

db

Single recessively inherited overeating obese type 2 diabetic mice

- Widely used in diabetes research and drug evaluation for medical treatment



C57BLKS/J Iar-+Lepr^{db}/+Lepr^{db}
Homozygous, black ♂ (left) ♀ (right) 8 weeks old



C57BLKS/J Iar-m+/+Lepr^{db}
Hetero, black ♂ 8 weeks old



C57BLKS/J Iar-m+/m+
Misty (wild type), gray ♂ 8 weeks old

- Please contact us about old aged animals

History

db mice (C57BLKS/J Iar $-+Lepr^{db}/+Lepr^{db}$) were introduced to the Institute for Animal Reproduction from Hamamatsu University School of Medicine in 1985.

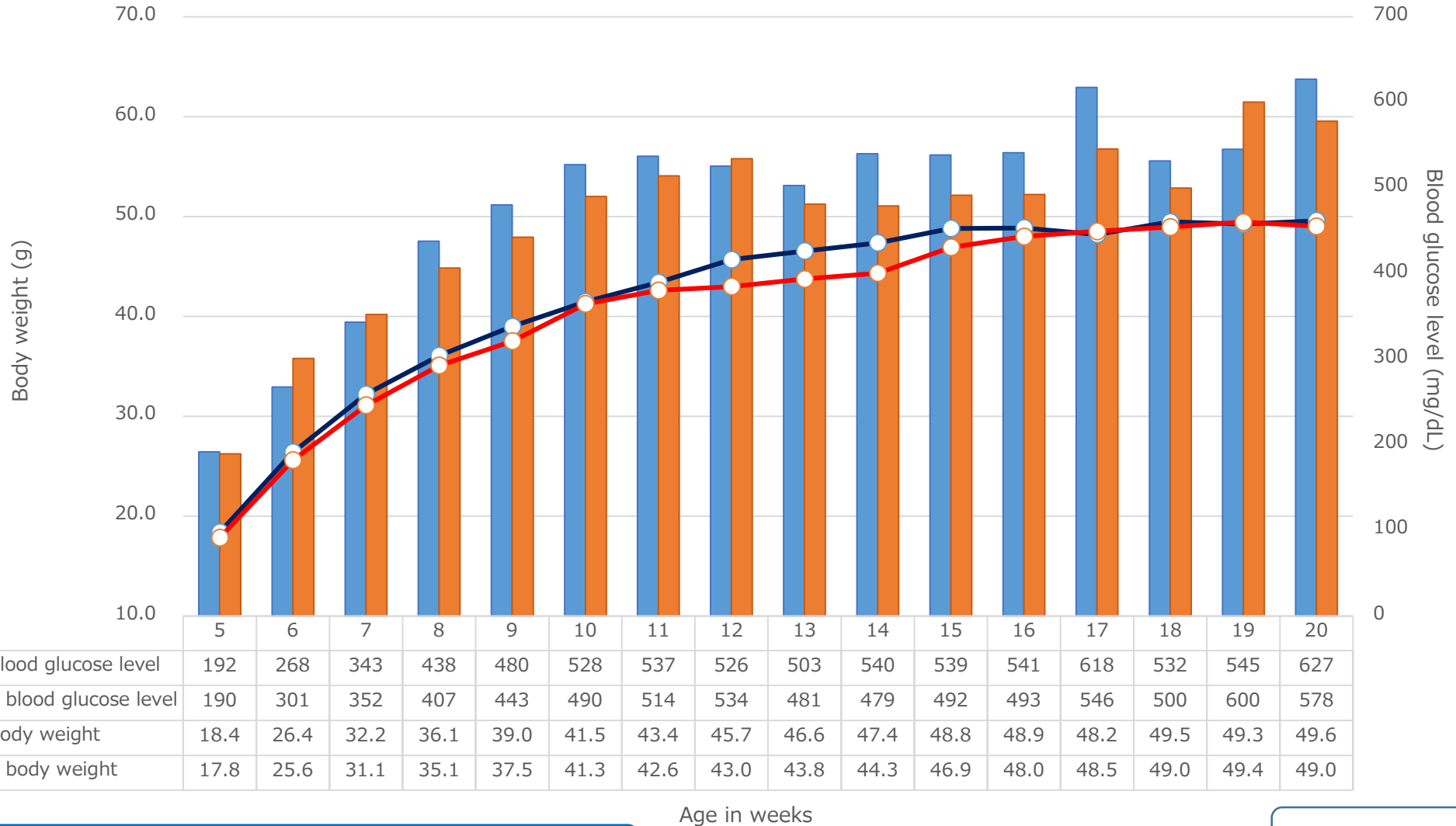
Characteristics

- A model animal for type 2 diabetes that spontaneously develops symptoms similar to obese type diabetes in humans.
- Exhibits overeating and obesity due to abnormalities in leptin receptors.
- Homozygous males and females ($+Lepr^{db}/+Lepr^{db}$, db/db) are obese from around 4 weeks old, and their blood glucose levels increase with weight gain, resulting in hyperglycemia.
- In homozygotes individuals, urinary glucose begins to be detected at 6 weeks old, and it was detected at 8 weeks old in almost all individuals.
- Since homozygotes males and females are infertile, keep breeding colony by mating with heterozygotes individuals.
- Widely used for diabetes research and drug evaluation for medical treatment.

Body weights and blood glucose levels

Male and female db mice, body weights and blood glucose levels (5-20 weeks old)

