**VDRC publications 2020 (total 493)**

**Genome-Wide Screen for Context-Dependent Tumor Suppressors Identified Using in Vivo Models for Neoplasia in Drosophila.**

Groth C, Vaid P, Khatpe A, Prashali N, Ahiya A, Andrejeva D, Chakladar M, Nagarkar S, Paul R, Kelkar D, Eichenlaub T, Herranz H, Sridhar TS, Cohen SM, Shashidhara LS. G3 (Bethesda). 2020 Sep 2;10(9):2999-3008. doi: 10.1534/g3.120.401545.

PMID: 32737065

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32737065/)

**Analysis of genes within the schizophrenia-linked 22q11.2 deletion identifies interaction of night owl/LZTR1 and NF1 in GABAergic sleep control.**

Maurer GW, Malita A, Nagy S, Koyama T, Werge TM, Halberg KA, Texada MJ, Rewitz K.

PLoS Genet. 2020 Apr 27;16(4):e1008727. doi: 10.1371/journal.pgen.1008727. eCollection 2020 Apr.

PMID: 32339168

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32339168/)

**Knockdown of genes involved in axonal transport enhances the toxicity of human neuromuscular disease-linked MATR3 mutations in Drosophila.**

Zhao M, Kao CS, Arndt C, Tran DD, Cho WI, Maksimovic K, Chen XXL, Khan M, Zhu H, Qiao J, Peng K, Hong J, Xu J, Kim D, Kim JR, Lee J, van Bruggen R, Yoon WH, Park J.

FEBS Lett. 2020 Jun 9. doi: 10.1002/1873-3468.13858. Online ahead of print.

PMID: 32515490

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32515490/)

**Oligodendrocytes Provide Antioxidant Defense Function for Neurons by Secreting Ferritin Heavy Chain.**

Mukherjee C, Kling T, Russo B, Miebach K, Kess E, Schifferer M, Pedro LD, Weikert U, Fard MK, Kannaiyan N, Rossner M, Aicher ML, Goebbels S, Nave KA, Krämer-Albers EM, Schneider A, Simons M.

Cell Metab. 2020 Jun 5:S1550-4131(20)30300-4. doi: 10.1016/j.cmet.2020.05.019. Online ahead of print.

PMID: 32531201

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32531201/)

**An in Vivo RNAi Screen Uncovers the Role of AdoR Signaling and Adenosine Deaminase in Controlling Intestinal Stem Cell Activity**

Chiwei X, Brian Franklin, Hong-Wen Tang, Yannik Regimbald-Dumas , Yanhui Hu, Justine Ramos, Justin A Bosch, Christians Villalta, Xi He, Norbert Perrimon

Proc Natl Acad Sci U S A. 2020 Jan 7;117(1):464-471.doi: 10.1073/pnas.1900103117. Epub 2019 Dec 18.

PMID: 31852821

[[Abstract](https://pubmed.ncbi.nlm.nih.gov/31852821/)]

**An RNAi Screen for Secreted Factors and Cell-Surface Players in Coordinating Neuron and Glia Development in Drosophila**

Zhengya Liu, Yixu Chen, Yong Rao

Mol Brain. 2020 Jan 3;13(1):1.doi: 10.1186/s13041-019-0541-5.

PMID: 31900209

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/31900209/)

**Drosophila as a Model for Studying Cystic Fibrosis Pathophysiology of the Gastrointestinal System**

Kevin Kim, Elizabeth A Lane, Aurelia Saftien, Haiyun Wang, Yue Xu , Frederik Wirtz-Peitz, Norbert Perrimon

Proc Natl Acad Sci U S A. 2020 May 12;117(19):10357-10367.doi: 10.1073/pnas.1913127117. Epub 2020 Apr 28.

PMID: 32345720

[[Abstract](https://pubmed.ncbi.nlm.nih.gov/32345720/)]

**Osa-Containing Brahma Complex Regulates Innate Immunity and the Expression of Metabolic Genes in Drosophila.**

Valanne S, Järvelä-Stölting M, Harjula SE, Myllymäki H, Salminen TS, Rämet M.

J Immunol. 2020 Apr 15;204(8):2143-2155. doi: 10.4049/jimmunol.1900571. Epub 2020 Mar 20.

PMID: 32198143

[[Abstract](https://pubmed.ncbi.nlm.nih.gov/32198143/)]

**Oxidative Stress Caused by Lead (Pb) Induces Iron Deficiency in Drosophila Melanogaster**

Zhi-Hua Liu, Jin Shang, Lailai Yan, Tian Wei , Ling Xiang, Hui-Li Wang, Jigui Cheng, Guiran Xiao

Chemosphere. 2020 Mar;243:125428.doi: 10.1016/j.chemosphere.2019.125428. Epub 2019 Nov 20.

PMID: 31995880

[[Abstract](https://pubmed.ncbi.nlm.nih.gov/31995880/)]

**FoxO Suppresses Endoplasmic Reticulum Stress to Inhibit Growth of Tsc1-deficient Tissues Under Nutrient Restriction**

Avantika Gupta , Hugo Stocker

Elife. 2020 Jun 11;9:e53159.doi: 10.7554/eLife.53159.

PMID: 32525804

[[Abstract](https://pubmed.ncbi.nlm.nih.gov/32525804/)]

**Disrupted Glutamate Signaling in Drosophila Generates Locomotor Rhythms in Constant Light**

Renata Van De Maas de Azevedo, Celia Hansen, Ko-Fan Chen, Ezio Rosato, Charalambos P Kyriacou

Front Physiol. 2020 Mar 6;11:145.doi: 10.3389/fphys.2020.00145. eCollection 2020.

PMID: 32210832

[[Abstract](https://pubmed.ncbi.nlm.nih.gov/32210832/)]

**Evolutionary expansion of apical extracellular matrix is required for the elongation of cells in a novel structure.**

Smith SJ, Davidson LA, Rebeiz M.

Elife. 2020 Apr 27;9:e55965. doi: 10.7554/eLife.55965.

PMID: 32338602

[[Abstract](https://pubmed.ncbi.nlm.nih.gov/32338602/)]

**A PI4KIIIα protein complex is required for cell viability during Drosophila wing development.**

Basu U, Balakrishnan SS, Janardan V, Raghu P.

Dev Biol. 2020 Jun 15;462(2):208-222. doi: 10.1016/j.ydbio.2020.03.008. Epub 2020 Mar 17.

PMID: 32194035

[[Abstract](https://pubmed.ncbi.nlm.nih.gov/32194035/)]

**Specialized stellate cells offer a privileged route for rapid water flux in Drosophila renal tubule.**

Cabrero P, Terhzaz S, Dornan AJ, Ghimire S, Holmes HL, Turin DR, Romero MF, Davies SA, Dow JAT.

Proc Natl Acad Sci U S A. 2020 Jan 21;117(3):1779-1787. doi: 10.1073/pnas.1915943117. Epub 2020 Jan 6.

PMID: 31907321

[[Abstract](https://pubmed.ncbi.nlm.nih.gov/31907321/)]

**A Genetic Screen in Drosophila To Identify Novel Regulation of Cell Growth by Phosphoinositide Signaling.**

Janardan V, Sharma S, Basu U, Raghu P.

G3 (Bethesda). 2020 Jan 7;10(1):57-67. doi: 10.1534/g3.119.400851.

PMID: 31704710

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/31704710/)

**The NMDA receptor regulates competition of epithelial cells in the Drosophila wing.**

Banreti AR, Meier P.

