SEPTEMBER 2023

SCOS ONCOLOGY DRUG NEWSLETTER

FDA APPROVALS

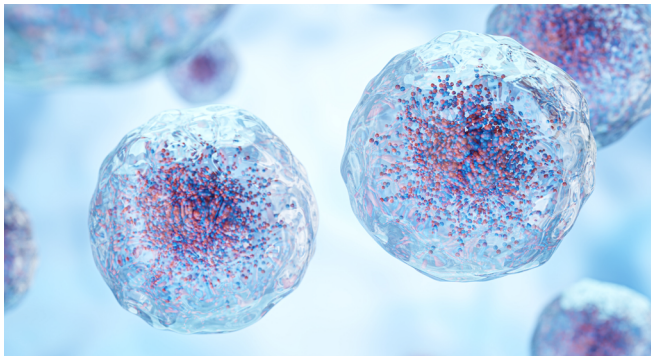
Blinatumomab (Blincyto)

The FDA awarded full approval to **blinatumomab (Blincyto)** for the treatment of adults and pediatric patients with CD19-positive B-cell acute lymphoblastic leukemia (ALL) who had first or second complete remission with minimal residual disease (MRD) of at least 0.1%. "In a phase 2 study, roughly 80% of adult patients treated with blinatumomab experienced a complete MRD response," said principal investigator Elias Jabbour, MD, a professor in the Department of Leukemia, Division of Cancer Medicine, at The University of Texas MD Anderson Cancer Center in Houston, in a news release. "The FDA's decision to grant a full approval for blinatumomab further validates the use of this therapy to treat adults and children with B-cell precursor ALL with MRD present following a remission, which is a strong predictor of relapse in this patient population."

Approval was originally granted based on results from the single-arm BLAST trial (NCT01207388) following an affirmative 8-to-4 vote from the FDA Oncologic Drugs Advisory Committee. Most patients treated with blinatumomab in BLAST achieved a complete MRD response, leading to a significant improvement in relapse-free survival and overall survival, according to published findings. Conversion to full approval results from 2 phase 3 studies, which provided additional data.

Talazoparib (Talzenna)

The FDA has granted approval to the combination of **talazoparib (Talzenna)** plus **enzalutamide (Xtandi)** for the treatment of patients with homologous recombination repair (HRR) gene–mutated metastatic castration-resistant prostate cancer (mCRPC).



Findings from the phase 3 TALAPRO-2 trial (NCT03395197) support the approval. According to data recently presented at the American Society of Clinical Oncology (ASCO) Annual Meeting, the combination achieved statistically significant and clinically meaningful progression-free survival (PFS) improvement as a first-line therapy for patients with mCRPC who have HRR gene–altered disease.

The primary end point of radiographic PFS (rPFS) with a 55% reduced risk of progression of death in patients in the combination arm (n = 200) was achieved in TALAPRO-2, despite a median rPFS that was not reached (NR) in the talazoparib arm (95% CI, 21.9-NR) compared with 13.8 months (95% CI, 11.0-16.7) in the placebo arm (HR, 0.45; 95% CI, 0.33-0.61; P < .0001). Further, the combination showed a 37% lower risk of rPFS in the talazoparib plus enzalutamide arm compared with the placebo plus enzalutamide arm (HR, 0.63; 95% CI, 0.51-0.78; P < .0001

PRIORITY REVIEW

Zolbetuximab (IMAB362)

The FDA has granted priority review to **zolbetuximab (IMAB362)** for its biologics license application (BLA) for the up-front treatment of

patients with locally advanced, unresectable, or metastatic HER2-negative, CLDN18.2-positive gastric or gastroesophageal junction (GEJ) adenocarcinoma. Supporting the BLA are results from the phase 3 SPOTLIGHT (NCT03504397) and GLOW (NCT03653507) studies. In both studies, the addition of zolbetuximab to a chemotherapy regimen provided a significant overall survival and progression-free survival benefit in patients with advanced, HER2-negative, CLDN18.2-positive gastric/GEJ cancer. The FDA's Prescription Drug User Fee Act target action date is January 12, 2024.

FAST TRACK DESIGNATION

Paxalisib (GDC-0084)

The FDA has granted fast track designation to the combination of **paxalisib (GDC-0084)** and radiation for the treatment of patients with brain metastases originating from a primary tumor. Concurrent paxalisib with whole-brain radiotherapy is being investigated in a phase 1 study (NCT04192981) of approximately 36 'patient with brain metastases from a solid tumor or those with leptomeningeal metastases harboring PI3K pathway mutations. Data from 12 patients in the study have been reported.

