

2021 December

[Megakaryocyte-specific knockout of the Mir-99b/let7e/125a cluster lowers platelet count without altering platelet function.](#) Bhatlekar S, Jacob S, Manne BK, Guo L, Denorme F, Tugolukova EA, Cody MJ, Kosaka Y, Rigoutsos I, Campbell RA, Rowley JW, **O'Connell RM**, Bray PF. *Blood Cells Mol Dis.* 2021 Dec;92:102624. doi: 10.1016/j.bcmd.2021.102624. Epub 2021 Nov 3. PMID: 34775219

[Neonatal Reference Intervals for the Complete Blood Count Parameters MicroR and HYPO-He: Sensitivity Beyond the Red Cell Indices for Identifying Microcytic and Hypochromic Disorders.](#) Bahr TM, Christensen TR, Henry E, Wilkes J, Ohls RK, Bennett ST, **Ward DM**, Pysher TJ, **Christensen RD.** *J Pediatr.* 2021 Dec;239:95-100.e2. doi: 10.1016/j.jpeds.2021.08.002. Epub 2021 Aug 10. PMID: 34389321

[Thirty-five males with severe \(Class 1\) G6PD deficiency \(c.637G>T\) in a North American family of European ancestry.](#) Bahr TM, Agarwal AM, Meznarich JA, Prince WL, Wait TWP, **Prchal JT**, **Christensen RD.** *Blood Cells Mol Dis.* 2021 Dec;92:102625. doi: 10.1016/j.bcmd.2021.102625. Epub 2021 Nov 4. PMID: 34773909

[The immunometabolite itaconate inhibits heme synthesis and remodels cellular metabolism in erythroid precursors.](#) Marcero JR, **Cox JE**, **Bergonia HA**, **Medlock AE**, **Phillips JD**, **Dailey HA.** *Blood Adv.* 2021 Dec 14;5(23):4831-4841. doi: 10.1182/bloodadvances.2021004750. PMID: 34492704

[Infantile Pyknocytosis: End-Tidal CO₂, %Micro-R Measurements, Next-Generation Sequencing, and Transfusion Avoidance with Darbepoetin.](#) **Bahr TM**, Knudsen MC, Lozano-Chinga M, Agarwal AM, Meznarich JA, Ohls RK, **Christensen RD.** *Biomed Hub.* 2020 Dec 11;5(3):227-234. doi: 10.1159/000511388. eCollection 2020 Sep-Dec. PMID: 34055814 Free PMC article.

[Coordinated mis-splicing of TMEM14C and ABCB7 causes ring sideroblast formation in SF3B1-mutant myelodysplastic syndrome.](#) Clough CA, Pangallo J, Sarchi M, Ilagan JO, North K, Bergantinos R, Stolla MC, Naru J, Nugent P, Kim E, Stirewalt DL, Subramaniam AR, Abdel-Wahab O, **Abkowitz JL**, Bradley RK, Doulatov S. *Blood.* 2021 Dec 3:blood.2021012652. doi: 10.1182/blood.2021012652. Online ahead of print. PMID: 34861039

[Anticoagulation management post-transjugular intrahepatic portosystemic shunt in portal hypertension associated with myeloproliferative neoplasms.](#) Abou-Ismael MY, **Prchal JT**, Deininger MW, Parker CJ, Lim MY. *Blood Coagul Fibrinolysis.* 2021 Dec 1;32(8):578-583. doi: 10.1097/MBC.0000000000001087. PMID: 34608880

[Novel, de novo, beta-globin variant with decreased oxygen affinity \(HBB:c.317T>A, "Hemoglobin St. George"\) in a healthy child with low oxygen saturations and anemia.](#) Meznarich JA, Rets A, Agarwal AM, **Christensen RD**, Reading NS, Kuypers FA,

Prchal JT. Am J Hematol. 2021 Dec 1;96(12):E448-E450. doi: 10.1002/ajh.26356. Epub 2021 Sep 29. PMID: 34553403 No abstract available.

2021 November

[Does neocytolysis exist after descent from high altitude?](#) Song J, Christensen RD, Thiagarajan P, **Prchal JT.** Acta Physiol (Oxf). 2021 Nov;233(3):e13713. doi: 10.1111/apha.13713. Epub 2021 Jul 14. PMID: 34228882

[Ironing out the distribution of \[2Fe-2S\] motifs in ferrocyclases.](#) Weerth RS, **Medlock AE, Dailey HA.** J Biol Chem. 2021 Nov;297(5):101017. doi: 10.1016/j.jbc.2021.101017. Epub 2021 Sep 25. PMID: 34582890

[α-Ketoglutarate Inhibits Thrombosis and Inflammation by Prolyl Hydroxylase-2 Mediated Inactivation of Phospho-Akt.](#) Shrimali NM, Agarwal S, Kaur S, Bhattacharya S, Bhattacharyya S, **Prchal JT,** Guchhait P. EBioMedicine. 2021 Nov;73:103672. doi: 10.1016/j.ebiom.2021.103672. Epub 2021 Nov 2. PMID: 34740102 Free PMC article.

[N-terminal tyrosine of ISCU2 triggers \[2Fe-2S\] cluster synthesis by ISCU2 dimerization.](#) Freibert SA, Boniecki MT, Stümpfig C, Schulz V, Krapoth N, **Winge DR,** Mühlhoff U, Stehling O, Cygler M, Lill R. Nat Commun. 2021 Nov 25;12(1):6902. doi: 10.1038/s41467-021-27122-w. PMID: 34824239

[Enteral ferric citrate absorption is dependent on the iron transport protein ferroportin.](#) Hanudel MR, Czaya B, Wong S, Rappaport M, Namjoshi S, Chua K, Jung G, Gabayan V, Qiao B, **Nemeth E, Ganz T.** Kidney Int. 2021 Nov 24:S0085-2538(21)01077-2. doi: 10.1016/j.kint.2021.10.036. Online ahead of print. PMID: 34838540

[Interferon alpha-induced SAMHD1 regulates human cultured megakaryocyte apoptosis and proplatelet formation.](#) Bhatlekar S, Jacob S, Tugolukova E, Manne BK, Kosaka Y, Loher P, **O'Connell RM,** Planelles V, Rondina MT, Rigoutsos I, Bray PF. Haematologica. 2021 Nov 11. doi: 10.3324/haematol.2021.279864. Online ahead of print. PMID: 34758609 Free article.

[Tissue factor activity is increased in neutrophils from JAK2 V617F-mutated essential thrombocythemia and polycythemia vera patients.](#) Reeves BN, Kim SJ, Song J, Wilson KJ, Henderson MW, Key NS, Pawlinski R, **Prchal JT.** Am J Hematol. 2021 Nov 8. doi: 10.1002/ajh.26402. Online ahead of print. PMID: 34748652 No abstract available.