Nat Commun. 2020 May 6;11(1):2228. doi: 10.1038/s41467-020-16070-6.

PMID: 32376880

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32376880/)

**Immunoglobulin Superfamily beat-Ib Mediates Intestinal Regeneration Induced by Reactive Oxygen Species in Drosophila**

Hiroki Nagai, Shoichiro Kurata, Tamaki Yano

Genes Cells. 2020 May;25(5):343-349.doi: 10.1111/gtc.12762. Epub 2020 Mar 10.

PMID: 32080940

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32080940/)

**CDK7 regulates organ size and tumor growth by safeguarding the Hippo pathway effector Yki/Yap/Taz in the nucleus.**

Cho YS, Li S, Wang X, Zhu J, Zhuo S, Han Y, Yue T, Yang Y, Jiang

J. Genes Dev. 2020 Jan 1;34(1-2):53-71. doi: 10.1101/gad.333146.119. Epub 2019 Dec 19.

PMID: 31857346

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/31857346/)

**Steroid Hormone Entry into the Brain Requires a Membrane Transporter in Drosophila.**

Okamoto N, Yamanaka N.

Curr Biol. 2020 Jan 20;30(2):359-366.e3. doi: 10.1016/j.cub.2019.11.085. Epub 2020 Jan 9.

PMID: 31928869

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/31928869/)

**Assessment of preferable site for temperature measurement using non contact infra-red temperature among pediatric patients.**

Kavthekar SO, Chougule AA, Kavthekar SS, Kurane AB, Verma S. Minerva

Pediatr. 2020 May 15. doi: 10.23736/S0026-4946.20.05755-2. Online ahead of print.

PMID: 32418406

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**Elevated levels of Drosophila Wdr62 promote glial cell growth and proliferation through AURKA signalling to AKT and MYC.**

Shohayeb B, Mitchell N, Millard SS, Quinn LM, Ng DCH.

Biochim Biophys Acta Mol Cell Res. 2020 Jul;1867(7):118713. doi: 10.1016/j.bbamcr.2020.118713. Epub 2020 Apr 1.

PMID: 32246948

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32246948/)

**Mitochondria regulate intestinal stem cell proliferation and epithelial homeostasis through FOXO.**

Zhang F, Pirooznia M, Xu H.

Mol Biol Cell. 2020 Jul 1;31(14):1538-1549. doi: 10.1091/mbc.E19-10-0560. Epub 2020 May 6.

PMID: 32374658

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32374658/)

**Muscle-derived Dpp regulates feeding initiation via endocrine modulation of brain dopamine biosynthesis.**

Robles-Murguia M, Rao D, Finkelstein D, Xu B, Fan Y, Demontis F.

Genes Dev. 2020 Jan 1;34(1-2):37-52. doi: 10.1101/gad.329110.119. Epub 2019 Dec 12.

PMID: 31831628

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/31831628/)

**Single-Cell Transcriptomes Reveal Diverse Regulatory Strategies for Olfactory Receptor Expression and Axon Targeting.**

Li H, Li T, Horns F, Li J, Xie Q, Xu C, Wu B, Kebschull JM, McLaughlin CN, Kolluru SS, Jones RC, Vacek D, Xie A, Luginbuhl DJ, Quake SR, Luo L.

Curr Biol. 2020 Apr 6;30(7):1189-1198.e5. doi: 10.1016/j.cub.2020.01.049. Epub 2020 Feb 13.

PMID: 32059767

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32059767/)

**The Role of Y Chromosome Genes in Male Fertility in Drosophila melanogaster.**

Zhang J, Luo J, Chen J, Dai J, Montell C.

Genetics. 2020 May 13:genetics.303324.2020. doi: 10.1534/genetics.120.303324. Online ahead of print.

PMID: 32404399

[[Abstract](https://pubmed.ncbi.nlm.nih.gov/32404399/)]

**Dual functions of Rack1 in regulating Hedgehog pathway.**

Li Y, Sun X, Gao D, Ding Y, Liu J, Chen J, Luo J, Zhang J, Liu Q, Zhou Z.

Cell Death Differ. 2020 May 28. doi: 10.1038/s41418-020-0563-7. Online ahead of print.

PMID: 32467643

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32467643/)

**Hyperinsulinemia Drives Epithelial Tumorigenesis by Abrogating Cell Competition.**

Sanaki Y, Nagata R, Kizawa D, Léopold P, Igaki T.

Dev Cell. 2020 May 18;53(4):379-389.e5. doi: 10.1016/j.devcel.2020.04.008. Epub 2020 May 7.

PMID: 32386602

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32386602/)

**Vesicular transport mediates the uptake of cytoplasmic proteins into mitochondria in Drosophila melanogaster.**

Chen PL, Huang KT, Cheng CY, Li JC, Chan HY, Lin TY, Su MP, Yang WY, Chang HC, Wang HD, Chen CH.

Nat Commun. 2020 May 22;11(1):2592. doi: 10.1038/s41467-020-16335-0.

PMID: 32444642

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32444642/)

**A distinctive sequence motif in the fourth transmembrane domain confers ZIP13 iron function in Drosophila melanogaster.**

Zhao M, Zhou B.

Biochim Biophys Acta Mol Cell Res. 2020 Feb;1867(2):118607. doi: 10.1016/j.bbamcr.2019.118607. Epub 2019 Nov 14.

PMID: 31733261

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/31733261/)

**A Feedforward Circuit Regulates Action Selection of Pre-mating Courtship Behavior in Female Drosophila.**

Ishimoto H, Kamikouchi A.

Curr Biol. 2020 Feb 3;30(3):396-407.e4. doi: 10.1016/j.cub.2019.11.065. Epub 2020 Jan 2.

PMID: 31902724

[[Abstract](https://pubmed.ncbi.nlm.nih.gov/31902724/)]

**Tissue Mechanics Regulate Mitotic Nuclear Dynamics during Epithelial Development.**

Kirkland NJ, Yuen AC, Tozluoglu M, Hui N, Paluch EK, Mao Y.

Curr Biol. 2020 May 12:S0960-9822(20)30555-8. doi: 10.1016/j.cub.2020.04.041. Online ahead of print.

PMID: 32413305

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32413305/)

**Extra-cellular matrix induced by steroids and aging through a G-protein coupled receptor in a Drosophila model of renal fibrosis.**

Zheng W, Ocorr K, Tatar M.

Dis Model Mech. 2020 May 27;13(6):dmm041301. doi: 10.1242/dmm.041301. Online ahead of print.

PMID: 32461236

[[Abstract](https://pubmed.ncbi.nlm.nih.gov/32461236/)]

**JNK-dependent intestinal barrier failure disrupts host-microbe homeostasis during tumorigenesis.**

Zhou J, Boutros M.

Proc Natl Acad Sci U S A. 2020 Apr 28;117(17):9401-9412. doi: 10.1073/pnas.1913976117. Epub 2020 Apr 10.

PMID: 32277031

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32277031/)

**RhoBTB Proteins Regulate the Hippo Pathway by Antagonizing Ubiquitination of LKB1.**

Nguyen TH, Ralbovska A, Kugler JM.

G3 (Bethesda). 2020 Apr 9;10(4):1319-1325. doi: 10.1534/g3.120.401038.

PMID: 32111652

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32111652/)

**Mechanism underlying starvation-dependent modulation of olfactory behavior in Drosophila larva.**

Slankster E, Kollala S, Baria D, Dailey-Krempel B, Jain R, Odell SR, Mathew D.