n=20 each

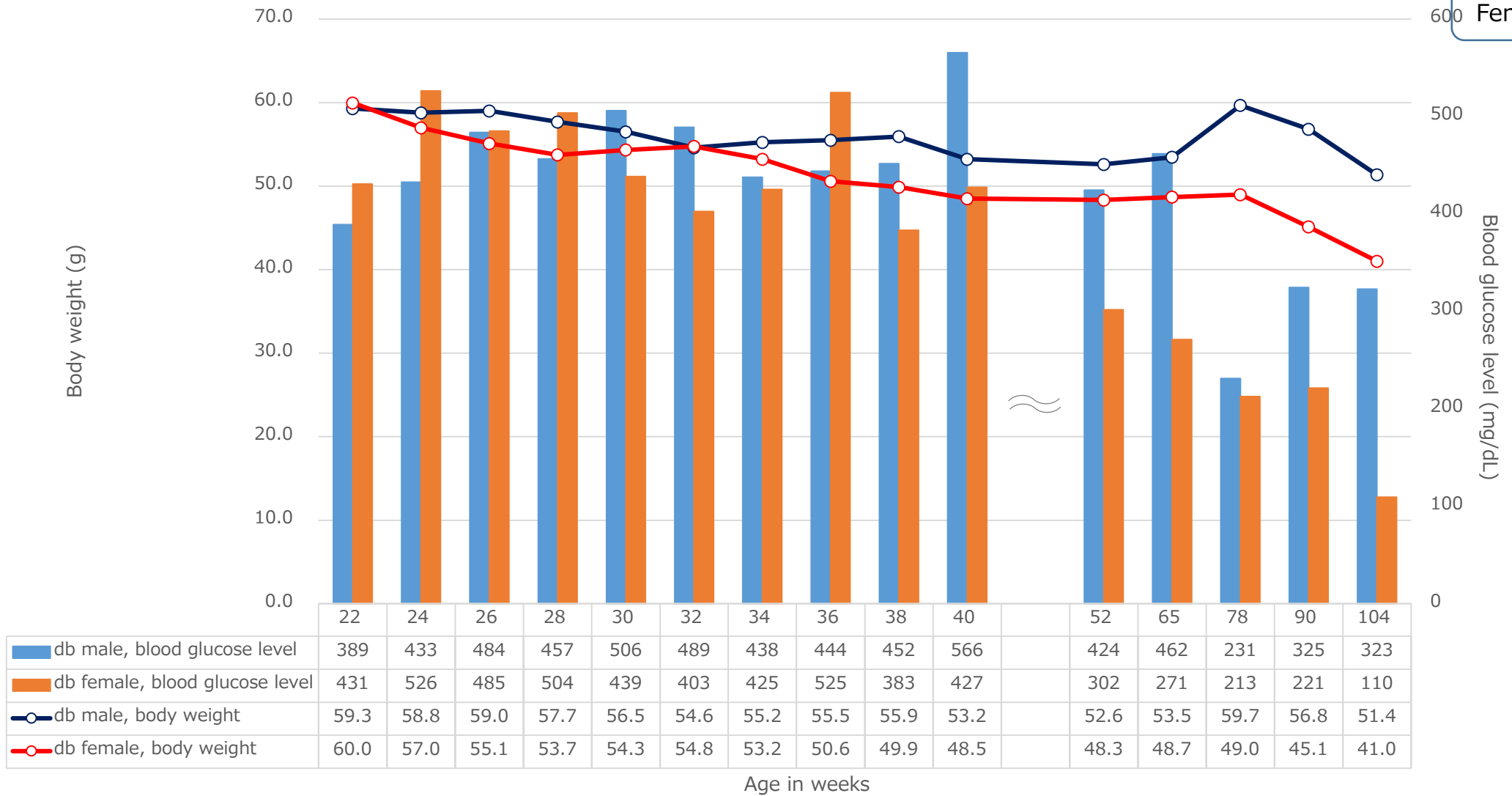


Data at 5-20 weeks old: born on April 21-26, 2019.

Last update: Mar. 2021

db mice, male and female, body