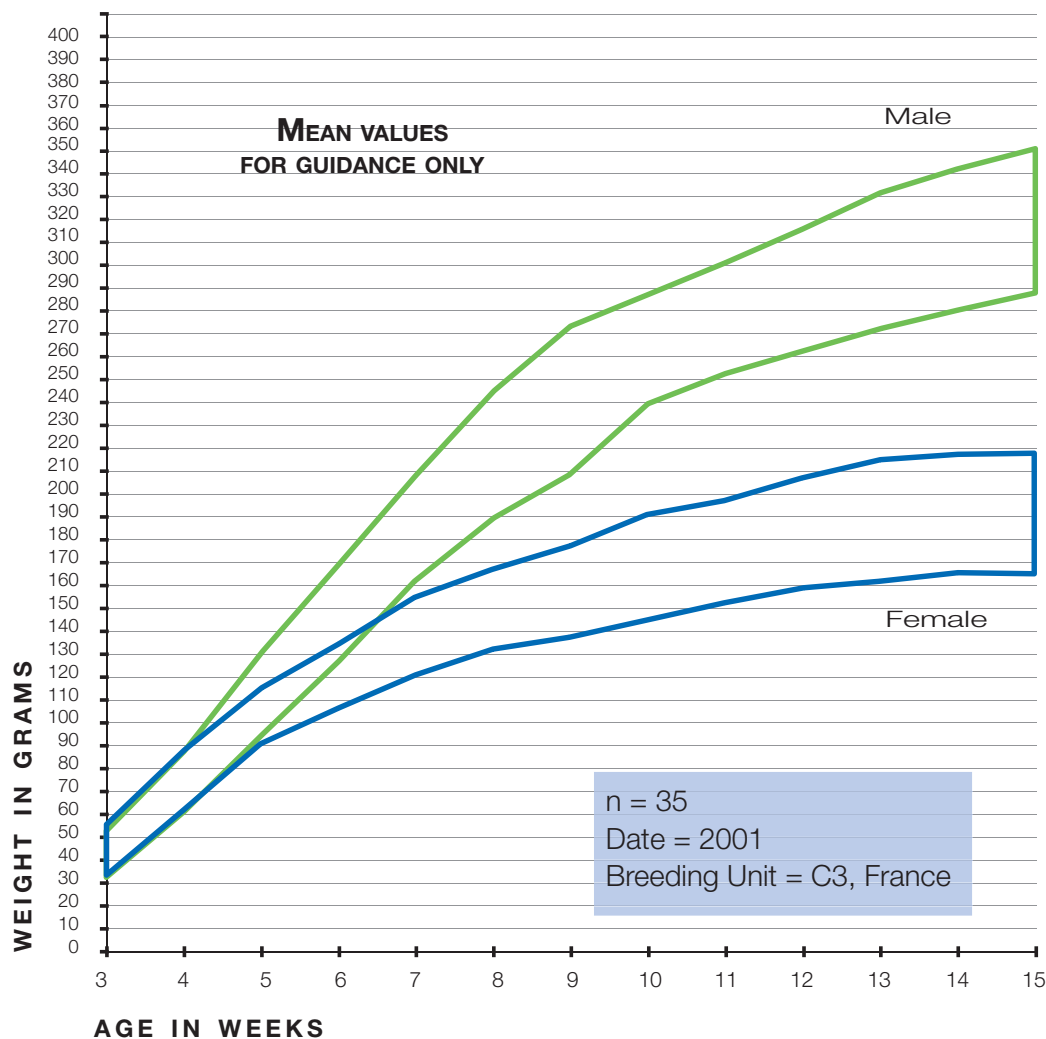
Model for general use including

- **Oncology** :
Good model of human prolactinoma and mammary carcinoma.
- **Parasitology**
Privileged host for the kidney fluke
- **Inflammation**
- **Genetic disease**
Animal model of hereditary macrothrombocytopenia

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Growth Curve



Growth curves may vary slightly from room to room

Breeding system

Mating system	Pair
Litter size at birth	5 - 6
Gestation period	22 - 23 days
Weaning age	22 - 25 days
Watering system	Water bottles with filtration (0.1 μ m), chlorination and UV treatment
Bedding	Sawdust bedding, autoclaved
Diet	Rodent VRF1, autoclaved, <i>ad libitum</i>
Room temperature	21 \pm 1 $^{\circ}$ C
Light cycle	12 - 12 (6am - 6pm)