Sci Rep. 2020 Feb 20;10(1):3119. doi: 10.1038/s41598-020-60098-z.

PMID: 32080342

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32080342/)

**Dietary Adaptation of Microbiota in Drosophila Requires NF-κB-Dependent Control of the Translational Regulator 4E-BP.**

Vandehoef C, Molaei M, Karpac J.

Cell Rep. 2020 Jun 9;31(10):107736. doi: 10.1016/j.celrep.2020.107736.

PMID: 32521261

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32521261/)

**The Splicing Factor SF2 Is Critical for Hyperproliferation and Survival in a TORC1-Dependent Model of Early Tumorigenesis in Drosophila.**

Parniewska MM, Stocker H.

Int J Mol Sci. 2020 Jun 24;21(12):E4465. doi: 10.3390/ijms21124465.

PMID: 32599686

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32599686/)

**Identification of a molecular basis for the juvenile sleep state.**

Chakravarti Dilley L, Szuperak M, Gong NN, Williams CE, Saldana RL, Garbe DS, Syed MH, Jain R, Kayser MS.

Elife. 2020 Mar 23;9:e52676. doi: 10.7554/eLife.52676.

PMID: 32202500

[[Abstract](https://pubmed.ncbi.nlm.nih.gov/32202500/)]

**Snail synchronizes endocycling in a TOR-dependent manner to coordinate entry and escape from endoreplication pausing during the Drosophila critical weight checkpoint.**

Zeng J, Huynh N, Phelps B, King-Jones K.

PLoS Biol. 2020 Feb 25;18(2):e3000609. doi: 10.1371/journal.pbio.3000609. eCollection 2020 Feb.

PMID: 32097403

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32097403/)

**The UFM1 cascade times mitosis entry associated with microcephaly.**

Yu L, Li G, Deng J, Jiang X, Xue J, Zhu Y, Huang W, Tang B, Duan R.

FASEB J. 2020 Jan;34(1):1319-1330. doi: 10.1096/fj.201901751R. Epub 2019 Nov 29.

PMID: 31914610

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/31914610/)

**RabX1 Organizes a Late Endosomal Compartment that Forms Tubular Connections to Lysosomes Consistent with a "Kiss and Run" Mechanism.**

Laiouar S, Berns N, Brech A, Riechmann V.

Curr Biol. 2020 Apr 6;30(7):1177-1188.e5. doi: 10.1016/j.cub.2020.01.048. Epub 2020 Feb 13.

PMID: 32059769

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32059769/)

**Silencing of CCR4-NOT complex subunits affect heart structure and function.**

Elmén L, Volpato CB, Kervadec A, Pineda S, Kalvakuri S, Alayari NN, Foco L, Pramstaller PP, Ocorr K, Rossini A, Cammarato A, Colas AR, Hicks AA, Bodmer R.

Dis Model Mech. 2020 May 29:dmm.044727. doi: 10.1242/dmm.044727. Online ahead of print.

PMID: 32471864

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32471864/)

**The Drosophila RNA Helicase Belle (DDX3) Non-Autonomously Suppresses Germline Tumorigenesis Via Regulation of a Specific mRNA Set.**

Kotov AA, Godneeva BK, Olenkina OM, Adashev VE, Trostnikov MV, Olenina LV.

Cells. 2020 Feb 26;9(3):550. doi: 10.3390/cells9030550.

PMID: 32111103

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32111103/)

**The conserved microRNA miR-8-3p coordinates the expression of V-ATPase subunits to regulate ecdysone biosynthesis for Drosophila metamorphosis.**

Lim DH, Lee S, Choi MS, Han JY, Seong Y, Na D, Kwon YS, Lee YS.

FASEB J. 2020 May;34(5):6449-6465. doi: 10.1096/fj.201901516R. Epub 2020 Mar 20.

PMID: 32196731

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32196731/)

**Drosophila Middle-Term Memory: Amnesiac is Required for PKA Activation in the Mushroom Bodies, a Function Modulated by Neprilysin 1.**

Turrel O, Rabah Y, Plaçais PY, Goguel V, Preat T.

J Neurosci. 2020 May 20;40(21):4219-4229. doi: 10.1523/JNEUROSCI.2311-19.2020. Epub 2020 Apr 17.

PMID: 32303647

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32303647/)

**FGF signaling promotes myoblast proliferation through activation of wingless signaling.**

Vishal K, Lovato TL, Bragg C, Chechenova MB, Cripps RM.

Dev Biol. 2020 Aug 1;464(1):1-10. doi: 10.1016/j.ydbio.2020.05.009. Epub 2020 May 21.

PMID: 32445643

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32445643/)

**Discovery of aspirin-triggered eicosanoid-like mediators in a Drosophila metainflammation blood tumor model.**

Panettieri S, Paddibhatla I, Chou J, Rajwani R, Moore RS, Goncharuk T, John G, Govind S.

J Cell Sci. 2019 Oct 28;133(5):jcs236141. doi: 10.1242/jcs.236141.

PMID: 31562189

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/31562189/)

**Protein phosphatase PP2A regulates microtubule orientation and dendrite pruning in Drosophila.**

Rui M, Ng KS, Tang Q, Bu S, Yu F.

EMBO Rep. 2020 May 6;21(5):e48843. doi: 10.15252/embr.201948843. Epub 2020 Mar 18.

PMID: 32187821

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32187821/)

**Ciao1 interacts with Crumbs and Xpd to regulate organ growth in Drosophila.**

Jung J, Yeom E, Choi KW.

Cell Death Dis. 2020 May 13;11(5):365. doi: 10.1038/s41419-020-2564-3.

PMID: 32404863

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32404863/)

**Endosomal Wnt signaling proteins control microtubule nucleation in dendrites.**

Weiner AT, Seebold DY, Torres-Gutierrez P, Folker C, Swope RD, Kothe GO, Stoltz JG, Zalenski MK, Kozlowski C, Barbera DJ, Patel MA, Thyagarajan P, Shorey M, Nye DMR, Keegan M, Behari K, Song S, Axelrod JD, Rolls MM.

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PMID: 32163403

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32163403/)

**Piwi reduction in the aged niche eliminates germline stem cells via Toll-GSK3 signaling.**

Lin KY, Wang WD, Lin CH, Rastegari E, Su YH, Chang YT, Liao YF, Chang YC, Pi H, Yu BY, Chen SH, Lin CY, Lu MY, Su TY, Tzou FY, Chan CC, Hsu HJ.

Nat Commun. 2020 Jun 19;11(1):3147. doi: 10.1038/s41467-020-16858-6.

PMID: 32561720

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32561720/)

**Protein phosphatase 1 activity controls a balance between collective and single cell modes of migration.**

Chen Y, Kotian N, Aranjuez G, Chen L, Messer CL, Burtscher A, Sawant K, Ramel D, Wang X, McDonald JA.

Elife. 2020 May 5;9:e52979. doi: 10.7554/eLife.52979.

PMID: 32369438

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32369438/)

**Identification of ALK in Thinness.**

Orthofer M, Valsesia A, Mägi R, Wang QP, Kaczanowska J, Kozieradzki I, Leopoldi A, Cikes D, Zopf LM, Tretiakov EO, Demetz E, Hilbe R, Boehm A, Ticevic M, Nõukas M, Jais A, Spirk K, Clark T, Amann S, Lepamets M, Neumayr C, Arnold C, Dou Z, Kuhn V, Novatchkova M, Cronin SJF, Tietge UJF, Müller S, Pospisilik JA, Nagy V, Hui CC, Lazovic J, Esterbauer H, Hagelkruys A, Tancevski I, Kiefer FW, Harkany T, Haubensak W, Neely GG, Metspalu A, Hager J, Gheldof N, Penninger JM.

