

Medix Prize of the Minerva Foundation 1988 - 2022

2022

Antidepressant drugs act by directly binding to TRKB neurotrophin receptors. Casarotto PC, Giry M, Fred SM, Kovaleva V, Moliner R, Enkavi G, Biojone C, Cannarozzo C, Sahu MP, Kaurinkoski K, Brunello CA, Steinzeig A, Winkel F, Patil S, Vestring S, Serchov T, Diniz CRAF, Laukkanen L, Cardon I, Antila H, Rog T, Piepponen TP, Bramham CR, Normann C, Lauri SE, Saarma M, Vattulainen I ja Castrén E. *Cell*. 2021; 184:1299-1313

2021

Maternal fecal microbiota transplantation in cesarean-born infants rapidly restores normal gut microbial development: A proof-of-concept study. Korpela K, Helve O, Kolho KL, Saisto T, Skogberg K, Dikareva E, Stefanovic V, Salonen A, Andersson S, de Vos WM. *Cell*. 2020; 183:324-334.e5.

2020

Notum produced by Paneth cells attenuates regeneration of aged intestinal epithelium. Petinmikko N, Iqbal S, Mana M, Andersson S, Cognetta AB 3rd, Suciu RM, Roper J, Luopajarvi K, Markelin E, Gopalakrishnan S, Smolander OP, Naranjo S, Saarinen T, Juuti A, Pietiläinen K, Auvinen P, Ristimäki A, Gupta N, Tammela T, Jacks T, Sabatini DM, Cravatt BF, Yilmaz ÖH, Katajisto P. *Nature*. 2019; 571:398-402.

2019 – Minerva Foundation's 60th anniversary

BIOMEDICAL BASIC RESEARCH

Biology and clinical implications of the 19q13 aggressive prostate cancer susceptibility locus. Gao P, Xia JH, Sipeky C, Dong XM, Zhang Q, Yang Y, Zhang P, Cruz SP, Zhang K, Zhu J, Lee HM, Suleman S, Giannareas N, Liu S; PRACTICAL Consortium, Tammela TLJ, Auvinen A, Wang X, Huang Q, Wang L, Manninen A, Vaarala MH, Wang L, Schleutker J, Wei GH. *Cell*. 2018; 174:576-589.e18.

CLINICAL MEDICINE

Genetic basis of severe childhood-onset cardiomyopathies. Vasilescu C, Ojala TH, Brilhante V, Ojanen S, Hinterding HM, Palin E, Alastalo TP, Koskenvuo J, Hiippala A, Jokinen E, Jahnukainen T, Lohi J, Pihkala J, Tyni TA, Carroll CJ, Suomalainen A. *J Am Coll Cardiol*. 2018; 72:2324-2338.

2018

SHANK proteins limit integrin activation by directly interacting with Rap1 and R-Ras. Lilja J, Zacharchenko T, Georgiadou M, Jacquemet G, De Franceschi N, Peuhu E, Hamidi H, Pouwels J, Martens V, Nia FH, Beifuss M, Boeckers T, Kreienkamp HJ, Barsukov IL, Ivaska J. *Nat Cell Biol*. 2017; 19:292-305.

2017

Fetal liver endothelium regulates the seeding of tissue-resident macrophages. Rantakari P, Jäppinen N, Lokka E, Mokkala E, Gerke H, Peuhu E, Ivaska J, Elima K, Auvinen K, Salmi M. *Nature*. 2016; 538:392-396.

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Stem cells. Asymmetric apportioning of aged mitochondria between daughter cells is required for stemness. Katajisto P, Döhla J, Chaffer CL, Pentimikko N, Marjanovic N, Iqbal S, Zoncu R, Chen W, Weinberg RA, Sabatini DM. *Science*. 2015; 348:340-3.

2015

A prostate cancer susceptibility allele at 6q22 increases RFX6 expression by modulating HOXB13 chromatin binding. Huang Q, Whittington T, Gao P, Lindberg JF, Yang Y, Sun J, Väisänen MR, Szulkin R, Annala M, Yan J, Egevad LA, Zhang K, Lin R, Jolma A, Nykter M, Manninen A, Wiklund F, Vaarala MH, Visakorpi T, Xu J, Taipale J, Wei GH. *Nat Genet*. 2014; 46:126-35.

2014

LDL cholesterol recycles to the plasma membrane via a Rab8a-Myosin5b-actin-dependent membrane transport route. Kanerva K, Uronen RL, Blom T, Li S, Bittman R, Lappalainen P, Peränen J, Raposo G, Ikonen E. *Dev Cell*. 2013; 27:249-62.

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Somatic progenitor cell vulnerability to mitochondrial DNA mutagenesis underlies progeroid phenotypes in Polg mutator mice. Ahlqvist KJ, Hämäläinen RH, Yatsuga S, Uutela M, Terzioglu M, Götz A, Forsström S, Salven P, Angers-Loustau A, Kopra OH, Tynyismaa H, Larsson NG, Wartiovaara K, Prolla T, Trifunovic A, Suomalainen A. *Cell Metab*. 2012; 15:100-9.

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SHARPIN is an endogenous inhibitor of β 1-integrin activation. Rantala JK, Pouwels J, Pellinen T, Veltel S, Laasola P, Mattila E, Potter CS, Duffy T, Sundberg JP, Kallioniemi O, Askari JA, Humphries MJ, Parsons M, Salmi M, Ivaska J. *Nat Cell Biol*. 2011; 13:1315-24.

2011

Effective suppression of vascular network formation by combination of antibodies blocking VEGFR ligand binding and receptor dimerization. Tvorogov D, Anisimov A, Zheng W, Leppänen VM, Tammela T, Laurinavicius S, Holnthoner W, Heloterä H, Holopainen T, Jeltsch M, Kalkkinen N, Lankinen H, Ojala PM, Alitalo K. *Cancer Cell*. 2010; 18:630-40.

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Caveolar transport through nasal epithelium of birch pollen allergen Bet v 1 in allergic patients. Joenväärä S, Mattila P, Renkonen J, Mäkitie A, Toppila-Salmi S, Lehtonen M, Salmi P, Lehti S, Mäkinen J, Sormunen R, Paavonen T, Renkonen R. *J Allergy Clin Immunol*. 2009; 124:135-142.

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A new method for random mutagenesis of complete genes: enzymatic generation of mutant libraries in vitro. Lehtovaara PM, Koivula AK, Bamford J, Knowles JK. *Protein Eng.* 1988; 2:63-8.

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