[Epithelial-myeloid exchange of MHC class II constrains immunity and microbiota composition.](#) Stephens WZ, Kubinak JL, Ghazaryan A, Bauer KM, Bell R, Buhrke K, Chiaro TR, Weis AM, Tang WW, Monts JK, Soto R, Ekiz HA, **O'Connell RM,** Round JL. Cell Rep. 2021 Nov 2;37(5):109916. doi: 10.1016/j.celrep.2021.109916. PMID: 34731608

[ABCB6 Polymorphisms are not Overly Represented in Patients with Porphyria.](#) Farrell CP, Nicolas G, **Desnick RJ**, **Parker CJ**, Lamoril J, Gouya L, Karim Z, Tchernitchko D, Chen B, Puy H, **Phillips JD**. Blood Adv. 2021 Nov 1;bloodadvances.2021005484. doi: 10.1182/bloodadvances.2021005484. Online ahead of print. PMID: 34724702

[Mitochondrial dysfunction in mouse livers depleted of iron chaperone PCBP1.](#) Jadhav S, Protchenko O, Li F, Baratz E, Shakoury-Elizeh M, Maschek A, **Cox J**, **Philpott CC**. Free Radic Biol Med. 2021 Nov 1;175:18-27. doi: 10.1016/j.freeradbiomed.2021.08.232. Epub 2021 Aug 26. PMID: 34455040

2021 October

[Mitochondrial contact site and cristae organizing system \(MICOS\) machinery supports heme biosynthesis by enabling optimal performance of ferrochelatase.](#) Dietz JV, Willoughby MM, Piel RB 3rd, Ross TA, Bohovych I, Addis HG, Fox JL, Lanzilotta WN, Dailey HA, Wohlschlegel JA, Reddi AR, Medlock AE, **Khalimonchuk O**. Redox Biol. 2021 Oct;46:102125. doi: 10.1016/j.redox.2021.102125. Epub 2021 Sep 10. PMID: 34517185

[Fetomaternal hemorrhage: Evidence from a multihospital healthcare system that up to 40% of severe cases are missed.](#) Carr NR, Henry E, **Bahr TM**, Ohls RK, Page JM, Ilstrup SJ, **Christensen RD**. Transfusion. 2021 Oct 21. doi: 10.1111/trf.16710. Online ahead of print. PMID: 34674275

[Normal Iron Homeostasis Requires the Transporter SLC48A1 for Efficient Heme-Iron Recycling in Mammals.](#) Simmons WR, Wain L, Toker J, Jagadeesh J, Garrett LJ, Pek RH, **Hamza I**, Bodine DM. Front Genome Ed. 2020 Oct 20;2:8. doi: 10.3389/fgeed.2020.00008. eCollection 2020. PMID: 34713217

[RetroCHMP3 blocks budding of enveloped viruses without blocking cytokinesis.](#) Rheinemann L, Downhour DM, Bredbenner K, Mercenne G, Davenport KA, Schmitt PT, Necessary CR, McCullough J, Schmitt AP, Simon SM, Sundquist WI, **Elde NC**. Cell. 2021 Oct 14;184(21):5419-5431.e16. doi: 10.1016/j.cell.2021.09.008. Epub 2021 Sep 30. PMID: 34597582

[Divergent acyl carrier protein decouples mitochondrial Fe-S cluster biogenesis from fatty acid synthesis in malaria parasites.](#) Falekun S, Sepulveda J, Jami-Alahmadi Y, Park H, Wohlschlegel JA, **Sigala PA**. Elife. 2021 Oct 6;10:e71636. doi: 10.7554/eLife.71636. PMID: 34612205

[Erythroid overproduction of erythroferrone causes iron overload and developmental abnormalities in mice.](#) Coffey R, Jung CG, Olivera JD, Karin G, Pereira RC, **Nemeth E**, **Ganz T**. Blood. 2021 Oct 6;blood.2021014054. doi: 10.1182/blood.2021014054. Online ahead of print. PMID: 34614145

[Protective mitochondrial fission induced by stress-responsive protein GJA1-20k.](#) Shimura D, Nuebel E, Baum R, Valdez SE, Xiao S, Warren JS, Palatinus JA, Hong T, **Rutter J**, Shaw RM. *Elife*. 2021 Oct 5;10:e69207. doi: 10.7554/eLife.69207. PMID: 34608863

[The biochemical basis of mitochondrial dysfunction in Zellweger Spectrum Disorder.](#) Nuebel E, Morgan JT, Fogarty S, Winter JM, Lettlova S, Berg JA, Chen YC, Kidwell CU, Maschek JA, Clowers KJ, Argyriou C, Chen L, Wittig I, Cox JE, Roh-Johnson M, Braverman N, Bonkowsky J, Gygi SP, **Rutter J**. *EMBO Rep*. 2021 Oct 5;22(10):e51991. doi: 10.15252/embr.202051991. Epub 2021 Aug 5. PMID: 34351705

[Acute Hepatic Porphyrrias: "Purple Flags"-Clinical Features that should Prompt Specific Diagnostic Testing.](#) Anderson KE, **Desnick RJ**, Stewart MF, Ventura P, Bonkovsky HL. *Am J Med Sci*. 2021 Oct 1:S0002-9629(21)00337-2. doi: 10.1016/j.amjms.2021.09.009. Online ahead of print. PMID: 34606756 Review.

2021 September

[Early iron supplementation and iron sufficiency at one month of age in NICU patients at-risk for iron deficiency.](#) **Bahr TM**, Carr NR, Christensen TR, Wilkes J, O'Brien EA, German KR, Ohls RK, **Ward DM**, **Christensen RD**. *Blood Cells Mol Dis*. 2021 Sep;90:102575. doi: 10.1016/j.bcmd.2021.102575. Epub 2021 May 6. PMID: 33989937

[Erythropoietic protoporphyria: time to prodrome, the warning signal to exit sun exposure without pain-a patient-reported outcome efficacy measure.](#) Wensink D, Langendonk JG, Overbey JR, Balwani M, Van Broekhoven EJE, Wagenmakers MAEM, Wilson JHP, Wheeden K, Naik H, **Desnick RJ**. *Genet Med*. 2021 Sep;23(9):1616-1623. doi: 10.1038/s41436-021-01176-z. Epub 2021 May 3. PMID: 33941881

[Iron deficiency exacerbates cisplatin- or rhabdomyolysis-induced acute kidney injury through promoting iron-catalyzed oxidative damage.](#) Zhao S, Wang X, Zheng X, Liang X, Wang Z, Zhang J, Zhao X, Zhuang S, Pan Q, Sun F, Shang W, **Barasch J**, Qiu A. *Free Radic Biol Med*. 2021 Sep;173:81-96. doi: 10.1016/j.freeradbiomed.2021.07.025. Epub 2021 Jul 21. PMID: 34298093

[Pumping iron in the kidney.](#) Fisher AL, **Babitt JL**. *Kidney Int*. 2021 Sep;100(3):505-508. doi: 10.1016/j.kint.2021.06.023. PMID: 34420657

[Vaccine efficacy and iron deficiency: an intertwined pair?](#) Drakesmith H, Pasricha SR, Cabantchik I, Hershko C, Weiss G, Girelli D, Stoffel N, Muckenthaler MU, **Nemeth E**, Camaschella C, Klenerman P, Zimmermann MB. *Lancet Haematol*. 2021 Sep;8(9):e666-e669. doi: 10.1016/S2352-3026(21)00201-5. PMID: 34450104