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PMID: 32442405

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32442405/)

**Nutrient-Driven O-GlcNAcylation Controls DNA Damage Repair Signaling and Stem/Progenitor Cell Homeostasis.**

Na HJ, Akan I, Abramowitz LK, Hanover JA.

Cell Rep. 2020 May 12;31(6):107632. doi: 10.1016/j.celrep.2020.107632.

PMID: 32402277

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32402277/)

**Homeodomain-interacting protein kinase (Hipk) plays roles in nervous system and muscle structure and function.**

Wang SJH, Sinclair DAR, Kim HY, Kinsey SD, Yoo B, Shih CRY, Wong KKL, Krieger C, Harden N, Verheyen EM.

PLoS One. 2020 Mar 18;15(3):e0221006. doi: 10.1371/journal.pone.0221006. eCollection 2020.

PMID: 32187190

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32187190/)

**Drosophila estrogen-related receptor directs a transcriptional switch that supports adult glycolysis and lipogenesis.**

Beebe K, Robins MM, Hernandez EJ, Lam G, Horner MA, Thummel CS.

Genes Dev. 2020 May 1;34(9-10):701-714. doi: 10.1101/gad.335281.119. Epub 2020 Mar 12.

PMID: 32165409

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32165409/)

**Systematic Screen for Drosophila Transcriptional Regulators Phosphorylated in Response to Insulin/mTOR Pathway.**

Liu Y, Mattila J, Hietakangas V.

G3 (Bethesda). 2020 Jun 17:g3.401383.2020. doi: 10.1534/g3.120.401383. Online ahead of print.

PMID: 32554565

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32554565/)

**Dissecting the Genetic Basis of Variation in Drosophila Sleep Using a Multiparental QTL Mapping Resource.**

Smith BR, Macdonald SJ.

Genes (Basel). 2020 Mar 11;11(3):294. doi: 10.3390/genes11030294.

PMID: 32168738

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32168738/)

**Regulation of Anisotropic Tissue Growth by Two Orthogonal Signaling Centers.**

Barrio L, Milán M. Dev Cell. 2020 Mar 9;52(5):659-672.e3. doi: 10.1016/j.devcel.2020.01.017.

Epub 2020 Feb 20.

PMID: 32084357

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**Drosophila TRIM32 cooperates with glycolytic enzymes to promote cell growth.**

Bawa S, Brooks DS, Neville KE, Tipping M, Sagar MA, Kollhoff JA, Chawla G, Geisbrecht BV, Tennessen JM, Eliceiri KW, Geisbrecht ER.

Elife. 2020 Mar 30;9:e52358. doi: 10.7554/eLife.52358.

PMID: 32223900

[[Abstract]](https://pubmed.ncbi.nlm.nih.gov/32223900/)

**Evidence of two types of balance between stem cell mitosis and enterocyte nucleus growth in the Drosophila midgut.**

Tamamouna V, Panagi M, Theophanous A, Demosthenous M, Michail M, Papadopoulou M, Teloni S, Pitsouli C, Apidianakis Y.

Development. 2020 Jun 8;147(11):dev189472. doi: 10.1242/dev.189472.

PMID: 32513656

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**The Corazonin-PTTH Neuronal Axis Controls Systemic Body Growth by Regulating Basal Ecdysteroid Biosynthesis in Drosophila melanogaster.**

Imura E, Shimada-Niwa Y, Nishimura T, Hückesfeld S, Schlegel P, Ohhara Y, Kondo S, Tanimoto H, Cardona A, Pankratz MJ, Niwa R.

Curr Biol. 2020 Jun 8;30(11):2156-2165.e5. doi: 10.1016/j.cub.2020.03.050. Epub 2020 May 7.

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**Nuclear receptor Ftz-f1 promotes follicle maturation and ovulation partly via bHLH/PAS transcription factor Sim.**

Knapp EM, Li W, Singh V, Sun J.

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**Interactions between amyloid precursor protein-like (APPL) and MAGUK scaffolding proteins contribute to appetitive long-term memory in Drosophila melanogaster.**

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**Egfr Signaling Is a Major Regulator of Ecdysone Biosynthesis in the Drosophila Prothoracic Gland.**

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**Alpha- and beta-adrenergic octopamine receptors in muscle and heart are required for Drosophila exercise adaptations.**

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**Genetic interaction screen for severe neurodevelopmental disorders reveals a functional link between Ube3a and Mef2 in Drosophila melanogaster.**

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**Genotoxic stress triggers the activation of IRE1α-dependent RNA decay to modulate the DNA damage response.**

Dufey E, Bravo-San Pedro JM, Eggers C, González-Quiroz M, Urra H, Sagredo AI, Sepulveda D, Pihán P, Carreras-Sureda A, Hazari Y, Sagredo EA, Gutierrez D, Valls C, Papaioannou A, Acosta-Alvear D, Campos G, Domingos PM, Pedeux R, Chevet E, Alvarez A, Godoy P, Walter P, Glavic A, Kroemer G, Hetz C.

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**Profiling of the muscle-specific dystroglycan interactome reveals the role of Hippo signaling in muscular dystrophy and age-dependent muscle atrophy.**

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**Effect of synbiotics on thyroid hormones, intestinal histomorphology, and heat shock protein 70 expression in broiler chickens reared under cyclic heat stress.**

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**Anandamide Metabolites Protect against Seizures through the TRP Channel Water Witch in Drosophila melanogaster.**

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**Black soybean seed coat extract protects Drosophila melanogaster against Pb toxicity by promoting iron absorption**.

Feixiang Lia, Zhi-Hua Liuab, Xueke Tian, Tengfei Liu, Hui-Li Wang, Guiran Xiao

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**Sequential activation of Notch and Grainyhead gives apoptotic competence to Abdominal-B expressing larval neuroblasts in Drosophila Central nervous system.**

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**Drosophila metamorphosis involves hemocyte mediated macroendocytosis and efferocytosis.**

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**Lethal (2) giant discs (Lgd)/CC2D1 is required for the full activity of the ESCRT machinery.**

Baeumers M, Ruhnau K, Breuer T, Pannen H, Goerlich B, Kniebel A, Haensch S, Weidtkamp-Peters S, Schmitt L, Klein T. BMC Biol. 2020 Dec 22;18(1):200. doi: 10.1186/s12915-020-00933-x.

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**Paradoxical Mitophagy Regulation by PINK1 and TUFm.**

Lin J, Chen K, Chen W, Yao Y, Ni S, Ye M, Zhuang G, Hu M, Gao J, Gao C, Liu Y, Yang M, Zhang Z, Zhang X, Huang J, Chen F, Sun L, Zhang X, Yu S, Chen Y, Jiang Y, Wang S, Yang X, Liu K, Zhou HM, Ji Z, Deng H, Haque ME, Li J, Mi LZ, Li Y, Yang Y. Mol Cell. 2020 Nov 19;80(4):607-620.e12. doi: 10.1016/j.molcel.2020.10.007. Epub 2020 Oct 27.

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Fowler PC, Byrne DJ, Blackstone C, O'Sullivan NC. Brain Sci. 2020 Sep 17;10(9):646. doi: 10.3390/brainsci10090646.

