Clinical Trial Summary

May 2022

Better Health, Brighter Future

OVERVIEW OF CLINICAL TRIAL SUMMARY

	LCM[1]		NME[2]
ONCOLOGY	ALUNBRIG 1L ALK+ NSCLC ALUNBRIG 2L ALK+ NSCLC H2H with alectinib ICLUSIG CML ICLUSIG 1L Ph+ ALL NINLARO Maintenance ND MM post-SCT (MM3) NINLARO Maintenance ND MM no-SCT (MM4) NINLARO In-class transition (MM6)	EXKIVITY 2L NSCLC w/EGFR exon 20 insertion mutation EXKIVITY 1L NSCLC w/EGFR exon 20 insertion mutation TAK-007 CD19+ Heme malignancies Subasumstat Multiple cancers Subasumstat Non-Hodgkin's lymphoma Subasumstat Solid tumors Subasumstat R/R multiple myeloma Modakafusp alfa Solid tumors	Modakafusp alfa R/R multiple myeloma TAK-605 Multiple cancers TAK-676 Solid tumors TAK-500 Solid tumors TAK-102 Solid tumors TAK-103 Solid tumors TAK-940 CD19+ Heme malignancy TAK-186 EGFR+ solid tumors
RARE GENETICS & HEMATOLOGY	ADYNOVATE Pediatric Hemophilia A VONVENDI vWD Adult prophylaxis, Pediatric TAKHZYRO HAE Pediatric TAKHZYRO Bradykinin-mediated angioedema OBIZUR Acquired Hemophilia A	LIVTENCITY 1L CMV infection In HSCT TAK-755 cTTP, iTTP, SCD TAK-611 MLD (IT) Mezagitamab (TAK-079) ITP, MG	
NEUROSCIENCE		Soticlestat Rare epilepsies – DS, LGS TAK-861 Sleep disorders TAK-994 NT1 and NT2 TAK-925 Post-Operative	TAK-341 Parkinson's Disease TAK-071 Parkinson's Disease
GASTROENTEROLOGY	ENTYVIO GvHD Prophylaxis ENTYVIO UC/CD SC ENTYVIO Pediatric CD/UC Alofisel Complex perianal fistulas in CD vonoprazan *H. pylori* China	TAK-951 Nausea & Vomiting TAK-510 Nausea & Vomiting TAK-105 Nausea & Vomiting TAK-954 POGD Sibofimloc Post-Op CD	
PLASMA-DERIVED THERAPIES	HYQVIA CIDP HYQVIA Pediatric PID HyQVIA PID/SID & CIDP/MMN in Japan TAK-881 20% fSCIG PK CUVITRU PID Japan CEPROTIN Congenital protein C deficiency Japan FEIBA Hem A and B TAK-330 Prothromplex TAK-880 IgG (Low IgA)		
VACCINES		TAK-003 Dengue vaccine TAK-919 SARS-CoV-2 vaccine TAK-019 SARS-CoV-2 vaccine	TAK-019 SARS-CoV-2 vaccine booster TAK-426 Zika vaccine

1. LCM: Life cycle management programs or marketed assets in development seeking new indications, new geographic expansions, fulfillment of regulatory requirements, new formulations/method of use, and/or enhancement in commercial/competitive profile.
2. NME: New molecular entity

OVERVIEW OF CLINICAL TRIAL SUMMARY

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ALUNBRIG (BRIGATINIB): *ALK INHIBITOR*

Study	NCT02737501	NCT03596866
Indication	ALK-positive advanced non-small cell lung cancer	ALK-positive non-small cell lung cancer (NSCLC)
Phase	**Phase III** **ALTA-1L**	**Phase III** **ALTA-3**
# of Patients	N = 275	N = 246
Target Patients	ALK+ locally advanced or metastatic NSCLC patients who have not previously been treated with an ALK inhibitor	Patients with ALK+ locally advanced or metastatic NSCLC who have progressed on crizotinib
Arms/Intervention	• Arm A: Brigatinib 180 mg QD with 7-day lead-in at 90 mg • Arm B: Crizotinib 250 mg BID	• Arm A: Brigatinib 90 mg to 180 mg QD • Arm B: Alectinib 600 mg PO BID with food
Primary endpoint and key secondary endpoint(s)	Progression-Free Survival (PFS) as assessed by blinded Independent Review Committee (bIRC)	Progression-Free Survival (PFS) as assessed by blinded Independent Review Committee (bIRC)
Status	• Study start date: April 2016 • Primary completion date: June 2019 • Final completion date: June 2021 Publications: • Camidge DR, et al. N Engl J Med 2018;379(21): 2027-2039 • Camidge DR, Kim HR, Ahn MJ, et al. J Clin Oncol 2020;38: 1-13 • Camidge DR, Kim HR, Ahn MJ, et al. J Thoracic Oncol 2021 https://doi.org/10.1016/j.jtho.2021.07.035	• Study Start Date: April 2019 • Estimated primary completion date[1]: The trial met the pre-specified futility criteria and is being stopped. The data will be published at a later point in time.

1. The primary endpoint, PFS, is event driven and changes in event rate can lead to a change in the primary completion date.

ICLUSIG (PONATINIB): *BCR-ABL INHIBITOR*

Oncology

Study	NCT02467270	NCT03589326
Indication	Chronic myeloid leukemia (CML)	Ph+ acute lymphoblastic leukemia (ALL)
Phase	**Phase II** **OPTIC**	**Phase III** **Ph+ALLCON**
# of Patients	N = 276	N = 230 (max)
Target Patients	Patients with resistant chronic phase chronic myeloid leukemia	Patients with newly-diagnosed Ph+ ALL
Arms/Intervention	• Ponatinib 45 mg once daily • Ponatinib 30 mg once daily • Ponatinib 15 mg once daily	• Cohort A: Ponatinib/reduced intensity chemotherapy until progressive disease (PD) or stem cell transplant (SCT) • Cohort B: Imatinib/reduced intensity chemotherapy until PD or SCT
Primary endpoint and key secondary endpoint(s)	≤1% BCR-ABL1 at 12 months (time frame: 12 months)	• Primary: Number of participants with Minimal Residual Disease (MRD) -Negative Complete Remission (CR) [Time frame: From Cycle 1 through Cycle 3 (approximately 3 months) (Cycle length is equal to 28 days)] • Secondary: EFS
Status	• Study start date: August 2015 • Primary completion date: May 2020 • Estimated study completion: June 2024	• Study start date: January 2019 • Estimated primary completion date[1]: FY24

1. The key secondary endpoint, EFS, is event driven and changes in event rate can lead to a change in the primary completion date.

