

## List of Publications (2016-2024)

**Phosphoproteomics predict response to midostaurin plus chemotherapy in independent cohorts of FLT3-mutated acute myeloid leukaemia.** Borek WE, Nobre L, Pediconi SF, Campbell AE, Christopher JA, Nawaz N, Perkins DN, Moreno-Cardoso P, Kelsall J, Ferguson HR, Patel B, Gallipoli P, Arruda A, Ambinder AJ, Thompson A, Williamson A, Ghiur G, Minden MD, Gribben JG, Britton DJ, Cutillas PR, Dokal AD. *EBioMedicine*. 2024 Oct;108:105316. doi: 10.1016/j.ebiom.2024.105316. Epub 2024 Sep 17. PMID: 39293215

**Spermidine metabolism regulates leukemia stem and progenitor cell function through KAT7 expression in patient-derived mouse models.** Rondeau V, Berman JM, Ling T, O'Brien C, Culp-Hill R, Reisz JA, Wunderlich M, Chueh Y, Jiménez-Camacho KE, Sexton C, Carter KM, Stillwell C, St-Germain J, Yendi D, Gupta A, Shi M, Bourdine A, Paralkar VR, Jahangiri S, Hope KJ, Tikhonova AN, Arruda A, Minden MD, Raught B, D'Alessandro A, Jones CL. *Sci Transl Med*. 2024 Sep 25;16(766):eadn1285. doi: 10.1126/scitranslmed.adn1285. Epub 2024 Sep 25. PMID: 39321266

**Double-negative T cells utilize a TNF $\alpha$ -JAK1-ICAM-1 cytotoxic axis against acute myeloid leukemia.** Tin E, Lee JB, Khatri I, Na Y, Minden MD, Zhang L. *Blood Adv*. 2024 Jun 25;8(12):3013-3026. doi: 10.1182/bloodadvances.2023011739. PMID: 38547431

**Pseudolaric Acid B Targets CD147 to Selectively Kill Acute Myeloid Leukemia Cells.** Zou S, Parfenova E, Vrdoljak N, Minden MD, Spagnuolo PA. *Int J Mol Sci*. 2024 Jun 13;25(12):6517. doi: 10.3390/ijms25126517. PMID: 38928225

**Genomic Characterization of Partial Tandem Duplication Involving the *KMT2A* Gene in Adult Acute Myeloid Leukemia.** Seto A, Downs G, King O, Salehi-Rad S, Baptista A, Chin K, Grenier S, Nwachukwu B, Tierens A, Minden MD, Smith AC, Capo-Chichi JM. *Cancers (Basel)*. 2024 Apr 26;16(9):1693. doi: 10.3390/cancers16091693. PMID: 38730645

**Targeting *SRSF2* mutations in leukemia with RKI-1447: A strategy to impair cellular division and nuclear structure.** Su M, Fleischer T, Grosheva I, Horev MB, Olszewska M, Mattioli CC, Barr H, Plotnikov A, Carvalho S, Moskovich Y, Minden MD, Chapal-Ilani N, Wainstein A, Papapetrou EP, Dezorella N, Cheng T, Kaushansky N, Geiger B, Shlush LI. *Science*. 2024 Mar 6;27(4):109443. doi: 10.1016/j.isci.2024.109443. eCollection 2024 Apr 19. PMID: 38558935

**Mitochondria inside acute myeloid leukemia cells hydrolyze ATP to resist chemotherapy.** Hagen JT, Montgomery MM, Aruleba RT, Chrest BR, Green TD, Kassai M, Zeczycki TN, Schmidt CA, Bhowmick D, Tan SF, Feith DJ, Chalfant CE, Loughran TP Jr, Liles D, Minden MD, Schimmer AD, Cabot MC, Mclung JM, Fisher-Wellman KH. *bioRxiv* [Preprint]. 2024 Apr 15:2024.04.12.589110. doi: 10.1101/2024.04.12.589110. PMID: 38659944

**Preclinical characterization and clinical trial of CFI-400945, a polo-like kinase 4 inhibitor, in patients with relapsed/refractory acute myeloid leukemia and higher-risk myelodysplastic neoplasms.** Murphy T, Mason JM, Leber B, Bray MR, Chan SM, Gupta V, Khalaf D, Maze D, McNamara CJ, Schimmer AD, Schuh AC, Sibai H, Trus M, Valiquette D, Martin K, Nguyen L, Li X, Mak TW, Minden MD, Yee KWL. *Leukemia*. 2024 Mar;38(3):502-512. doi: 10.1038/s41375-023-02110-9. Epub 2023 Dec 19. PMID: 38114624

**Exclusion of persistent mutations in splicing factor genes and isocitrate dehydrogenase 2 improves the prognostic power of molecular measurable residual disease assessment in acute myeloid**

**leukemia.** Murphy T, Zou J, Arruda A, Wang TT, Zhao Z, Zheng Y, Gupta V, Maze D, McNamara C, Minden MD, Schimmer A, Sibai H, Yee K, Capo-Chichi JM, Stockley T, Schuh A, Bratman SV, Chan SM.*Haematologica.* 2024 Feb 1;109(2):671-675. doi: 10.3324/haematol.2023.283510.PMID: 37345484

**Ratio of stemness to interferon signalling as a biomarker and therapeutic target of myeloproliferative neoplasm progression to acute myeloid leukaemia.** de Castro FA, Mehdipour P, Chakravarthy A, Ettayebi I, Loo Yau H, Medina TS, Marhon SA, de Almeida FC, Bianco TM, Arruda AGF, Devlin R, de Figueiredo-Pontes LL, Chahud F, da Costa Cacemiro M, Minden MD, Gupta V, De Carvalho DD.*Br J Haematol.* 2024 Jan;204(1):206-220. doi: 10.1111/bjh.19107. Epub 2023 Sep 19.PMID: 37726227

**Precise single-cell transcriptomic mapping of normal and leukemic cell states reveals unconventional lineage priming in acute myeloid leukemia.** Zeng AGX, Iacobucci I, Shah S, Mitchell A, Wong G, Bansal S, Gao Q, Kim H, Kennedy JA, Minden MD, Haferlach T, Mullighan CG, Dick JE.*bioRxiv* [Preprint]. 2023 Dec 27;2023.12.26.573390. doi: 10.1101/2023.12.26.573390.PMID: 38234771

**Epigenetic vulnerabilities of leukemia harboring inactivating EZH2 mutations.** Alqazzaz MA, Luciani GM, Vu V, Machado RAC, Szewczyk MM, Adamson EC, Cheon S, Li F, Arrowsmith CH, Minden MD, Barsyte-Lovejoy D.*Exp Hematol.* 2024 Feb;130:104135. doi: 10.1016/j.exphem.2023.11.009. Epub 2023 Dec 10.PMID: 38072134

**Simultaneous inhibition of Sirtuin 3 and cholesterol homeostasis targets acute myeloid leukemia stem cells by perturbing fatty acid  $\beta$ -oxidation and inducing lipotoxicity.** O'Brien C, Ling T, Berman JM, Culp-Hill R, Reisz JA, Rondeau V, Jahangiri S, St-Germain J, Macwan V, Astori A, Zeng A, Hong JY, Li M, Yang M, Jana S, Gamboni F, Tsao E, Liu W, Dick JE, Lin H, Melnick A, Tikhonova A, Arruda A, Minden MD, Raught B, D'Alessandro A, Jones CL.*Haematologica.* 2023 Sep 1;108(9):2343-2357. doi: 10.3324/haematol.2022.281894.PMID: 37021547

**Heterogeneity in leukemia cells that escape drug-induced senescence-like state.** Miller D, Kerkhofs K, Abbas-Aghababazadeh F, Madahar SS, Minden MD, Hébert J, Haibe-Kains B, Bayfield MA, Benchimol S.*Cell Death Dis.* 2023 Aug 5;14(8):503. doi: 10.1038/s41419-023-06015-4.PMID: 37543610

**Transcriptomic classes of BCR-ABL1 lymphoblastic leukemia.** Kim JC, Chan-Seng-Yue M, Ge S, Zeng AGX, Ng K, Gan OI, Garcia-Prat L, Flores-Figueroa E, Woo T, Zhang AXW, Arruda A, Chithambaram S, Dobson SM, Khoo A, Khan S, Ibrahimova N, George A, Tierens A, Hitzler J, Kislinger T, Dick JE, McPherson JD, Minden MD, Notta F.*Nat Genet.* 2023 Jul;55(7):1186-1197. doi: 10.1038/s41588-023-01429-4. Epub 2023 Jun 19.PMID: 37337105

**Biallelic disruption of DDX41 activity is associated with distinct genomic and immunophenotypic hallmarks in acute leukemia.** Tierens A, Kagotho E, Shinriki S, Seto A, Smith AC, Care M, Maze D, Sibai H, Yee KW, Schuh AC, Kim DDH, Gupta V, Minden MD, Matsui H, Capo-Chichi JM.*Front Oncol.* 2023 Jun 26;13:1153082. doi: 10.3389/fonc.2023.1153082. eCollection 2023.PMID: 37434984