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**ATXN1 repeat expansions confer risk for amyotrophic lateral sclerosis and contribute to TDP-43 mislocalization.**

Tazelaar GHP, Boeynaems S, De Decker M, van Vugt JJFA, Kool L, Goedee HS, McLaughlin RL, Sproviero W, Iacoangeli A, Moisse M, Jacquemyn M, Daelemans D, Dekker AM, van der Spek RA, Westeneng HJ, Kenna KP, Assialioui A, Da Silva N; Project MinE ALS Sequencing Consortium, Povedano M, Pardina JSM, Hardiman O, Salachas F, Millecamps S, Vourc'h P, Corcia P, Couratier P, Morrison KE, Shaw PJ, Shaw CE, Pasterkamp RJ, Landers JE, Van Den Bosch L, Robberecht W, Al-Chalabi A, van den Berg LH, Van Damme P, Veldink JH, van Es MA. Brain Commun. 2020 May 19;2(2):fcaa064. doi: 10.1093/braincomms/fcaa064. eCollection 2020.

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Christensen CF, Koyama T, Nagy S, Danielsen ET, Texada MJ, Halberg KA, Rewitz K. Development. 2020 Jul 24;147(14):dev188110. doi: 10.1242/dev.188110.

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**Effects of Xuefu Zhuyu Decoction on Cell Migration and Ocular Tumor Invasion in Drosophila.**

Sitong Wang, Fanwu Wu, Bin Ye, Shiping Zhang, Xingjun Wang, Qian Xu, Guowang Li, Menglong Zhang, Shuai Wang, Yongsen Jia, Chunhua Jiang, Xiaojin La, Hong Chang, Zixue Zhao, Peng Li, Ji-an Li, and Chenxi Wu. BioMed Research International Volume 2020 |Article ID 5463652. Doi: 10.1155/2020/5463652.

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**A Genetic Analysis of Tumor Progression in Drosophila Identifies the Cohesin Complex as a Suppressor of Individual and Collective Cell Invasion.**

Canales Coutiño B, Cornhill ZE, Couto A, Mack NA, Rusu AD, Nagarajan U, Fan YN, Hadjicharalambous MR, Castellanos Uribe M, Burrows A, Lourdusamy A, Rahman R, May ST, Georgiou M. iScience. 2020 Jun 26;23(6):101237. doi: 10.1016/j.isci.2020.101237. Epub 2020 Jun 4.

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**Cholinergic Synaptic Homeostasis Is Tuned by an NFAT-Mediated α7 nAChR-Kv4/Shal Coupled Regulatory System.**

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**Coordinated control of adiposity and growth by anti-anabolic kinase ERK7.**

Hasygar K, Deniz O, Liu Y, Gullmets J, Hynynen R, Ruhanen H, Kokki K, Käkelä R, Hietakangas V. EMBO Rep. 2021 Feb 3;22(2):e49602. doi: 10.15252/embr.201949602. Epub 2020 Dec 28.

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**Free fatty acid determination as a tool for modeling metabolic diseases in Drosophila.**

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Al Hayek S, Alsawadi A, Kambris Z, Boquete JP, Bohère J, Immarigeon C, Ronsin B, Plaza S, Lemaitre B, Payre F, Osman D. EMBO J. 2021 Feb 15;40(4):e104347. doi: 10.15252/embj.2019104347. Epub 2020 Dec 29.

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**Periodic Oscillations of Myosin-II Mechanically Proofread Cell-Cell Connections to Ensure Robust Formation of the Cardiac Vessel.**

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Muliyil S, Levet C, Düsterhöft S, Dulloo I, Cowley SA, Freeman M. EMBO J. 2020 Sep 1;39(17):e104415. doi: 10.15252/embj.2020104415. Epub 2020 Jul 26.

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**Different functions of two putative Drosophila α2δ subunits in the same identified motoneurons.**

Heinrich L, Ryglewski S. Sci Rep. 2020 Aug 13;10(1):13670. doi: 10.1038/s41598-020-69748-8.

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**Patient-specific genomics and cross-species functional analysis implicate LRP2 in hypoplastic left heart syndrome.**

Theis JL, Vogler G, Missinato MA, Li X, Nielsen T, Zeng XI, Martinez-Fernandez A, Walls SM, Kervadec A, Kezos JN, Birker K, Evans JM, O'Byrne MM, Fogarty ZC, Terzic A, Grossfeld P, Ocorr K, Nelson TJ, Olson TM, Colas AR, Bodmer R. Elife. 2020 Oct 2;9:e59554. doi: 10.7554/eLife.59554.

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**A conserved myotubularin-related phosphatase regulates autophagy by maintaining autophagic flux.**

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**Identification of MYOM2 as a candidate gene in hypertrophic cardiomyopathy and Tetralogy of Fallot, and its functional evaluation in the Drosophila heart.**

Auxerre-Plantié E, Nielsen T, Grunert M, Olejniczak O, Perrot A, Özcelik C, Harries D, Matinmehr F, Dos Remedios C, Mühlfeld C, Kraft T, Bodmer R, Vogler G, Sperling SR. Dis Model Mech. 2020 Dec 18;13(12):dmm045377. doi: 10.1242/dmm.045377.

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**Lifespan regulation in α/β posterior neurons of the fly mushroom bodies by Rab27.**

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**DWnt4 and DWnt10 Regulate Morphogenesis and Arrangement of Columnar Units via Fz2/PCP Signaling in the Drosophila Brain.**

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**Fat Body p53 Regulates Systemic Insulin Signaling and Autophagy under Nutrient Stress via Drosophila Upd2 Repression.**

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**Glutamine deprivation alters the origin and function of cancer cell exosomes.**

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**Interplay between actomyosin and E-cadherin dynamics regulates cell shape in the Drosophila embryonic epidermis.**

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**Recruitment of BAF to the nuclear envelope couples the LINC complex to endoreplication.**

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**Metabolic activation and toxicological evaluation of polychlorinated biphenyls in Drosophila melanogaster.**

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**A novel role for kynurenine 3-monooxygenase in mitochondrial dynamics.**

Maddison DC, Alfonso-Núñez M, Swaih AM, Breda C, Campesan S, Allcock N, Straatman-Iwanowska A, Kyriacou CP, Giorgini F. PLoS Genet. 2020 Nov 10;16(11):e1009129. doi: 10.1371/journal.pgen.1009129. eCollection 2020 Nov.

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**Fzr/Cdh1 Promotes the Differentiation of Neural Stem Cell Lineages in Drosophila.**

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**Altered MICOS Morphology and Mitochondrial Ion Homeostasis Contribute to Poly(GR) Toxicity Associated with C9-ALS/FTD.**

Li S, Wu Z, Li Y, Tantray I, De Stefani D, Mattarei A, Krishnan G, Gao FB, Vogel H, Lu B. Cell Rep. 2020 Aug 4;32(5):107989. doi: 10.1016/j.celrep.2020.107989. PMID: 32755582

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**Interactome Mapping Provides a Network of Neurodegenerative Disease Proteins and Uncovers Widespread Protein Aggregation in Affected Brains.**

Haenig C, Atias N, Taylor AK, Mazza A, Schaefer MH, Russ J, Riechers SP, Jain S, Coughlin M, Fontaine JF, Freibaum BD, Brusendorf L, Zenkner M, Porras P, Stroedicke M, Schnoegl S, Arnsburg K, Boeddrich A, Pigazzini L, Heutink P, Taylor JP, Kirstein J, Andrade-Navarro MA, Sharan R, Wanker EE. Cell Rep. 2020 Aug 18;32(7):108050. doi: 10.1016/j.celrep.2020.108050.

