ENVIGO

Research Models and Services

Outbred Rats

WU (Wistar Unilever)

Origin

The Wistar rat is selected at the Wistar Institute, Philadelphia, USA, prior to 1910. In 1932, from Wistar Institute to Glaxo Laboratory, UK. In 1933, from Glaxo to the Dutch Institution for Nutrition, Amsterdam. In 1941, the Unilever Company, Vlaardingen, the Netherlands, obtained a breeding stock from Dutch Institution for Nutrition. Thereafter, the Unilever stock was referred as the Wistar Unilever or WU rat.

HsdCpb:WU

In 1958, transferred from Unilever to TNO Central Institute for the Breeding of Laboratory Animals. To Harlan Laboratories through acquisition in 1986. Harlan became Envigo in 2015.

Characteristics

Animal model

Used as an animal model for vitamin A deficiency (Rodenburg *et al*, 1995).

Behavior

A docile albino rat, easy to handle, used in multidisciplinary research worldwide. Model occasionally develops spontaneous moderate hair loss , but recovers during the grown-up phase.

Drugs

Sensitive to the induction of tumors by N-methyl-N-nitrosourea (MNU) following treatment with cyproterone acetate (Bosland *et al*, 1992).

Genetics

Coat colour genes – *c* : albino.

Genes are variable (outbred stock).

Life-span and spontaneous disease

Develops relatively few spontaneous tumors through 24 months of age. High incidence of hydrocephalus (Van Eden and Mullink, 1986).

Parameters

HsdCpb:WU (18-23 weeks old)

HEMATOLOGY	MALE	FEMALE	UNIT		MALE	FEMALE	UNIT
WBC	-	6,12	$X10^9/L$	MCHC	-	21,99	mmol/L
RBC	-	8,20	$X10^{12}/L$	Platelets	-	864,7	$x10^9/L$
Hb	-	10,07	mmol/L	Neutrophils	-	10,5	%
HCT	-	0,46	L/L	Lymphocytes	-	88,0	%
MCV	-	55,86	Fl	Monocytes	-	0,4	%
MCH	-	1,23	Fl	Eosinophils	-	1,0	%

BIOCHEMISTRY	MALE	FEMALE	UNIT		MALE	FEMALE	UNIT
Glucose	-	7,93	mmol/L	Alk. Phosph.	-	97,47	U/L
Urea	-	8,34	mmol/L	AST	-	33,77	U/L
Creatinine	-	45,39	µmol/L	ALT	-	19,86	U/L
Sorbitol dehydrogenase	-	0,46		Fe	-	60,59	µmol/L
γ Glutamyl Transaminas	-	45,39		Ca	-	2,47	mmol/L
Glucose	-	7,93	mmol/L	PO4	-	1,45	mmol/L
Protein	-	63,51	g/L	Na	-	140,30	mmol/L
Albumin	-	34,58	g/L	K	-	4,21	mmol/L
Globulin	-	38	g/L	Cl	-	101,04	mmol/L
Bilirubin	-	3,42	µmol/L				

Synonyms for WU: Wistar Unilever, WISW, Wistar W64, Wistar W68, Wistar W70, Wistar W74.

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