**In Vivo Screening Unveils Pervasive RNA-Binding Protein Dependencies in Leukemic Stem Cells and Identifies ELAVL1 as a Therapeutic Target.** Vujovic A, de Rooij L, Chahi AK, Chen HT, Yee BA, Loganathan SK, Liu L, Chan DCH, Tajik A, Tsao E, Moreira S, Joshi P, Xu J, Wong N, Balde Z, Jahangiri S, Zandi S, Aigner S, Dick JE, Minden MD, Schramek D, Yeo GW, Hope KJ.*Blood Cancer Discov.* 2023 May 1;4(3):180-207. doi: 10.1158/2643-3230.BCD-22-0086.PMID: 36763002

**KDM6 demethylases integrate DNA repair gene regulation and loss of KDM6A sensitizes human acute myeloid leukemia to PARP and BCL2 inhibition.** Boila LD, Ghosh S, Bandyopadhyay SK, Jin L,

Murison A, Zeng AGX, Shaikh W, Bhowmik S, Muddineni SSNA, Biswas M, Sinha S, Chatterjee SS, Mbong N, Gan OI, Bose A, Chakraborty S, Arruda A, Kennedy JA, Mitchell A, Lechman ER, Banerjee D, Milyavsky M, Minden MD, Dick JE, Sengupta A.**Leukemia**. 2023 Apr;37(4):751-764. doi: 10.1038/s41375-023-01833-z. Epub 2023 Jan 31.PMID: 3672097

**In Vivo Screening Unveils Pervasive RNA-Binding Protein Dependencies in Leukemic Stem Cells and Identifies ELAVL1 as a Therapeutic Target.**Vujovic A, de Rooij L, Chahi AK, Chen HT, Yee BA, Loganathan SK, Liu L, Chan DCH, Tajik A, Tsao E, Moreira S, Joshi P, Xu J, Wong N, Balde Z, Jahangiri S, Zandi S, Aigner S, Dick JE, Minden MD, Schramek D, Yeo GW, Hope KJ.**Blood Cancer Discov**. 2023 May 1;4(3):180-207. doi: 10.1158/2643-3230.BCD-22-0086.PMID: 36763002

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**Simultaneous inhibition of Sirtuin 3 and cholesterol homeostasis targets acute myeloid leukemia stem cells by perturbing fatty acid  $\beta$ -oxidation and inducing lipotoxicity.**O'Brien C, Ling T, Berman JM, Culp-Hill R, Reisz JA, Rondeau V, Jahangiri S, St-Germain J, Macwan V, Astori A, Zeng A, Hong JY, Li M, Yang M, Jana S, Gamboni F, Tsao E, Liu W, Dick JE, Lin H, Melnick A, Tikhonova A, Arruda A, Minden MD, Raught B, D'Alessandro A, Jones CL.**Haematologica**. 2023 Apr 6. doi: 10.3324/haematol.2022.281894. Online ahead of print.PMID: 37021547

**Molecular characterization of AML-MRC reveals TP53 mutation as an adverse prognostic factor irrespective of MRC-defining criteria, TP53 allelic state, or TP53 variant allele frequency.**Zhao D, Eladl E, Zarif M, Capo-Chichi JM, Schuh A, Atenafu E, Minden M, Chang H.**Cancer Med**. 2023 Mar;12(6):6511-6522. doi: 10.1002/cam4.5421. Epub 2022 Nov 16.PMID: 36394085

**Distinct and opposite effects of leukemogenic *Idh* and *Tet2* mutations in hematopoietic stem and progenitor cells.**Fortin J, Chiang MF, Meydan C, Foox J, Ramachandran P, Leca J, Lemonnier F, Li WY, Gams MS, Sakamoto T, Chu M, Tobin C, Laugesen E, Robinson TM, You-Ten A, Butler DJ, Berger T, Minden MD, Levine RL, Guidos CJ, Melnick AM, Mason CE, Mak TW.**Proc Natl Acad Sci U S A**. 2023 Jan 24;120(4):e2208176120. doi: 10.1073/pnas.2208176120. Epub 2023 Jan 18.PMID: 36652477

**Targeting STAT5 Signaling Overcomes Resistance to IDH Inhibitors in Acute Myeloid Leukemia through Suppression of Stemness.**Liu ACH, Cathelin S, Yang Y, Dai DL, Ayyathan DM, Hosseini M, Minden MD, Tierens A, Chan SM.**Cancer Res**. 2022 Dec 2;82(23):4325-4339. doi: 10.1158/0008-5472.CAN-22-1293.PMID: 36150062

**Clinical significance of clonal hematopoiesis in the setting of autologous stem cell transplantation for lymphoma.**Lackraj T, Ben Barouch S, Medeiros JF, Pedersen S, Danesh A, Bakhtiari M, Hong M, Tong K, Joynt J, Arruda A, Minden MD, Kuruvilla J, Bhella S, Kukreti V, Crump M, Prica A, Chen C, Deng Y, Xu W, Pugh TJ, Keating A, Dick JE, Abelson S, Kridel R.**Am J Hematol**. 2022 Dec;97(12):1538-1547. doi: 10.1002/ajh.26726. Epub 2022 Sep 26.PMID: 36087071

**A 5-microRNA signature derived from core binding factor-AML is predictive in adult and childhood AML.**Gabra MM, Chow JT, Kim T, Son MH, Arruda A, Woolley JF, Zhang Z, Minden MD, Salmena

L.**Leuk Res.** 2022 Dec;123:106968. doi: 10.1016/j.leukres.2022.106968. Epub 2022 Oct 8.PMID: 36242827

**A primary hierarchically organized patient-derived model enables in depth interrogation of stemness driven by the coding and non-coding genome.**Boutzen H, Madani Tonekaboni SA, Chan-Seng-Yue M, Murison A, Takayama N, Mbong N, Wagenblast E, Orouji E, Arruda A, Mitchell A, Notta F, Minden MD, Lupien M, Kaufmann KB, Dick JE.**Leukemia.** 2022 Nov;36(11):2690-2704. doi: 10.1038/s41375-022-01697-9. Epub 2022 Sep 21.PMID: 36131042

**Glutamine Metabolism Mediates Sensitivity to Respiratory Complex II Inhibition in Acute Myeloid Leukemia.**Roma A, Tchong M, Ahmed N, Walker S, Jayanth P, Minden MD, Hope K, Nekkar Rao PP, Luc J, Doxey AC, Reisz JA, Culp-Hill R, D'Alessandro A, Spagnuolo PA.**Mol Cancer Res.** 2022 Nov 3;20(11):1659-1673. doi: 10.1158/1541-7786.MCR-21-1032.PMID: 35994381

**Immune dysfunction signatures predict outcomes and define checkpoint blockade-unresponsive microenvironments in acute myeloid leukemia.**Rutella S, Vadakekolathu J, Mazziotta F, Reeder S, Yau TO, Mukhopadhyay R, Dickins B, Altmann H, Kramer M, Knaus HA, Blazar BR, Radojcic V, Zeidner JF, Arruda A, Wang B, Abbas HA, Minden MD, Tasian SK, Bornhäuser M, Gojo I, Luznik L.**J Clin Invest.** 2022 Nov 1;132(21):e159579. doi: 10.1172/JCI159579.PMID: 36099049

**Cell-free DNA topology depends on its subcellular and cellular origins in cancer.**Malkin EZ, De Michino S, Lambie M, Gill R, Zhao Z, Rostami A, Arruda A, Minden MD, Bratman SV.**JCI Insight.** 2022 Oct 24;7(20):e159590. doi: 10.1172/jci.insight.159590.PMID: 36125881

**The splicing factor RBM17 drives leukemic stem cell maintenance by evading nonsense-mediated decay of pro-leukemic factors.**Liu L, Vujovic A, Deshpande NP, Sathe S, Anande G, Chen HTT, Xu J, Minden MD, Yeo GW, Unnikrishnan A, Hope KJ, Lu Y.**Nat Commun.** 2022 Jul 4;13(1):3833. doi: 10.1038/s41467-022-31155-0.PMID: 35781533

**NPM1-mutated AML-MRC diagnosed on the basis of history of MDS or MDS/MPN frequently harbours secondary-type mutations and confers inferior outcome compared to AML with mutated NPM1.**Zhao D, Zarif M, Eladl E, Capo-Chichi JM, Smith AC, Atenafu EG, Tierens A, Minden MD, Schuh A, Chang H.**Leuk Res.** 2022 Jul;118:106869. doi: 10.1016/j.leukres.2022.106869. Epub 2022 May 22.PMID: 35636054

**A cellular hierarchy framework for understanding heterogeneity and predicting drug response in acute myeloid leukemia.**Zeng AGX, Bansal S, Jin L, Mitchell A, Chen WC, Abbas HA, Chan-Seng-Yue M, Voisin V, van Galen P, Tierens A, Cheok M, Preudhomme C, Dombret H, Daver N, Futreal PA, Minden MD, Kennedy JA, Wang JCY, Dick JE.**Nat Med.** 2022 Jun;28(6):1212-1223. doi: 10.1038/s41591-022-01819-x. Epub 2022 May 26.PMID: 35618837

**The metabolic enzyme hexokinase 2 localizes to the nucleus in AML and normal haematopoietic stem and progenitor cells to maintain stemness.**Thomas GE, Egan G, García-Prat L, Botham A, Voisin V, Patel PS, Hoff FW, Chin J, Nachmias B, Kaufmann KB, Khan DH, Hurren R, Wang X, Gronda M, MacLean N, O'Brien C, Singh RP, Jones CL, Harding SM, Raught B, Arruda A, Minden MD, Bader GD, Hakem R, Kornblau S, Dick JE, Schimmer AD.**Nat Cell Biol.** 2022 Jun;24(6):872-884. doi: 10.1038/s41556-022-00925-9. Epub 2022 Jun 6.PMID: 35668135

**PRMT5 regulates ATF4 transcript splicing and oxidative stress response.**Szewczyk MM, Luciani GM, Vu V, Murison A, Dilworth D, Barghout SH, Lupien M, Arrowsmith CH, Minden MD, Barsyte-Lovejoy D.*Redox Biol.* 2022 May;51:102282.

