



# DMDD

Deciphering the Mechanisms  
of Developmental Disorders

[dmdd.org.uk](http://dmdd.org.uk)

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A RESEARCH PROGRAMME IMAGING AND PHENOTYPING EMBRYONIC-LETHAL MOUSE KNOCKOUT LINES, REVEALING CRITICAL GENES FOR NORMAL EMBRYO DEVELOPMENT.

## OUR PROJECT

**OVER 4 MILLION IMAGES**  
at near-histological resolution

**OVER 550 EMBRYOS**

including many  
previously unstudied  
mutant lines

**COMPLETE IMAGE STACKS**  
over 3,000 images  
for each embryo

**STANDARDISED PHENOTYPES**

by anatomical  
experts

**PLACENTA PHENOTYPES**

annotated  
placenta images  
for many embryos

**PENETRANCE DATA**

for all  
phenotypes

**REFERENCE EMBRYOS**

over 250 wild-type  
embryos for  
comparison



YOUR DATABASE

dmdd.org.uk



## VIEW ALL IMAGES ONLINE

- full resolution data (1-3  $\mu\text{m}^3$ )
- phenotypes highlighted on images



## ONLINE TOOLS

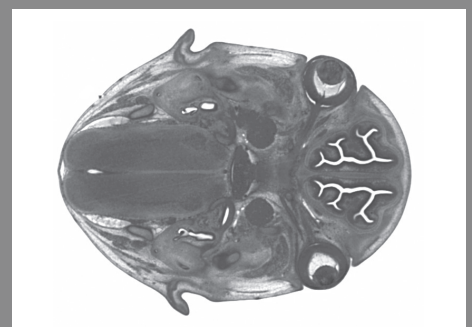
- search by gene, phenotype or anatomy
- view embryos in all 3 orthogonal planes
- compare embryos and phenotypes side-by-side



## RESOURCES FOR YOU

- all image data available on request
- data is ideal for 3D modelling
- mouse lines freely available from INFRAFRONTIER

DMDD IS FUNDED BY THE WELLCOME TRUST AND BRINGS TOGETHER EXPERTS IN MAMMALIAN EMBRYO DEVELOPMENT FROM ACROSS THE UK AND EUROPE.



Embryos are imaged using High Resolution Episcopic Microscopy (HREM). They can be viewed at full resolution (1-3  $\mu\text{m}$ ) in all three orthogonal planes.