NINLARO (IXAZOMIB):
ORAL PROTEASOME INHIBITOR

Oncology

Study	NCT02181413	NCT02312258
Indication	Multiple myeloma (MM) maintenance post-stem cell transplant	Multiple myeloma (MM) maintenance non-stem cell transplant
Phase	**Phase III** **TOURMALINE-MM3**	**Phase III** **TOURMALINE-MM4**
# of Patients	N = 652	N = 706
Target Patients	Patients with multiple myeloma following autologous stem cell transplant	Patients with newly-diagnosed MM not treated with stem cell transplantation
Arms/Intervention	Arm A: Ixazomib • Cycles 1-4: Ixazomib 3.0 mg PO days 1, 8, 15 / 28-day cycle • Cycles 5-26: Ixazomib 3.0 or 4.0 mg PO days 1, 8, 15 / 28-day cycle Arm B: Placebo • Cycles 1-4: Placebo 3.0 mg PO days 1, 8, 15 / 28-day cycle • Cycles 5-26: Placebo 3.0 or 4.0 mg PO days 1, 8, 15 / 28-day cycle	Arm A: Ixazomib • Cycles 1-4: Ixazomib 3.0 mg PO days 1, 8, 15 / 28-day cycle • Cycles 5-26: Ixazomib 3.0 mg or 4.0 mg PO days 1, 8, 15 / 28-day cycle Arm B: Placebo • Cycles 1-4: Placebo 3.0 mg PO days 1, 8, 15 / 28-day cycle • Cycles 5-26: Placebo 3.0 or 4.0 mg PO days 1, 8, 15 / 28-day cycle
Primary endpoint and key secondary endpoint(s)	• Primary: Progression Free Survival (PFS) • Secondary: Overall Survival (OS)	• Primary: Progression Free Survival (PFS) • Secondary: Overall Survival (OS)
Status	• Study start date: July 2014 • Primary completion date: April 2018 • Interim OS analysis[1]: FY21; Final: FY24/25 Publications: • Dimopoulos MA, et al. Lancet. 2019 Jan 19;393(10168): 253-264 • Goldschmidt H, et al. Leukemia. 2020 Nov;34(11): 3019-3027 • Dimopoulos MA, et al., Presentation at ASH 2021	• Study start date: April 2015 • Primary completion date: August 2019 • Interim OS analysis[1]: FY20; Final FY22 Publications: • Dimopoulos MA, et al. https://ascopubs.org/doi/full/10.1200/JCO.20.02060 • Paiva B, et al., Presentation at EHA 2021 • Dimopoulos MA, et al., Presentation at ASH 2021

1. A key secondary analysis, OS, is event driven and changes in event rate can lead to a change in the interim and final analysis.

NINLARO (IXAZOMIB):
ORAL PROTEASOME INHIBITOR

Oncology

Study	NCT03173092
Indication	Non-transplant eligible patients with newly diagnosed multiple myeloma
Phase	**Phase IV** **MM6**
# of Patients	N = 160
Target Patients	Patients with multiple myeloma previously receiving a bortezomib-based induction. In-class (proteasome inhibitor) transition after 3 cycles of bortezomib-based therapy.
Arms/Intervention	• Ixazomib 4 mg + lenalidomide 25 mg + dexamethasone 40 mg • Transition from a bortezomib based regimen to IRD (ixazomib, lenalidomide, dexamethasone) may allow the long-term proteasome inhibition to be maximized while maintaining a manageable safety profile.
Primary endpoint and key secondary endpoint(s)	Progression Free Survival (PFS). Key secondary endpoints: time to next therapy (TTNT), relative dose intensity (RDI) of the oral regimen, overall survival (OS), electronic patient reported outcomes (ePRO) and actigraphy (activity/sleep) data.
Status	• Study start date: September 2017 • Primary completion date: FY25 Publications: • Girnius, et al., Presentation at ASH 2020 • Lyons RM, et al., Presentation at COMy 2021 • Rifkin, RM, et al., Presentation at ASH 2021

EXKIVITY (MOBOCERTINIB): *EGFR/HER2 EXON 20 INHIBITOR*

Oncology

Study	NCT02716116	NCT04129502
Indication	2L NSCLC exon 20 insertion mutation	1L NSCLC exon 20 insertion mutation
Phase	**Registration enabling Phase I/II** **EXCLAIM**	**Phase III** **EXCLAIM-2**
# of Patients	N = 334	N = 318
Target Patients	2L+ NSCLC harboring EGFR in-frame exon 20 insertion mutations	1L NSCLC harboring EGFR in-frame exon 20 insertion mutations
Arms/Intervention	• Single arm: Mobocertinib 160 mg QD	• Arm A: Mobocertinib 160 mg QD • Arm B: Platinum-based chemotherapy
Primary endpoint and key secondary endpoint(s)	Confirmed ORR assessed by IRC DoR as assessed by IRC (key secondary endpoint)	PFS as assessed by blinded Independent Review Committee (IRC) OS (key secondary endpoint)
Status	• Study start date: June 2016 • Primary completion date: May 2020	• Study start date: January 2020 • Estimated primary completion date for final analysis[1]: FY23 Publication: • Zhou C. et al, JAMA Oncology, doi:10.1001/jamaoncol.2021.4761

1. The primary endpoint, PFS, is event driven and changes in event rate can lead to a change in the primary completion date.

