

[R-Spondin 3 regulates mammalian dental and craniofacial development.](#) Krishnakali Dasgupta, Jeffrey M. Cesario, Sara Ha, Kesava Asam, Lindsay J. Deacon, Ana H. Song, Julie Kim, John Cobb, Jeong Kyo Yoon, Juhee Jeong. *J. Dev. Biol.* 2021, 9, 31.

[Astrocytes regulate ultra-slow arteriole oscillations via stretch-mediated TRPV4-COX-1 feedback.](#) Jordan N Haidey, Govind Peringod, Adam Institoris, Kelsea A Gorzo, Wilten Nicola, Milène Vandal, Kenichi Ito, Shying Liu, Cameron Fielding, Frank Visser, Minh Dang Nguyen, Grant R Gordon. *Cell Rep.* 2021 Aug 3;36(5).

[PNKP is required for maintaining the integrity of progenitor cell populations in adult mice.](#) Wisoo Shin, Whitney Alpaugh, Laura J Hallihan, Sarthak Sinha, Emilie Crowther, Gary R Martin, Teresa Scheidl-Yee, Xiaoyan Yang, Grace Yoon, Taylor Goldsmith, Nelson D Berger, Luiz Gn de Almeida, Antoine Dufour, Ina Dobrinski, Michael Weinfeld, Frank R Jirik, Jeff Biernaskie. *Life Sci Alliance.* 2021 Jul 5;4(9).

[Is use of BMP-2 associated with tumor growth and osteoblastic differentiation in murine models of osteosarcoma?](#) Joseph K Kendal, Arvind Singla, Asmaa Affan, Kurt Hildebrand, Abdullah Al-Ani, Mark Ungrin, Douglas J Mahoney, Doha Itani, Frank R Jirik, Michael J Monument. *Clin Orthop Relat Res.* 2020 Dec;478(12):2921-2933.

[Transgenic Expression of *Cacna1f* Rescues Vision and Retinal Morphology in a Mouse Model of Congenital Stationary Night Blindness 2A \(CSNB2A\).](#) Derek M Waldner, Kenichi Ito, Li-Li Chen, Lisa Nguyen, Robert L Chow, Amy Lee, Derrick E Rancourt, Francois Tremblay, William K Stell, N Torben Bech-Hansen. *Transl Vis Sci Technol.* 2020 October 14;9(11):19.

[Stirred suspension bioreactors maintain naïve pluripotency of human pluripotent stem cells.](#) Leili Rohani, Breanna S Borys, Golsa Razian, Pooyan Naghsh, Shying Liu, Adiv A Johnson, Pranav Machiraju, Heidrun Holland, Ian A Lewis, Ryan A Groves, Derek Toms, Paul M K Gordon, Joyce W Li, Tania So, Tiffany Dang, Michael S Kallos, Derrick E Rancourt. *Commun Biol.* 2020 Sep 7;3(1):492.

[Effects of social defeat stress and fluoxetine treatment on neurogenesis and behavior in mice that lack zinc transporter 3 \(ZnT3\) and vesicular zinc.](#) Brendan B. McAllister, Angela Pockakom, Selena Fu, Richard H. Dyck. *Hippocampus.* 2020 Jun;30(6):623-637.

[Nocodazole-induced expression and phosphorylation of anillin and other mitotic proteins are decreased in DNA-dependent protein kinase catalytic subunit-deficient cells and rescued by inhibition of the anaphase-promoting complex/cyclosome with proTAME but not apcin.](#) Pauline Douglas, Ruiqiong Ye, Suraj Radhamani, Alexander Cobban, Nicole P Jenkins, Edward Bartlett, Jonathan Roveredo, Arminja N Kettenbach, Susan P Lees-Miller. *Mol Cell Biol.* 2020 Jun 15;40(13).

[Suppression of presynaptic glutamate release by postsynaptic metabotropic NMDA receptor signalling to Pannexin-1.](#) Bialecki J, Werner A, Weilinger NL, Tucker CM, Vecchiarelli HA, Egana J, Mendizabal-Zubiaga J, Grandes P, Hill MN, Thompson RJ. *J Neurosci* 2019 Dec 9.