weight, blood glucose level (22-104 weeks old)

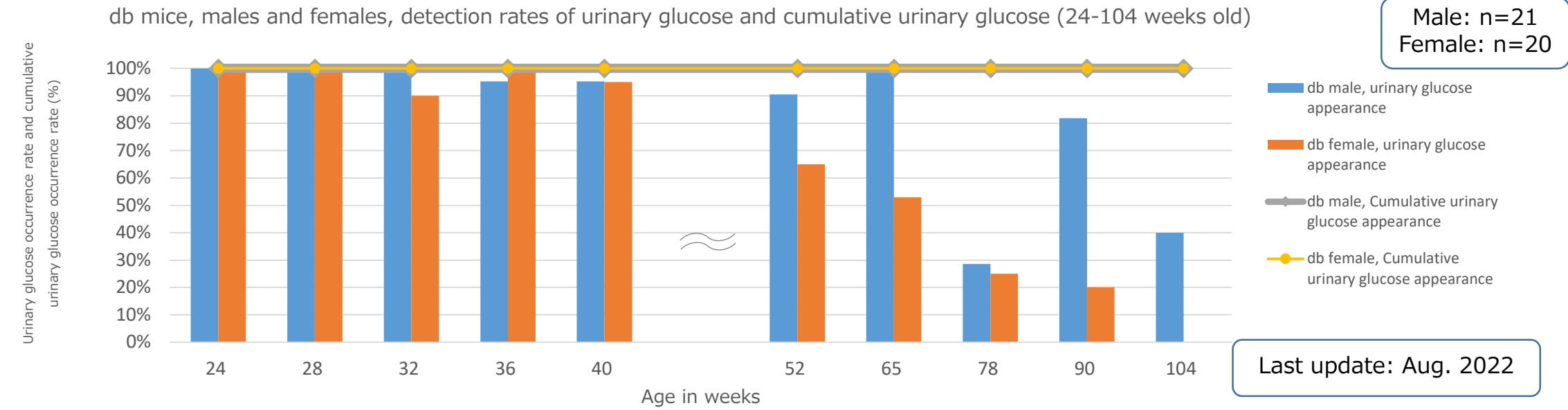
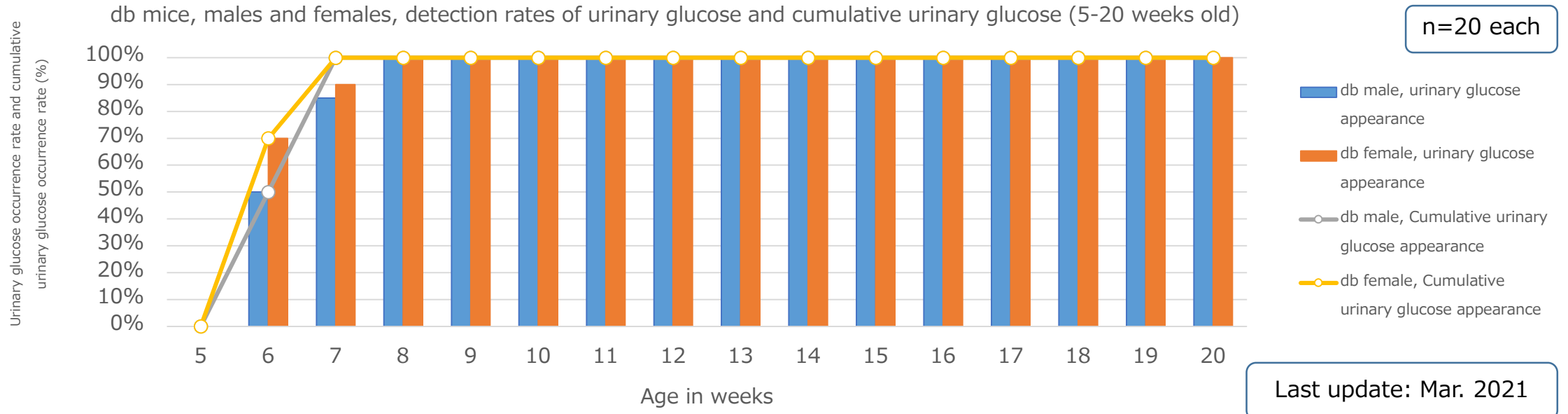
Male: n=21
Female: n=20