TAK-007:
CD19 CAR NK

Oncology

Study	NCT03056339[1]
Indication	Relapsed refractory B-lymphoid malignancies
Phase	**Phase I/II**
# of Patients	N = 37
Target Patients	Patients with relapsed and refractory CD19+ B lymphoid malignances
Arms/Intervention	• Fludarabine 30 mg/m^2 by vein on days -5 to -3 • Cyclophosphamide 300 mg/m^2 by vein on days -5 to -3 • iC9/CAR.19/IL15-Transduced CB-NK Cells: Infusion of iC9/CAR.19/IL15-transduced CB-NK cells on Day 0 by vein; starting dose: 10E5 • AP1903: If participant has graft-versus-host disease (GvHD) or cytokine release syndrome after the NK cell infusion, they will receive AP1903 0.4 mg/kg administered as an intravenous infusion.
Primary endpoint and key secondary endpoint(s)	Safety and efficacy
Status	• Study start date: June 2017 Publication: • Liu E, Marin D, Banerjee P, et al. N Engl J Med 2020;382(6): 545-553

1. Trial managed by MD Anderson Cancer Center. The CD19 CAR-NKs evaluated in this study are generated with the same CAR construct used for TAK-007 but with a different formulation and cannot be equated with TAK-007.

TAK-007:
CD19 CAR NK

Oncology

Study	NCT05020015
Indication	Relapsed refractory B-lymphoid malignancies NCT05020015
Phase	**Phase II**
# of Patients	N = 242
Target Patients	Patients with relapsed and refractory CD19+ B lymphoid malignances
Arms/Intervention	• Fludarabine 30 mg/m^2 by vein on days -5 to -3 • Cyclophosphamide 300 mg/m^2 by vein on days -5 to -3 • TAK-007 (iC9/CAR.19/IL15-Transduced CB-NK Cells): Infusion of TAK-007 on Day 0 by vein • Part 1: Dose escalation with 2 dose levels: 2x10E8 and 8x10E8 followed by expansion cohorts • Part 2: LBCL and iNHL cohorts with TAK-007 RP2D
Primary endpoint and key secondary endpoint(s)	Safety and efficacy
Status	• Trial actively recruiting • Estimated Primary Completion Date: FY29

SUBASUMSTAT (TAK-981): *SUMO-ACTIVATING ENZYME[1] INHIBITOR*

Oncology

Study	NCT03648372	NCT04074330
Indication	Solid tumors, hematologic malignancies	Non-Hodgkin's lymphoma (NHL)
Phase	**Phase I/II**	**Phase I/II**
# of Patients	N = 202	N = 130
Target Patients	Adult participants with advanced or metastatic solid tumors or relapsed/refractory hematologic malignancies	Patients with relapsed/refractory CD20 positive NHL
Arms/Intervention	• Phase 1: Escalating doses of TAK-981 with a starting dose of 3 mg intravenous (IV) infusion on Days 1, 4, 8, and 11 on a 21-day treatment cycle. Alternative schedule: TAK-981 on Days 1 and 8 on a 21-day schedule. • Phase 2: TAK-981 90 mg IV infusion for 3 cycles on Days 1, 4, 8 and 11 on a 21-day cycle with the option to taper to Days 1 and 8 every 21-days with agreement from investigator and sponsor.	• Phase 1: Escalating doses of TAK-981 with a starting dose of 10 mg intravenous (IV) infusion and a fixed dose of rituximab 375 mg/m2 on Days 1, 8, and 15 on a 21-day cycle. Alternative schedule: TAK-981 90 mg on Days 1, 4, 8, and 11 with fixed dose of rituximab 375 mg/m2 on a 21-day schedule. • Phase 2: TAK-981 120 mg IV infusion and a fixed dose of rituximab 375 mg/m2 on Days 1, 8, and 15 on a 21-day cycle.
Primary endpoint and key secondary endpoint(s)	Phase 1: Safety, tolerability and PK Phase 2: Efficacy	Phase 1: Safety, tolerability and RP2D Phase 2: Efficacy
Status	• Study start date: October 2018 • Estimated primary completion date: December 2022	• Study start date: October 2019 • Estimated primary completion date: September 2022

1. SUMO = Small ubiquitin-like modifier

SUBASUMSTAT (TAK-981): *SUMO-ACTIVATING ENZYME[1] INHIBITOR*

Oncology

Study	NCT04381650	NCT04776018
Indication	Solid tumors	Multiple Myeloma
Phase	**Phase Ib/II**	**Phase Ib/II**
# of Patients	N = 242	N= 81
Target Patients	Patients with select advanced or metastatic solid tumors	Patients with relapsed and/or refractory multiple myeloma

Arms/Intervention	• Phase 1b: Escalating doses of TAK-981 with starting dose of 40 mg intravenous (IV) infusion, in 3 different dosing regimens (Days 1, 4, 8, and 11; Days 1 and 8; and Days 1, 8, and 15) and pembrolizumab 200 mg IV infusion as a fixed dose every 3 weeks in a 21-day cycle
	• Phase 2: TAK-981 90 mg IV infusion with an induction period of at least 3 cycles on Days 1, 4, 8 and 11 on a 21-day cycle with the option to taper to Days 1 and 8 every 21-days with agreement from investigator and sponsor in combination with pembrolizumab 200 mg IV infusion every 21 days.
		• Phase 1b: Escalating doses of TAK-981 in combination with fixed doses of mezagitamab or daratumumab and hyaluronidase-fihj. Each 28-day treatment cycle will consist of TAK-981 administered intravenous (IV) with a starting dose of 60 mg in one of the following schedules:
		  • BIW on Days 1, 4, 8, 11, and 15 during Cycles 1 and 2, then once every 2 weeks during Cycles 3 through 6, followed by monthly dosing, OR
		  • QW on Days 1, 8, 15, 22 during Cycles 1 and 2, then once every 2 weeks during Cycles 3 through 6, followed by monthly dosing thereafter until PD
		• Phase 2: TAK-981 at RP2D IV infusion in combination with an anti-CD38 antibody (mezagitamab or daratumumab and hyaluronidase-fihj) at each 28-day treatment cycle for a maximum of 24 cycles. A schedule will be selected for continued evaluation based on data from Phase 1b.