[Reference intervals for end-tidal carbon monoxide of preterm neonates.](#) Pakdeeto S, Christensen TR, **Bahr TM**, Gerday E, Sheffield MJ, Christensen KS, Supapannachart S, Nuntnarumit P,

Sukwiset S, Ohls RK, **Christensen RD**. J Perinatol. 2021 Sep 23. doi: 10.1038/s41372-021-01207-2. Online ahead of print. PMID: 34556800

[Insight into the function of active site residues in the catalytic mechanism of human ferrochelatase.](#) **Medlock AE**, Najahi-Missaoui W, Shiferaw MT, Albetel AN, Lanzilotta WN, **Dailey HA**. Biochem J. 2021 Sep 17;478(17):3239-3252. doi: 10.1042/BCJ20210460. PMID: 34402499

[Mitochondrial-derived compartments facilitate cellular adaptation to amino acid stress.](#) Schuler MH, English AM, Xiao T, Campbell TJ, Shaw JM, **Hughes AL**. Mol Cell. 2021 Sep 16;81(18):3786-3802.e13. doi: 10.1016/j.molcel.2021.08.021. PMID: 34547239

[Resident memory CD8⁺ T cells in regional lymph nodes mediate immunity to metastatic melanoma.](#) Molodtsov AK, Khatwani N, Vella JL, Lewis KA, Zhao Y, Han J, Sullivan DE, Searles TG, Preiss NK, Shabaneh TB, Zhang P, Hawkes AR, Malik BT, Kolling FW 4th, Usherwood EJ, Wong SL, **Phillips JD**, Shirai K, Angeles CV, Yan S, Curiel TJ, Huang YH, Cheng C, Turk MJ. Immunity. 2021 Sep 14;54(9):2117-2132.e7. doi: 10.1016/j.immuni.2021.08.019. PMID: 34525340

[Tril dampens Nodal signaling through Pellino2- and Traf6-mediated activation of Nedd4l.](#) Kim HS, Green YS, Xie Y, **Christian JL**. Proc Natl Acad Sci U S A. 2021 Sep 7;118(36):e2104661118. doi: 10.1073/pnas.2104661118. PMID: 34475212

[Umbilical Cord Erythroferrone Is Inversely Associated with Hepcidin, but Does Not Capture the Most Variability in Iron Status of Neonates Born to Teens Carrying Singletons and Women Carrying Multiples.](#) Delaney KM, Guillet R, Pressman EK, **Ganz T**, **Nemeth E**, O'Brien KO. J Nutr. 2021 Sep 4;151(9):2590-2600. doi: 10.1093/jn/nxab156. PMID: 34236433

[MIC-Drop: A platform for large-scale in vivo CRISPR screens.](#) Parvez S, Herdman C, Beerens M, Chakraborti K, Harmer ZP, Yeh JJ, MacRae CA, Yost HJ, **Peterson RT**. Science. 2021 Sep 3;373(6559):1146-1151. doi: 10.1126/science.abi8870. Epub 2021 Aug 19. PMID: 34413171

2021 August

[The ubiquitous mitochondrial protein unfoldase CLPX regulates erythroid heme synthesis by control of iron utilization and heme synthesis enzyme activation and turnover.](#) Rondelli CM, Perfetto M, Danoff A, **Bergonia H**, Gillis S, O'Neill L, Jackson L, Nicolas G, Puy H, West R, **Phillips JD**, **Yien YY**. J Biol Chem. 2021 Aug;297(2):100972. doi: 10.1016/j.jbc.2021.100972. Epub 2021 Jul 16. PMID: 34280433

[Down the Iron Path: Mitochondrial Iron Homeostasis and Beyond.](#) Dietz JV, Fox JL, **Khalimonchuk O**. Cells. 2021 Aug 25;10(9):2198. doi: 10.3390/cells10092198. PMID: 34571846 Free PMC article. Review.

[Measurement of Immature Reticulocytes in Dried Blood Spots by Mass Spectrometry.](#) Cox HD, Miller GD, Manandhar A, Husk JD, Jia X, Marvin J, **Ward DM**, **Phillips J**, Eichner D. Clin Chem. 2021 Aug 5;67(8):1071-1079. doi: 10.1093/clinchem/hvab058. PMID: 33993255

[Lipocalin 2 stimulates bone fibroblast growth factor 23 production in chronic kidney disease.](#) Courbon G, Francis C, Gerber C, Neuburg S, Wang X, Lynch E, Isakova T, **Babitt JL**, Wolf M, Martin A, David V. Bone Res. 2021 Aug 2;9(1):35. doi: 10.1038/s41413-021-00154-0. PMID: 34334787

[Reversal of emphysema by restoration of pulmonary endothelial cells.](#) Hisata S, Racanelli AC, Kermani P, Schreiner R, Houghton S, Palikuqi B, Kunar B, Zhou A, McConn K, Capili A, Redmond D, Nolan DJ, Ginsberg M, Ding BS, Martinez FJ, Scandura JM, **Cloonan SM**, Raffi S, Choi AMK. J Exp Med. 2021 Aug 2;218(8):e20200938. doi: 10.1084/jem.20200938. Epub 2021 Jul 21. PMID: 34287647

2021 July

[A computational study of structural differences of binding of NADP⁺ and G6P substrates to G6PD Mediterranean^{c.563T}, G6PD A-^{c.202A/c.376G}, G6PD Cairo^{c.404C} and G6PD Gaza^{c.536A} mutations.](#) Sirdah M, Reading NS, Vankayalapati H, **Prchal JT**. Blood Cells Mol Dis. 2021 Jul;89:102572. doi: 10.1016/j.bcmd.2021.102572. Epub 2021 Apr 27. PMID: 33957359

[Amelioration of chronic kidney disease-associated anemia by vadadustat in mice is not dependent on erythropoietin.](#) Hanudel MR, Wong S, Jung G, Qiao B, Gabayan V, Zuk A, **Ganz T**. Kidney Int. 2021 Jul;100(1):79-89. doi: 10.1016/j.kint.2021.03.019. Epub 2021 Mar 31. PMID: 33811979

[A mutation in the iron-responsive element of ALAS2 is a modifier of disease severity in a patient suffering from CLPX associated erythropoietic protoporphyria.](#) Ducamp S, Lusciati S, Ferrer-Cortès X, Nicolas G, Manceau H, Peoc'h K, **Yien YY**, Kannengiesser C, Gouya L, Puy H, Sanchez M. Haematologica. 2021 Jul 1;106(7):2030-2033. doi: 10.3324/haematol.2020.272450. PMID: 33596641

[Glycerol-3-phosphate and fibroblast growth factor 23 regulation.](#) Simic P, **Babitt JL**, Rhee EP. Curr Opin Nephrol Hypertens. 2021 Jul 1;30(4):397-403. doi: 10.1097/MNH.0000000000000715. PMID: 33901058