Data at 22-104 weeks old: Males were born on March 29, 2020; Females were born on May 3, 2020.

Last update: Aug. 2022

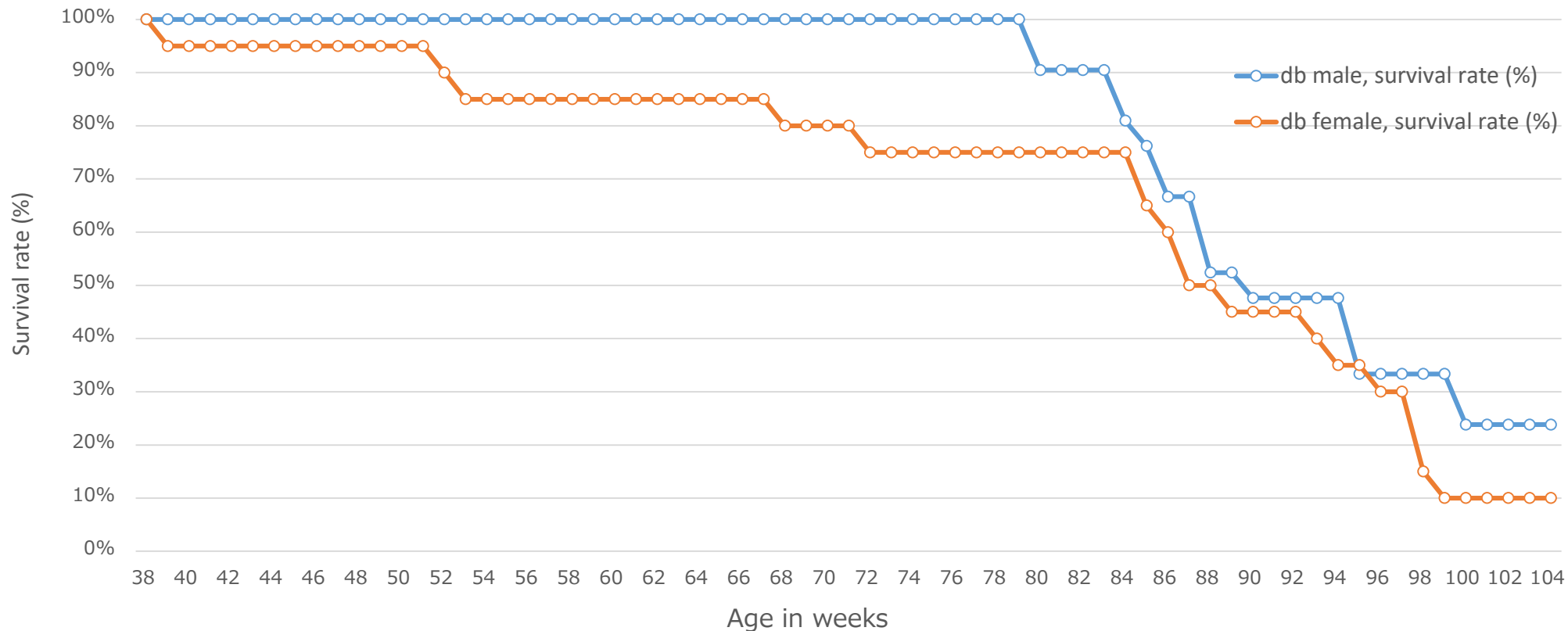
Detection rates of Urinary glucose and cumulative urinary glucose