Primary endpoint and key secondary endpoint(s)	Phase 1b: Safety and tolerability Phase 2: Efficacy	Phase 1b: Safety, tolerability and RP2D Phase 2: Efficacy
Status	• Study start date: August 2020 • Estimate primary completion date: May 2023	• Study start date: April 2021 • Estimated primary completion date: August 2024

1. SUMO = Small ubiquitin-like modifier

MODAKAFUSP ALFA (TAK-573):
FIRST-IN-CLASS ANTI-CD38/ATTENUATED IFNα FUSION PROTEIN

Oncology

Study	NCT04157517	NCT03215030
Indication	Solid tumors	Relapsed/refractory multiple myeloma
Phase	**Phase I/II**	**Phase I/II**
# of Patients	N = 143	N = 151
Target Patients	Patients with locally advanced or metastatic solid tumors	Patients with relapsed/refractory multiple myeloma
Arms/Intervention	• TAK-573 0.1 to 6 milligram per kilogram (mg/kg), infusion, intravenously, once on Day 1 of each 21-days treatment cycle for up to 1 year. • Phase 2 Dose Expansion in combination with pembrolizumab: ➢ Unresectable/metastatic cutaneous melanoma with primary resistance or acquired resistance to no more than 2 prior lines of anti-PD1 containing treatments. ➢ Unresectable/metastatic cutaneous melanoma naïve to prior anti-PD1 containing treatments.	• Part 1 cohort: TAK-573 0.001 to 14 milligram per kilogram (mg/kg), infusion, intravenously, once on Days 1, 8, 15 and 22 of each 28-day treatment cycle up to 1 year. • Part 2 cohort: TAK-573 early efficacy assessment as a single agent at selected dose. Participants in at least 1 cohort will receive TAK-573 and dexamethasone 40 mg, orally, once weekly of each 28-day treatment cycle until treatment discontinuation. • Part 3 cohort: Randomized Phase 2 of TAK-573 to select the monotherapy dose between RP2D and MTD defined in part 2.
Primary endpoint and key secondary endpoint(s)	Safety and tolerability	Safety and tolerability
Status	• Study start date: December 2019 • Estimated primary completion date: Q3 2023	• Study start date: October 2017 • Estimated primary completion date: Q4 2024

TAK-605: *ONCOLYTIC VIRUS ENCODING TRANSGENES FOR FLT3 LIGAND, ANTI-CTLA-4 ANTIBODY, AND IL-12 CYTOKINE*

Study	NCT04301011[1]
Indication	Solid tumors
Phase	**Phase I/IIa**
# of Patients	N = 84
Target Patients	Patients with advanced solid tumors
Arms/Intervention	• Arm A: TBio-6517 (TAK-605) dose escalation administered alone by direct injection into tumor(s) x 4. Booster injections of TBio-6517 are permitted for up to 24 months. • Arm B: TBio-6517 and pembrolizumab Dose escalation of TBio-6517 administered in combination with pembrolizumab. TBio-6517 will be directly injected into tumor(s) x 4. Booster injections of TBio-6517 are permitted for up to 24 months. Pembrolizumab will be administered beginning at Day 8 via intravenous (IV) infusion every 3 weeks for up to 24 months. • TBio-6517 and pembrolizumab in MSS-CRC Doses of TBio-6517 will be administered by direct injection into tumor(s) x 4 in combination with pembrolizumab beginning at Day 8 given every 3 weeks for up to 24 months in patients with microsatellite stable colorectal carcinoma (MSS-CRC). Booster injections of TBio-6517 are permitted for up to 24 months. • TBio-6517 and pembrolizumab in TNBC Doses of TBio-6517 will be administered by direct injection into tumor(s) x 4 in combination with pembrolizumab beginning at Day 8 given every 3 weeks for up to 24 months in patients with triple negative breast cancer (TNBC). Booster injections of TBio-6517 are permitted for up to 24 months.
Primary endpoint and key secondary endpoint(s)	Recommended Phase 2 dose (RP2D)
Status	• Study start date: August 2020

 1. Trial managed by Turnstone Biologics

TAK-676:
STING AGONIST

Oncology

Study	NCT04420884	NCT04879849
Indication	Solid tumors	Solid tumors
Phase	**Phase I**	**Phase I**
# of Patients	N = 76	N = 65
Target Patients	Adult patients with advanced or metastatic solid tumors	Adult patients with advanced or metastatic solid tumors
Arms/Intervention	• Arm 1: Dose escalating single agent TAK-676, starting with a safety lead-in at 0.1 mg IV on Days 1, 8, 15 in 21-day treatment cycles, and capping at 2.5 mg IV on Days 1, 8 and 15 in a 21-day cycle. • Arm 2: Dose escalating TAK-676 along the above parameters in combination with fixed dose pembrolizumab at 200 mg IV administered on D1 in a 21-day cycle.	• Image-guided radiation therapy between Day -8 and Day -1 followed by fixed dose pembrolizumab at 200 mg IV administered on D1 of a 21-day cycle in combination with dose escalating TAK-676, starting at 0.2 mg IV and capping at 2.5 mg IV on Days 1, 8 and 21 in a 21-day cycle.
Primary endpoint and key secondary endpoint(s)	• Primary endpoints: Safety and tolerability • Secondary objectives: Recommended Phase 2 dose (RP2D), overall response rate (ORR)	• Primary endpoints: Safety and tolerability • Secondary objectives: Recommended Phase 2 dose (RP2D), overall response rate (ORR)
Status	• Study start date: August 2020	• Study start date: July 2021

TAK-500:
STING AGONIST ANTIBODY DRUG CONJUGATE

Oncology

Study	NCT05070247
Indication	Solid tumors
Phase	**Phase I**
# of Patients	N = 106
Target Patients	Adult patients with advanced or metastatic solid tumors
Arms/Intervention	• Arm 1: Dose escalating single agent TAK-500 starting at 8 microgram per kilogram (mcg/kg), infusion, intravenously, once on Day 1 of each 21-days treatment cycle, once every 3 weeks (Q3W), for up to 1 year • Arm 2: Dose escalating TAK-500, infusion, intravenously, once on Day 1 of each 21-days treatment cycle (Q3W), along with pembrolizumab 200 milligram (mg) infusion, intravenously, once on Day 1 of each 21-days treatment cycle (Q3W), for up to 1 year
Primary endpoint and key secondary endpoint(s)	• Primary endpoints: Safety and tolerability • Secondary objectives: Recommended Phase 2 dose (RP2D), overall response rate (ORR)
Status	• Study start date: April 2022

TAK-102:
GPC3 CAR-T

Oncology

Study	NCT04405778[1]
Indication	Solid tumors
Phase	**Phase I**
# of Patients	N = 18
Target Patients	Adult patients with GPC3-expressing previously treated solid tumors
Arms/Intervention	• Cohort 1: 1 × 10^7 CAR (+) cells/body [starting dose] • Cohort 2: 1 × 10^8 CAR (+) cells/body • Cohort 3: 1 × 10^9 CAR (+) cells/body
Primary endpoint and key secondary endpoint(s)	• Primary endpoint: Incidence of dose-limiting toxicities, treatment-emergent adverse events (AEs) and AEs of clinical interest • Primary objective: To evaluate the safety and tolerability of TAK-102 and to determine the recommended Phase 2 dose of TAK-102
Status	• Study start date: July 2020