[Serum Erythropoietin During Pregnancy Is Related to Erythropoietin but Does Not Predict the Risk of Anemia.](#) Delaney KM, Guillet R, Pressman EK, **Ganz T**, Nemeth E, O'Brien KO. J Nutr. 2021 Jul 1;151(7):1824-1833. doi: 10.1093/jn/nxab093. PMID: 33982118

[Does neocytolysis exist after descent from high altitude?](#) Song J, Christensen RD, Thiagarajan P, **Prchal JT**. Acta Physiol (Oxf). 2021 Jul 6:e13713. doi: 10.1111/apha.13713. Online ahead of print. PMID: 34228882

[Autoimmune- and complement-mediated hematologic condition recrudescence following SARS-CoV-2 vaccination.](#) Portuguese AJ, Sunga C, Kruse-Jarres R, Gernsheimer T, **Abkowitz J**. Blood Adv. 2021 Jul 13;5(13):2794-2798. doi: 10.1182/bloodadvances.2021004957. PMID: 34255033

[Characterizing a Common CERS2 Polymorphism in a Mouse Model of Metabolic Disease and in Subjects from the Utah CAD Study.](#) Nicholson RJ, Poss AM, Maschek JA, **Cox JE**, Hopkins PN, Hunt SC, Playdon MC, Holland WL, Summers SA. J Clin Endocrinol Metab. 2021 Jul 13;106(8):e3098-e3109. doi: 10.1210/clinem/dgab155. PMID: 33705551

[The ubiquitous mitochondrial protein unfoldase CLPX regulates erythroid heme synthesis by control of iron utilization and heme synthesis enzyme activation and turnover.](#) Rondelli CM, Perfetto M, Danoff A, Bergonia H, Gillis S, O'Neill L, Jackson L, Nicolas G, Puy H, West R, **Phillips JD**, Yien YY. J Biol Chem. 2021 Jul 16:100972. doi: 10.1016/j.jbc.2021.100972. Online ahead of print. PMID: 34280433

[Iron deficiency exacerbates cisplatin- or rhabdomyolysis-induced acute kidney injury through promoting iron-catalyzed oxidative damage.](#) Zhao S, Wang X, Zheng X, Liang X, Wang Z, Zhang J, Zhao X, Zhuang S, Pan Q, Sun F, Shang W, **Barasch J**, Qiu A. Free Radic Biol Med. 2021 Jul 21;173:81-96. doi: 10.1016/j.freeradbiomed.2021.07.025. Online ahead of print. PMID: 34298093

[New regulators of systemic iron homeostasis.](#) **Ganz T**. Signal Transduct Target Ther. 2021 Jul 21;6(1):280. doi: 10.1038/s41392-021-00696-z. PMID: 34290226

[Nicotinic Acetylcholine Receptor Partial Antagonist Polyamides from Tunicates and Their Predatory Sea Slugs.](#) Paguigan ND, Tun JO, Leavitt LS, Lin Z, Chase K, Dowell C, Deering-Rice CE, Lim AL, Karthikeyan M, Hughen RW, Zhang J, **Peterson RT**, Reilly CA, Light AR, Raghuraman S, McIntosh JM, Olivera BM, Schmidt EW. ACS Chem Neurosci. 2021 Jul 21;12(14):2693-2704. doi: 10.1021/acchemneuro.1c00345. Epub 2021 Jul 2. PMID: 34213884

2021 June

[Controversies in optimal anemia management: conclusions from a Kidney Disease: Improving Global Outcomes \(KDIGO\) Conference.](#) **Babitt JL**, Eisenga MF, Haase VH, Kshirsagar AV, Levin A, Locatelli F, Małyszko J, Swinkels DW, Tarng DC, Cheung M, Jadoul M, Winkelmayr WC, Drüeke TB; Conference Participants. Kidney Int. 2021 Jun;99(6):1280-1295. doi: 10.1016/j.kint.2021.03.020. Epub 2021 Apr 8. PMID: 33839163

[Gain-of-function Tibetan PHD2^{D4E:C127S} variant suppresses monocyte function: A lesson in inflammatory response to inspired hypoxia.](#) Bhattacharya S, Shrimali NM, Mohammad G, Koul PA, **Prchal JT**, Guchhait P. EBioMedicine. 2021 Jun;68:103418. doi: 10.1016/j.ebiom.2021.103418. Epub 2021 Jun 5. PMID: 34102396

[Physiological and pathophysiological mechanisms of hepcidin regulation: clinical implications for iron disorders.](#) Xu Y, Alfaro-Magallanes VM, **Babitt JL**. Br J Haematol. 2021 Jun;193(5):882-893. doi: 10.1111/bjh.17252. Epub 2020 Dec 14. PMID: 33316086 Review.

[Umbilical Cord Erythroferrone Is Inversely Associated with Hepcidin, but Does Not Capture the Most Variability in Iron Status of Neonates Born to Teens Carrying Singletons and Women Carrying Multiples.](#) Delaney KM, Guillet R, Pressman EK, **Ganz T**, Nemeth E, O'Brien KO. J Nutr. 2021 Jun 3:nxab156. doi: 10.1093/jn/nxab156. Online ahead of print. PMID: 34236433

[No small matter: emerging roles for exosomal miRNAs in the immune system.](#) Bauer KM, Round JL, **O'Connell RM**. FEBS J. 2021 Jun 4. doi: 10.1111/febs.16052. Online ahead of print. PMID: 34087046

[Sugar phosphate activation of the stress sensor eIF2B.](#) Hao Q, Heo JM, Nocek BP, Hicks KG, Stoll VS, Remarcik C, Hackett S, LeBon L, Jain R, Eaton D, **Rutter J**, Wong YL, Sidrauski C. Nat Commun. 2021 Jun 8;12(1):3440. doi: 10.1038/s41467-021-23836-z. PMID: 34103529

[Pregpregnancy Obesity Does Not Impact Placental Iron Trafficking.](#) Tussing-Humphreys L, LaBomascus B, O'Brien K, **Nemeth E**, Sangkhae V, Steffen AD, Castellanos K, DeMartelly V, Ruchob R, Welke L, Hemphill NO, Pezley L, McLeod A, Hirsch B, Elam G, Ferrans CE, Koenig MD. J Nutr. 2021 Jun 16:nxab191. doi: 10.1093/jn/nxab191. Online ahead of print. PMID: 34132349

[Hepcidin-Ferroportin Interaction Controls Systemic Iron Homeostasis.](#) Nemeth E, **Ganz T**. Int J Mol Sci. 2021 Jun 17;22(12):6493. doi: 10.3390/ijms22126493. PMID: 34204327

[The iron chaperone and nucleic acid-binding activities of poly\(rC\)-binding protein 1 are separable and independently essential.](#) Patel SJ, Protchenko O, Shakoury-Elizeh M, Baratz E, Jadhav S, **Philpott CC**. Proc Natl Acad Sci U S A. 2021 Jun 22;118(25):e2104666118. doi: 10.1073/pnas.2104666118. PMID: 34161287

