Supplemental

Table 1: summary of available clinical trials for not yet approved anti-CD38 mAb for treating MM and for Daratumumab and Isatuximab employment in other hematological malignancies.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Multiple myeloma** | | | | | | |
| **Reference** | | **Drug** | | **Title** | | **Results** |
| [NCT01421186](https://clinicaltrials.gov/ct2/show/NCT01421186?term=MOR202&rank=1) | | MOR202 (MOR03087) or  MOR202 (MOR03087) + standard therapy | | A Phase 1/2a, Open-Label, Multicenter, Dose-Escalation Study to Evaluate the Safety and Preliminary Efficacy of the Human Anti-CD 38 Antibody MOR03087 as Monotherapy and in Combination with Standard Therapy in Subjects with Relapsed/Refractory Multiple Myeloma | | It is well tolerated, and its safety profile is similar to other mAb. 32% of patients have infusion-related reactions (the lowest level for a mAb) |
| NCT03860038 | | MOR202 (TJ202) + Dexamethasone | | A Phase 2, Multi-center, Single-arm Study of TJ202 Combined with Dexamethasone in Subjects with Relapsed or Refractory Multiple Myeloma | | **Ongoing** |
| NCT03952091 | | MOR202 (TJ202) + Dexamethasone + Lenalidomide | | A Phase 3, Randomized, Open-label, Parallel-controlled, Multi-center Study Comparing TJ202, Lenalidomide and Dexamethasone vs. Lenalidomide and Dexamethasone in Subjects with Relapsed or Refractory Multiple Myeloma | | **Ongoing** |
| NCT03439280 | | TAK079 or TAK079 + Dexamethasone + Pomalidomide | | A Phase 1/2a Open-label, Dose-Escalation Study to Investigate the Safety and Tolerability, Efficacy, Pharmacokinetics, and Immunogenicity of TAK-079 Administered Subcutaneously as a Single Agent in Patients with Relapsed/Refractory Multiple Myeloma | | It demonstrated an ORR of 33%. Good safety profile, tolerability, and early durable response in patients with RRM |
| NCT03984097 | | TAK079 + Dexamethasone + Lenalidomide or TAK079 + Bortezomib + Dexamethasone + Lenalidomide | | An Open-Label, Multicenter Phase 1b Study Investigating the Safety of TAK-079 in Combination with Backbone Regimens for the Treatment of Patients with Newly Diagnosed Multiple Myeloma and for Whom Stem Cell Transplantation Is Not Planned as Initial Therapy | | **Ongoing** |
| NCT04000282 | | SAR442085 | | An Open-label, First-in-human, Single Agent, Dose-escalation and Expansion Study for the Evaluation of Safety, Pharmacokinetics, Pharmacodynamics and Anti-tumor Activity of SAR442085 in Patients with Relapsed or Refractory Multiple Myeloma (RRMM) | | **Terminated** |
| **Hematological malignancies** | | | | | | |
| **Reference** | **Tumor type** | | **Drug** | **Title** | **Results** | |
| NCT02841033 | AL amyloidosis | | Daratumumab | A Phase I-II Trial of Daratumumab for the Treatment of Patients with AL Amyloidosis | Tolerated in patients with relapsed and leads to rapid and deep hematologic and organ responses | |
| NCT03187262  NCT03679624 | Waldenström Macroglobulinemia | | Daratumumab or  Daratumumab + Ibrutinib | A Phase 2 Study of Daratumumab in Patients with Relapsed or Refractory Waldenström Macroglobulinemia | Ongoing | |
| NCT04230304 | Chronic Lymphocytic Leukemia | | Daratumumab + Ibrutinib | A Phase II Study of Daratumumab and Ibrutinib for Relapsed / Refractory Chronic Lymphocytic Leukemia Treatment (DIRECT | Ongoing | |
| NCT02413489  NCT04251065 | Lymphomas | | Daratumumab | Phase 2 Study to Evaluate Efficacy and Safety of Daratumumab in Relapsed or Refractory Lymphoma. | It is not effective as monotherapy in NHL. ORR was not evaluable in MCL patients, 6.7% in DLBCL patients, and 12.5% in  FL patient | |
| NCT02927925 | Natural killer/T-cell lymphomas (NKTCL) | | Daratumumab | An Open Label, Phase 2 Study to Assess the Clinical Efficacy and Safety of Daratumumab in Patients with Relapsed or Refractory Natural Killer/T-Cell Lymphoma, Nasal Type | It demonstrated an ORR of 35.7% | |
| NCT02999633 | Relapsed or Refractory T-acute Lymphoblastic Leukemia (T-ALL) or T-lymphoblastic Lymphoma (T-LBL) | | Isatuximab | Phase 2, Safety and Efficacy Study of Isatuximab, an Anti-CD38 Monoclonal Antibody, Administered by Intravenous (IV) Infusion in Patients with Relapsed or Refractory T-acute Lymphoblastic Leukemia (T-ALL) or T-lymphoblastic Lymphoma (T-LBL) | Unsatisfactory benefit-risk ratio | |
| NCT03860844 | Relapsed/Refractory Acute Lymphoblastic Leukemia (ALL) or Acute Myeloid Leukemia (AML) | | Isatuximab | Open-label, Single-arm Trial to Evaluate Antitumor Activity, Safety, and Pharmacokinetics of Isatuximab Used in Combination with Chemotherapy in Pediatric Patients with Relapsed/Refractory B or T Acute Lymphoblastic Leukemia or Acute Myeloid Leukemia in First or Second Relapse | **Ongoing** | |