[Blastocyst transfer in mice alters the placental transcriptome and growth.](#) Katerina Menelaou, Malwina Prater, Simon Tunster, Georgina Blake, Colleen Geary Joo, James C Cross, Russell Hamilton, Erica Watson. *Reproduction*. 2019 Nov 1;159(2):115-132.

[Age- and sex-dependent role of osteocytic pannexin1 on bone and muscle mass and strength.](#) Aguilar-Perez A, Pacheco-Costa R, Atkinson EG, Deosthale P, Davis HM, Essex AL, Dilley JE, Gomez L, Rupert JE, Zimmers TA, Thompson RJ, Allen MR, Plotkin LI. **Scientific Reports** (2019) Sep 25;9(1).

[Combined poly-ADP ribose polymerase and ataxia-telangiectasia mutated/Rad3-related inhibition targets ataxia-telangiectasia mutated-deficient lung cancer cells.](#) Nicholas R. Jette, Suraj Radhamani, Greydon Arthur, Ruiqiong Ye, Siddhartha Goutam, Anthony Bolyos, Lars F. Petersen, Pinaki Bose, D. Gwyn Bebb & Susan P. Lees-Miller. **British Journal of Cancer** (2019) September.

[Dipeptidase-1 Is an Adhesion Receptor for Neutrophil Recruitment in Lungs and Liver.](#) Choudhury SR, Babes L, Rahn JJ, Ahn BY, Goring KR, King JC, Lau A, Petri B, Hao X, Chojnacki AK, Thanabalasuriar A, McAvoy EF, Tabariès S, Schraeder C, Patel KD, Siegel PM, Kopciuk KA, Schriemer DC, Muruve DA, Kelly MM, Yipp BG, Kubes P, Robbins SM, Senger DL. **Cell** (2019) August 22;178(5):1205-1221.

[Expression of a constitutively active human *STING* mutant in hematopoietic cells produces an *Ifnar1*-dependent vasculopathy in mice.](#) Martin GR, Henare K, Salazar C, Scheidl-Yee T, Eggen LJ, Tailor PP, Kim JH, Podstawka J, Fritzler MJ, Kelly MM, Yipp BG, Jirik FR. **Life Sci Alliance**. (2019) Jun 20;2(3).

[Reduced uteroplacental perfusion pressure \(RUPP\) causes altered trophoblast differentiation and pericyte reduction in the mouse placenta labyrinth.](#) Natale BV, Mehta P, Vu P, Schweitzer C, Gustin K, Kotadia R, Natale DRC. **Sci Rep**. (2018) Nov 21;8(1):17162.

[Identification of a limb enhancer that is removed by pathogenic deletions downstream of the *SHOX* gene.](#) Isabella Skuplik, Sara Benito-Sanz, Jessica M. Rosin, Brent E. Bobick, Karen E. Heaths, John Cobb. **Sci Rep**. (2018) Sept 24;8(1).

[Persistent 3'-phosphate termini and increased cytotoxicity of radiomimetic DNA double-strand breaks in cells lacking polynucleotide kinase/phosphate despite presence of an alternative 3'-phosphatase.](#) Sri Lakshmi Chalasani, Ajinkya S. Kawale, Konstantin Akopiants, Yaping Yu, Mesfin Fanta, Michael Weinfeld, Lawrence F. Povirk. **DNA Repair** 68 (2018) 12-24.

[Optimizing human induced pluripotent stem cell expansion in stirred-suspension culture.](#) Guoliang Meng, Shiyang Liu, Anna Poon, Derrick E. Rancourt. **Stem Cells Dev**. 2017 Dec 15;26(24):1804-1817.

[Sca-1 identifies a trophoblast population with multipotent potential in the mid-gestation mouse placenta.](#) Natale BV, Schweitzer C, Hughes M, Globisch M, Kotadia R, Tremblay E, Vu P, Cross JC, Natale DRC. **Sci Rep.** July 2017; 7; 5575

[Transgenic mice overexpressing desmocollin-2 \(DSC2\) develop cardiomyopathy associated with myocardial inflammation and fibrotic remodeling.](#) Brodehl A, Belke DD, Garnett L, Martens K, Abdelfatah N, Rodriguez M, Diao C, Chen YX, Gordon PMK, Nygren A, Gerull B. **PLoS ONE** 2017 Mar 24;12(3):e0174019 doi:10.1371/journal.pone.0174019.