Zenocutuzumab (MCLA-128)

The FDA has granted breakthrough therapy designation to **zenocutuzumab (MCLA-128)** for the treatment of patients with advanced unresectable or metastatic NRG1 fusion–positive pancreatic cancer following disease progression on previous systemic therapy or for whom there are no satisfactory alternatives. Findings from an early access program assessing the safety and antitumor activity of zenocutuzumab (NCT04100694) and the phase 1/2 eNRGy trial (NCT02912949) support the designation.

Zenocutuzumab is an antibody-dependent, cell-mediated, cytotoxicity-enhanced Biclonics antibody. The agent binds to HER2 and potently blocks the interaction of HER3 with its ligand NRG1 or NRG1-fusion proteins. In July 2020, the FDA granted an orphan drug designation to zenocutuzumab for use in patients with pancreatic cancer. In January 2021, the FDA granted the agent fast track status for the treatment of patients with NRG1 fusion–positive metastatic solid tumors that have progressed on standard treatment.

Quaratusugene ozeplasmid (Reqorsa), atezolizumab (Tecentriq)

The FDA has granted fast track designation (FTD) to **quaratusugene ozeplasmid (Reqorsa)** in combination with **atezolizumab (Tecentriq)** for the treatment of patients with extensive-stage small cell lung cancer who did not develop tumor progression after receiving atezolizumab and chemotherapy as initial standard treatment, according to Genprex, Inc. Quaratusugene ozeplasmid targets the TUSC2 gene and is designed to be injected intravenously into tumor cells to interrupt cell signaling pathways and recreate pathways for apoptosis in cancer cells. Quaratusugene ozeplasmid also modulates the immune response against cancer cells and blocks the development of drug resistance. Previously, based on the Acclaim-3 trial (NCT05703971), the FDA has granted 2 FTDs for quaratusugene ozeplasmid, including quaratusugene ozeplasmid in combination with osimertinib (Tagrisso) in patients with late-stage non–small cell lung cancer (NSCLC) whose disease progressed after treatment with osimertinib, and for the combination of quaratusugene ozeplasmid and pembrolizumab (Keytruda) in patients with late-stage NSCLC whose disease progressed after treatment with pembrolizumab.

NEW DRUG APPLICATION

Imetelstat

The FDA has received the submission of a new drug application for **imetelstat**, a novel, first-in-class telomerase inhibitor, for the treatment of transfusion-dependent anemia in adult patients with non-del(5q) lower-risk myelodysplastic syndrome (MDS) that is relapsed or refractory to erythropoiesis-stimulating

agents, according to Geron Corporation. Across key MDS subgroups, including ring sideroblast status, baseline transfusion burden, and International Prognostic Scoring System risk category, statistically significant and clinically meaningful efficacy results were achieved. Moreover, safety data were consistent with what has previously been reported with imetelstat.

ORPHAN DRUG DESIGNATION

VCN-01

The FDA has granted an orphan drug designation to VCN-01 in combination with the standard chemotherapy doublet of gemcitabine and nab-paclitaxel for the frontline treatment of patients with pancreatic ductal adenocarcinoma (PDAC). VCN-01 is a genetically modified adenovirus being developed for the treatment of pancreatic cancer. In preclinical PDAC models, treatment with the oncolytic adenovirus demonstrated direct antitumor efficacy and degraded the tumor stroma, which serves as a barrier to cancer treatment. The agent is under investigation in the phase 2b VIRAGE study (NCT05673811).

KT-253

The FDA has granted an orphan drug designation to KT-253, a novel, highly potent, selective MDM2 degrader, for the treatment of acute myeloid leukemia, according to Kymera Therapeutics. KT-253 targets MDM2, which is a critical regulator of p53. In patients with p53 wild-type disease, the tumor suppressor can modulate cancer cell growth. Small molecule inhibitors aimed at stabilizing and upregulating p53 expression have evolved; however, studies show their potential to cause a feedback loop resulting in elevated MDM2 protein levels, which leads to the repression of p53 and limits their effect.

PROTOCOL AMENDMENT

Uproleselan (GMI-1271)

The FDA has cleared the addition of a protocol amendment for a phase 3 study (NCT03616470) of **uproleselan (GMI-1271)** for relapsed/refractory acute myeloid leukemia. The amendment enables a time-based evaluation of the trial's primary end point and overall survival (OS). The final analysis will occur only if the anticipated 295 survival events required for an event-driven analysis have not been observed.

As part of the protocol amendment, the FDA also cleared the addition of landmark event-free survival and OS analyses as secondary end points. Topline results are expected by the end of the second quarter of 2024.