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**Salt inducible kinases as novel Notch interactors in the developing Drosophila retina.**

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**Non-apoptotic caspase activation preserves Drosophila intestinal progenitor cells in quiescence.**

Arthurton L, Nahotko DA, Alonso J, Wendler F, Baena-Lopez LA. EMBO Rep. 2020 Dec 3;21(12):e48892. doi: 10.15252/embr.201948892. Epub 2020 Nov 1.

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**A new target for an old DUB: UCH-L1 regulates mitofusin-2 levels, altering mitochondrial morphology, function and calcium uptake.**

Cerqueira FM, von Stockum S, Giacomello M, Goliand I, Kakimoto P, Marchesan E, De Stefani D, Kowaltowski AJ, Ziviani E, Shirihai OS. Redox Biol. 2020 Oct;37:101676. doi: 10.1016/j.redox.2020.101676. Epub 2020 Aug 7.

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**Different functions of two putative Drosophila α2δ subunits in the same identified motoneurons.**

Heinrich L, Ryglewski S. Sci Rep. 2020 Aug 13;10(1):13670. doi: 10.1038/s41598-020-69748-8. PMID: 32792569

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**Topology-driven protein-protein interaction network analysis detects genetic sub-networks regulating reproductive capacity.**

Kumar T, Blondel L, Extavour CG. Elife. 2020 Sep 9;9:e54082. doi: 10.7554/eLife.54082.

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**CG4928 Is Vital for Renal Function in Fruit Flies and Membrane Potential in Cells: A First In-Depth Characterization of the Putative Solute Carrier UNC93A.**

Ceder MM, Aggarwal T, Hosseini K, Maturi V, Patil S, Perland E, Williams MJ, Fredriksson R. Front Cell Dev Biol. 2020 Oct 14;8:580291. doi: 10.3389/fcell.2020.580291. eCollection 2020.

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**A Progressive Somatic Cell Niche Regulates Germline Cyst Differentiation in the Drosophila Ovary.**

Shi J, Jin Z, Yu Y, Zhang Y, Yang F, Huang H, Cai T, Xi R. Curr Biol. 2021 Feb 22;31(4):840-852.e5. doi: 10.1016/j.cub.2020.11.053. Epub 2020 Dec 18.

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**3D Particle Tracking for Noninvasive In Vivo Analysis of Synaptic Microtubule Dynamics in Dendrites and Neuromuscular Junctions of Drosophila.**

Chou VT, Yesilyurt HG, Lai H, Long JB, Arnes M, Obbad K, Jones M, Sasaki H, Lucas LAG, Alworth S, Lee JS, Van Vactor D. J Vis Exp. 2020 May 12;(159). doi: 10.3791/61159.

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**AMPK-Regulated Astrocytic Lactate Shuttle Plays a Non-Cell-Autonomous Role in Neuronal Survival.**

Muraleedharan R, Gawali MV, Tiwari D, Sukumaran A, Oatman N, Anderson J, Nardini D, Bhuiyan MAN, Tkáč I, Ward AL, Kundu M, Waclaw R, Chow LM, Gross C, Rao R, Schirmeier S, Dasgupta B. Cell Rep. 2020 Sep 1;32(9):108092. doi: 10.1016/j.celrep.2020.108092.

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**PTPN21/Pez Is a Novel and Evolutionarily Conserved Key Regulator of Inflammation In Vivo.**

Campbell JS, Davidson AJ, Todd H, Rodrigues FSLM, Elliot AM, Early JJ, Lyons DA, Feng Y, Wood W. Curr Biol. 2021 Feb 22;31(4):875-883.e5. doi: 10.1016/j.cub.2020.11.014. Epub 2020 Dec 8.

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**Insulin signaling represents a gating mechanism between different memory phases in Drosophila larvae.**

Eschment M, Franz HR, Güllü N, Hölscher LG, Huh KE, Widmann A. PLoS Genet. 2020 Oct 26;16(10):e1009064. doi: 10.1371/journal.pgen.1009064. eCollection 2020 Oct.

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**Identification of MYOM2 as a candidate gene in hypertrophic cardiomyopathy and Tetralogy of Fallot, and its functional evaluation in the Drosophila heart.**

Auxerre-Plantié E, Nielsen T, Grunert M, Olejniczak O, Perrot A, Özcelik C, Harries D, Matinmehr F, Dos Remedios C, Mühlfeld C, Kraft T, Bodmer R, Vogler G, Sperling SR. Dis Model Mech. 2020 Dec 18;13(12):dmm045377. doi: 10.1242/dmm.045377.

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**Exosomal arrow (Arr)/lipoprotein receptor protein 6 (LRP6) in Drosophila melanogaster increases the extracellular level of Sol narae (Sona) in a Wnt-independent manner.**

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**Plasticity of Carbohydrate Transport at the Blood-Brain Barrier.**

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**The Cytoplasmic LIM Domain Protein Espinas Contributes to Photoreceptor Layer Selection in the Visual System.**

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Singh MD, Jensen M, Lasser M, Huber E, Yusuff T, Pizzo L, Lifschutz B, Desai I, Kubina A, Yennawar S, Kim S, Iyer J, Rincon-Limas DE, Lowery LA, Girirajan S. PLoS Genet. 2020 Feb 13;16(2):e1008590. doi: 10.1371/journal.pgen.1008590. eCollection 2020 Feb.

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**Antinociceptive modulation by the adhesion GPCR CIRL promotes mechanosensory signal discrimination.**

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**Identification of the Wallenda JNKKK as an Alk suppressor reveals increased competitiveness of Alk-expressing cells.**

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**Arginine kinase interacts with 2MIT and is involved in Drosophila melanogaster short-term memory.**

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**Regulation of BMP4/Dpp retrotranslocation and signaling by deglycosylation.**

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**The receptor tyrosine kinase Ror is required for dendrite regeneration in Drosophila neurons.**

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**A widespread family of heat-resistant obscure (Hero) proteins protect against protein instability and aggregation.**

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Sapiro AL, Freund EC, Restrepo L, Qiao HH, Bhate A, Li Q, Ni JQ, Mosca TJ, Li JB. Cell Rep. 2020 May 19;31(7):107654. doi: 10.1016/j.celrep.2020.107654.

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**tpHusion: An efficient tool for clonal pH determination in Drosophila.**

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**Dop1R1, a type 1 dopaminergic receptor expressed in Mushroom Bodies, modulates Drosophila larval locomotion.**

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**Three distinct mechanisms, Notch instructive, permissive, and independent, regulate the expression of two different pericardial genes to specify cardiac cell subtypes.**

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**Partial Inhibition of RNA Polymerase I Promotes Animal Health and Longevity.**

Martínez Corrales G, Filer D, Wenz KC, Rogan A, Phillips G, Li M, Feseha Y, Broughton SJ, Alic N. Cell Rep. 2020 Feb 11;30(6):1661-1669.e4. doi: 10.1016/j.celrep.2020.01.017.

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**Regulation of Expression of Autophagy Genes by Atg8a-Interacting Partners Sequoia, YL-1, and Sir2 in Drosophila.**

Jacomin AC, Petridi S, Di Monaco M, Bhujabal Z, Jain A, Mulakkal NC, Palara A, Powell EL, Chung B, Zampronio C, Jones A, Cameron A, Johansen T, Nezis IP. Cell Rep. 2020 May 26;31(8):107695. doi: 10.1016/j.celrep.2020.107695.