**SmMIP-tools: a computational toolset for processing and analysis of single-molecule molecular inversion probes-derived data.**Medeiros JJF, Capo-Chichi JM, Shlush LI, Dick JE, Arruda A, **Minden MD**, Abelson S.*Bioinformatics.* 2022 Apr 12;38(8):2088-2095. doi: 10.1093/bioinformatics/btac081.PMID: 35150236

**Identification of the global miR-130a targetome reveals a role for TBL1XR1 in hematopoietic stem cell self-renewal and t(8;21) AML.**Krivdova G, Voisin V, Schoof EM, Marhon SA, Murison A, McLeod JL, Gabra MM, Zeng AGX, Aigner S, Yee BA, Shishkin AA, Van Nostrand EL, Hermans KG, Trotman-Grant AC, Mbong N, Kennedy JA, Gan OI, Wagenblast E, De Carvalho DD, Salmena L, Minden MD, Bader GD, Yeo GW, Dick JE, Lechman ER.*Cell Rep.* 2022 Mar 8;38(10):110481.

**Avocado-derived avocadyne is a potent inhibitor of fatty acid oxidation.**Tcheng M, Minden MD, Spagnuolo PA.*J Food Biochem.* 2022 Mar;46(3):e13895

**Single cell proteogenomic sequencing identifies a relapse-fated AML subclone carrying FLT3-ITD with CN-LOH at chr13q.**Kim T, Lee H, Capo-Chichi JM, Chang MH, Yoo YS, Basi G, Ketela T, Smith AC, Tierens A, Zhang Z, Minden MD, Kim DDH.*EJHaem.* 2022 Feb 24;3(2):426-433. doi: 10.1002/jha2.390. eCollection 2022 May.PMID: 35846029

**The 17-gene stemness score associates with relapse risk and long-term outcomes following allogeneic haematopoietic cell transplantation in acute myeloid leukaemia.**Kim DDH, Novitzky Basso I, Kim TS, Yi SY, Kim KH, Murphy T, Chan S, Minden M, Pasic I, Lam W, Law A, Michelis FV, Gerbitz A, Viswabandya A, Lipton J, Kumar R, Ng SWK, Stockley T, Zhang T, King I, Mattsson J, Wang JCY.*EJHaem.* 2022 May 23;3(3):873-884. doi: 10.1002/jha2.466. eCollection 2022 Aug.PMID: 36051057

**Pseudo-mutant P53 is a unique phenotype of DNMT3A-mutated pre-leukemia.**Tuval A, Brilon Y, Azogy H, Moskovitz Y, Leshkowitz D, Salame TM, Minden MD, Tal P, Rotter V, Oren M, Kaushansky N, Shlush LI.*Haematologica.* 2022 Feb 24. doi: 10.3324/haematol.2021.280329.

**Macrophage Jak2 deficiency accelerates atherosclerosis through defects in cholesterol efflux.**Dotan I, Yang J, Ikeda J, Roth Z, Pollock-Tahiri E, Desai H, Sivasubramaniyam T, Rehal S, Rapps J, Li YZ, Le H, Farber G, Alchami E, Xiao C, Karim S, Gronda M, Saikali MF, Tirosh A, Wagner KU, Genest J, Schimmer AD, Gupta V, Minden MD, Cummins CL, Lewis GF, Robbins C, Jongstra-Bilen J, Cybulsky M, Woo M.*Commun Biol.* 2022 Feb 15;5(1):132.

**SmMIP-tools: a computational toolset for processing and analysis of single-molecule molecular inversion probes derived data.**Medeiros JJF, Capo-Chichi JM, Shlush LI, Dick JE, Arruda A, Minden MD, Abelson S.*Bioinformatics.* 2022 Feb 12;38(8):2088-95.

**IPO11 regulates the nuclear import of BZW1/2 and is necessary for AML cells and stem cells.**Nachmias B, Khan DH, Voisin V, Mer AS, Thomas GE, Segev N, St-Germain J, Hurren R, Gronda M, Botham A, Wang X, Maclean N, Seneviratne AK, Duong N, Xu C, Arruda A, Orouji E, Algouneh A, Hakem R, Shlush L, Minden MD, Raught B, Bader GD, Schimmer AD.*Leukemia.* 2022 Feb 12.

**A clinical laboratory-developed LSC17 stemness score assay for rapid risk assessment of patients with acute myeloid leukemia.**Ng SWK, Murphy T, King I, Zhang T, Mah M, Lu Z, Stickle N, Ibrahimova

N, Arruda A, Mitchell A, Mai M, He R, Madala BS, Viswanatha DS, Dick JE, Chan S, Virtanen C, Minden MD, Mercer T, Stockley T, Wang JCY. **Blood Adv.** 2022 Feb 8;6(3):1064-1073.

**An improved molecular inversion probe based targeted sequencing approach for low variant allele frequency.** Biezuner T, Brilon Y, Arye AB, Oron B, Kadam A, Danin A, Furer N, Minden MD, Hwan Kim DD, Shapira S, Arber N, Dick J, Thavendiranathan P, Moskovitz Y, Kaushansky N, Chapal-Ilani N, Shlush LI. **NAR Genom Bioinform.** 2022 Feb 8;4(1):lqab125.

**Multiomic Profiling of Central Nervous System Leukemia Identifies mRNA Translation as a Therapeutic Target.** Vanner RJ, Dobson SM, Gan OI, McLeod J, Schoof EM, Grandal I, Wintersinger JA, Garcia-Prat L, Hosseini M, Xie SZ, Jin L, Mbong N, Voisin V, Chan-Seng-Yue M, Kennedy JA, Waanders E, Morris Q, Porse B, Chan SM, Guidos CJ, Danska JS, Minden MD, Mullighan CG, Dick JE. **Blood Cancer Discov.** 2022 Jan;3(1):16-31.

**TET2 mutations as a part of DNA dioxygenase deficiency in myelodysplastic syndromes.** Gurnari C, Pagliuca S, Guan Y, Adema V, Hershberger CE, Ni Y, Awada H, Kongkiatkamon S, Zawit M, Coutinho DF, Zaleberg IR, Ahn JS, Kim HJ, Kim DDH, Minden MD, Jansen JH, Meggendorfer M, Haferlach C, Jha BK, Haferlach T, Maciejewski JP, Visconte V. **Blood Adv.** 2022 Jan 11;6(1):100-107.

**Novel Mango Ginger Bioactive (2,4,6-Trihydroxy-3,5-diprenyldihydrochalcone) Inhibits Mitochondrial Metabolism in Combination with Avocatin B.** Jayasankar V, Vrdoljak N, Roma A, Ahmed N, Tcheng M, Minden MD, Spagnuolo PA. **ACS Omega.** 2022 Jan 7;7(2):1682-1693.

**Targeted blockade of immune mechanisms inhibit B precursor acute lymphoblastic leukemia cell invasion of the central nervous system.** Rajakumar SA, Grandal I, Minden MD, Hitzler JK, Guidos CJ, Danska JS. **Cell Rep Med.** 2021 Dec 21;2(12):100470.

**Statins Enhance the Molecular Response in Chronic Myeloid Leukemia when Combined with Tyrosine Kinase Inhibitors.** Jang HJ, Woo YM, Naka K, Park JH, Han HJ, Kim HJ, Kim SH, Ahn JS, Kim T, Kimura S, Zarabi S, Lipton JH, Minden MD, Jung CW, Kim HJ, Kim JW, Kim DDH. **Cancers (Basel).** 2021 Nov 4;13(21):5543.

**Enhancing Therapeutic Efficacy of Double Negative T Cells against Acute Myeloid Leukemia Using Idelalisib.** Kang H, Lee JB, Khatri I, Na Y, D'Souza C, Arruda A, Minden MD, Zhang L. **Cancers (Basel).** 2021 Oct 9;13(20):5039.

**Nicotinamide phosphoribosyltransferase inhibitors selectively induce apoptosis of AML stem cells by disrupting lipid homeostasis.** Subedi A, Liu Q, Ayyathan DM, Sharon D, Cathelin S, Hosseini M, Xu C, Voisin V, Bader GD, D'Alessandro A, Lechman ER, Dick JE, Minden MD, Wang JCY, Chan SM. **Cell Stem Cell.** 2021 Oct 7;28(10):1851-1867.e8. doi: 10.1016/j.stem.2021.06.004.

**TET2 and DNMT3A Mutations Exert Divergent Effects on DNA Repair and Sensitivity of Leukemia Cells to PARP Inhibitors.** Maifrede S, Le BV, Nieborowska-Skorska M, Golovine K, Sullivan-Reed K, Dunuwille WMB, Nacson J, Hulse M, Keith K, Madzo J, Caruso LB, Gazze Z, Lian Z, Padella A, Chitralla KN, Bartholdy BA, Matlawska-Wasowska K, Di Marcantonio D, Simonetti G, Greiner G, Sykes SM, Valent P, Paietta EM, Tallman MS, Fernandez HF, Litzow MR, Minden MD, Huang J, Martinelli G, Vassiliou GS, Tempera I, Piwocka K, Johnson N, Challen GA, Skorski T. **Cancer Res.** 2021 Oct 1;81(19):5089-5101.