CHANGES IN LABELED INDICATIONS

Pralsetinib (Gavreto)

Additional update from last month. With the use of Pralsetinib (Gavreto), it has been shown that patients developed a series of adverse events: pneumonitis (12%) including 3.3% with grade 3 or 4, hypertension (35%), serious hepatoxicity (1.5%) including increased aspartate aminotransferase (AST) (49%) with grade 3 or 4 in 7% and increased alanine transaminase (ALT) (37%) with grade 3 or 4 in 4.8%. The median time upon first signs of increased AST ranged from 5 days to 2.5 years and for ALT, 7 days to 3.7 years. Reports of hemorrhagic events also occurred in 4.1% of patients taking pralsetinib.

Patients in the ARROW study (NCT03037385) receiving pralsetinib were 65 years and older, with 7% who were 75 years and older. For patients 65 years and older there is no difference shown in safety, effectiveness, or pharmacokinetics when using pralsetinib. As of now it is not known, if pralsetinib is safe or effective for treating cancers caused by abnormal RET genes or for children with non–small clear cell cancer.

Swelling of the feet, hands, legs, arms and face, cough, and fever are the most common adverse effects, when taking pralsetinib, as well as increased blood levels of alkaline phosphate and potassium. (It is noted to test for bone or liver issues.)

Trifluridine and tipiracil (Lonsurf)

Out of the total of 1114 patients who have taken trifluridine and tipiracil (Lonsurf) as the only agent (NCT04737187), 17% developed anemia, 3 patients (0.3%) developed neutropenic infection (sepsis) and died, and 4% experienced thrombocytopenia. An update of 14% of patients were given granulocyte-colony stimulating factors.

For the elderly patients in this sample size with metastatic colorectal cancer or gastric cancer, 11% were 75 years and older and experienced grade 3 or 4 anemia (20% vs 14%), and grade 3 or 4 thrombocytopenia (6% vs 3%).

When used in combination with bevacizumab (NCT04737187), patients developed a series of adverse events: Grade 3 to 4 of severe or life-threatening myelosuppression with neutropenia (52%), anemia (5%), febrile neutropenia (0.4%), and thrombocytopenia (4%). Two patients (0.8%) died from septic shock and one (0.4%) from abdominal sepsis. Out of the 246 patients, 29% received granulocyte-colony stimulating factors.

For the elderly patients in this sample size, the patients 65 years of age or older had a higher incidence of hematologic laboratory abnormalities: Grade 3 or 4 thrombocytopenia (5% vs 4%) and grade 3 or 4 neutropenia (60% vs 46%).

Patients should not retake a dose if missed or vomited but should continue with their next scheduled dose.

Trifluridine and tipiracil can be taken alone or with bevacizumab to treat colorectal cancer that has spread or after having used certain chemotherapy medicines or at least 2 other types of treatment.

Common adverse events associated with taking trifluridine and tipiracil are as follows: decreased sodium in blood, low blood count, abnormal liver function blood results, diarrhea, fatigue and weakness, nausea, stomach pain, and decreased appetite.

Teclistamab-cqyv (Tecvayli)

The warnings and precautions associated with the use of teclistamab-cqyv (Tecvayli) now also include talquetamab (Talvey) Risk Evaluation and Mitigation Strategy, which has recently been granted approval by the FDA.

THE MEDICAL UNIVERSITY OF SOUTH CAROLINA CLINICAL TRIALS

DLBCL/AGGRESSIVE NHL

1) A Randomized Phase II Trial of Consolidation Therapy Following CD19 CAR T-Cell Treatment for Relapsed/Refractory Large B-Cell Lymphoma or Grade IIIB Follicular Lymphoma

Prior to undergoing CAR-T cell therapy, patients can be enrolled in the SWOG 2114 trial (NCT05633615). Those who exhibit stable disease (SD) or partial response (PR) based on the 1-month PET-CT scan will qualify for randomization into 4 different arms: mosunetuzumab (Lunsumio), polatuzumab vedotin (Polivy), a combination of mosunetuzumab and polatuzumab, or observation. Each arm will consist of 30 patients, as this subset commonly experiences relapses. For individuals achieving complete response (CR) on the 1-month PET-CT scan, as well as those with SD/PR, follow-up will include minimal residual disease (MRD) analysis.

2) A Phase 1b Trial of Zanubrutinib in Combination With R-CHP + Pola (ZaRCHP+Pola) for Patients With Newly Diagnosed Diffuse Large B-Cell Lymphoma

Patient Eligibility and Remarks: This study (NCT04850495) is accessible to all individuals diagnosed with newly identified diffuse large B-cell lymphoma (DLBCL) and an International Prognostic

Index (IPI) score greater than 2. Currently, the trial is temporarily suspended due to the modification of the treatment foundation from R-CHOP (rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisone) to R-CHP (polatuzumab vedotin-piiq [Polivy] plus rituximab [Rituxan], cyclophosphamide, doxorubicin, and prednisone) and + Pola (polatuzumab vedotin). However, an accepted amendment is in place, and it is anticipated that the trial will resume later this month.

