ANIMAL MODEL	SPECIES	STRAIN	SPECIFIC PATHOLOGY	MODEL DESCRIPTION	INVESTIGATION GROUP	CONTACT	REFERENCE
CANCER MODELS	Fly (Drosophila melanogaster)		**Colon** cancer	Colon cancer model in adult fly by mutating Apc-Ras and Apc-Ras-Sna	Drosophila Models of Disease	Andreu Casali (acasali@irblleida.cat)	https://doi.org/10.1371/journal.pone.0088413 https://doi.org/10.1038/s41467-019-10269-y
MICROVILLOUS CONGENITAL ATROPHY MODEL (MVID)	Mouse (Mus musculus)	C57BL/6	microvillus inclussion disease	**MVID** model	Molecular Oncology	Diego Arango/ Agueda Martinez (darango@irblleida.cat ; amartinez@irblleida.cat)	https://doi.org/10.1038/srep12312
CANCER MODELS	Mouse (Mus musculus)	C57BL/6 129Sv	**Colorectal** carcinoma	Colorectal carcinoma models, constitutive knockouts (EphB4, EphB6, EphA3, Myo1A, Vil-CreTG/-;RhoADN/-)			https://doi.org/10.1158/0008-5472.CAN-05-4640 https://doi.org/10.1038/srep43702 https://doi.org/10.1038/srep41576 https://doi.org/10.1073/pnas.1108411109 https://doi.org/10.1038/ncomms6458
CANCER MODELS	Mouse (Mus musculus)	C57BL6; 129S4	Endometrial, prostatic and thyroid carcinoma	**Endometrial**, **prostatic** and **thyroid** carcinoma models	Oncological pathology	Xavier Dolcet (xavi.dolcet@udl.cat)	https://doi.org/10.1242/dmm.011445
CANCER MODEL	Mouse (Mus musculus)	129Sv	**Thyroid** medular carcinoma	Thyroid medular carcinoma model (Spry1 Knockout)	Developmental and oncogenic signaling	Mario Encinas (mario.encinas@udl.cat)	https://doi.org/10.1038/onc.2011.556
PHEOCHROMOCYTOMA MODEL	Mouse (Mus musculus)		**Pheochromocytoma**	Spry1 +/-+ PTEN +/-			https://doi.org/10.1530/ERC-15-0585
GENITOURINARY DEVELOPMENT MODEL	Mouse (Mus musculus)	50% C57BL/6 and 50% 129Sv	**Kidney and lower urinary tract** abnormalities (CAKUT)	Spry1 Y53A/Y53A knockin			https://doi.org/10.1681/ASN.2018111085
DIABETES MODELS	Mouse (Mus musculus)	NOD	autoinmune diabetes	Several mouse models in NOD genetic background showing different **degrees** of autoimmune **diabetes** incidence. There are models with zero, decreased, or accelerated incidence of the disease. Transgenic models and knockouts	Research Group in Immunology and Metabolism (GRIM)	Joan Verdaguer/ Concepción Mora (joan.verdaguer@udl.cat ; conchi.mora@udl.cat)	https://doi.org/10.1002/eji.201445376 https://doi.org/10.3389/fimmu.2019.01732 https://doi.org/10.2337/db15-1606
NEURODEVELOPMENTAL MODEL	Mouse (Mus musculus)	C57BL/6	Mutations in the Otp gene affect the development of neuroendocrine neurons in the **hypothalamus**.	Knockin model with the "2A-Cre" cassette inserted in the orthopedia homeobox gene (Otp) which is expressed during development in a subpopulation of neurons of the hypothalamus and glutamatergic neurons of the medial amygdala.	Evolutionary Developmental Neurobiology	Loreta Medina (loreta.medina@udl.cat)	https://doi.org/10.1101/2020.07.17.207936

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NEURO-DEVELOPMENTAL MODELS	Mouse (Mus musculus)	C57BL6		Model of adhesion defects of the visceral endoderm, migration of neurons from the subventricular zone during the development of the cerebral cortex, defects in the thalamocortical projections of the brain, defects in the cortical interneurons of the **brain**.	Molecular and developmental neurobiology	Joaquim Egea (joaquim.egea@udl.cat)	https://doi.org/10.1101/gad.486708 https://doi.org/10.1038/emboj.2011.189 https://doi.org/10.1016/j.cub.2014.01.042
	Mouse (Mus musculus)	129SvEvBrd / C57Bl/6J		Model of severe defects during the formation of major axonal pathways in the **brain**			https://doi.org/10.1111/jnc.15322
CHRONIC KIDNEY DISEASE MODEL	Mouse (Mus musculus)	B6BAL	**Chronic kidney disease**	Model of chronic kidney disease, vascular calcification due to 1-alpha hydroxylase knockout (Cyp27b1)	Vascular and renal translational research group	Jose Manuel Valdivielso (valdivielso@irblleida.cat)	https://doi.org/10.1371/journal.pone.0170654
ATHEROSCLEROSIS MODEL	Mouse (Mus musculus)	B6CBA	atherosclerosis	**Atherosclerosis** and hepatic steatosis models, vascular calcification VDR knockout			https://doi.org/10.1371/journal.pone.0136863
ABDOMINAL HERNIA, PERITONITIS OR BILE DUCT DILATATION MODELS	Pig (Sus scrofa domesticus)	commercial hybrid	**Abdominal wall surgery / abdominal hernias / peritonitis**	Creation of abdominal hernias, peritonitis or induction of bile duct dilatation by laparoscopic surgery	CREBA (Science and Applied Biomedical Experimental Research)	Dolores Garcia (dgarcia@creballeida.org)	https://doi.org/10.1007/S10029-019-02008-5 https://doi.org/10.1007/S00068-019-01244-9 https://doi.org/10.1007/S00464-020-07716-Z
KIDNEY DISEASE MODEL		commercial hybrid	Nephrology / Chronic kidney disease (CKD)	Induction of **chronic kidney disease** by laparoscopic surgery			
ISCHAEMIA MODEL		commercial hybrid	**Vascular stenosis / Myocardial infarction**	Arterial catheterisation and embolisation			doi: 10.3791/2652
OBESITY MODEL		commercial hybrid	**Obesity**	Bariatric surgery			doi: 10.1007/s11695-010-0135-x.

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PDX OF MELANOMA	Mouse (Mus musculus)	SCID /NOD mice	**Melanoma**	Subcutaneous implantation of metastatic biopsies from melanoma patients	Oncological pathology	Rosa Maria Martí (marti@medicina.udl.cat)	
CANCER PDXS MODELS	Mouse (Mus musculus)	NOD.SCID o NSG	**Colon cancer**	Implantation of human adenocarcinoma tumour cells/samples of high or low grade adenocarcinoma in immunosuppressed mice	Molecular Oncology	Diego Arango/ Agueda Martinez (darango@irblleida.cat ; amartinez@irblleida.cat)	