

IMPC Newsletter

Summer 2015

Welcome to our summer IMPC newsletter! From the latest lines to our newest projects, techniques and training, here is an update on all we've been doing. You can also keep up to date by following us on Twitter @IMPC or looking at our news feed on www.mousephenotype.org.



See the IMPC at ESHG 2015!

A special IMPC panel will be featured at the European Society of Human Genetics meeting in Glasgow this summer. Learn how leading researchers are using IMPC strains to better understand disease mechanisms. We hope to see you there!

3500 lines
now available

IMPC panel at ESHG 2015

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IMPC embraces ethical guidelines

The ARRIVE guidelines, developed in 2010, aim to assure reproducibility and transparency in animal research. The IMPC has published a new paper in *PLOS Biology*, *Applying the ARRIVE Guidelines to an In Vivo Database*, describing the steps it took to ensure that it meets these guidelines. In this way, IMPC is doing all it can to remain a trustworthy, reliable source of phenotyping information for years to come.

Over 2000 genes
with phenotype data

Importance of mouse biobanks stressed

The IMPC was mentioned in a recent *Nature* news article, *Reproducibility: Use mouse biobanks or lose them*. The article discussed the considerable benefits of maintaining mouse biobanks, including reduced costs, improved animal welfare and increased reproducibility. IMPC makes extensive use of biobanks such as the Knockout Mouse Project (KOMP) repository in the USA and Infrafrontier's European Mouse Mutant Archive (EMMA).

New mouse lines available

Our phenotyping teams have been hard at work generating new knockout mouse lines and developing and refining our range of phenotyping services. Recent phenotypes include:

- Prkab1 - Reduced ability to clear glucose, large spleen weight
- Fgf10 - Lethal. Embryos lack limbs and lungs
- Mmp16 - Hyperactive in the open field test
- Clu - Females aggressive, males freeze
- Rlbp1 - Fused vertebrae in some males
- Gosr2 - Abnormal gait in males
- Dbn1 - Lean, with increased bone mineralisation
- Afmid - Impaired glucose tolerance, high blood sugar
- Bag3 - Lethal. Embryos show skeletal muscle myopathy
- Furin - Lethal. Heterozygous mice have brachydactyly
- Klf7 - Hyperactive in the open field test
- Rsb1 - Lethal. Female heterozygous mice are hyperactive, with high cholesterol
- Nxn - Lethal. Heterozygous male mice have low lean mass
- Dnase1l2 - Skeletal defects, abnormal digits, weak grip strength
- Rnf10 - Males show increased incidence of limb grasping
- Prdm4 - Hyperactive in the open field test
- Barx2 - Born with eyes open, narrow eye opening in adult
- Tulp3 - Lethal. Heterozygous mice have reduced startle response, some with slight hyperbilirubinaemia

Discover our full range of mouse lines at www.mousephenotype.org.

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