[Effects of altitude and recombinant human erythropoietin on iron metabolism: a randomized controlled trial.](#) Breenfeldt Andersen A, Bonne TC, Bejder J, Jung G, **Ganz T**, Nemeth E, Olsen NV, Rodriguez Huertas J, Nordsborg NB. Am J Physiol Regul Integr Comp Physiol. 2021 Jun 23. doi: 10.1152/ajpregu.00070.2021. Online ahead of print. PMID: 34160288

[Screening out the Exposome to Improve Transfusion Quality.](#) DeSimone RA, **Vinchi F**. Hemasphere. 2021 Jun 25;5(7):e605. doi: 10.1097/HS9.0000000000000605. eCollection 2021 Jul. PMID: 34235402

[Iron-dependent apoptosis causes embryotoxicity in inflamed and obese pregnancy.](#) Fisher AL, Sangkhae V, Balušíková K, Palaskas NJ, **Ganz T**, Nemeth E. Nat Commun. 2021 Jun 29;12(1):4026. doi: 10.1038/s41467-021-24333-z. PMID: 34188052

2021 May

[Iron Toxicity and Chelation Therapy in Hematopoietic Stem Cell Transplant.](#) Isidori A, Loscocco F, Visani G, Chiarucci M, Musto P, Kubasch AS, Platzbecker U, **Vinchi F**. *Transplant Cell Ther.* 2021 May;27(5):371-379. doi: 10.1016/j.jtct.2020.11.007. Epub 2020 Dec 11. PMID: 33969823 Free article. Review.

[Single-cell analysis of erythropoiesis in Rpl11 haploinsufficient mice reveals insight into the pathogenesis of Diamond-Blackfan anemia.](#) Doty RT, Yan X, Meng C, Lausted C, Tian Q, **Abkowitz JL**. *Exp Hematol.* 2021 May;97:66-78.e6. doi: 10.1016/j.exphem.2021.02.010. Epub 2021 Feb 22. PMID: 33631277

[SIRT5 IS A DRUGGABLE METABOLIC VULNERABILITY IN ACUTE MYELOID LEUKEMIA.](#) Yan D, Franzini A, Pomicter AD, Halverson BJ, Antelope O, Mason CC, Ahmann JM, Senina AV, Vellore NA, Jones CL, Zabriskie MS, Than H, Xiao MJ, van Scoyk A, Patel AB, Clair PM, Heaton WL, Owen SC, Andersen JL, Egbert CM, Reisz JA, D'Alessandro A, **Cox JE**, Gantz KC, Redwine HM, Iyer SM, Khorashad JS, Rajabi N, Olsen CA, O'Hare T, Deininger MW. *Blood Cancer Discov.* 2021 May;2(3):266-287. doi: 10.1158/2643-3230.bcd-20-0168. Epub 2019 Dec 2. PMID: 34027418 Free PMC article.

[Vasculo-toxic and pro-inflammatory action of unbound haemoglobin, haem and iron in transfusion-dependent patients with haemolytic anaemias.](#) **Vinchi F**, Sparla R, Passos ST, Sharma R, Vance SZ, Zreid HS, Juaidi H, Manwani D, Yazdanbakhsh K, Nandi V, Silva AMN, Agarvas AR, Fibach E, Belcher JD, Vercellotti GM, Ghoti H, Muckenthaler MU. *Br J Haematol.* 2021 May;193(3):637-658. doi: 10.1111/bjh.17361. Epub 2021 Mar 15. PMID: 3372386

[Erythropoietic protoporphyria: time to prodrome, the warning signal to exit sun exposure without pain-a patient-reported outcome efficacy measure.](#) Wensink D, Langendonk JG, Overbey JR, Balwani M, Van Broekhoven EJE, Wagenmakers MAEM, Wilson JHP, Wheeden K, Naik H, **Desnick RJ**. *Genet Med.* 2021 May 3. doi: 10.1038/s41436-021-01176-z. Online ahead of print. PMID: 33941881

[Early iron supplementation and iron sufficiency at one month of age in NICU patients at-risk for iron deficiency.](#) Bahr TM, Carr NR, Christensen TR, Wilkes J, O'Brien EA, German KR, Ohls RK, Ward DM, **Christensen RD**. *Blood Cells Mol Dis.* 2021 May 6;90:102575. doi: 10.1016/j.bcmd.2021.102575. Online ahead of print. PMID: 33989937

[HIF-2 inhibitor, erythrocytosis, and pulmonary hypertension.](#) **Prchal JT**, Gordeuk VR. *Blood.* 2021 May 6;137(18):2424-2425. doi: 10.1182/blood.2020010323. PMID: 33956067

[A Stat1 bound enhancer promotes Nampt expression and function within tumor associated macrophages.](#) Huffaker TB, Ekiz HA, Barba C, Lee SH, Runtsch MC, Nelson MC, Bauer KM, Tang WW, Mosbrugger TL, **Cox JE**, Round JL, Voth WP, O'Connell RM. *Nat Commun.* 2021 May 11;12(1):2620. doi: 10.1038/s41467-021-22923-5. PMID: 33976173 Free PMC article.

[A tale of two receptors: Bmp heterodimers recruit two type I receptors but use the kinase activity of only one.](#) **Christian J.** Proc Natl Acad Sci U S A. 2021 May 11;118(19):e2104745118. doi: 10.1073/pnas.2104745118. PMID: 33893177

[Coordination of iron homeostasis by bone morphogenetic proteins: Current understanding and unanswered questions.](#) Fisher AL, **Babitt JL.** Dev Dyn. 2021 May 16. doi: 10.1002/dvdy.372. Online ahead of print. PMID: 33993583

[Measurement of Immature Reticulocytes in Dried Blood Spots by Mass Spectrometry.](#) Cox HD, Miller GD, Manandhar A, Husk JD, Jia X, Marvin J, **Ward DM,** Phillips J, Eichner D. Clin Chem. 2021 May 16:hvab058. doi: 10.1093/clinchem/hvab058. Online ahead of print. PMID: 33993255

[The pyruvate kinase activator mitapivat reduces hemolysis and improves anemia in a \$\beta\$ -thalassemia mouse model.](#) Matte A, Federti E, Kung C, Kosinski PA, Narayanaswamy R, Russo R, Federico G, Carlomagno F, Desbats MA, Salviati L, Leboeuf C, Valenti MT, Turrini F, Janin A, Yu S, Beneduce E, Ronseaux S, Iatcenko I, Dang L, **Ganz T,** Jung CL, Iolascon A, Brugnara C, De Franceschi L. J Clin Invest. 2021 May 17;131(10):e144206. doi: 10.1172/JCI144206. PMID: 33822774

[The 5 \$\alpha\$ -reductase inhibitor finasteride reduces opioid self-administration in animal models of opioid use disorder.](#) Bosse GD, Cadeddu R, Floris G, Farero RD, Vigato E, Lee SJ, Zhang T, Gaikwad NW, Keefe KA, Phillips PE, Bortolato M, **Peterson RT.** J Clin Invest. 2021 May 17;131(10):e143990. doi: 10.1172/JCI143990. PMID: 33848264