**The PKN1- TRAF1 signaling axis as a potential new target for chronic lymphocytic leukemia.** Edilova MI, Law JC, Zangiabadi S, Ting K, Mbanwi AN, Arruda A, Uehling D, Isaac M, Prakesch M, Al-Awar R, Minden MD, Abdul-Sater AA, Watts TH. *Oncoimmunology*. 2021 Sep 23;10(1):1943234.

**Prognostic impact of the adverse molecular-genetic profile on long-term outcomes following allogeneic hematopoietic stem cell transplantation in acute myeloid leukemia.** Daher-Reyes G, Kim T, Novitzky-Basso I, Kim KH, Smith A, Stockley T, Capochichi JM, Al-Shaibani Z, Pasic I, Law A, Lam W, Michelis FV, Gerbitz A, Viswabandya A, Lipton J, Kumar R, Mattsson J, Schimmer A, McNamara C, Murphy T, Maze D, Gupta V, Sibai H, Chan S, Yee K, Minden M, Zhang Z, Schuh A, Kim DDH. *Bone Marrow Transplant*. 2021 Aug;56(8):1908-1918.

**Venetoclax enhances T cell-mediated antileukemic activity by increasing ROS production.** Lee JB, Khan DH, Hurren R, Xu M, Na Y, Kang H, Mirali S, Wang X, Gronda M, Jitkova Y, MacLean N, Arruda A, Alaniz Z, Konopleva MY, Andreeff M, Minden MD, Zhang L, Schimmer AD. *Blood*. 2021 Jul 22;138(3):234-245.

Structure-activity relationship of avocadyne. Tcheng M, Cunha VLS, Ahmed N, Liu X, Smith RW, Rea KA, Akhtar TA, D'Alessandro A, Minden MD, Vockley J, O'Doherty GA, Lowary TL, Spagnuolo PA. *Food Funct*. 2021 Jul 21;12(14):6323-6333.

**The genomic and biological complexity of mixed phenotype acute leukemia.** Andrews C, Tierens A, Minden M. *Crit Rev Clin Lab Sci*. 2021 May;58(3):153-166.

**Recurrent deletions in clonal hematopoiesis are driven by microhomology-mediated end joining.** Feldman T, Bercovich A, Moskovitz Y, Chapal-Ilani N, Mitchell A, Medeiros JF, Biezuner T, Kaushansky N, Minden MD, Gupta V, Milyavsky M, Livneh Z, Tanay A, Shlush LI. *Nat Commun*. 2021 Apr 28;12(1):2455.

**Very long chain fatty acid metabolism is required in acute myeloid leukemia.** Tcheng M, Roma A, Ahmed N, Smith RW, Jayanth P, Minden MD, Schimmer AD, Hess DA, Hope K, Rea KA, Akhtar T, Bohrnsen E, D'Alessandro A, Mohsen AW, Vockley J, Spagnuolo PA. *Blood*. 2021 Mar 15;blood.2020008551.

**Loss of expression of both miR-15/16 loci in CML transition to blast crisis.** Lovat F, Gasparini P, Nigita G, Larkin K, Byrd JC, Minden MD, Andreeff M, Carter BZ, Croce CM. *Proc Natl Acad Sci U S A*. 2021 Mar 16;118(11):e2101566118.

2021 Mar 25.

**A genome-wide CRISPR/Cas9 screen in acute myeloid leukemia cells identifies regulators of TAK-243 sensitivity.** Barghout SH, Aman A, Nouri K, Blatman Z, Arevalo K, Thomas GE, MacLean N, Hurren R, Ketela T, Saini M, Abohawya M, Kiyota T, Al-Awar R, Schimmer AD. *JCI Insight*. 2021 Mar 8;6(5):e141518.

**Venetoclax enhances T cell-mediated anti-leukemic activity by increasing ROS production.** Lee J, Khan DH, Hurren R, Xu M, Na Y, Kang H, Mirali S, Wang X, Gronda MV, Jitkova Y, MacLean N, Arruda A, Alaniz Z, Konopleva MY, Andreeff M, Minden MD, Zhang L, Schimmer AD. *Blood*. 2021 Mar 16;blood.2020009081.

**Biological and therapeutic implications of a unique subtype of NPM1 mutated AML.** Mer AS, Heath EM, Madani Tonekaboni SA, Dogan-Artun N, Nair SK, Murison A, Garcia-Prat L, Shlush L, Hurren R,

Voisin V, Bader GD, Nislow C, Rantalainen M, Lehmann S, Gower M, Guidos CJ, Lupien M, Dick JE, Minden MD, Schimmer AD, Haibe-Kains B. **Nat Commun.** 2021 Feb 16;12(1):1054.

**Novel L-nucleoside analogue, 5-fluorotroxacitabine, displays potent efficacy against acute myeloid leukemia.** Bankar A, Siriwardena TP, Rizoska B, Rydergård C, Kylefjord H, Rraklli V, Eneroth A, Pinho P, Norin S, Bylund J, Moses S, Bethell R, Kavanagh S, Maclean N, Gronda M, Wang X, Hurren R, Minden MD, Targett-Adams P, Schimmer AD, Albertella M. **Haematologica.** 2021 Feb 1;106(2):574-579.

**Measurable residual disease monitoring provides insufficient lead-time to prevent morphologic relapse in the majority of patients with core-binding factor acute myeloid leukemia.** Puckrin R, Atenafu EG, Claudio JO, Chan S, Gupta V, Maze D, McNamara C, Murphy T, Shuh AC, Yee K, Sibai H, Minden MD, Wei C, Stockley T, Kamel-Reid S, Schimmer AD. **Haematologica.** 2021 Jan 1;106(1):56-63.

**Systemic mastocytosis with acute myeloid leukemia occurs from mutually exclusive clones expressing KIT<sup>D816V</sup> and FLT3-ITD.** Capo-Chichi JM, Kagotho E, Nayyar R, Zhao D, Minden M, Chang H. **Leukemia.** 2021 Jan;35(1):282-285.

**SIRP $\alpha$ Fc treatment targets human acute myeloid leukemia stem cells.** Galkin O, McLeod J, Kennedy JA, Jin L, Mbong N, Wong M, Uger RA, Minden MD, Danska JS, Wang JCY. **Haematologica.** 2021 Jan 1;106(1):279-283.

**Sphingosine-1-phosphate receptor 3 potentiates inflammatory programs in normal and leukemia stem cells to promote differentiation.** Xie SZ, Kaufmann KB, Wang W, Chan-Seng-Yue M, Gan OI, Laurenti E, Garcia-Prat L, Takayanagi SI, Ng SWK, Xu C, Zeng AGX, Jin L, McLeod J, Wagenblast E, Mitchell A, Kennedy JA, Liu Q, Boutzen H, Kleinau M, Jargstorf J, Holmes G, Zhang Y, Voisin V, Bader GD, Wang JCY, Hannun YA, Luberto C, Schroeder T, Minden MD, Dick JE. **Blood Cancer Discov.** 2021 Jan 1;2(1):32-53.

**Dasatinib response in acute myeloid leukemia is correlated with FLT3/ITD, PTPN11 mutations and a unique gene expression signature.** Tavor S, Shalit T, Chapal Ilani N, Moskovitz Y, Livnat N, Groner Y, Barr H, Minden MD, Plotnikov A, Deininger MW, Kaushansky N, Shlush LI. **Haematologica.** 2020 Dec 1;105(12):2795-2804.

**CRISPR screen identifies genes that sensitize AML cells to double negative T cell therapy.** Soares F, Chen B, Lee JB, Ahmed M, Ly D, Tin E, Kang H, Zeng Y, Akhtar N, Minden MD, He H, Zhang L. **Blood.** 2020 Dec 3;blood.2019004108.

**Mutational and functional genetics mapping of chemotherapy resistance mechanisms in relapsed acute lymphoblastic leukemia.** Oshima K, Zhao J, Pérez-Durán P, Brown JA, Patiño-Galindo JA, Chu T, Quinn A, Gunning T, Belver L, Ambesi-Impiombato A, Tosello V, Wang Z, Sulis ML, Kato M, Koh K, Paganin M, Basso G, Balbin M, Nicolas C, Gastier-Foster JM, Devidas M, Loh ML, Paietta E, Tallman MS, Rowe JM, Litzow M, Minden MD, Meijerink J, Rabadan R, Ferrando A. **Nat Cancer.** 2020 Nov;1(11):1113-1127.

**Combination of FLT3-ITD Allelic Ratio, NPM1 Mutation, and Immunophenotypic Markers to Modulate Outcome Prediction in Patients with Normal Karyotype Acute Myelogenous Leukemia Undergoing Hematopoietic Stem Cell Transplantation.** Jiang G, Capo-Chichi JM, Liu A, Atenafu EG, Kumar R, Minden MD, Chang H. **Biol Blood Marrow Transplant.** 2020 Nov;26(11):1995-2000.

**Entospletinib in Combination with Induction Chemotherapy in Previously Untreated Acute Myeloid**



**Leukemia: Response and Predictive Significance of *HOXA9* and *MEIS1* Expression.** Walker AR, Byrd JC, Blachly JS, Bhatnagar B, Mims AS, Orwick S, Lin TL, Crosswell HE, Zhang D, Minden MD, Munugalavadla V, Long L, Liu J, Pan Y, Oellerich T, Serve H, Rao AV, Blum WG. *Clin Cancer Res.* 2020 Nov 15;26(22):5852-5859.