3) A Phase 1b Open-Label Study to Evaluate the Safety and Anticancer Activity of Loncastuximab Tesirine in Combination With Novel Therapies in Patients With Relapsed or Refractory B-Cell Non-Hodgkin Lymphoma

Patient Eligibility and Remarks: Loncastuximab tesirine (Zynlonta), an antibody-drug conjugate targeting CD19 similar to brentuximab vedotin, gained FDA approval in 2021 for the treatment of relapsed/refractory diffuse large B-cell lymphoma (R/R DLBCL). This clinical trial (NCT04970901) focuses on investigating the synergistic effects of combining ADCT-402 with polatuzumab vedotin, in conjunction with mosunetuzumab and glofitamab-gxbm (Columvi). The trial aims to enroll patients with various subtypes, including R/R DLBCL, follicular lymphoma, mantle cell lymphoma, marginal zone leukemia, and Burkitt lymphoma. Currently, the trial is open for patient enrollment. The arms involving mosunetuzumab and glofitamab are anticipated to commence in either August or September.

4) A Phase 3 Randomized Study of Loncastuximab Tesirine Combined With Rituximab Versus Immunochemotherapy in Patients With Relapsed or Refractory Diffuse Large B-Cell Lymphoma (DLBCL) (LOTIS-5)

Patient Eligibility and Remarks: Loncastuximab, similar to brentuximab vedotin but with a CD19 target, secured FDA approval in 2021. This study (NCT04384484) is open to patients with DLBCL who have experienced relapse after one or more therapy attempts. For those who have advanced beyond R-CHOP (rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisone /R-EPOCH (rituximab, etoposide phosphate, prednisone, vincristine sulfate [Oncovin], cyclophosphamide doxorubicin hydrochloride [hydroxydaunomycin]) treatments and may not be suitable contenders for CAR T–cell therapy or autologous stem cell transplant, this trial could offer a promising alternative.

5) A Phase II/III Randomized Study of R-Mini-CHOP With or Without CC-486 (Oral Azacitidine) in Patients Age 75 Years or Older With Newly Diagnosed Diffuse Large B-Cell Lymphoma, Grade IIIB Follicular Lymphoma, Transformed Lymphoma, and High-Grade B-Cell Lymphomas With MYC and BCL2 and/or BCL6 Rearrangements

Enrolled Patients and Remarks: This cooperative group study (NCT04799275) is designed for older patients newly diagnosed with DLBCL. Given that these patients often face challenges and aren't generally suitable for participation in clinical trials, we are glad to provide this trial opportunity at Medical University of South Carolina Hollings Cancer Center.

6) Safety and Efficacy of GEN3009 (DuoHexaBody-CD37) in Relapsed or Refractory B-Cell Non-Hodgkin Lymphoma—A First-in-Human, Open-Label, Phase 1/2a Dose Escalation Trial With Dose-Expansion Cohorts

This phase 1 clinical study (NCT04358458) employs a bispecific monoclonal antibody that zeroes in on CD37, an antigen with widespread expression on B cells. Because this trial is in an early phase, this study is accessible to a range of relapsed/refractory (R/R) non-Hodgkin lymphoma (NHL) subtypes.

7) A Phase 1/2, Open-Label Safety Trial of GEN3013 in Patients With Relapsed, Progressive or Refractory B-Cell Lymphoma

Enrolled Patients and Details: Epcoritamab-bysp (Epkinly) serves as a bi-specific T-cell engager, effectively binding to CD3 on T cells and CD20 on B- ells of lymphoma. Considering the recent FDA approval of epcoritamab in the LCL cohort, enrollment in this specific study (NCT03625037) might be limited. Nevertheless, this treatment stands as a viable choice for various other lymphoma subtypes.

MANTLE CELL LYMPHOMA

8) A Randomized Phase 3 Trial of Consolidation With Autologous Hematopoietic Cell Transplantation Followed by Maintenance Rituximab vs Maintenance Rituximab Alone for Patients With Mantle Cell Lymphoma in Minimal Residual Disease–Negative First Complete Remission.

Enrolled Patients and Remarks: Within this cooperative group study (NCT03267433), individuals will be randomized into 2 arms: auto stem cell transplant paired with maintenance rituximab (Rituxan), or maintenance rituximab alone. If you currently have patients undergoing induction therapy for mantle cell lymphoma (MCL), we kindly urge you to contemplate referring them to our facility for their initial visit. This will facilitate seamless screening once their induction treatment has concluded.

