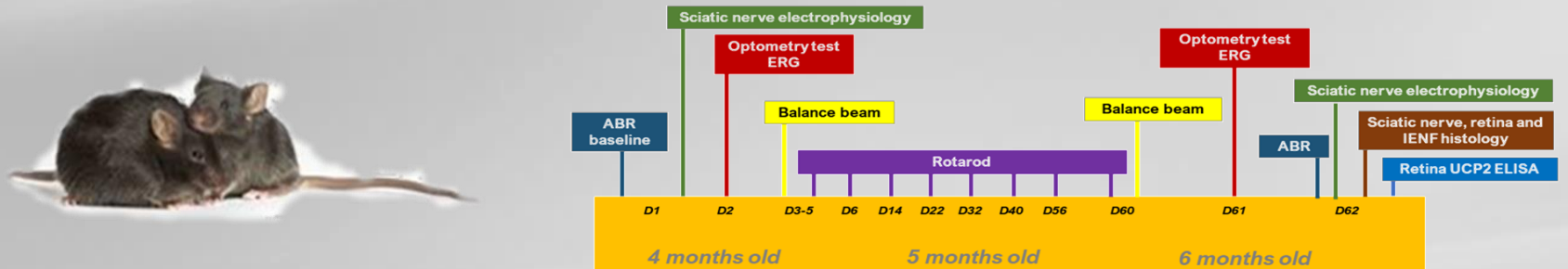


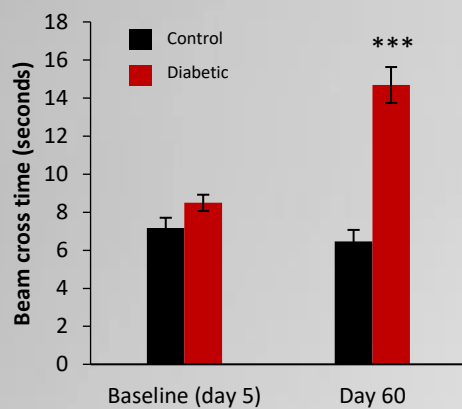
Diabetic neuropathy

Sensory and peripheral neuropathy are the major complications of diabetes. Diabetic peripheral neuropathy in humans is characterized by a chronic demyelination, progressive hearing loss and blindness. The diabetic mouse model db/db is used to model phases I to III of diabetes type II and obesity. These mice manifest similar human diabetic disorders as morbid chronic hyperglycemia, obesity, pancreatic beta cell atrophy, peripheral neuropathy, hearing loss and retinopathy. This mouse strain is a robust and reproducible model to study the efficacy of new drug candidates targeting diabetic neuropathy.

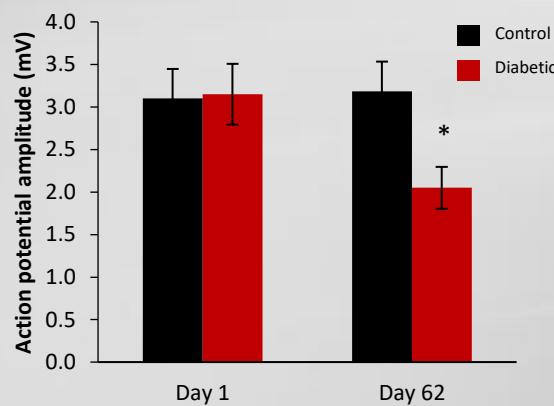


Neuromotor system

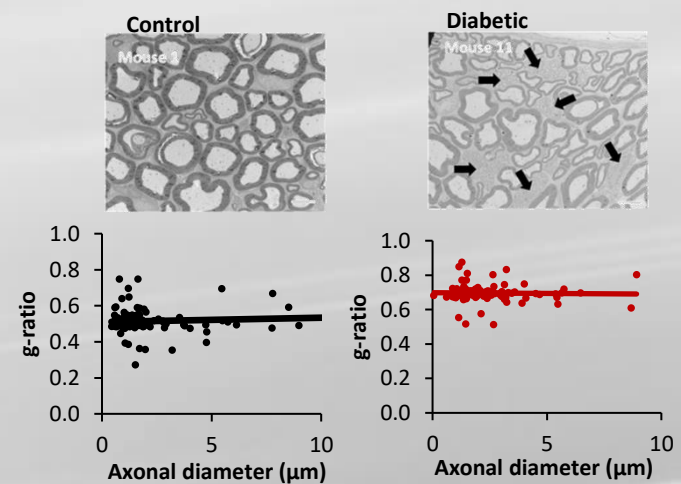
Balance beam test (walking performances)



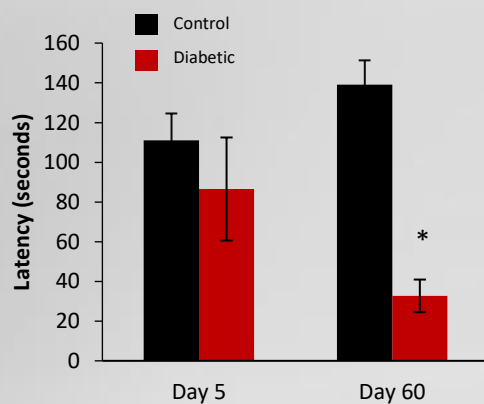
Sciatic nerve action potential amplitude



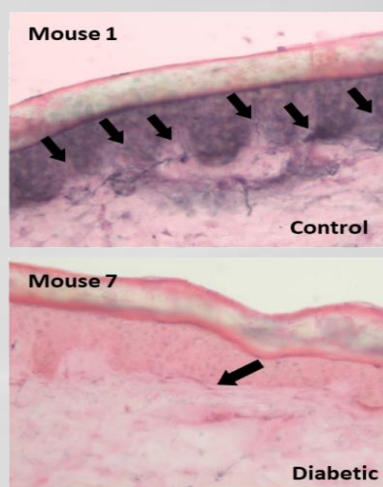
Sciatic nerve myelin histology at 6 months old



Rotarod (equilibrium and coordination)

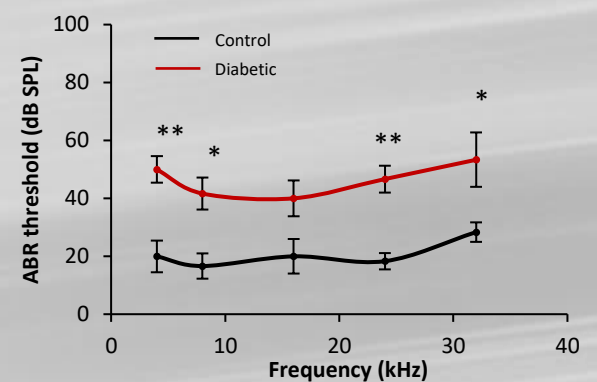


Intraepidermal nerve fibers histology at 6 months old



Hearing system

Auditory brainstem response at 6 months old



Decrease of sciatic nerve action potential velocity, neuromuscular disorders, myelin sheath decrease, hearing loss, and reduction of the number of intraepidermal nerve fibers observed in diabetic mice at 6 months old.