**CD200 expression marks leukemia stem cells in human AML.** Ho JM, Dobson SM, Voisin V, McLeod J, Kennedy JA, Mitchell A, Jin L, Eppert K, Bader G, Minden MD, Dick JE, Wang JCY. *Blood Adv.* 2020 Nov 10;4(21):5402-5413.

**CC-90009, a novel cereblon E3 ligase modulator targets acute myeloid leukemia blasts and leukemia stem cells.** Surka C, Jin L, Mbong N, Lu CC, Jang IS, Rychak E, Mendy D, Clayton T, Tindall EA, Hsu C, Fontanillo C, Tran E, Contreras A, Ng SW, Matyskiela ME, Wang K, Chamberlain PP, Cathers B, Carmichael J, Hansen JD, Wang JCY, Minden MD, Fan J, Pierce DW, Pourdehnad M, Rolfe M, Lopez-Girona A, Dick JE, Lu G. *Blood.* 2020 Nov 16:blood.2020008676

**B cell acute lymphoblastic leukemia cells mediate RANK-RANKL-dependent bone destruction.** Rajakumar SA, Papp E, Lee KK, Grandal I, Merico D, Liu CC, Allo B, Zhang L, Grynepas MD, Minden MD, Hitzler JK, Guidos CJ, Danska JS. *Sci Transl Med.* 2020 Sep 16;12(561):eaba5942.

**Cyclic AMP-hydrolyzing phosphodiesterase inhibitors potentiate statin-induced cancer cell death.** Longo J, Pandyra AA, Stachura P, Minden MD, Schimmer AD, Penn LZ. *Mol Oncol.* 2020 Aug 4;14(10):2533-45.

**Disrupting Mitochondrial Copper Distribution Inhibits Leukemic Stem Cell Self-Renewal.** Singh RP, Jeyaraju DV, Voisin V, Hurren R, Xu C, Hawley JR, Barghout SH, Khan DH, Gronda M, Wang X, Jitkova Y, Sharon D, Liyanagae S, MacLean N, Seneviratne AK, Mirali S, Borenstein A, Thomas GE, Soriano J, Orouji E, Minden MD, Arruda A, Chan SM, Bader GD, Lupien M, Schimmer AD. *Cell Stem Cell.* 2020 Jun 4;26(6):926-937.e10.

**Combined loss of function of two different loci of miR-15/16 drives the pathogenesis of acute myeloid leukemia.** Lovat F, Nigita G, Distefano R, Nakamura T, Gasparini P, Tomasello L, Fadda P, Ibrahimova N, Catricalà S, Palamarchuk A, Caligiuri MA, Gallì A, Malcovati L, Minden MD, Croce CM. *Proc Natl Acad Sci U S A.* 2020 Jun 2;117(22):12332-12340.

**Mitochondrial carrier homolog 2 is necessary for AML survival.** Khan DH, Mullokandov M, Wu Y, Voisin V, Gronda M, Hurren R, Wang X, MacLean N, Jeyaraju DV, Jitkova Y, Xu GW, Laister R, Seneviratne A, Blatman ZM, Ketela T, Bader GD, Marhon SA, De Carvalho DD, Minden MD, Gross A, Schimmer AD. *Blood.* 2020 Jul 2;136(1):81-92.

**Immune landscapes predict chemotherapy resistance and immunotherapy response in acute myeloid leukemia.** Vadakekolathu J, Minden MD, Hood T, Church SE, Reeder S, Altmann H, Sullivan AH, Viboch EJ, Patel T, Ibrahimova N, Warren SE, Arruda A, Liang Y, Smith TH, Foulds GA, Bailey MD, Gowen-MacDonald J, Muth J, Schmitz M, Cesano A, Pockley AG, Valk PJM, Löwenberg B, Bornhäuser M, Tasian SK, Rettig MP, Davidson-Moncada JK, DiPersio JF, Rutella S. *Sci Transl Med.* 2020 Jun 3;12(546):eaaz0463.

**NPM1c impedes CTCF functions through cytoplasmic mislocalization in acute myeloid leukemia.** Wang AJ, Han Y, Jia N, Chen P, Minden MD. *Leukemia.* 2020 May;34(5):1278-1290. doi: 10.1038/s41375-019-0681-8.

**Dasatinib response in acute myeloid leukemia is correlated with FLT3/ITD, PTPN11 mutations and a unique gene expression signature.** Tavor S, Shalit T, Chapal Ilani N, Moskovitz Y, Livnat N, Groner Y, Barr H, Minden MD, Plotnikov A, Deininger MW, Kaushansky N, Shlush LI. *Haematologica*. 2020 May 7;haematol.2019.240705.

**The mitochondrial peptidase, neurolysin, regulates respiratory chain supercomplex formation and is necessary for AML viability.** Mirali S, Botham A, Voisin V, Xu C, St-Germain J, Sharon D, Hoff FW, Qiu Y, Hurren R, Gronda M, Jitkova Y, Nachmias B, MacLean N, Wang X, Arruda A, Minden MD, Horton TM, Kornblau SM, Chan SM, Bader GD, Raught B, Schimmer AD. *Sci Transl Med*. 2020 Apr 8;12(538):eaaz8264.

**Relapse-Fated Latent Diagnosis Subclones in Acute B Lineage Leukemia Are Drug Tolerant and Possess Distinct Metabolic Programs.** Dobson SM, García-Prat L, Vanner RJ, Wintersinger J, Waanders E, Gu Z, McLeod J, Gan OI, Grandal I, Payne-Turner D, Edmonson MN, Ma X, Fan Y, Voisin V, Chan-Seng-Yue M, Xie SZ, Hosseini M, Abelson S, Gupta P, Rusch M, Shao Y, Olsen SR, Neale G, Chan SM, Bader G, Easton J, Guidos CJ, Danska JS, Zhang J, Minden MD, Morris Q, Mullighan CG, Dick JE. *Cancer Discov*. 2020 Apr;10(4):568-587.

**Opposing effects of NPM1wt and NPM1c mutants on AKT signaling in AML.** Ren Z, Shrestha M, Sakamoto T, Melkman T, Meng L, Cairns RA, Zacksenhaus E, Mak TW, Stambolic V, Minden MD, Wang JA. *Leukemia*. 2020 Apr;34(4):1172-1176.

**SIRP $\alpha$ Fc treatment targets human acute myeloid leukemia stem cells.** Galkin O, McLeod J, Kennedy JA, Jin L, Mbong N, Wong M, Uger RA, Minden MD, Danska JS, Wang JCY. *Haematologica*. 2020 Feb 13;haematol.2019.245167.

**Cryptic genomic lesions in adverse-risk acute myeloid leukemia identified by integrated whole genome and transcriptome sequencing.** Kim JC, Zuzarte PC, Murphy T, Chan-Seng-Yue M, Brown AMK, Krzyzanowski PM, Smith AC, Notta F, Minden MD, McPherson JD. *Leukemia*. 2020 Jan;34(1):306-311.

**Anti-leukemia effect of vitamin K3 is mediated through mitochondrial complexes I and II.** Ibrahim M, Mendis N, Roma A, Jayanth P, Minden MD, Spagnuolo PA. *Leuk Lymphoma*. 2019 Dec;60(12):3071-3074.

**The novel L-nucleoside analogue, 5-Fluorotroxacitabine, displays potent efficacy against acute myeloid leukemia.** Bankar A, Siriwardena TP, Rizoska B, Rydergård C, Kylefjord H, Rraklli V, Eneroth A, Pinho P, Norin S, Bylund J, Moses S, Bethell R, Kavanagh S, Maclean N, Gronda M, Wang X, Hurren R, Minden MD, Targett-Adams P, Schimmer AD, Albertella M. *Haematologica*. 2019 Dec 19;haematol.2019.226795.

**Diminished AHR Signaling Drives Human Acute Myeloid Leukemia Stem Cell Maintenance.** Ly M, Rentas S, Vujovic A, Wong N, Moreira S, Xu J, Holzapfel N, Bhatia S, Tran D, Minden MD, Draper JS, Hope KJ. *Cancer Res*. 2019 Nov 15;79(22):5799-5811.

**Impact of preleukemic mutations and their persistence on hematologic recovery after induction chemotherapy for AML.** Murphy T, Zou J, Daher-Reyes GS, Arruda A, Gupta V, McNamara CJ, Minden MD, Schimmer AD, Sibai H, Yee KWL, Korulla M, Stockley T, Kamel-Reid S, Maze D, Tierens A, Bratman SV, Schuh AC, Chan SM. 2019 *Blood Adv*. 3(15):2307-2311.

**Sphingolipid Modulation Activates Proteostasis Programs to Govern Human Hematopoietic Stem Cell Self-Renewal.** Xie SZ, Garcia-Prat L, Voisin V, Ferrari R, Gan OI, Wagenblast E, Kaufmann KB, Zeng AGX, Takayanagi SI, Patel I, Lee EK, Jargstorf J, Holmes G, Romm G, Pan K, Shoong M, Vedi A, Luberto C, Minden MD, Bader GD, Laurenti E, Dick JE. **Cell Stem Cell.** 2019 Nov 7;25(5):639-653.e7.

