



# DMDD

Deciphering the Mechanisms  
of Developmental Disorders

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



@dmdduk



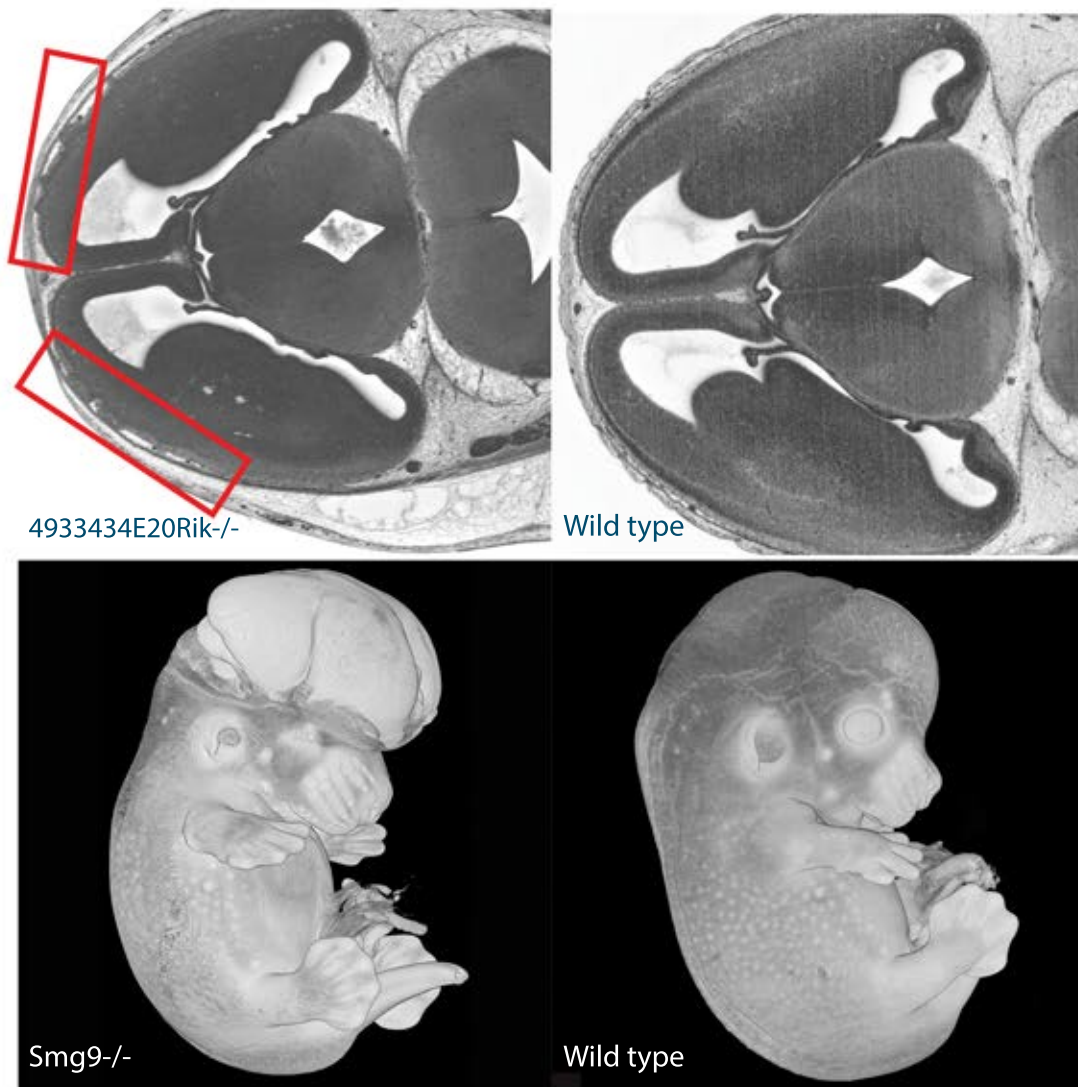
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## Find gene knockouts giving abnormal brain development

The [DMDD database](http://dmdd.org.uk) is designed to help clinicians and developmental biologists identify gene mutations that may be linked to developmental abnormalities, including many brain phenotypes.

The project studies the morphological effects of targeted gene knockouts in mice. Using 3D analysis of detailed images, hundreds of phenotypes have been identified in developing embryos and all data is available online. Currently, 44 gene knockouts in the database have resulted in brain phenotypes, including adenohipophysitis and abnormal morphology of the ventricles and olfactory bulb.



A 4933434E20Rik knockout embryo (top left) has abnormal brain protrusions, while an Smg9 knockout embryo (bottom left) has exencephaly.

Users can search the data by gene or phenotype to find candidate genes related to brain abnormalities and identify phenotypes that occur together.

The database is rapidly growing, with a goal to analyse a total of 240 lines by mid-2018.

Visit [dmdd.org.uk](http://dmdd.org.uk) to explore the data.