9) A Phase 1/2, Open-Label, Dose- Escalation Trial of GEN3013 in Patients With Relapsed, Progressive or Refractory B-Cell Lymphoma

Enrolled Patients and Details: Epcoritamab-bysp (Epkinly) functions as a bi-specific T-cell engager, forming bonds with CD3 on T cells and CD20 on B cells prevalent in lymphomas. A recent press release about epcoritamab showcases encouraging outcomes in the context of aggressive non-Hodgkin lymphoma (NHL). This study (NCT03625037) is open for patients diagnosed with mantle cell lymphoma and indolent NHL subtypes, which encompass follicular lymphoma, marginal zone lymphoma, and small lymphocytic lymphoma. Notably, this intervention stands as a promising choice for individuals who experience progression following CD19 CAR T therapy or are unsuited for CD19 CAR T treatment.

INDOLENT NHL

10) Randomized Phase 2 Trial in Early Relapsing or Refractory Follicular Lymphoma

Enrolled Patients and Remarks: This collaborative group study (NCT03269669) is accessible to patients with follicular lymphoma who have experienced progression within 2 years after concluding their initial therapy. The trial consists of 3 distinct arms: obinutuzumab (Gazyva) combined with lenalidomide (Revlimid), obinutuzumab combined with a PI3K inhibitor, and chemo-immunotherapy. If you believe you have a potential candidate, kindly reach out to us, and we will expedite the necessary procedures promptly.

11) Multicenter, Phase 2 Study of CLR 131 in Patients With Relapsed or Refractory (R/R) Select B-Cell Malignancies (CLOVER-1) and Expansion Cohort in Patients With Waldenström Macroglobulinemia (CLOVER-WaM)

Enrolled Patients and Remarks: This trial (NCT02952508) is tailored exclusively for patients with relapsed/refractory Waldenström macroglobulinemia (R/R WM), a group frequently overlooked in clinical trials. This study uses a radioimmunoconjugate treatment approach. Collaborating closely with our nuclear medicine colleagues, we take pleasure in extending this trial opportunity to patients across the South Carolina region.

CLL/SLL

12) Randomized, Phase 3 Study of Early Intervention with Venetoclax and Obinutuzumab vs Delayed Therapy with Venetoclax and Obinutuzumab in Newly Diagnosed Asymptomatic High-Risk Patients With Chronic Lymphocytic Leukemia / Small Lymphocytic Lymphoma (CLL/SLL): EVOLVE CLL/SLL Study.

Enrolled Patients and Remarks: This randomized trial (NCT04269902) is for patients diagnosed with chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL) who currently lack a treatment indication but exhibit high risk characteristics. High risk is characterized by a International Prognostic Index for Chronic Lymphocytic Leukemia score of 4 or more, or the presence of complex cytogenetics involving 3 or more chromosomal abnormalities. Enrollment is feasible up to 12 months following the initial diagnosis. Upon randomization, patients will be assigned either to receive venetoclax (Venclexta) plus obinutuzumab or delayed therapy upon the development of a conventional treatment. Notably, the study covers the cost of treatment whether it is administered early or delayed. Should you have any queries regarding patients or the trial, please do not hesitate to contact.

T-CELL NHL

13) A Randomized Phase 2 Study of CHO(E)P vs CC-486-CHO(E)P vs Duvelisib-CHO(E)P in Previously Untreated CD30 Negative Peripheral T-Cell Lymphomas

Enrolled Patients and Details: This cooperative group study (NCT04803201) is designed for individuals diagnosed with frontline peripheral T-cell lymphoma (PTCL) lacking the CD30 marker (commonly treated with CHP [cyclophosphamide, doxorubicin, prednisone]) + BV [brentuximab vedotin] in CD30+ cases). Within this study, duvelisib (Copiktra), a PI3K inhibitor, and CC-486, an oral hypomethylating agent, is used. Patients meeting the criteria could potentially qualify for auto stem cell transplant post trial. Presently, the trial is temporarily halted for an in-depth safety assessment involving the initial group of patients but is anticipated to resume shortly.

14) A Multicenter Phase 1b Trial Evaluating the Safety and Efficacy of Lacutamab in Patients With Relapse Peripheral T-Cell Lymphoma That Expresses KIR3DL2

Enrolled Patients and Details: Lacutamab, a monoclonal antibody targeting KIR3DL2 expressed in approximately 50% of peripheral T-cell lymphoma (PTCL) cases, demonstrates favorable activity in cutaneous T-cell lymphoma (mycosis fungoides and Sézary syndrome) and a favorable safety profile. This trial (NCT05321147) is open for patients who have undergone between 1 and 3 lines of therapy, with the exception that primary refractory disease is not permissible. We recommend referring any patients with T-cell lymphoma, even if currently in remission, who could be prospective candidates. The company permits us to prescreen patients for KIR3DL2 expression using their original diagnostic sample.