**Therapeutic Targeting of RNA Splicing Catalysis through Inhibition of Protein Arginine Methylation.** Fong JY, Pignata L, Goy PA, Kawabata KC, Lee SC, Koh CM, Musiani D, Massignani E, Kotini AG, Penson A, Wun CM, Shen Y, Schwarz M, Low DH, Rialdi A, Ki M, Wollmann H, Mzoughi S, Gay F, Thompson C, Hart T, Barbash O, Luciani GM, Szewczyk MM, Wouters BJ, Delwel R, Papapetrou EP, Barsyte-Lovejoy D, Arrowsmith CH, Minden MD, Jin J, Melnick A, Bonaldi T, Abdel-Wahab O, Guccione E. **Cancer Cell.** 2019 Aug 12;36(2):194-209.e9.

**Impact of High-Molecular-Risk Mutations on Transplantation Outcomes in Patients with Myelofibrosis.** Tamari R, Rapaport F, Zhang N, McNamara C, Kuykendall A, Sallman DA, Komrokji R, Arruda A, Najfeld V, Sandy L, Medina J, Litvin R, Famulare CA, Patel MA, Maloy M, Castro-Malaspina H, Giralt SA, Weinberg RS, Mascarenhas JO, Mesa R, Rondelli D, Dueck AC, Levine RL, Gupta V, Hoffman R, Rampal RK. **Biol Blood Marrow Transplant.** 2019 Jun;25(6):1142-1151.

**Mutant H3 histones drive human pre-leukemic hematopoietic stem cell expansion and promote leukemic aggressiveness.** Boileau M, Shirinian M, Gayden T, Harutyunyan AS, Chen CCL, Mikael LG, Duncan HM, Neumann AL, Arreba-Tutusaus P, De Jay N, Zeinieh M, Rossokhata K, Zhang Y, Nikbakht H, Mouawad C, Massoud R, Frey F, Nasr R, El Cheikh J, El Sabban M, Kleinman CL, Mahfouz R, Minden MD, Jabado N, Bazarbachi A, Eppert K. **Nat Commun.** 2019 Jun 28;10(1):2891.

**The Mitochondrial Transacylase, Tafazzin, Regulates AML Stemness by Modulating Intracellular Levels of Phospholipids.** Seneviratne AK, Xu M, Aristizabal Henao JJ, Fajardo VA, Hao Z, Voisin V, Xu GW, Hurren R, Kim S, MacLean N, Wang X, Gronda M, Jeyaraju D, Jitkova Y, Ketela T, Mullokandov M, Sharon D, Thomas G, Chouinard-Watkins R, Hawley JR, Schafer C, Yau HL, Khuchua Z, Aman A, Al-Awar R, Gross A, Claypool SM, Bazinet RP, Lupien M, Chan S, De Carvalho DD, Minden MD, Bader GD, Stark KD, LeBlanc P, Schimmer AD. **Cell Stem Cell.** 2019 Jun 6;24(6):1007.

**Mitochondrial ClpP-Mediated Proteolysis Induces Selective Cancer Cell Lethality.** Ishizawa J, Zarabi SF, Davis RE, Halgas O, Nii T, Jitkova Y, Zhao R, St-Germain J, Heese LE, Egan G, Ruvolo VR, Barghout SH, Nishida Y, Hurren R, Ma W, Gronda M, Link T, Wong K, Mabanglo M, Kojima K, Borthakur G, MacLean N, Ma MCJ, Leber AB, Minden MD, Houry W, Kantarjian H, Stogniew M, Raught B, Pai EF, Schimmer AD, Andreeff M. **Cancer Cell.** 2019 May 13;35(5):721-737.e9

**A stemness screen reveals *C3orf54/INKA1* as a promoter of human leukemia stem cell latency.** Kaufmann KB, Garcia-Prat L, Liu Q, Ng SWK, Takayanagi SI, Mitchell A, Wienholds E, van Galen P, Cumbaa CA, Tsay MJ, Pastrello C, Wagenblast E, Krivdova G, Minden MD, Lechman ER, Zandi S, Jurisica I, Wang JCY, Xie SZ, Dick JE. **Blood.** 2019 May 16;133(20):2198-2211

**The Mitochondrial Transacylase, Tafazzin, Regulates for AML Stemness by Modulating Intracellular Levels of Phospholipids.** Seneviratne AK, Xu M, Henao JJA, Fajardo VA, Hao Z, Voisin V, Xu GW, Hurren R, Kim S, MacLean N, Wang X, Gronda M, Jeyaraju D, Jitkova Y, Ketela T, Mullokandov M, Sharon D, Thomas G, Chouinard-Watkins R, Hawley JR, Schafer C, Yau HL, Khuchua Z, Aman A, Al-Awar R, Gross A, Claypool SM, Bazinet RP, Lupien M, Chan S, De Carvalho DD, Minden MD, Bader GD, Stark KD, LeBlanc P, Schimmer AD. **Cell Stem Cell.** 2019 Apr 4;24(4):621-636.e16.

**PAX5-driven subtypes of B-progenitor acute lymphoblastic leukemia.** Gu Z, Churchman ML, Roberts KG, Moore I, Zhou X, Nakitandwe J, Hagiwara K, Pelletier S, Gingras S, Berns H, Payne-Turner D, Hill A, Iacobucci I, Shi L, Pounds S, Cheng C, Pei D, Qu C, Newman S, Devidas M, Dai Y, Reshmi SC, Gastier-Foster J, Raetz EA, Borowitz MJ, Wood BL, Carroll WL, Zweidler-McKay PA, Rabin KR, Mattano LA, Maloney KW, Rambaldi A, Spinelli O, Radich JP, Minden MD, Rowe JM, Luger S, Litzow MR, Tallman MS, Racevskis J, Zhang Y, Bhatia R, Kohlschmidt J, Mrózek K, Bloomfield CD, Stock W, Kornblau S, Kantarjian HM, Konopleva M, Evans WE, Jeha S, Pui CH, Yang J, Paietta E, Downing JR, Relling MV, Zhang J, Loh ML, Hunger SP, Mullighan CG. *Nat Genet.* 2019 Feb;51(2):296-307

**Preclinical evaluation of the selective small-molecule UBA1 inhibitor, TAK-243, in acute myeloid leukemia.** Barghout SH, Patel PS, Wang X, Xu GW, Kavanagh S, Halgas O, Zarabi SF, Gronda M, Hurren R, Jeyaraju DV, MacLean N, Brennan S, Hyer ML, Berger A, Traore T, Milhollen M, Smith AC, Minden MD, Pai EF, Hakem R, Schimmer AD. *Leukemia.* 2019 Jan;33(1):37-51.

**Characterization of inv(3) cell line OCI-AML-20 with stroma-dependent CD34 expression.** Luciani GM, Xie L, Dilworth D, Tierens A, Moskovitz Y, Murison A, Szewczyk MM, Mitchell A, Lupien M, Shlush L, Dick JE, Arrowsmith CH, Baryshte-Lovejoy D, Minden MD. *Exp Hematol.* 2019 Jan;69:27-36.

**Hyper-Editing of Cell-Cycle Regulatory and Tumor Suppressor RNA Promotes Malignant Progenitor Propagation.** Jiang Q, Isquith J, Zipeto MA, Diep RH, Pham J, Delos Santos N, Reynoso E, Chau J, Leu H, Lazzari E, Melese E, Ma W, Fang R, Minden M, Morris S, Ren B, Pineda G, Holm F, Jamieson C. *Cancer Cell.* 2019 Jan 14;35(1):81-94.e7

**DNA hypermethylation within TERT promoter upregulates TERT expression in cancer.** Lee DD, Leão R, Komosa M, Gallo M, Zhang CH, Lipman T, Remke M, Heidari A, Nunes NM, Apolónio JD, Price AJ, De Mello RA, Dias JS, Huntsman D, Hermanns T, Wild PJ, Vanner R, Zadeh G, Karamchandani J, Das S, Taylor MD, Hawkins CE, Wasserman JD, Figueiredo A, Hamilton RJ, Minden MD, Wani K, Diplas B, Yan H, Aldape K, Akbari MR, Danesh A, Pugh TJ, Dirks PB, Castelo-Branco P, Tabori U. *J Clin Invest.* 2019 Jan 2;129(1):223-229.

**Sensitive tumour detection and classification using plasma cell-free DNA methylomes.** Shen SY, Singhanian R, Fehringer G, Chakravarthy A, Roehrl MHA, Chadwick D, Zuzarte PC, Borgida A, Wang TT, Li T, Kis O, Zhao Z, Spreafico A, Medina TDS, Wang Y, Roulois D, Ettayebi I, Chen Z, Chow S, Murphy T, Arruda A, O'Kane GM, Liu J, Mansour M, McPherson JD, O'Brien C, Leighl N, Bedard PL, Fleshner N, Liu G, Minden MD, Gallinger S, Goldenberg A, Pugh TJ, Hoffman MM, Bratman SV, Hung RJ, De Carvalho DD. *Nature.* 2018 Nov;563(7732):579-583.

**CD16<sup>+</sup>NK-92 and anti-CD123 monoclonal antibody prolongs survival in primary human acute myeloid leukemia xenografted mice.** Williams BA, Wang XH, Leyton JV, Maghera S, Deif B, Reilly RM, Minden MD, Keating A. *Haematologica.* 2018 Oct;103(10):1720-1729.