1. In collaboration with Noile-Immune Biotech Inc. Enrollment in Japan.

TAK-103:
MESOTHELIN CAR-T

Oncology

Study	NCT05164666[1]
Indication	Solid tumors
Phase	**Phase I**
# of Patients	N = 21
Target Patients	Adult patients with mesothelin-expressing advanced or metastatic solid tumors
Arms/Intervention	• Cohort 1: 1 × 10^7 CAR (+) cells/body [starting dose] • Cohort 2: 1 × 10^8 CAR (+) cells/body • Cohort 3: 5 × 10^8 CAR (+) cells/body • Cohort 4: 1 × 10^9 CAR (+) cells/body
Primary endpoint and key secondary endpoint(s)	• Primary endpoint: Incidence of dose-limiting toxicities, treatment-emergent adverse events (AEs) and AEs of clinical interest • Primary objective: To evaluate the safety and tolerability of TAK-103 and to determine the recommended Phase 2 dose of TAK-103
Status	• Study start date: January 2022

1. In collaboration with Noile-Immune Biotech Inc. Enrollment in Japan.

TAK-940:
CD19 CAR-T

Oncology

Study	NCT04464200[1]
Indication	Relapsed/refractory B-cell cancers
Phase	**Phase I**
# of Patients	N = 30
Target Patients	Adult patients with relapsed or refractory CD19+ B lymphoid malignancies
Arms/Intervention	• 19(T2)28z1xx CAR T cells Cohorts of 3-6 patients will be infused with escalating doses of 19(T2)28z1xx CAR T cells to establish the RP2D. There are 4 planned flat-dose levels: 25x10^6, 50 x 10^6, 100 x 10^6, and 200 x 10^6 CAR T cells and one de-escalation dose: 12.5 x 10^6 CAR T cells. A standard 3+3 dose escalation design will be implemented starting from dose 1.
Primary endpoint and key secondary endpoint(s)	Primary: Safety and Recommended Phase 2 dose (RP2D) Secondary: Efficacy and CK
Status	• Study start date: August 2020

1. Trial managed by Memorial Sloan Kettering Cancer Center

TAK-186:
T-CELL ENGAGER

Oncology

Study	NCT04844073
Indication	Solid tumors
Phase	**Phase I/II**
# of Patients	N = 68
Target Patients	Patients with unresectable, locally advanced or metastatic cancer
Arms/Intervention	Single-arm, open label, MVC-101 - An EGFR x CD3 Conditional Bispecific Redirected Activation (COBRA™) Protein This Phase 1/2, open-label study will characterize safety, dose-limiting toxicities (DLTs), and maximum tolerated/ recommended phase 2 dose (MTD/RP2D) of MVC-101. Dose escalation will occur in a 1+3 and then 3+3 design in patients with advanced solid tumors. Once the MTD/RP2D is determined, a Cohort Expansion Phase will be enrolled to further characterize safety and initial antitumor activity in patients with HNSCC, CRC or NSCLC.
Primary endpoint and key secondary endpoint(s)	Primary Endpoint: Safety based upon incidence of treatment-emergent adverse events. Secondary Endpoints: Pharmacokinetics, Pharmacodynamics, Immunogenicity measured by plasma anti-drug antibodies, and Radiographic anti-tumor activity
Status	• Study start date: March 17, 2021

OVERVIEW OF CLINICAL TRIAL SUMMARY

- ONCOLOGY
- GASTROENTEROLOGY (GI)
- **RARE GENETIC & HEMATOLOGY**
- PLASMA-DERIVED THERAPIES
- NEUROSCIENCE
- VACCINES

ADYNOVATE (TAK-660): *PEGYLATED RECOMBINANT FACTOR VIII*

Study	NCT02615691
Indication	Hemophilia A
Phase	**Phase III**
# of Patients	N = 120
Target Patients	Previously untreated patients (PUPs) < 6 years with severe hemophilia A (FVIII < 1%)
Arms/Intervention	• Single group assignment
Primary endpoint and key secondary endpoint(s)	The primary objective is to determine safety including immunogenicity of Adynovate (TAK-660/BAX 855) based on the incidence of inhibitor development to FVIII (≥ 0.6 Bethesda unit (BU)/mL using the Nijmegen modification of the Bethesda assay). Safety 1. To determine the immunogenicity of Adynovate in terms of binding IgG and IGM antibodies to FVIII, PEG-FVIII and PEG 2. To determine the safety of Adynovate based on adverse events (AEs) and serious adverse events (SAEs) Hemostatic Efficacy 3. To assess the efficacy of prophylactic treatment with Adynovate 4. To characterize the efficacy of Adynovate in the control of bleeding episodes Pharmacokinetics 6. To determine the incremental recovery (IR) of Adynovate at baseline and over time 7. To determine half-life of Adynovate at baseline (optional)
Status	• Study start date: November 2015 • Study enrollment completed: 17 December 2021 • Final report expected Q1 2025

VONVENDI (TAK-577):
RECOMBINANT VON WILLEBRAND FACTOR

Study	NCT02932618
Indication	Pediatric On-demand and Elective Surgery
Phase	**Phase III**
# of Patients	N = 27 (On-demand) N = 12 (Elective Surgery)
Target Patients	Severe von Willebrand Disease
Arms/Intervention	• Arm A: On-demand • Arm B: Elective and emergency surgery
Primary endpoint and key secondary endpoint(s)	• Hemostatic efficacy and safety of rVWF, with or without ADVATE, in the treatment and control of nonsurgical bleeding events • Key secondary endpoint: Hemostatic efficacy assessed after the last perioperative rVWF infusion
Status	• Study start date: October 2016 • Estimated primary completion date: FY23