[Reduced Protein Expression of the Na⁺/Ca²⁺K⁺ Exchanger \(SLC24A4\) in Apical Plasma Membranes of Maturation Ameloblasts of Fluorotic Mice.](#) Bronckers AL, Jalali R, Lytton J. **Calcif Tissue Int.** 2017 Jan;100(1):80-86

[Placental phenotypes and fetal programming of adult diabetes; exploring the relationship.](#) Mehta P, Natale B, Schweitzer C, Natale D. **Placenta** vol 36, issue 9, September 2015 pA45.

[Role of Mutation and Pharmacologic Block of Human KCNH2 in Vasculogenesis and Fetal Mortality Partial Rescue by Transforming Growth Factor-B.](#) Teng G, Zhao X, Lees-Miller JP, Belke D, Shi C, Chen Y, O'Brien ER, Fedak PW, Bracey N, Cross JC, Duff HJ. **Circ Arrhythm Electrophysiol.** 2015 Apr; 8(2):420-8.

[Octarepeat region flexibility impacts prion function, endoproteolysis and disease manifestation.](#) Lau A, McDonald A, Daude N, Mays CE, Walter ED, Aglietti R, Mercer RC, Wohlgemuth S, van der Merwe J, Yang J, Gapeschina H, Kim C, Grams J, Shi B, Wille H, Balchandran A, Schmitt-Ulms G, Safar, Millhauser GL, Westaway D. **EMBO Mol Med.** 2015 Feb 6;7(3):339-56.

[Shox2 is required for the proper development of the facial motor nucleus and the establishment of the facial nerves.](#) Jessica M Rosin, Deborah M Kurrasch, John Cobb. **BMC Neurosci** 2015 Jul 9;16:39.

[Anatomical evidence for a non-synaptic influence of the K⁺-dependent Na⁺-dependent Na⁺/Ca²⁺-exchanger, NCKX2, on hippocampal plasticity.](#) Zhang Y, Sharma S, Lytton J. **Neuroscience epublich** (2015).

[An essential role for the K⁺ dependent Na⁺/Ca²⁺ exchanger, NCKX4, in melanocortin 4 receptor dependent satiety.](#) Li XF, Lytton J. **J Biol Chem** epublich (2014).

[Embryonic stem cell therapy improves bone quality in a model of impaired fracture healing in the mouse; tracked temporally using in vivo micro-CT.](#) J.T. Taiani, H.R. Buie, G.M. Campbell, S.L. Manske, R.J. Krawetz, D.E. Rancourt, S.K. Boyd, J.R. Matyas. **Bone** Vol. 64 July (2014) pg. 263.

[Neuronal expression of the intermediate conductance calcium-activated potassium channel KCa3.1 in the mammalian central nervous system.](#) Turner RW, Kruskic M, Teves M, Scheidl-Yee T, Hameed S, Zamponi G. Pflugers Arch. **European Journal of Physiology** (2014).

[Mutation in folate metabolism causes epigenetic instability and transgenerational effects on development.](#) Padmanabhan N, Jia D, Geary-Joo C, Wu X, Ferguson-Smith AC, Fung E, Bieda MC, Snyder FF, Gravel RA, Cross JC, Watson ED. *Cell* 155(1):88-93 (2013)

[The basic helix-loop-helix transcription factor Hand1 regulates mouse development as a homodimer.](#) Hu D, Scott IC, Snider F, Geary-Joo C, Zhao X, Simmons DG, Cross JC. *Developmental Biology* 382(2):470-81 (2013)

[Comparative transgenic analysis of enhancers from the human *SHOX* and mouse *Shox2* genomic regions.](#) Rosin JM, Abassah-Oppong S, Cobb J. *Human Molecular Genetics* 22(15): 3063-76 (2013).