Table 2 Summary of available clinical trials for daratumumab and Isatuximab treatments of other diseases

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Other malignancies** | | | | |
| **Reference** | **Tumor type** | **Drug** | **Title** | **Results** |
| NCT03098550 | Pancreatic, Non-Small Cell Lung or Triple Negative Breast Cancers | Daratumumab+ Nivolumab | Phase 1/2 Study to Evaluate the Safety and Preliminary Efficacy of Nivolumab Combined with Daratumumab in Participants with Advanced or Metastatic Solid Tumors | Not completed |
| NCT03023423 | Treated Advanced and Metastatic Non-Small Cell Lung Cancer | Daratumumab + Atezolizumab | A Phase 1b/2, Open-Label, Randomized Study of Daratumumab Administered in Combination with Atezolizumab Compared with Atezolizumab Alone in Subjects with Previously Treated Advanced or Metastatic Non-Small Cell Lung Cancer | Not completed |
| NCT03177460 | Prostate Cancer | Daratumumab | A Pilot Presurgical Study of Daratumumab (CD38 Antagonist) or JNJ-40346527 in Men with High-Risk Localized Prostate Cancer Followed by Radical Prostatectomy | Ongoing |
| NCT03367819 | metastatic, castration-resistant prostate cancer (mCRPC) | Isatuximab + cemiplimab | Phase 1/2 Open-label, Multi-center, Safety, Preliminary Efficacy and Pharmacokinetic (PK) Study of Isatuximab (SAR650984) in Combination with REGN2810, or Isatuximab Alone, in Patients with Advanced Malignancies | manageable safety profile  CD38 inhibition was not associated with significant antitumor activity. |
| NCT03637764 | hepatocellular carcinoma (HCC), platinum-refractory recurrent/metastatic squamous cell carcinoma of the head and neck (SCCHN), platinum-resistant/refractory epithelial ovarian cancer (EOC), or recurrent glioblastoma multiforme (GBM) | Isatuximab+ Atezolizumab | Phase 1/2 Open-label, Multi-center, Safety, Preliminary Efficacy and Pharmacokinetic (PK) Study of Isatuximab (SAR650984) in Combination with Atezolizumab or Isatuximab Alone in Patients with Advanced Malignancies | the efficacy results observed in each cohort did not fulfil the pre-planned interim analysis criteria allowing the study to move to Phase 2 Stage 2 |