TAKHZYRO (LANADELUMAB):
PLASMA KALLIKREIN (PKAL) INHIBITOR

Study	NCT04070326	NCT04206605
Indication	Hereditary angioedema (HAE) pediatric	Non-histaminergic angioedema with normal C1-Inhibitor
Phase	**Phase III SPRING**	**Phase III CASPIAN**
# of Patients	N = 20	N = 75
Target Patients	Type I and Type II hereditary angioedema, ages 2 to <12 yo	Non-histaminergic bradykinin-mediated angioedema (BMA) with normal C1-inhibitor
Arms/Intervention	• Lanadelumab 150mg; q4wks ages 2 to < 6, q2wks ages 6 to <12 yo	• Lanadelumab 300mg q2wks
Primary endpoint and key secondary endpoint(s)	• Primary: Safety and pharmacokinetics • Key secondary: Clinical outcomes, pharmacodynamics	• Primary: Number of investigator-confirmed angioedema attacks during the treatment period of Day 0 through Day 182 • Key secondary: Number of participants achieving attack-free status during the treatment period of Day 0 through Day 182
Status	• Study start date: August 2019 • Estimated primary completion date: FY22	• Study start date: August 2020 • Estimated primary completion date: FY23

OBIZUR (TAK-672): *PORCINE COAGULATION FACTOR VIII (RECOMBINANT)*

Study	NCT04580407
Indication	Acquired Hemophilia A (AHA)
Phase	**Phase II/III**
# of Patients	N = 5
Target Patients	Japanese subjects ≥18 years of age with AHA
Arms/Intervention	• Single group assignment
Primary endpoint and key secondary endpoint(s)	The primary objective is to evaluate the efficacy and safety of TAK-672 for the treatment of serious bleeding events in Japanese subjects with AHA.
Status	• Study start date: November 2021 • Estimated Primary Completion Date: FY22

LIVTENCITY (MARIBAVIR):
ORAL VIRAL PROTEIN KINASE INHIBITOR

Study	NCT02927067
Indication	Treatment of CMV infection in Hematopoietic Stem Cell Transplant Recipients
Phase	**Phase III**
# of Patients	N = 550
Target Patients	Treatment of asymptomatic CMV infection in stem cell transplant patients
Arms/Intervention	Arm A: Maribavir Arm B: Valganciclovir
Primary endpoint and key secondary endpoint(s)	• **Primary:** Confirmed clearance of plasma CMV DNA (CMV viremia clearance) at the end of Study Week 8 • **Secondary:** Maintenance of confirmed CMV viremia clearance achieved at the end of Study Week 8 through Week 16 having received exclusively a study-assigned treatment.
Status	• Study start date: April 2017 • Estimated primary completion date: FY21 • Phase 2: Maertens J, et al. N. Engl J Med 2019;381:1136-47.

TAK-755:
REPLACEMENT OF THE DEFICIENT ADAMTS13 ENZYME

Study	NCT03393975	NCT03922308	NCT03997760
Indication	Congenital Thrombotic Thrombocytopenic Purpura (cTTP)	Immune Thrombotic Thrombocytopenic Purpura (iTTP)	Sickle Cell Disease
Phase	**Phase III**	**Phase II**	**Phase I**
# of Patients	N = up to 68	N = 30	N = 20
Target Patients	Patients diagnosed with severe cTTP in prophylactic and on-demand treatment	Adult patients diagnosed with iTTP	Adult patients with sickle cell disease at baseline health
Arms/Intervention	Prophylaxis Treatment Cohort: 6 + 6 months cross over of TAK-755 vs SoC followed by 6 months TAK-755 extension • **Arm 1:** TAK-755 followed by SOC • **Arm 2:** SOC followed by TAK-755 (Patients are also eligible to enter the prophylaxis study upon completion of acute treatment)	• **Arm 1:** TAK-755 High dose + SOC • **Arm 2:** TAK-755 Low dose + SOC • **Arm 3:** Placebo + SOC	• **Part A**: TAK-755 (three dose levels) or placebo administered at baseline health
Primary endpoint and key secondary endpoint(s)	Incidence of acute TTP episodes in subjects receiving prophylactic treatment with either TAK-755 or SoC	ADAMTS-13 activity, ADAMTS-13 binding and inhibitory antibodies, Platelet count, and LDH levels	Safety, PK, and incidence of binding and inhibitory antibodies to ADAMTS-13
Status	• Study start date: October 2017 • Estimated primary completion date: FY22	• Study enrollment complete: August 2021 • Study completed	• Study start date: October 2019 • Estimated primary completion date: FY22

TAK-611:
RHASA[1] ENZYME REPLACEMENT THERAPY FOR MLD, INTRATHECAL (IT)

Study	NCT01887938	NCT03771898
Indication	Treatment of patients with motor symptoms in Metachromatic Leukodystrophy (MLD)	Treatment of patients with motor symptoms in Metachromatic Leukodystrophy (MLD)
Phase	**Phase I/II Extension Trial (of HGT-MLD-070)**	**Registration Enabling Phase IIb**
# of Patients	N = 23	N = 42
Target Patients	Children with Metachromatic Leukodystrophy (MLD)	Late Infantile Metachromatic Leukodystrophy (MLD)
Arms/Intervention	Open Label with 4 Cohorts: • Cohort 1 – 10 mg dose level • Cohort 2 – 30 mg dose level • Cohort 3 – 100 mg dose level • Cohort 4 – 100 mg dose level (Process B)	Open Label with 6 Groups: • Group A - GMFC-MLD level of 1 or 2 • Group B - GMFC-MLD level of 3 • Group C - GMFC-MLD level of 4 • Group D - younger siblings of enrolled subjects, and have the same ASA allelic constitution • Group E - GMFC-MLD level of 1 or 2 (≥12 to <18 mons of age) • Group F - GMFC-MLD level of 5 or 6
Primary endpoint and key secondary endpoint(s)	Primary - Safety will be measured by the following endpoints: • Reporting of treatment-emergent adverse events (TEAEs) • Change from baseline in clinical laboratory testing (serum chemistry including liver function tests, hematology, and urinalysis) • Change from baseline in vital signs, physical examinations, and CSF chemistry (including cell counts, glucose, albumin, and protein) • Determination of the presence of anti-HGT-1110 antibodies in CSF and/or serum	Primary - The primary efficacy endpoint is response in Group A, defined as maintenance of gross motor function at 2 years (Week 106), evaluated as no greater than 2 levels decline from baseline in GMFC-MLD. If suitable controls cannot be matched despite the sponsor's best efforts, change from baseline results of GMFC-MLD at Week 106 may be compared with a prespecified objective threshold to evaluate primary efficacy for this study.
Status	• Study start date: May 2013	• Study start date: May 2019 • Estimated primary completion date: FY23