15) An Open-Label, Phase 2 Trial of Nanatinostat in Combination With Valganciclovir in Subjects With Epstein-Barr Virus–Positive (EBV+) Relapsed/Refractory Lymphomas (NAVAL-1)

Enrolled Patients and Remarks: This trial (NCT05011058) is open for patients with a diverse range of subtypes within Epstein-Barr virus–positive (EBV+) relapsed/refractory non-Hodgkin lymphoma (NHL), encompassing peripheral T-cell lymphoma, angioimmunoblastic T-cell lymphoma, posttransplant lymphoproliferative disorder, and other EBV+ NHL variations. It stands as a great opportunity for patients who lack alternative options within the clinical trial landscape..

REFERENCES

1. FDA grants full approval for Blincyto (Blinatumomab) to treat minimal residual disease-positive b-cell precursor acute lymphoblastic leukemia. News release. June 21, 2023. Accessed June 21, 2023. https://tinyurl.com/2bamekp2
2. Gokbiget N, Dombret H, Bonifacio M, et al. Blinatumomab for minimal residual disease in adults with B-cell precursor acute lymphoblastic leukemia. Blood. 2018;131(14):1522-1531. doi:10.1182/blood-2017-08-798322.
3. Pfizer's TALZENNA in combination with XTANDI receives U.S. FDA approval. News release. Pfizer. June 20, 2023. Accessed June 20, 2023. https://tinyurl.com/y9vahdu3
4. Fizazi K, Azad A, Matsubara N, et al. TALAPRO-2: Phase 3 study of talazoparib (TALA) + enzalutamide (ENZA) versus placebo (PBO) + ENZA as first-line (1L) treatment for patients (pts) with metastatic castration-resistant prostate cancer (mCRPC) harboring homologous recombination repair (HRR) gene alterations. J Clin Oncol. 2023;5004(suppl 16). doi:10.1200/JCO.2023.41.16_suppl.5004
5. Astellas announces U.S. FDA grants priority review for zolbetuximab biologics license application. News release. Astellas. July 6, 2023. Accessed July 6, 2023. https://tinyurl.com/yd7d3p5s
6. Shitara K, Lordick F, Bang Y-J, et al. Zolbetuximab plus mFOLFOX6 in patients with CLDN18.2-positive, HER2-negative, untreated, locally advanced unresectable or metastatic gastric or gastro-oesophageal junction adenocarcinoma (SPOTLIGHT): a multicentre, randomised, double-blind, phase 3 trial. Lancet. 2023;401(10389):1655-1668. doi:10.1016/S0140-6736(23)00620-7
7. Xu RH, Shitara K, Ajani JA, et al. Zolbetuximab + CAPOX in 1L claudin-18.2+ (CLDN18.2+)/HER2− locally advanced (LA) or metastatic gastric or gastroesophageal junction (mG/GEJ) adenocarcinoma: primary phase 3 results from GLOW. Presented at: 2023 March ASCO Plenary Series. Abstract 405736.
8. Astellas announces positive findings from phase 3 glow trial of zolbetuximab during March ASCO Plenary Series. News release. Astellas Pharma Inc. March 21, 2023. Accessed July 6, 2023. https://www.astellas.com/en/news/27481
9. Kazia's paxalisib receives fast track designation from FDA for treatment of solid tumor brain metastases harboring PI3k

pathway mutations in combination with radiation therapy. News release. Kazia Therapeutics. July 7, 2023. Accessed July 7, 2023. https://tinyurl.com/4vry53zd

10. GDC-0084 with radiation therapy for people with PIK3CA-mutated solid tumor brain metastases or leptomeningeal metastases. ClinicalTrials.gov. Updated July 3, 2023. Accessed July 7, 2023. https:// clinicaltrials.gov/ct2/show/NCT04192981

11. Yang J, Mann J, Pike L, et al. MMAP-05 phase I study of concurrent paxalisib and radiation therapy in patients with solid tumor brain metastases or leptomeningeal metastases harboring pi3k pathway mutations: results from the dose-escalation cohort. Neurooncol Adv. 2022;4(suppl 1):i15-i16. doi:10.1093/noajnl/vdac078.061

12. Zenocutuzumab (Zeno) granted breakthrough therapy designation by the US Food & Drug Administration for the treatment of NRG1+ pancreatic cancer. News release. Merus NV. June 29, 2023. Accessed July 5, 2023. https://tinyurl.com/2uxeftap