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**Upregulated TNF/Eiger signaling mediates stem cell recovery and tissue homeostasis during nutrient resupply in Drosophila testis.**

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**Poly(A) Binding Protein Is Required for Nuclear Localization of the Ecdysteroidogenic Transcription Factor Molting Defective in the Prothoracic Gland of Drosophila melanogaster.**

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**Anchor Away - A Fast, Reliable and Reversible Technique To Inhibit Proteins in Drosophila melanogaster.**

Bosch PS, Pepperl J, Basler K. G3 (Bethesda). 2020 May 4;10(5):1745-1752. doi: 10.1534/g3.120.401055.

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**A Receptor Guanylate Cyclase, Gyc76C, Mediates Humoral, and Cellular Responses in Distinct Ways in Drosophila Immunity.**

Iwashita S, Suzuki H, Goto A, Oyama T, Kanoh H, Kuraishi T, Fuse N, Yano T, Oshima Y, Dow JAT, Davies SA, Kurata S. Front Immunol. 2020 Jan 28;11:35. doi: 10.3389/fimmu.2020.00035. eCollection 2020.

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**Mislocalization of TORC1 to Lysosomes Caused by KIF11 Inhibition Leads to Aberrant TORC1 Activity.**

Jang YG, Choi Y, Jun K, Chung J. Mol Cells. 2020 Aug 31;43(8):705-717. doi: 10.14348/molcells.2020.0089.

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**Modeling Mucopolysaccharidosis Type II in the Fruit Fly by Using the RNA Interference Approach.**

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**Sequential Ras/MAPK and PI3K/AKT/mTOR pathways recruitment drives basal extrusion in the prostate-like gland of Drosophila.**

Rambur A, Lours-Calet C, Beaudoin C, Buñay J, Vialat M, Mirouse V, Trousson A, Renaud Y, Lobaccaro JA, Baron S, Morel L, de Joussineau C. Nat Commun. 2020 May 8;11(1):2300. doi: 10.1038/s41467-020-16123-w.

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**The voltage-gated potassium channel Shaker promotes sleep via thermosensitive GABA transmission.**

Kim JH, Ki Y, Lee H, Hur MS, Baik B, Hur JH, Nam D, Lim C. Commun Biol. 2020 Apr 15;3(1):174. doi: 10.1038/s42003-020-0902-8.

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**A perinuclear microtubule-organizing centre controls nuclear positioning and basement membrane secretion.**

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**Costameric integrin and sarcoglycan protein levels are altered in a Drosophila model for Limb-girdle muscular dystrophy type 2H.**

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**Phosphatase of Regenerating Liver-1 Selectively Times Circadian Behavior in Darkness via Function in PDF Neurons and Dephosphorylation of TIMELESS.**

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**Quality-control mechanisms targeting translationally stalled and C-terminally extended poly(GR) associated with ALS/FTD.**

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**Cell-Surface Proteomic Profiling in the Fly Brain Uncovers Wiring Regulators.**

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**Transformative Network Modeling of Multi-omics Data Reveals Detailed Circuits, Key Regulators, and Potential Therapeutics for Alzheimer's Disease.**

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**Mitochondrial Dynamics in the Drosophila Ovary Regulates Germ Stem Cell Number, Cell Fate, and Female Fertility.**

Garcez M, Branco-Santos J, Gracio PC, Homem CCF. Front Cell Dev Biol. 2021 Jan 28;8:596819. doi: 10.3389/fcell.2020.596819. eCollection 2020.

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**Lethal (2) giant discs (Lgd)/CC2D1 is required for the full activity of the ESCRT machinery.**

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**Daughterless, the Drosophila orthologue of TCF4, is required for associative learning and maintenance of the synaptic proteome.**

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**Cleavage of human tau at Asp421 inhibits hyperphosphorylated tau induced pathology in a Drosophila model.**

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**Reduced Function of the Glutathione S-Transferase S1 Suppresses Behavioral Hyperexcitability in Drosophila Expressing Mutant Voltage-Gated Sodium Channels.**

Chen HL, Kasuya J, Lansdon P, Kaas G, Tang H, Sodders M, Kitamoto T. G3 (Bethesda). 2020 Apr 9;10(4):1327-1340. doi: 10.1534/g3.119.401025.

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Avilés-Pagán EE, Kang ASW, Orr-Weaver TL. G3 (Bethesda). 2020 Sep 2;10(9):2989-2998. doi: 10.1534/g3.120.401415.

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Hao X, Wang S, Lu Y, Yu W, Li P, Jiang D, Guo T, Li M, Li J, Xu J, Wu W, Ho MS, Zhang L. Elife. 2020 Jan 14;9:e47542. doi: 10.7554/eLife.47542.

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**Endurance exercise protects aging Drosophila from high-salt diet (HSD)-induced climbing capacity decline and lifespan decrease by enhancing antioxidant capacity.**

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Scialò F, Sriram A, Stefanatos R, Spriggs RV, Loh SHY, Martins LM, Sanz A. Redox Biol. 2020 May;32:101450. doi: 10.1016/j.redox.2020.101450. Epub 2020 Feb 7.

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**The conserved microRNA miR-34 regulates synaptogenesis via coordination of distinct mechanisms in presynaptic and postsynaptic cells.**

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**Lysosomal Hydrolase Cathepsin D Non-proteolytically Modulates Dendritic Morphology in Drosophila.**

Zhang T, Cheng D, Wu C, Wang X, Ke Q, Lou H, Zhu L, Wang XD, Duan S, Liu YJ. Neurosci Bull. 2020 Oct;36(10):1147-1157. doi: 10.1007/s12264-020-00479-6. Epub 2020 Mar 14.

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**Investigating Developmental and Epileptic Encephalopathy Using Drosophila melanogaster.**

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**Chloride intracellular channel 1 cooperates with potassium channel EAG2 to promote medulloblastoma growth.**

Francisco MA, Wanggou S, Fan JJ, Dong W, Chen X, Momin A, Abeysundara N, Min HK, Chan J, McAdam R, Sia M, Pusong RJ, Liu S, Patel N, Ramaswamy V, Kijima N, Wang LY, Song Y, Kafri R, Taylor MD, Li X, Huang X. J Exp Med. 2020 May 4;217(5):e20190971. doi: 10.1084/jem.20190971.

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**Dynamic Signal Compression for Robust Motion Vision in Flies.**

Drews MS, Leonhardt A, Pirogova N, Richter FG, Schuetzenberger A, Braun L, Serbe E, Borst A. Curr Biol. 2020 Jan 20;30(2):209-221.e8. doi: 10.1016/j.cub.2019.10.035. Epub 2020 Jan 10.

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**Drosophila Tubulin-Specific Chaperone E Recruits Tubulin around Chromatin to Promote Mitotic Spindle Assembly.**

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**Large-Scale Transgenic Drosophila Resource Collections for Loss- and Gain-of-Function Studies.**

Zirin J, Hu Y, Liu L, Yang-Zhou D, Colbeth R, Yan D, Ewen-Campen B, Tao R, Vogt E, VanNest S, Cavers C, Villalta C, Comjean A, Sun J, Wang X, Jia Y, Zhu R, Peng P, Yu J, Shen D, Qiu Y, Ayisi L, Ragoowansi H, Fenton E, Efrem S, Parks A, Saito K, Kondo S, Perkins L, Mohr SE, Ni J, Perrimon N. Genetics. 2020 Apr;214(4):755-767. doi: 10.1534/genetics.119.302964. Epub 2020 Feb 18.