1. rhASA = recombinant human arylsulfatase A

MEZAGITAMAB (TAK-079): *ANTI-CD38 ANTIBODY*

Study	NCT04278924	NCT04159805
Indication	Persistent/Chronic Primary Immune Thrombocytopenia (ITP)	Myasthenia Gravis
Phase	**Phase II**	**Phase II**
# of Patients	N = 54	N = 36
Target Patients	Patients ≥18 years of age with persistent/chronic primary ITP	Patients ≥18 years of age with generalized Myasthenia Gravis

Arms/Intervention	• Part A: 2 dose groups and placebo added to stable background therapy
	  • Arm A1: Matching placebo (n = 12 patients)
	  • Arm A2: TAK-079 100 mg (n = 12 patients)
	  • Arm A3: TAK-079 300 mg (n = 12 patients)
	• Part B: Following interim analysis. 1 dose group and placebo (600 mg) added to stable, standard background therapy.
	  • Arm B1: Matching placebo (n = 6 patients)
	  • Arm B2: TAK-079 600 mg (n = 12 patients)
		• 2 dose groups and placebo added to stable background therapy
		  • TAK-079 300 mg (n = 12 patients)
		  • TAK-079 600 mg (n = 12 patients)
		  • Matching placebo (n = 12 patients)

Primary endpoint and key secondary endpoint(s)	The primary endpoint is the percentage of patients with TEAEs including Grade 3 or higher events, SAEs, and AEs leading to TAK-079 discontinuation.	The primary endpoint is the percentage of patients with TEAEs including Grade 3 or higher events, SAEs, and AEs leading to TAK-079 discontinuation.
Status	• Study start date: November 2020	Study start date: January 2020

OVERVIEW OF CLINICAL TRIAL SUMMARY

- ONCOLOGY
- GASTROENTEROLOGY (GI)
- RARE GENETIC & HEMATOLOGY
- PLASMA-DERIVED THERAPIES
- **NEUROSCIENCE**
- VACCINES

SOTICLESTAT (TAK-935): *CH24H INHIBITOR, ORAL*

Neuroscience

Study	NCT04940624	NCT04938427
Indication	Dravet Syndrome (DS)	Lennox–Gastaut Syndrome (LGS)
Phase	**Phase III**	**Phase III**
# of Patients	N = 142	N = 234
Target Patients	Dravet Syndrome patients 2-21 years of age with ≥4 convulsive seizures per 28 days during the 4-6 week prospective Baseline Period	Lennox-Gastaut Syndrome patients 2-35 years of age with ≥8 Major Motor Drop (MMD) seizures per 28 days during the 4-6 week prospective Baseline Period
Arms/Intervention	• 142 DS subjects (1:1 soticlestat:placebo randomization ratio)	• 234 LGS subjects (1:1 soticlestat:placebo randomization ratio)
Primary endpoint and key secondary endpoint(s)	Primary Endpoint: Percent change from baseline in convulsive seizure frequency per 28 days in subjects receiving soticlestat compared with placebo during the full treatment period (Maintenance period for EMA registration). • Proportion of responders defined as those with ≥50% reduction from baseline in convulsive seizures • Percent change from baseline in frequency of all seizures • CGI-I (clinician). • Care GI-I (caregiver). • CGI-I Seizure Intensity and Duration. • CGI-I Non-seizure Symptoms. • Change in QI-Disability score.	Primary Endpoint: Percent change from baseline in MMD seizure frequency per 28 days in subjects receiving soticlestat compared with placebo during the full treatment period (Maintenance period for EMA registration). • Proportion of responders defined as those with ≥50% reduction from baseline in MMD seizures • Percent change from baseline in frequency of all seizures • CGI-I (clinician). • Care GI-I (caregiver). • CGI-I Seizure Intensity and Duration. • CGI-I Non-seizure Symptoms. • Change in QI-Disability score.
Status	• Study start date: September 2021 • Estimated primary completion date: March 2024	• Study start date: October 2021 • Estimated primary completion date: March 2024

TAK-861:
OREXIN 2R AGONIST, ORAL

Neuroscience

Study	JRCT2071210007
Indication	Sleep disorders
Phase	**Phase I**
# of Patients	N = 196
Target Patients	Healthy volunteers
Arms/Intervention	• **Part A:** SRD in Japanese Healthy Adults • **Part B:** MRD in Japanese Healthy Adults • **Part C:** Multiple Dose in Japanese Healthy Elderly Participants
Primary endpoint and key secondary endpoint(s)	**Primary:** • Number of Participants Reporting one or More Treatment-emergent Adverse Events (TEAEs) • Number of Participants With at Least one Markedly Abnormal Value (MAV) for Laboratory Assessments Post-dose • Number of Participants With at Least one MAV for Vital Signs Post-dose • Number of Participants With at Least one MAV for Electrocardiograms (ECGs) Post-dose **Secondary:** • Pharmacokinetic parameters of TAK-861
Status	• Study start date: April 2021

TAK-994:
OREXIN 2R AGONIST, ORAL

Neuroscience

Study	NCT04096560	NCT04551079
Indication	Narcolepsy with or without cataplexy (NT1 or NT2)	Acute sleep phase delay paradigm in healthy male participants
Phase	**Phase II** **SPARKLE-1501**	**Phase I**
# of Patients	N = up to 202	N = 18
Target Patients	Patients with Narcolepsy Type 1 (with cataplexy, NT1) or Narcolepsy Type 2 (without cataplexy, NT2)	Healthy male participants
Arms/Intervention	• **Part A:** Patients with NT1 treated for 28 days (TAK-994 dose 1 or placebo in 2:1 ratio). Second cohort with dose 2 TBD. • **Part B:** Dose ranging study in NT1 for 56 days (TAK-994 dose 1-3 or placebo in 1:1:1:1 ratio) • **Part C:** China specific cohort in NT1 for 56 days (TAK-994 or placebo in 2:1 ratio) • **Part D:** Patients with NT2 treated for 28 days (TAK-994 or placebo in 2:1 ratio). Second cohort with dose 2 TBD.	Randomization to 1 of 3 treatment sequences with a washout period of at least 7 days in between each treatment period: • TAK-994 Dose A, Placebo, and TAK-994 Dose B • TAK-994 Dose B, TAK-994 Dose A, and Placebo • Placebo, TAK-994 Dose B, and TAK-994 Dose A
Primary endpoint and key secondary endpoint(s)	• Maintenance of Wakefulness Test (MWT) • Epworth Sleepiness Scale (ESS) • Weekly Cataplexy Rate (WCR)	• Maintenance of Wakefulness Test (MWT) • Safety, PK/PD
Status	• Study start date: July 2020 • Part A completed, as reported at April 2021 Takeda WAVE 1 pipeline investor call • Study currently on clinical hold	• Study start date: September 2020 • Recruitment completed • Actual Primary Completion Date: December 2020