Survival rates

Male: n=21
Female: n=20

db mice, males and females, survival rates (38-104 weeks old)



Last update: Aug. 2022

Blood biochemical values

db

Measurement results of
serum components

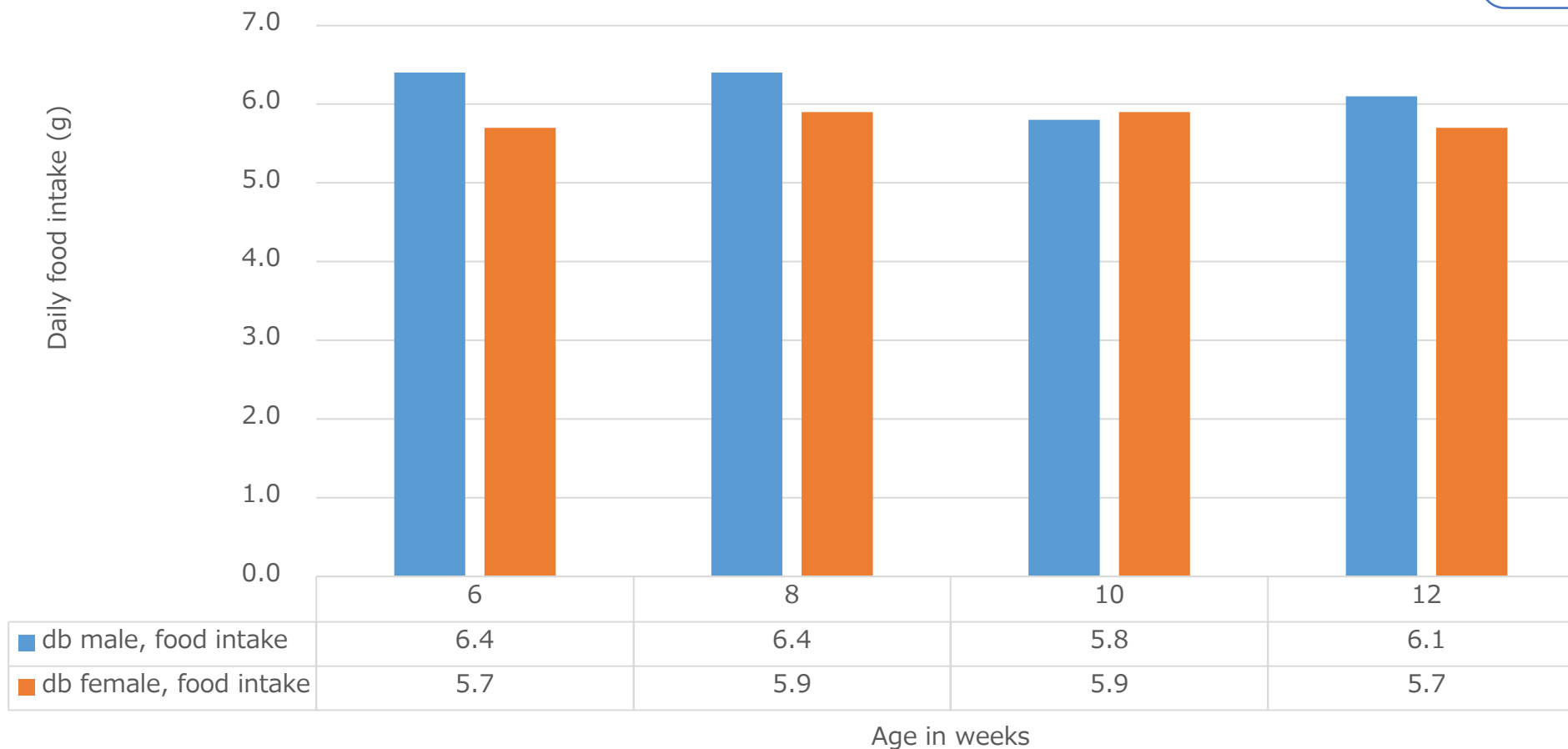
Biochemical parameters	12 weeks old n=10		
Glucose (mg/dL)	676.5	±	70.3
T-CHO (mg/dL)	181.2	±	11.8
TG (mg/dL)	277.9	±	64.8
HDL-C (mg/dL)	96.4	±	5.4
LDL-C (mg/dL)	16.2	±	1.5