[Anoxia-Induced NMDA Receptor Activation Opens Pannexin Channels via Src Family Kinases.](#) Weilinger NL, Tang PL, Thompson RJ. *The Journal of Neuroscience* 32(36):12579-12588 (2012).

[KLC3 is involved in sperm tail midpiece formation and sperm function.](#) Zhang Y, Ou Y, Cheng M, Saadi HS, Thundathil JC, van der Hoorn FA. *Developmental Biology* 366(2): 101-110 (2012).

[A conditional allele of *Rspo3* reveals redundant function of R-spondins during mouse limb development.](#) Neufeld S, Rosin JM, Ambasta A, Hul K, Shaneman V, Crowder R, Vickerman L, Cobb J. *Genesis* 50(10): 741-9 (2012).

[Derivation of iPSCs in stirred suspension bioreactors.](#) Shafa M, Day B, Yamashita A, Meng G, Liu S, Krawetz R, Rancourt DE. *Nature Methods* 9(5): 465–6 (2012).

[Shox2 regulates progression through chondrogenesis in the mouse proximal limb.](#) Bobick BE, Cobb J. *J Cell Sci.* 125(Pt 24): 6071-83 (2012).

[Large-scale production of murine embryonic stem cell-derived osteoblasts and chondrocytes on microcarriers in serum-free media.](#) Alfred R, Taiani JT, Krawetz RJ, Yamashita A, Rancourt DE, Kallos MS. *Biomaterials* 32(26): 6006-16 (2011).

[Efficient suspension bioreactor expansion of murine embryonic stem cells on microcarriers in serum-free medium.](#) Alfred R, Radford J, Fan J, Boon K, Krawetz R, Rancourt D, Kallos MS. *Biotechnol Prog.* 27(3): 811-23 (2011).

[Attenuated reovirus displays oncolysis with reduced host toxicity.](#) Kim M, Garant KA, zur Nieden NI, Alain T, Loken SD, Urbanski SJ, Forsyth PA, Rancourt DE, Lee PW, Johnston RN. *Br J Cancer* 104(2): 290-9 (2011).

[Loss of discordant cells during micro-mass differentiation of embryonic stem cells into the chondrocyte lineage.](#) Yamashita A, Krawetz R, Rancourt DE. *Cell Death Differ* 16(2): 278-86 (2009).

[Properties of murine embryonic stem cells maintained on human foreskin fibroblasts without LIF.](#) Meng GL, Zur Nieden NI, Liu SY, Cormier JT, Kallos MS, Rancourt DE. **Mol Reprod Dev.** 75(4): 614-22 (2008).

[Homozygous missense N629D hERG \(KCNH2\) potassium channel mutation causes developmental defects in the right ventricle and its outflow tract and embryonic lethality.](#) Teng GQ, Zhao X, Lees-Miller JP, Quinn FR, Li P, Rancourt DE, London B, Cross JC, Duff HJ. **Circ Res.** 103(12):1483-91 (2008).

[Syntaxin 1A is required for normal in utero development.](#) McRory JE, Rehak R, Simms B, Doering CJ, Chen L, Hermosilla T, Duke C, Dyck R, Zamponi GW. **Biochem Biophys Res Commun.** 375(3):372-7 (2008).

[The pace of prostatic intraepithelial neoplasia development is determined by the timing of Pten tumor suppressor gene excision.](#) Luchman HA, Benediktsson H, Villemaire ML, Peterson AC, Jirik FR. **PLoS ONE** 3(12):e3940. (2008).

[Temporally controlled prostate epithelium-specific gene alterations.](#) Luchman HA, Friedman HC, Villemaire ML, Peterson AC, Jirik FR. **Genesis** 46(4):229-34 (2008).

[Importance of K⁺ dependent Na⁺/Ca²⁺ exchanger 2, NCKX2, in motor learning and memory.](#) Li XF, Kiedrowski L, Tremblay F, Fernandez FR, Perizzolo M, Winkfein RJ, Turner RW, Bains JS, Rancourt DE, Lytton J. **J Biol Chem** 281(10):6273-82. (2006).