The JAX FaceBase Resource provides services and mice to the FaceBase consortium, as well as to the greater research community, to facilitate oral clefting research. The FaceBase Resource provides cryopreserves, provides genetic quality control, and distributes live mice from new and existing mouse models and tool strains relevant to clefting research. Genetically engineered, spontaneously occurring, and EN1-induced models are included.

- 65 strains are available for distribution. Since 2009, approximately 40 strains have been imported to the collection. Most strains are kept as breathing colonies and are readily available.
- The Resource is generating new inducible Cre driver lines specifically designed to support clefting research. Cre driver strains are the most popular component of the repository, and in the past two Cre strains accounted for 34% of mice distributed. In addition, we provide added value through extended characterization, with data posted publicly.
- JAX also has a complementary collection of mouse models of craniofacial dysmorphologies, discovered and characterized on site. These new models arose spontaneously as phenotypic deviants in breeding and research colonies at JAX, and from our EN1 mutagenesis program. More are anticipated via newly developed strains resulting from participation in the NIH-wide Knockout Mouse Project (KOMP). These new models are currently available at http://craniofacial.jax.org/.
- In addition to its presence on the FaceBase Hub, the Repository has a website at http://www.jax.org/facebase/. JAX provides quarterly downloads of updated and new strain information at The Jackson Laboratory. The JAX KOMP2 Phenotyping Center provides a ten-week long sequential assessment of 10,000 knockout mice from the knockin embryonic stem cell libraries into mice, performing quality control (QC), phenotyping the mice, and cryopreserving germline.

**Why donate a strain?**

Donating fulfills NIH obligations to share resources.

- Each donated strain is cryopreserved, protecting against accidental loss and genetic contamination.
- JAX expands phenotyping capacity for use by the KOMP project, by faculty and by other groups at the Laboratory. The JAX KOMP2 Phenotyping Center provides a ten-week long sequential assessment of 10,000 knockout mice from the knockin embryonic stem cell libraries into mice, performing quality control (QC), phenotyping the mice, and cryopreserving germline.

**KOMP Opportunities**

The Knockout Mouse Project (KOMP) is a trans-NIH initiative to generate a public resource of mouse embryonic stem (ES) cells containing a null mutation in every gene in the mouse genome. The Jackson Laboratory is one of three centers converting the knockout embryonic stem cell libraries into mice, performing quality control (QC), phenotyping the mice, and cryopreserving germline. JAX is expanding phenotyping capacity for use by the KOMP project, by faculty and by other groups at the Laboratory. The JAX KOMP2 Phenotyping Center provides a ten-week long sequential assessment conducted on small cohorts of 5-15 week-old wildtype and mutant mice of both sexes, providing phenotyping modalities and time points in addition to those traditionally employed by our Repository.

As part of the KOMP Phenotyping, we will screen for craniofacial mutants. The information gathered will provide an opportunity to build new research programs around the availability of this resource.

**Overbeck strains**

Dr. Paul Overbeck (Bayley) donated nine mutant strains created by transposon insertion. His report that his preliminary characterization indicates that these mutants exhibit cleft palate as homogotes.

**Spontaneous mutations**

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