[The hepcidin regulator erythroferrone is a new member of the erythropoiesis-iron-bone circuitry.](#) Castro-Mollo M, Gera S, Ruiz-Martinez M, Feola M, Gumerova A, Planoutene M, Clementelli C, Sangkhae V, Casu C, Kim SM, Ostland V, Han H, **Nemeth E,** Fleming R, Rivella S, Lizneva D, Yuen T, Zaidi M, Ginzburg Y. Elife. 2021 May 18;10:e68217. doi: 10.7554/eLife.68217. PMID: 34002695

[Diversification of CD1 Molecules Shapes Lipid Antigen Selectivity.](#) Paterson NM, Al-Zubieri H, **Barber MF.** Mol Biol Evol. 2021 May 19;38(6):2273-2284. doi: 10.1093/molbev/msab022. PMID: 33528563

[A New Hour-Specific Serum Bilirubin Nomogram for Neonates \$\geq\$ 35 Weeks of Gestation.](#) Bahr TM, Henry E, **Christensen RD,** Minton SD, Bhutani VK. J Pediatr. 2021 May 21:S0022-3476(21)00489-3. doi: 10.1016/j.jpeds.2021.05.039. Online ahead of print. PMID: 34023346

[Inflammation drives alternative first exon usage to regulate immune genes including a novel iron-regulated isoform of *Aim2*.](#) Robinson EK, Jagannatha P, Covarrubias S, Cattle M, Smaliy V, Safavi R, Shapleigh B, Abu-Shumays R, Jain M, **Cloonan SM,** Akesson M, Brooks AN, Carpenter S. Elife. 2021 May 28;10:e69431. doi: 10.7554/eLife.69431. PMID: 34047695

2021 April

[Long non-coding RNA Meg3 deficiency impairs glucose homeostasis and insulin signaling by inducing cellular senescence of hepatic endothelium in obesity.](#) Cheng X, Shihabudeen Haider Ali MS, Moran M, Viana MP, Schlichte SL, Zimmerman MC, **Khalimonchuk O**, Feinberg MW, Sun X. Redox Biol. 2021 Apr;40:101863. doi: 10.1016/j.redox.2021.101863. Epub 2021 Jan 19. PMID: 33508742 Free PMC article

2021 March

[Ceramide are necessary and sufficient for diet-induced impairment of thermogenic adipocytes.](#) Chaurasia B, Ying L, Talbot CL, Maschek JA, **Cox J**, Schuchman EH, Hirabayashi Y, Holland WL, Summers SA. Mol Metab. 2021 Mar;45:101145. doi: 10.1016/j.molmet.2020.101145. Epub 2020 Dec 19. PMID: 33352310

[Reconciling markedly discordant values of serum ferritin versus reticulocyte hemoglobin content.](#) Bahr TM, Baer VL, Ohls RK, Christensen TR, **Ward DM**, Bennett ST, **Christensen RD**. J Perinatol. 2021 Mar;41(3):619-626. doi: 10.1038/s41372-020-00845-2. Epub 2020 Oct 4. PMID: 33012780

[Red blood cell transfusions and potentially related morbidities in neonates under 32 weeks' gestation.](#) D'Amato G, Faienza MF, Palladino V, Bianchi FP, Natale MP, **Christensen RD**, Giordano P, Del Vecchio A. Blood Transfus. 2021 Mar;19(2):113-119. doi: 10.2450/2020.0092-20. Epub 2020 Oct 14. PMID: 33085599

[Rationale and design of the Kidney Precision Medicine Project.](#) de Boer IH, Alpers CE, Azeloglu EU, Balis UGJ, **Barasch JM**, Barisoni L, Blank KN, Bomback AS, Brown K, Dagher PC, Dighe AL, Eadon MT, El-Achkar TM, Gaut JP, Hachohen N, He Y, Hodgins JB, Jain S, Kellum JA, Kiryluk K, Knight R, Laszik ZG, Lienczewski C, Mariani LH, McClelland RL, Menez S, Moledina DG, Mooney SD, O'Toole JF, Palevsky PM, Parikh CR, Poggio ED, Rosas SE, Rosengart MR, Sarwal MM, Schaub JA, Sedor JR, Sharma K, Steck B, Toto RD, Troyanskaya OG, Tuttle KR, Vazquez MA, Waikar SS, Williams K, Wilson FP, Zhang K, Iyengar R, Kretzler M, Himmelfarb J; Kidney Precision Medicine Project. Kidney Int. 2021 Mar;99(3):498-510. doi: 10.1016/j.kint.2020.08.039. PMID: 33637194

[Targeting transcriptional coregulator OCA-B/Pou2af1 blocks activated autoreactive T cells in the pancreas and type 1 diabetes.](#) Kim H, Perovanovic J, Shakya A, Shen Z, German CN, Ibarra A, Jafek JL, Lin NP, Evavold BD, Chou DH, Jensen PE, He X, **Tantin D**. J Exp Med. 2021 Mar 1;218(3):e20200533. doi: 10.1084/jem.20200533. PMID: 33295943

[The pyruvate-lactate axis modulates cardiac hypertrophy and heart failure.](#) Cluntun AA, Badolia R, Lettlova S, Parnell KM, Shankar TS, Diakos NA, Olson KA, Taleb I, Tatum SM, Berg JA, Cunningham CN, Van Ry T, Bott AJ, Krokidi AT, Fogarty S, Skedros S, Swiatek WI, Yu X, Luo B, Merx S, Navankasattusas S, **Cox JE**, Ducker GS, Holland WL, McKellar SH, Rutter J, Drakos SG. Cell Metab. 2021 Mar 2;33(3):629-648.e10. doi: 10.1016/j.cmet.2020.12.003. Epub 2020 Dec 16. PMID: 33333007

[Commentary on the AGA Clinical Practice Guidelines on the Gastrointestinal Evaluation of Iron Deficiency Anemia.](#) Kaunitz JD, **Ganz T.** Gastroenterology. 2021 Mar 3:S0016-5085(21)00470-4. doi: 10.1053/j.gastro.2021.03.001. Online ahead of print. PMID: 33675744
No abstract available.