**AML refractory to primary induction with Ida-FLAG has a poor clinical outcome.** Kavanagh S, Heath E, Hurren R, Gronda M, Barghout SH, Liyanage SU, Siriwardena TP, Claudio J, Zhang T, Sukhai M, Stockley TL, Kamel-Reid S, Rostom A, Lutynski A, Khalaf D, Rydlewski A, Chan SM, Gupta V, Maze D, Sibai H, Schuh AC, Yee K, Minden MD, Schimmer AD. *Leuk Res.* 2018 May;68:22-28.

**Clinical Utility of Next-generation Sequencing in the Management of Myeloproliferative Neoplasms: A Single-Center Experience.** Alduaij W, McNamara CJ, Schuh A, Arruda A, Sukhai M, Kanwar N, Thomas M, Spiegel J, Kennedy JA, Stockley T, Tsui H, Devlin R, Sibai H, Maze D, Schimmer A, Yee K, Chan S, Kamel-Reid S, Gupta V. *Hemasphere.* 2018 May 4;2(3):e44.

**Prediction of acute myeloid leukaemia risk in healthy individuals.** Abelson S, Collord G, Ng SWK, Weissbrod O, Mendelson Cohen N, Niemeyer E, Barda N, Zuzarte PC, Heisler L, Sundaravadanam Y, Luben R, Hayat S, Wang TT, Zhao Z, Cirlan I, Pugh TJ, Soave D, Ng K, Latimer C, Hardy C, Raine K, Jones D, Hoult D, Britten A, McPherson JD, Johansson M, Mbabaali F, Eagles J, Miller JK, Pasternack D, Timms L, Krzyzanowski P, Awadalla P, Costa R, Segal E, Bratman SV, Beer P, Behjati S, Martincorena I, Wang JCY, Bowles KM, Quirós JR, Karakatsani A, La Vecchia C, Trichopoulou A, Salamanca-Fernández E, Huerta JM, Barricarte A, Travis RC, Tumino R, Masala G, Boeing H, Panico S, Kaaks R, Krämer A, Sieri S, Riboli E, Vineis P, Foll M, McKay J, Polidoro S, Sala N, Khaw KT, Vermeulen R, Campbell PJ, Papaemmanuil E, Minden MD, Tanay A, Balicer RD, Wareham NJ, Gerstung M, Dick JE, Brennan P, Vassiliou GS, Shlush LI. *Nature*. 2018 Jul;559(7714):400-404.

**Leukemic stem cell signatures identify novel therapeutics targeting acute myeloid leukemia.** Laverdière I, Boileau M, Neumann AL, Frison H, Mitchell A, Ng SWK, Wang JCY, Minden MD, Eppert K. *Blood Cancer J*. 2018 Jun 6;8(6):52.

**Distinct patterns of clonal evolution in patients with concurrent myelo- and lymphoproliferative neoplasms.** Kennedy JA, Medeiros JF, Dobson SM, Arruda A, Sukhai MA, Stockley T, Tierens A, Minden MD, Kamel-Reid S, Dick JE, Gupta V. *Blood*. 2018 132:2201-2205.

**Targeting chemotherapy-resistant leukemia by combining DNT cellular therapy with conventional chemotherapy.** Chen B, Lee JB, Kang H, Minden MD, Zhang L. *J Exp Clin Cancer Res*. 2018 Apr 24;37(1):88

**A novel chimeric antigen receptor containing a JAK-STAT signaling domain mediates superior antitumor effects.** Kagoya Y, Tanaka S, Guo T, Anczurowski M, Wang CH, Saso K, Butler MO, Minden MD, Hirano N. *Nat Med*. 2018 Mar;24(3):352-359.

**The mutational landscape of accelerated- and blast-phase myeloproliferative neoplasms impacts patient outcomes.** McNamara CJ, Panzarella T, Kennedy JA, Arruda A, Claudio JO, Daher-Reyes G, Ho J, Siddiq N, Devlin R, Tsui H, Su J, Stockley T, Sukhai M, Kanwar N, Chan S, Maze D, Schimmer A, Schuh A, Sibai H, Viswabandya A, Yee K, Minden MD, Kamel-Reid S, Gupta V. *Blood Advances* 2018 2:2658-2671.

**SubID, a non-median dichotomization tool for heterogeneous populations, reveals the pan-cancer significance of INPP4B and its regulation by EVI1 in AML.** Dzneladze I, Woolley JF, Rossell C, Han Y, Rashid A, Jain M, Reimand J, Minden MD, Salmena L. *PLoS One*. 2018 Feb 7;13(2):e0191510.

**Allogeneic Human Double Negative T Cells as a Novel Immunotherapy for Acute Myeloid Leukemia and Its Underlying Mechanisms.** Lee J, Minden MD, Chen WC, Streck E, Chen B, Kang H, Arruda A, Ly D, Der SD, Kang S, Achita P, D'Souza C, Li Y, Childs RW, Dick JE, Zhang L. *Clin Cancer Res*. 2018 Jan 15;24(2):370-382.

**Octadecyloxyethyl Adefovir Exhibits Potent in vitro and in vivo Cytotoxic Activity and Has Synergistic Effects with Ara-C in Acute Myeloid Leukemia.** Khoury H, He R, Schimmer A, Beadle JR, Hostetler KY, Minden MD. *Chemotherapy*. 2018;63(4):225-237.

**Alu-dependent RNA editing of GLI1 promotes malignant regeneration in multiple myeloma.** Lazzari E, Mondala PK, Santos ND, Miller AC, Pineda G, Jiang Q, Leu H, Ali SA, Ganesan AP, Wu CN, Costello C, Minden M, Chiamonte R, Stewart AK, Crews LA, Jamieson CHM. *Nat Commun*. 2017 Dec 4;8(1):1922.

**Estrogen Receptor  $\beta$  Is a Novel Target in Acute Myeloid Leukemia.** Rota SG, Roma A, Dude I, Ma C, Stevens R, MacEachern J, Graczyk J, Espiritu SMG, Rao PN, Minden MD, Kreinin E, Hess DA, Doxey AC, Spagnuolo PA. *Mol Cancer Ther*. 2017 Nov;16(11):2618-2626.

**Evolution of AF6-RAS association and its implications in mixed-lineage leukemia.** Smith MJ, Ottoni E, Ishiyama N, Goudreault M, Haman A, Meyer C, Tucholska M, Gasmi-Seabrook G, Menezes S, Laister RC, Minden MD, Marschalek R, Gingras AC, Hoang T, Ikura M. *Nat Commun*. 2017 Oct 23;8(1):1099.

**Impact of genomic alterations on outcomes in myelofibrosis patients undergoing JAK1/2 inhibitor therapy.** Spiegel JY, McNamara C, Kennedy JA, Panzarella T, Arruda A, Stockley T, Sukhai M, Thomas M, Bartoszko J, Ho J, Siddiq N, Maze D, Schimmer A, Schuh A, Sibai H, Yee K, Claudio J, Devlin R, Minden MD, Kamel-Reid S, Gupta V. *Blood Adv*. 2017 Sep 8;1(20):1729-1738.

**Tracing the origins of relapse in acute myeloid leukaemia to stem cells.** Shlush LI, Mitchell A, Heisler L, Abelson S, Ng SWK, Trotman-Grant A, Medeiros JF, Rao-Bhatia A, Jaciw-Zurakowsky I, Marke R, McLeod JL, Doedens M, Bader G, Voisin V, Xu C, McPherson JD, Hudson TJ, Wang JCY, Minden MD, Dick JE. *Nature*. 2017 Jul 6;547(7661):104-108.

**Gene expression and mutation-guided synthetic lethality eradicates proliferating and quiescent leukemia cells.** Nieborowska-Skorska M, Sullivan K, Dasgupta Y, Podsiwyalow-Bartnicka P, Hoser G, Maifrede S, Martinez E, Di Marcantonio D, Bolton-Gillespie E, Cramer-Morales K, Lee J, Li M, Slupianek A, Gritsyuk D, Cerny-Reiterer S, Seferynska I, Stoklosa T, Bullinger L, Zhao H, Gorbunova V, Piwocka K, Valent P, Civin CI, Muschen M, Dick JE, Wang JC, Bhatia S, Bhatia R, Eppert K, Minden MD, Sykes SM, Skorski T. *J Clin Invest*. 2017 Jun 1;127(6):2392-2406.

**CD123 target validation and preclinical evaluation of ADCC activity of anti-CD123 antibody CSL362 in combination with NKs from AML patients in remission.** Xie LH, Biondo M, Busfield SJ, Arruda A, Yang X, Vairo G, Minden MD. *Blood Cancer J*. 2017 Jun 2;7(6):e567.

**Leveraging increased cytoplasmic nucleoside kinase activity to target mtDNA and oxidative phosphorylation in AML.** Liyanage SU, Hurren R, Voisin V, Bridon G, Wang X, Xu C, MacLean N, Siriwardena TP, Gronda M, Yehudai D, Sriskanthadevan S, Avizonis D, Shamas-Din A, Minden MD, Bader GD, Laposa R, Schimmer AD. *Blood*. 2017 May 11;129(19):2657-2666.

**HLA-DP<sup>84Gly</sup> constitutively presents endogenous peptides generated by the class I antigen processing pathway.** Yamashita Y, Anczurowski M, Nakatsugawa M, Tanaka M, Kagoya Y, Sinha A, Chamoto K, Ochi T, Guo T, Saso K, Butler MO, Minden MD, Kislinger T, Hirano N. *Nat Commun*. 2017 May 10;8:15244.