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Fernandez MP, Pettibone HL, Bogart JT, Roell CJ, Davey CE, Pranevicius A, Huynh KV, Lennox SM, Kostadinov BS, Shafer OT. Curr Biol. 2020 Jun 22;30(12):2225-2237.e5. doi: 10.1016/j.cub.2020.04.025. Epub 2020 May 7.

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**Contribution of Intellectual Disability-Related Genes to ADHD Risk and to Locomotor Activity in Drosophila.**

Klein M, Singgih EL, van Rens A, Demontis D, Børglum AD, Mota NR, Castells-Nobau A, Kiemeney LA, Brunner HG, Arias-Vasquez A, Schenck A, van der Voet M, Franke B. Am J Psychiatry. 2020 Jun 1;177(6):526-536. doi: 10.1176/appi.ajp.2019.18050599. Epub 2020 Feb 12.

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Huynh N, Wang S, King-Jones K. Insect Biochem Mol Biol. 2020 May;120:103336. doi: 10.1016/j.ibmb.2020.103336. Epub 2020 Feb 24.

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**GWAS for Lifespan and Decline in Climbing Ability in Flies upon Dietary Restriction Reveal decima as a Mediator of Insulin-like Peptide Production.**

Wilson KA, Beck JN, Nelson CS, Hilsabeck TA, Promislow D, Brem RB, Kapahi P. Curr Biol. 2020 Jul 20;30(14):2749-2760.e3. doi: 10.1016/j.cub.2020.05.020. Epub 2020 Jun 4.

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**Nucleocytoplasmic Proteomic Analysis Uncovers eRF1 and Nonsense-Mediated Decay as Modifiers of ALS/FTD C9orf72 Toxicity.**

Ortega JA, Daley EL, Kour S, Samani M, Tellez L, Smith HS, Hall EA, Esengul YT, Tsai YH, Gendron TF, Donnelly CJ, Siddique T, Savas JN, Pandey UB, Kiskinis E. Neuron. 2020 Apr 8;106(1):90-107.e13. doi: 10.1016/j.neuron.2020.01.020. Epub 2020 Feb 13.

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Gettemans J, De Dobbelaer B. Am J Physiol Cell Physiol. 2021 Feb 1;320(2):C195-C215. doi: 10.1152/ajpcell.00435.2020. Epub 2020 Dec 2.

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**Deubiquitinase OTUD5 is a positive regulator of mTORC1 and mTORC2 signaling pathways.**

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Kannangara JR, Henstridge MA, Parsons LM, Kondo S, Mirth CK, Warr CG. Genetics. 2020 Sep;216(1):135-144. doi: 10.1534/genetics.120.303475. Epub 2020 Jul 16.

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**Insulin signaling requires glucose to promote lipid anabolism in adipocytes.**

Krycer JR, Quek LE, Francis D, Zadoorian A, Weiss FC, Cooke KC, Nelson ME, Diaz-Vegas A, Humphrey SJ, Scalzo R, Hirayama A, Ikeda S, Shoji F, Suzuki K, Huynh K, Giles C, Varney B, Nagarajan SR, Hoy AJ, Soga T, Meikle PJ, Cooney GJ, Fazakerley DJ, James DE. J Biol Chem. 2020 Sep 18;295(38):13250-13266. doi: 10.1074/jbc.RA120.014907. Epub 2020 Jul 28.

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**Pyridoxine/pyridoxamine 5'-phosphate oxidase (Sgll/PNPO) is important for DNA integrity and glucose homeostasis maintenance in Drosophila.**

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**Synthesis of Conserved Odor Object Representations in a Random, Divergent-Convergent Network.**

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**LIM and SH3 protein 1 (LASP-1): A novel link between the slit membrane and actin cytoskeleton dynamics in podocytes.**

Lepa C, Möller-Kerutt A, Stölting M, Picciotto C, Eddy ML, Butt E, Kerjaschki D, Korb-Pap A, Vollenbröker B, Weide T, George B, Kremerskothen J, Pavenstädt H. FASEB J. 2020 Apr;34(4):5453-5464. doi: 10.1096/fj.201901443R. Epub 2020 Feb 21.

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**A Circuit Encoding Absolute Cold Temperature in Drosophila.**

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Kryuchkov M, Bilousov O, Lehmann J, Fiebig M, Katanaev VL. Nature. 2020 Sep;585(7825):383-389. doi: 10.1038/s41586-020-2707-9. Epub 2020 Sep 16.

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**The Warburg Micro Syndrome-associated Rab3GAP-Rab18 module promotes autolysosome maturation through the Vps34 Complex I.**

Takáts S, Lévay L, Boda A, Tóth S, Simon-Vecsei Z, Rubics A, Varga Á, Lippai M, Lőrincz P, Glatz G, Juhász G. FEBS J. 2021 Jan;288(1):190-211. doi: 10.1111/febs.15313. Epub 2020 Apr 22.

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Han MH, Kwon MJ, Ko BS, Hyeon DY, Lee D, Kim HJ, Hwang D, Lee SB. J Cell Biol. 2020 Dec 7;219(12):e202004107. doi: 10.1083/jcb.202004107.

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**Various modes of HP1a interactions with the euchromatic chromosome arms in Drosophila ovarian somatic cells.**

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**Two Brain Pathways Initiate Distinct Forward Walking Programs in Drosophila.**

Bidaye SS, Laturney M, Chang AK, Liu Y, Bockemühl T, Büschges A, Scott K. Neuron. 2020 Nov 11;108(3):469-485.e8. doi: 10.1016/j.neuron.2020.07.032. Epub 2020 Aug 20.

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**Context-dependent responses of Drosophila intestinal stem cells to intracellular reactive oxygen species.**

Chen F, Su R, Ni S, Liu Y, Huang J, Li G, Wang Q, Zhang X, Yang Y. Redox Biol. 2021 Feb;39:101835. doi: 10.1016/j.redox.2020.101835. Epub 2020 Dec 17.

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**The Drosophila CG1674 gene encodes a synaptopodin 2-like related protein that localizes to the Z-disc and is required for normal flight muscle development and function.**

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**Dis3L2 regulates cell proliferation and tissue growth through a conserved mechanism.**

Towler BP, Pashler AL, Haime HJ, Przybyl KM, Viegas SC, Matos RG, Morley SJ, Arraiano CM, Newbury SF. PLoS Genet. 2020 Dec 28;16(12):e1009297. doi: 10.1371/journal.pgen.1009297. eCollection 2020 Dec.

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**An Axon-Pathfinding Mechanism Preserves Epithelial Tissue Integrity.**

Cammarota C, Finegan TM, Wilson TJ, Yang S, Bergstralh DT. Curr Biol. 2020 Dec 21;30(24):5049-5057.e3. doi: 10.1016/j.cub.2020.09.061. Epub 2020 Oct 15.

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**Harnessing the paradoxical phenotypes of APOE ɛ2 and APOE ɛ4 to identify genetic modifiers in Alzheimer's disease.**

Kim YW, Al-Ramahi I, Koire A, Wilson SJ, Konecki DM, Mota S, Soleimani S, Botas J, Lichtarge O. Alzheimers Dement. 2021 May;17(5):831-846. doi: 10.1002/alz.12240. Epub 2020 Dec 7.

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