13. Schram AM, Goto K, Kim DW, et al. Efficacy and safety of zenocutuzumab, a HER2 x HER3 bispecific antibody, across advanced NRG1 fusion (NRG1+) cancers. J Clin Oncol. 2022;40(suppl 16):105. doi:10.1200/JCO.2022.40.16_suppl.105

14. Genprex receives U.S. FDA fast track designation for REQORSA immunogene therapy in combination with Tecentriq for the treatment of small cell lung cancer. News release. Genprex Inc. June 28, 2023. Accessed June 29, 2023. https://tinyurl.com/ys5esepp

15. Genprex announces first patient dosed in phase 1/2 Acclaim-1 clinical trial of Reqorsa immunogene therapy in combination with Tagrisso to treat non-small cell lung cancer. News release. Genprex Inc. March 2, 2022. Accessed June 29, 2023. https://bit.ly/35MdYkD

16. Quaratusugene ozeplasmid (Reqorsa) and atezolizumab maintenance therapy in ES-SCLC patients (Acclaim-3). ClinicalTrials.gov. Updated March 24, 2023. Accessed June 29, 2023. https://classic.clinicaltrials.gov/ct2/show/NCT05703971

17. Geron announces submission of new drug application to FDA for first-in-class telomerase inhibitor imetelstat. News release. Geron Corporation. June 20, 2023. Accessed June 21, 2023. https://tinyurl.com/bdzzxnd2

18. Zeidan AM, Platzbecker U, Santini V, et al. IMerge: Results from a phase 3, randomized, double-blind, placebo-controlled study of imetelstat in patients (pts) with heavily transfusion dependent (TD) non-del(5q) lower-risk myelodysplastic syndromes (LR-MDS) relapsed/refractory (R/R) to erythropoiesis stimulating agents (ESA). J Clin Oncol. 2023;41(suppl 16):7004. doi:10.1200/JCO.2023.41.16_suppl.7004

19. Theriva Biologics announces orphan drug designation granted by the U.S. FDA for VCN-01 for the treatment of pancreatic cancer. News release. Theriva Biologics. June 27, 2023. Accessed June 28, 2023. https://tinyurl.com/3vrbx8ak

20. Bazan-Peregrino M, Garcia-Carbonero R, Laquente B, et al. VCN-01 disrupts pancreatic cancer stroma and exerts antitumor effects. J Immunother Cancer. 2021;9(11): e003254. doi:10.1136/jitc-2021-00325

21. Study of nab-paclitaxel and gemcitabine and plus/minus vcn-01 in patients with metastatic pancreatic cancer (VIRAGE). ClincalTrials.gov. Updated June 27, 2023. Accessed June 28, 2023. https://tinyurl.com/mrxmnp7c

22. Kymera Therapeutics receives FDA orphan drug designation for KT-253, a novel, highly potent and selective MDM2 degrader for the treatment of acute myeloid leukemia. News release. Kymera Therapeutics Inc. June 22, 2023. Accessed June 28, 2023. https://tinyurl.com/28tfsk49

23. Safety and clinical activity of KT-253 in adult patients with high grade myeloid malignancies, acute lymphocytic leukemia, lymphoma, solid tumors. ClinicalTrials.gov. Updated June 7, 2023. Accessed June 28, 2023. https://clinicaltrials.gov/study/NCT05775406

24. GlycoMimetics announces U.S. Food and Drug Administration clears addition of time-based final analysis to pivotal phase 3 study of uproleselan in relapsed/refractory acute myeloid leukemia. News release. GlycoMimetics Inc. June 15, 2023. Accessed June 19, 2023. https://tinyurl.com/398e27y5

25. Study to determine the efficacy of uproleselan (GMI-1271) in combination with chemotherapy to treat relapsed/refractory acute myeloid leukemia. ClinicalTrials.gov. Updated April 6, 2023. Accessed June 19, 2023. https://clinicaltrials.gov/ct2/show/NCT03616470 26.

26. A randomized phase 2 trial of consolidation therapy following CD19 CAR–T cell treatment for relapsed/refractory large B-cell lymphoma or grade IIIB follicular lymphoma. ClinicalTrials.gov. Updated August 14, 2023. Accessed August 22, 2023. https://clinicaltrials.gov/study/NCT05633615?term=SWOG%20s2114&rank=1

27. A phase 1b trial of zanubrutinib in combination with R-CHP + Pola (ZaRCHP+Pola) for patients with newly diagnosed diffuse large B-cell lymphoma. ClinicalTrials.gov. Updated August 14, 2023. Accessed August 22, 2023. https://classic.clinicaltrials.gov/ct2/show/NCT04850495

28. A phase 1b open-label study to evaluate the safety and anticancer activity of loncastuximab tesirine in combination with novel therapies in patients with relapsed or refractory B-cell non-Hodgkin lymphoma. ClinicalTrials.gov. Updated August 14, 2023. Accessed August 22, 2023. . https://clinicaltrials.gov/study/NCT04970901?term=LOTIS-7&rank=1