**The mitochondria target drug avocatin B synergizes with induction chemotherapeutics to induce leukemia cell death.** Tcheng M, Samudio I, Lee EA, Minden MD, Spagnuolo PA. *Leuk Lymphoma*. 2017 Apr;58(4):986-988.

**SMYD2 lysine methyltransferase regulates leukemia cell growth and regeneration after genotoxic stress.** Zipin-Roitman A, Aqaq N, Yassin M, Biechonski S, Amar M, van Delft MF, Gan OI, McDermott SP, Buzina A, Ketela T, Shlush L, Xie S, Voisin V, Moffat J, Minden MD, Dick JE, Milyavsky M. *Oncotarget*. 2017 Mar 7;8(10):16712-16727.

**Integrated analysis of proteome, phosphotyrosine-proteome, tyrosine-kinome, and tyrosine-phosphatome in acute myeloid leukemia.** Tong J, Helmy M, Cavalli FM, Jin L, St-Germain J, Karisch R, Taylor P, Minden MD, Taylor MD, Neel BG, Bader GD, Moran MF. *Proteomics*. 2017 Mar;17(6):10.1002/pmic.201600361.

**KMT2E-ASNS: a novel relapse-specific fusion gene in early T-cell precursor acute lymphoblastic leukemia.** Khater F, Lajoie M, Langlois S, Healy J, Cellot S, Richer C, Beaulieu P, St-Onge P, Saillour V, Minden M, Marzouki M, Krajcinovic M, Bittencourt H, Sinnett D. *Blood*. 2017 Mar 23;129(12):1729-1732.

**High Frequency and Poor Outcome of Philadelphia Chromosome-Like Acute Lymphoblastic Leukemia in Adults.** Roberts KG, Gu Z, Payne-Turner D, McCastlain K, Harvey RC, Chen IM, Pei D, Iacobucci I, Valentine M, Pounds SB, Shi L, Li Y, Zhang J, Cheng C, Rambaldi A, Tosi M, Spinelli O, Radich JP, Minden MD, Rowe JM, Luger S, Litzow MR, Tallman MS, Wiernik PH, Bhatia R, Aldoss I, Kohlschmidt J, Mrózek K, Marcucci G, Bloomfield CD, Stock W, Kornblau S, Kantarjian HM, Konopleva M, Paietta E, Willman CL, Mullighan CG. *J Clin Oncol*. 2017 Feb;35(4):394-401.

**A 17-gene stemness score for rapid determination of risk in acute leukaemia.** Ng SW, Mitchell A, Kennedy JA, Chen WC, McLeod J, Ibrahimova N, Arruda A, Popescu A, Gupta V, Schimmer AD, Schuh AC, Yee KW, Bullinger L, Herold T, Görlich D, Büchner T, Hiddemann W, Berdel WE, Wörmann B, Cheok M, Preudhomme C, Dombret H, Metzeler K, Buske C, Löwenberg B, Valk PJ, Zandstra PW, Minden MD, Dick JE, Wang JC. *Nature*. 2016 Dec 15;540(7633):433-437.

**Phosphorylated STAT5 regulates p53 expression via BRCA1/BARD1-NPM1 and MDM2.** Ren Z, Aerts JL, Vandenplas H, Wang JA, Gorbenko O, Chen JP, Giron P, Heirman C, Goyvaerts C, Zacksenhaus E, Minden MD, Stambolic V, Breckpot K, De Grève J. *Cell Death Dis*. 2016 Dec 22;7(12):e2560.

**Preclinical validation: LV/IL-12 transduction of patient leukemia cells for immunotherapy of AML.** Huang J, Liu Y, Au BC, Barber DL, Arruda A, Schambach A, Rothe M, Minden MD, Paige CJ, Medin JA. *Mol Ther Methods Clin Dev*. 2016 Dec 7;3:16074.

**Erlotinib synergizes with the poly(ADP-ribose) glycohydrolase inhibitor ethacridine in acute myeloid leukemia cells.** Rotin LE, MacLean N, Aman A, Gronda M, Lin FH, Hurren R, Wang X, Wrana JL, Datti A, Al-Awar R, Minden MD, Schimmer AD. *Haematologica*. 2016 Nov;101(11):e449-e453.

**Genomic analyses identify recurrent MEF2D fusions in acute lymphoblastic leukaemia.** Gu Z, Churchman M, Roberts K, Li Y, Liu Y, Harvey RC, McCastlain K, Reshmi SC, Payne-Turner D, Iacobucci I, Shao Y, Chen IM, Valentine M, Pei D, Mungall KL, Mungall AJ, Ma Y, Moore R, Marra M, Stonerock E, Gastier-Foster JM, Devidas M, Dai Y, Wood B, Borowitz M, Larsen EE, Maloney K, Mattano LA Jr, Angiolillo A, Salzer WL, Burke MJ, Gianni F, Spinelli O, Radich JP, Minden MD, Moorman AV, Patel B, Fielding AK, Rowe JM, Luger SM, Bhatia R, Aldoss I, Forman SJ, Kohlschmidt J, Mrózek K, Marcucci G, Bloomfield CD, Stock W, Kornblau S, Kantarjian HM, Konopleva M, Paietta E, Willman CL, Loh ML, Hunger SP, Mullighan CG. *Nat Commun*. 2016 Nov 8;7:13331.

**Hypoxia-Activated Prodrug TH-302 Targets Hypoxic Bone Marrow Niches in Preclinical Leukemia Models.** Benito J, Ramirez MS, Millward NZ, Velez J, Harutyunyan KG, Lu H, Shi YX, Matre P, Jacamo R, Ma H, Konoplev S, McQueen T, Volgin A, Protopopova M, Mu H, Lee J, Bhattacharya PK, Marszalek JR, Davis RE, Bankson JA, Cortes JE, Hart CP, Andreeff M, Konopleva M. *Clin Cancer Res*. 2016 Apr 1;22(7):1687-98.

**Investigating the synergistic mechanism between ibrutinib and daunorubicin in acute myeloid leukemia cells.** Rotin LE, Gronda M, Hurren R, Wang X, Minden MD, Slassi M, Schimmer AD. *Leuk Lymphoma*. 2016 Oct;57(10):2432-6.

**A novel isoflavone, ME-344, targets the cytoskeleton in acute myeloid leukemia.** Jeyaraju DV, Hurren R, Wang X, MacLean N, Gronda M, Shamas-Din A, Minden MD, Giaever G, Schimmer AD. *Oncotarget*. 2016 Aug 2;7(31):49777-49785.

**ADAR1 Activation Drives Leukemia Stem Cell Self-Renewal by Impairing Let-7 Biogenesis.** Zipeto MA, Court AC, Sadarangani A, Delos Santos NP, Balaian L, Chun HJ, Pineda G, Morris SR, Mason CN, Geron I, Barrett C, Goff DJ, Wall R, Pellicchia M, Minden M, Frazer KA, Marra MA, Crews LA, Jiang Q, Jamieson CHM. *Cell Stem Cell*. 2016 Aug 4;19(2):177-191.

**miR-126 Regulates Distinct Self-Renewal Outcomes in Normal and Malignant Hematopoietic Stem Cells.** Lechman ER, Gentner B, Ng SW, Schoof EM, van Galen P, Kennedy JA, Nucera S, Ciceri F, Kaufmann KB, Takayama N, Dobson SM, Trotman-Grant A, Krivdova G, Elzinga J, Mitchell A, Nilsson B, Hermans KG, Eppert K, Marke R, Isserlin R, Voisin V, Bader GD, Zandstra PW, Golub TR, Ebert BL, Lu J, Minden M, Wang JC, Naldini L, Dick JE. *Cancer Cell*. 2016 Feb 8;29(2):214-28.

**Genomic characterization of pediatric T-cell acute lymphoblastic leukemia reveals novel recurrent driver mutations.** Spinella JF, Cassart P, Richer C, Saillour V, Ouimet M, Langlois S, St-Onge P, Sontag T, Healy J, Minden MD, Sinnott D. *Oncotarget*. 2016 Oct 4;7(40):65485-65503.

**Auger electron-emitting (111)In-DTPA-NLS-CSL360 radioimmunoconjugates are cytotoxic to human acute myeloid leukemia (AML) cells displaying the CD123(+)/CD131(-) phenotype of leukemia stem cells.** Gao C, Leyton JV, Schimmer AD, Minden M, Reilly RM. *Appl Radiat Isot*. 2016 Apr;110:1-7.

**An Integrated Analysis of Heterogeneous Drug Responses in Acute Myeloid Leukemia That Enables the Discovery of Predictive Biomarkers.** Chen WC, Yuan JS, Xing Y, Mitchell A, Mbong N, Popescu AC, McLeod J, Gerhard G, Kennedy JA, Bogdanoski G, Lauriault S, Perdu S, Merkulova Y, Minden MD, Hogge DE, Guidos C, Dick JE, Wang JC. *Cancer Res*. 2016 Mar 1;76(5):1214-24

**Ibrutinib synergizes with poly(ADP-ribose) glycohydrolase inhibitors to induce cell death in AML cells via a BTK-independent mechanism.** Rotin LE, Gronda M, MacLean N, Hurren R, Wang X, Lin FH, Wrana J, Datti A, Barber DL, Minden MD, Slassi M, Schimmer AD. *Oncotarget*. 2016 Jan 19;7(3):2765-79.