[Characterizing a common CERS2 polymorphism in a mouse model of metabolic disease and in subjects from the Utah CAD Study.](#) Nicholson RJ, Poss AM, Maschek JA, **Cox JE**, Hopkins PN, Hunt SC, Playdon MC, Holland WL, Summers SA. J Clin Endocrinol Metab. 2021 Mar 11:dgab155. doi: 10.1210/clinem/dgab155. Online ahead of print. PMID: 33705551

[Kidney injury biomarkers during exposure to tenofovir-based pre-exposure prophylaxis.](#) Nickolas TL, **Barasch J**, Mugwanya KK, Branch AD, Heffron R, Wanga V, Mugo NR, Ronald A, Celum C, Donnell D, Baeten JM, Wyatt CM; Partners PrEP Study Team. AIDS. 2021 Mar 11. doi: 10.1097/QAD.0000000000002865. Online ahead of print. PMID: 33710023

2021 February

[FGF23, Frailty, and Falls in SPRINT.](#) Jovanovich A, Ginsberg C, You Z, Katz R, Ambrosius WT, Berlowitz D, Cheung AK, **Cho M**, Lee AK, Punzi H, Rehman S, Roumie C, Supiano MA, Wright CB, Shlipak M, Ix JH, Chonchol M. J Am Geriatr Soc. 2021 Feb;69(2):467-473. doi: 10.1111/jgs.16895. Epub 2020 Dec 1. PMID: 33289072

[SARS-CoV-2 innate effector associations and viral load in early nasopharyngeal infection.](#) Liou TG, Adler FR, Cahill BC, Cox DR, **Cox JE**, Grant GJ, Hanson KE, Hartsell SC, Hatton ND, Helms MN, Jensen JL, Kartsonaki C, Li Y, Leung DT, Marvin JE, Middleton EA, Osburn-Staker SM, Packer KA, Shakir SM, Sturrock AB, Tardif KD, Warren KJ, Waddoups LJ, Weaver LJ, Zimmerman E, Paine R 3rd. Physiol Rep. 2021 Feb;9(4):e14761. doi: 10.14814/phy2.14761. PMID: 33625796

[Inflammatory, synaptic, motor, and behavioral alterations induced by gestational sepsis on the offspring at different stages of life.](#) Granja MG, Alves LP, Leardini-Tristão M, Saul ME, Bortoni LC, de Moraes FM, Ferreira EC, de Moraes BPT, da Silva VZ, Dos Santos AFR, Silva AR, Gonçalves-de-Albuquerque CF, Bambini-Junior V, **Weyrich AS**, Rondina MT, Zimmerman GA, de Castro-Faria-Neto HC. J Neuroinflammation. 2021 Feb 25;18(1):60. doi: 10.1186/s12974-021-02106-1. PMID: 33632243

[Layered immunity of the developing thymus.](#) López DA, **Beaudin AE.** Blood. 2021 Feb 25;137(8):1003-1004. doi: 10.1182/blood.2020009207. PMID: 33630049 No abstract available.

[Using genetically encoded heme sensors to probe the mechanisms of heme uptake and homeostasis in Candida albicans.](#) Weissman Z, Pinsky M, Donegan RK, **Reddi AR**, Kornitzer D. Cell Microbiol. 2021 Feb;23(2):e13282. doi: 10.1111/cmi.13282. Epub 2020 Nov 9. PMID: 33104284

[Emerimicins V-X, 15-Residue Peptaibols Discovered from an *Acremonium* sp. through Integrated Genomic and Chemical Approaches.](#) Wu G, Dentinger BTM, Nielson JR, **Peterson RT**, Winter JM. J Nat Prod. 2021 Feb 22. doi: 10.1021/acs.jnatprod.0c01186. Online ahead of print. PMID: 33617244

Gams isolated from a soil sample collected from the University of **Utah** led to the isolation and characterization of six new linear pentadecapeptides, emerimicins V-X (1-6). ...

[Single-cell analysis of erythropoiesis in Rpl11 haploinsufficient mice reveals insight into the pathogenesis of Diamond Blackfan anemia.](#) Doty RT, Yan X, Meng C, Lausted C, Tian Q, **Abkowitz JL**. Exp Hematol. 2021 Feb 22:S0301-472X(21)00092-8. doi: 10.1016/j.exphem.2021.02.010. Online ahead of print. PMID: 33631277

[Expression Profiling Identifies TWIST2 Target Genes in Setleis Syndrome Patient Fibroblast and Lymphoblast Cells.](#) Crespo NE, Torres-Bracero A, Renta JY, **Desnick RJ**, Cadilla CL. Int J Environ Res Public Health. 2021 Feb 19;18(4):1997. doi: 10.3390/ijerph18041997. PMID: 33669496

[Increase of plasma erythroferrone levels during high-altitude exposure: A sub-analysis of the TOP OF HOME study.](#) Emrich IE, Scheuer A, Wagenpfeil S, **Ganz T**, Heine GH. Am J Hematol. 2021 Feb 19. doi: 10.1002/ajh.26130. Online ahead of print. PMID: 33606284 No abstract available.

[Maestro of the SereNADe: SLC25A51 Orchestrates Mitochondrial NAD.](#) Ouyang Y, Bott AJ, **Rutter J**. Trends Biochem Sci. 2021 Feb 19:S0968-0004(21)00029-3. doi: 10.1016/j.tibs.2021.02.001. Online ahead of print. PMID: 33618948

[A mutation in the iron-responsive element of *ALAS2* is a modifier of disease severity in a patient suffering from *CLPX* associated erythropoietic protoporphyria.](#) Ducamp S, Luscieti S, Ferrer-Cortès X, Nicolas G, Manceau H, Peoc'h K, **Yien YY**, Kannengiesser C, Gouya L, Puy H, Sanchez M. Haematologica. 2021 Feb 18. doi: 10.3324/haematol.2020.272450. Online ahead of print. PMID: 33596641

[A time to build and a time to burn: glucose metabolism for every season.](#) McKean WB, Toshniwal AG, **Rutter J**. Mol Cell. 2021 Feb 18;81(4):642-644. doi: 10.1016/j.molcel.2021.02.003. PMID: 33606971

[Lysophospholipid acylation modulates plasma membrane lipid organization and insulin sensitivity in skeletal muscle.](#) Ferrara PJ, Rong X, Maschek JA, Verkerke AR, Siripoksup P, Song H, Green TD, Krishnan KC, Johnson JM, Turk J, Houmard JA, Lusic AJ, Drummond MJ, McClung JM, **Cox JE**, Shaikh SR, Tontonoz P, Holland WL, Funai K. J Clin Invest. 2021 Feb 16:135963. doi: 10.1172/JCI135963. Online ahead of print. PMID: 3359195

[Maternal obesity and impaired offspring neurodevelopment: could fetal iron deficiency be a pathogenic link?](#) Bahr TM, Benson AE, Kling PJ, Ohls RK, **Ward DM**, **Christensen RD**. J Perinatol. 2021 Feb 16. doi: 10.1038/s41372-021-00951-9. Online ahead of print. PMID: 33594227 No abstract available.

[Mitochondrial copper and phosphate transporter specificity was defined early in the evolution of eukaryotes.](#) Zhu X, Boulet A, Buckley KM, Phillips CB, Gammon MG, Oldfather LE, Moore SA, **Leary SC**, Cobine PA. *Elife*. 2021 Feb 16;10:e64690. doi: 10.7554/eLife.64690. PMID: 33591272

[Heparanase expression and activity are increased in platelets during clinical sepsis.](#) Eustes AS, Campbell RA, Middleton EA, Tolley ND, Manne BK, Montenont E, Rowley JW, Krauel K, Blair A, Guo L, Kosaka Y, Medeiros-de-Moraes IM, Lacerda M, Hottz ED, Neto HCF, Zimmerman GA, **Weyrich AS**, Petrey A, Rondina MT. *J Thromb Haemost*. 2021 Feb 15. doi: 10.1111/jth.15266. Online ahead of print. PMID: 33587773

[Accidental massive platelet transfusion.](#) Tsang HC, Gernsheimer TB, **Abkowitz JL**, Hess JR. *Transfusion*. 2021 Feb 11. doi: 10.1111/trf.16314. Online ahead of print. PMID: 33569795 No abstract available.