※Non-fasting

Food intake

db mice, males and females, food intake (6-12 weeks old)

n=11 each
Feed: MF (Oriental
Yeast Co., Ltd.)
Autoclave

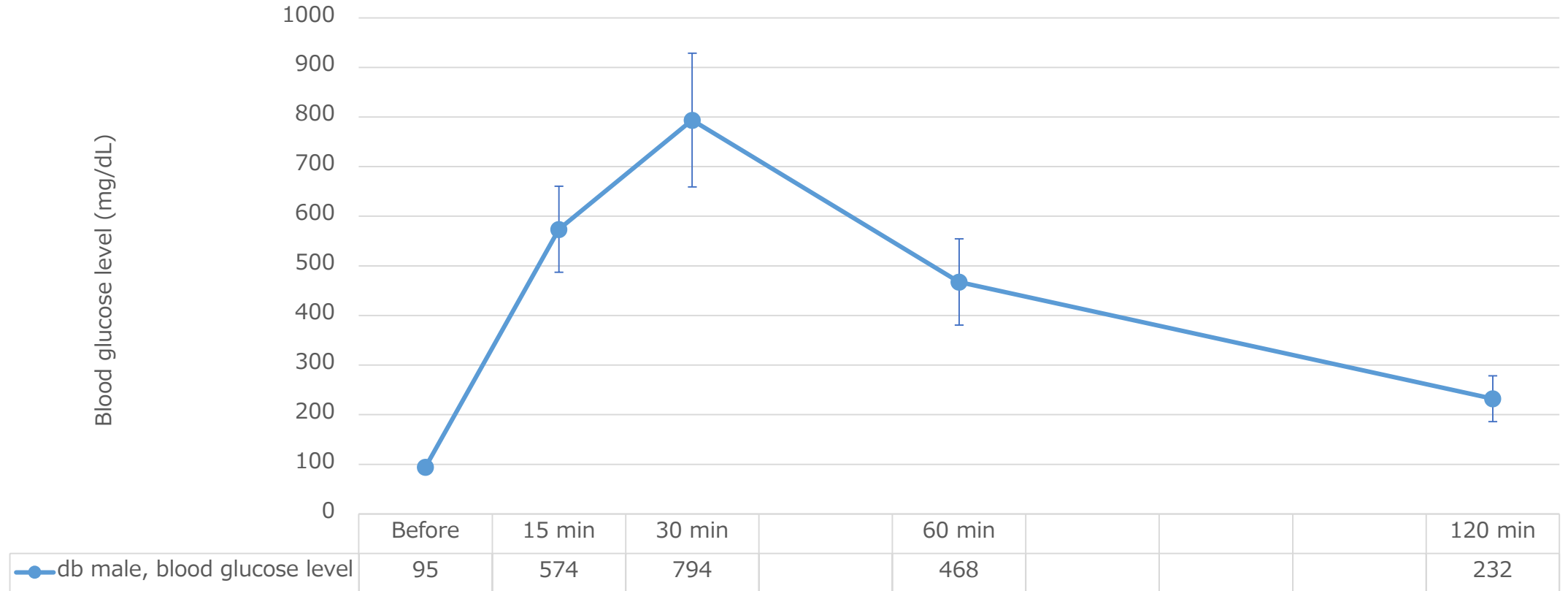


Last update: Mar. 2021

Glucose tolerance test

Male db mice, glucose tolerance test (11 weeks old)

n=6



Last update: Mar. 2021