29. A phase 3 randomized study of loncastuximab tesirine combined with rituximab versus immunochemotherapy in patients with relapsed or refractory diffuse large B-cell lymphoma (DLBCL) (LOTIS-5). ClinicalTrials.gov. Updated August 14, 2023. Accessed August 22, 2023. https://clinicaltrials.gov/study/NCT04384484?term=NCT04384484&rank=1

30. A phase II/III randomized study of R-miniCHOP with or without CC-486 (oral azacitidine) in participants age 75 years or older with newly diagnosed diffuse large B-cell lymphoma, grade IIIB follicular lymphoma, transformed lymphoma, and high-grade B-Cell lymphomas with MYC and BCL2 and/or BCL6 rearrangements. ClinicalTrials.gov. Updated August 14, 2023. Accessed August 22, 2023. https://clinicaltrials.gov/study/NCT04799275?term=NCT04799275&rank=1

31. Safety and efficacy of GEN3009 (DuoHexaBody-CD37) in relapsed or refractory B-cell non-Hodgkin lymphoma—a first-in-human, open-label, phase 1/2a dose escalation trial with dose expansion cohorts. ClinicalTrials.gov. Updated August 14, 2023. Accessed August 22, 2023. https://clinicaltrials.gov/study/NCT04358458?term=NCT04358458&rank=1

32. A phase 1/2, open-label safety trial of GEN3013 in patients with relapsed, progressive or refractory B-cell lymphoma. ClinicalTrials.gov. Updated August 14, 2023. Accessed August 22, 2023. https://clinicaltrials.gov/study/NCT03625037?term=NCT03625037&rank=1

33. A randomized phase 3 trial of consolidation with autologous hematopoietic cell transplantation followed by maintenance rituximab vs maintenance rituximab alone for patients with mantle cell lymphoma in minimal residual disease-negative first complete remission. ClinicalTrials.gov. Updated August 14, 2023. Accessed August 22, 2023. https://clinicaltrials.gov/study/NCT03267433?term=NCT03267433&rank=1

34. A phase 1/2, open-label safety trial of GEN3013 in patients with relapsed, progressive or refractory B-cell lymphoma. ClinicalTrials.gov. Updated August 14, 2023. Accessed August 22, 2023. https://clinicaltrials.gov/study/NCT03625037?term=NCT03625037&rank=1

35. Randomized phase 2 trial in early relapsing or refractory follicular lymphoma. ClinicalTrials.gov. Updated August 14, 2023. Accessed August 22, 2023. . https://clinicaltrials.gov/study/NCT03269669?term=NCT03269669&rank=1

36. An open-label, multicenter, phase 2 study of iopofosine I 131 (CLR 131) in patients with relapsed or refractory (R/R) select B-cell malignancies (CLOVER-1) and expansion cohort in patients with Waldenström macroglobulinemia (CLOVER-WaM). ClinicalTrials.gov. Updated August 14, 2023. Accessed August 22, 2023. . https://clinicaltrials.gov/study/NCT02952508?term=NCT02952508&rank=1

37. Randomized, phase 3 study of early intervention with venetoclax and obinutuzumab versus delayed therapy with venetoclax and obinutuzumab in newly diagnosed asymptomatic high-risk patients with chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL): EVOLVE CLL/SLL study. ClinicalTrials.gov. Updated August 14, 2023. Accessed August 22, 2023. . https://clinicaltrials.gov/study/NCT04269902?term=NCT04269902&rank=1

38. A randomized phase 2 study of CHO(E)P vs CC-486-CHO(E)P vs duvelisib-CHO(E)P in previously untreated CD30-negative peripheral T-cell lymphomas. ClinicalTrials.gov. Updated August 14, 2023. Accessed August 22, 2023. . https://clinicaltrials.gov/study/NCT04803201?term=NCT04803201&rank=1

39. A multi-center phase 1b trial evaluating the safety and efficacy of lacutamab in patients with relapsed/refractory peripheral T-cell lymphoma that expresses KIR3DL2. ClinicalTrials.gov. Updated August 14, 2023. Accessed August 22, 2023. . https://clinicaltrials.gov/study/NCT05321147?term=NCT05321147&rank=1

40. An open-label, phase 2 trial of nanatinostat in combination with valganciclovir in patients with Epstein-Barr virus–positive (EBV+) relapsed/refractory lymphomas. ClinicalTrials.gov. Updated August 14, 2023. Accessed August 22, 2023. . https://clinicaltrials.gov/study/NCT05011058?term=NCT05011058&rank=1