[Novel mechanism of hereditary pyropoikilocytosis phenotype due to co-inheritance of \$\beta\$ globin and \$\alpha\$ spectrin mutations.](#) Kim SJ, Song J, Reading NS, Lautersztain J, Kutlar A, Agarwal AM, Coetzer TL, **Prchal JT**. *Am J Hematol*. 2021 Feb 8. doi: 10.1002/ajh.26121. Online ahead of print. PMID: 33556202

[Pursuing Orally Bioavailable Hepcidin Analogues via Cyclic N-Methylated Mini-Hepcidins.](#) Goncalves Monteiro D, van Dijk JWA, Aliyanto R, Fung E, Nemeth E, **Ganz T**, Rosengren J, Clark RJ. *Biomedicines*. 2021 Feb 8;9(2):164. doi: 10.3390/biomedicines9020164. PMID: 33567510

[Non-transferrin-bound iron in the spotlight: novel mechanistic insights into the vasculo-toxic and atherosclerotic effect of iron.](#) **Vinchi F**. *Antioxid Redox Signal*. 2021 Feb 6. doi: 10.1089/ars.2020.8167. Online ahead of print. PMID: 33554718

[Extensive recombination-driven coronavirus diversification expands the pool of potential pandemic pathogens.](#) Goldstein SA, Brown J, Pedersen BS, Quinlan AR, **Elde NC**. *bioRxiv*. 2021 Feb 4:2021.02.03.429646. doi: 10.1101/2021.02.03.429646. Preprint. PMID: 33564759

[Diversification of CD1 molecules shapes lipid antigen selectivity.](#) Paterson NM, Al-Zubieri H, **Barber MF**. *Mol Biol Evol*. 2021 Feb 2:msab022. doi: 10.1093/molbev/msab022. Online ahead of print. PMID: 33528563

Molecular studies of host-pathogen **evolution** have largely focused on the consequences of variation at protein-protein interaction surfaces. ...These findings suggest that lipid-protein conflicts have shaped CD1 genetic variation during primate **evolution**. Consistent ...

[Maternal schistosomiasis impairs offspring Interleukin-4 production and B cell expansion.](#) Cortés-Selva D, Gibbs L, Ready A, Ekiz HA, **O'Connell R**, Rajwa B, Fairfax KC. *PLoS Pathog*. 2021 Feb 1;17(2):e1009260. doi: 10.1371/journal.ppat.1009260. eCollection 2021 Feb. PMID: 33524040 Free PMC article.

[miR-155 promotes T reg cell development by safeguarding medullary thymic epithelial cell maturation.](#) Dong J, Warner LM, Lin LL, Chen MC, **O'Connell RM**, Lu LF. *J Exp Med.* 2021 Feb 1;218(2):e20192423. doi: 10.1084/jem.20192423. PMID: 33125052

2021 January

[Chemical Genetics: Manipulating the Germline with Small Molecules.](#) Jin YN, **Peterson RT**. *Methods Mol Biol.* 2021;2218:61-73. doi: 10.1007/978-1-0716-0970-5_6. PMID: 33606223

[Isolation and thermal stabilization of mouse ferroportin.](#) Deshpande CN, Azucenas CR, Qiao B, Nomura N, Xin V, Font J, Iwata S, **Ganz T**, **Nemeth E**, Mackenzie B, Jormakka M. *FEBS Open Bio.* 2021 Jan;11(1):26-34. doi: 10.1002/2211-5463.13039. Epub 2020 Dec 17. PMID: 3319042

[One ring to bring them all and in the darkness bind them: The trafficking of heme without deliverers.](#) Chambers IG, Willoughby MM, **Hamza I**, **Reddi AR**. *Biochim Biophys Acta Mol Cell Res.* 2021 Jan;1868(1):118881. doi: 10.1016/j.bbamcr.2020.118881. Epub 2020 Oct 3. PMID: 33022276

[Parenteral iron therapy and phosphorus homeostasis: A review.](#) Kalantar-Zadeh K, **Ganz T**, Trumbo H, Seid MH, Goodnough LT, Levine MA. *Am J Hematol.* 2021 Jan 20. doi: 10.1002/ajh.26100. Online ahead of print. PMID: 33471363 Review.

[Protease OMA1 modulates mitochondrial bioenergetics and ultrastructure through dynamic association with MICOS complex.](#) Viana MP, Levytsky RM, Anand R, Reichert AS, **Khalimonchuk O**. *iScience.* 2021 Jan 29;24(2):102119. doi: 10.1016/j.isci.2021.102119. eCollection 2021 Feb 19. PMID: 33644718 Free PMC article.

[ER targeting of non-imported mitochondrial carrier proteins is dependent on the GET pathway.](#) Xiao T, Shakya VP, **Hughes AL**. *Life Sci Alliance.* 2021 Jan 21;4(3):e202000918. doi: 10.26508/lsa.202000918. Print 2021 Mar. PMID: 33479049

[Reshaping Erythrophagocytosis and Iron Recycling by Reticuloendothelial Macrophages.](#) **Vinchi F**, Vance SZ. *Hemasphere.* 2021 Jan 20;5(2):e525. doi: 10.1097/HS9.0000000000000525. eCollection 2021 Feb. PMID: 33490878

[Identification of small molecule allosteric modulators of 5,10-methylenetetrahydrofolate reductase \(MTHFR\) by targeting its unique regulatory domain.](#) Bezerra GA, Holenstein A, Foster WR, Xie B, Hicks KG, Bürer C, Lutz S, Mukherjee A, Sarkar D, Bhattacharya D, **Rutter J**, Talukdar A, Brown PJ, Luo M, Shi L, Froese DS, Yue WW. *Biochimie.* 2021 Jan 18:S0300-9084(21)00009-2. doi: 10.1016/j.biochi.2021.01.007. Online ahead of print. PMID: 33476699

[Metabolic reprogramming of the myeloid lineage by Schistosoma mansoni infection persists independently of antigen exposure.](#) Cortes-Selva D, Gibbs L, Maschek JA, Nascimento M, Van

Ry T, **Cox JE**, Amiel E, Fairfax KC. PLoS Pathog. 2021 Jan 8;17(1):e1009198. doi: 10.1371/journal.ppat.1009198. eCollection 2021 Jan. PMID: 33417618

[Is the erythropoietin-erythroferrone-hepcidin axis intact in human neonates?](#) Bahr TM, **Ward DM**, Jia X, Ohls RK, German KR, **Christensen RD**. Blood Cells Mol Dis. 2021 May;88:102536. doi: 10.1016/j.bcnd.2021.102536. Epub 2021 Jan 6. PMID: 33450539