TAK-925:
OREXIN 2R AGONIST, IV

Neuroscience

Study	NCT05025397
Indication	Post-anesthesia recovery
Phase	**Phase I**
# of Patients	N = 28
Target Patients	Healthy volunteers
Arms/Intervention	• Cohort A1: TAK-925 Low Dose • Cohort A2: TAK-925 Middle Dose • Cohort A3: TAK-925 High Dose • Cohort P: TAK-925 TBD
Primary endpoint and key secondary endpoint(s)	**Primary:** • Number of Participants With at Least one Treatment-emergent Adverse Event (TEAE) **Secondary:** • Observed Plasma Concentration at the end of Infusion for Danavorexton • Area Under the Plasma Concentration-time Curve From Time 0 to the Time of the Last Quantifiable Concentration for Danavorexton • Area Under the Plasma Concentration-time Curve From Time 0 to Infinity for Danavorexton
Status	• Study start date: September 2021 • Estimated primary completion date: Q4 FY21

TAK-341[1]:
ALPHA-SYNUCLEIN ANTIBODY, IV

Neuroscience

Study	NCT03272165	NCT04449484
Indication	Parkinson's Disease	Parkinson's Disease
Phase	**Phase I**	**Phase I**
# of Patients	N = 48	N = 36
Target Patients	Healthy volunteers	Patients with Parkinson's Disease
Arms/Intervention	• TAK-341 (MEDI1341) IV at a single ascending dose • Placebo IV	Three cohorts of 12 patients treated over 8 weeks with three 60 minute IV infusions • Dose A of TAK-341/MEDI1341 over 8 weeks, with 4 weeks intervals • Dose A of TAK-341/MEDI1341 over 8 weeks, with 4 weeks intervals • Matched placebo over 8 weeks, with 4 weeks intervals
Primary endpoint and key secondary endpoint(s)	• Safety and tolerability • Secondary endpoint: PK and PD (alpha-synuclein concentrations in plasma and CSF)	• Safety and tolerability
Status	• Study start date: October 2017 • Recruitment Completed	• Study start date: August 2020

1. Trials managed by AstraZeneca

TAK-071:
M1 PAM, ORAL

Study	NCT04334317
Indication	Parkinson's Disease
Phase	**Phase II**
# of Patients	N = 64
Target Patients	Parkinson's Disease patients with cognitive impairment and an elevated risk of falls

Arms/Intervention	• Participants aged 40 to less than or equal to (<=) 65 years will be randomly assigned to one of the two treatment sequences in a crossover design:
	  • TAK-071 7.5 mg + Placebo
	  • Placebo + TAK-071 7.5 mg
	• A sentinel cohort in healthy volunteers (n=10) will provide PK and safety data, to extend the enrollment to patients in older age groups.

Primary endpoint and key secondary endpoint(s)	• Primary: Change from Baseline in Gait Variability during a 2-minute Dual-Task Walking Test
	• Key Secondary:
	  • Change from Baseline in Global Cognition Profile
	  • PK

Status	• Study start date: October 2020

OVERVIEW OF CLINICAL TRIAL SUMMARY

- ONCOLOGY
- GASTROENTEROLOGY (GI)
- RARE GENETIC & HEMATOLOGY
- PLASMA-DERIVED THERAPIES
- NEUROSCIENCE
- VACCINES

ENTYVIO (VEDOLIZUMAB): *GUT-SELECTIVE ANTI-α4β7 INTEGRIN MAB*

Study	NCT03657160	NCT02620046
Indication	Graft-versus-Host Disease (GvHD) prophylaxis IV	Ulcerative Colitis (UC) or Crohn's disease (CD) subcutaneous (SC)
Phase	**Phase III**	**Phase III**
# of Patients	N = 558	N = 692
Target Patients	Patients undergoing allogeneic hematopoietic stem cell transplantation (Allo-HSCT) in the prophylaxis of intestinal acute GvHD (aGvHD)	Patients with UC or CD who received vedolizumab SC in a prior vedolizumab SC study – long-term open-label extension
Arms/Intervention	• **Arm 1:** Vedolizumab 300 mg at Days -1 (baseline), +13, +41, +69, +97, +125, and +153 • **Arm 2:** Placebo at Days -1 (baseline), +13, +41, +69, +97, +125, and +153	• **Group A:** Vedolizumab SC 108 mg Q2W - patients from studies VISIBLE 1 (NCT02611830) and VISIBLE 2 (NCT02611817) who completed the Maintenance Period (Week 52) or were not randomized into Maintenance Period and achieved response at Week 14 after having received a third vedolizumab IV infusion at Week 6 • **Group B:** Vedolizumab SC 108 mg QW - patients from studies VISIBLE 1 and VISIBLE 2 who withdrew early from the Maintenance Period due to treatment failure or patients from current study who enrolled on Q2W dosing but experienced treatment failure while on study and were dose escalated to QW dosing.
Primary endpoint and key secondary endpoint(s)	Intestinal aGvHD-free survival by Day +180 after Allo-HSCT	Percentage of participants with study drug related treatment emergent adverse events (AEs) and serious AEs Key secondary endpoints: long term clinical response and remission rates for UC and CD
Status	• Study start date: February 2019 • Estimated primary completion date: FY22	• Study start date: April 2016

ENTYVIO (VEDOLIZUMAB):
GUT-SELECTIVE ANTI-α4β7 INTEGRIN MAB

Study	NCT04779320	NCT04779307
Indication	Crohn's disease in pediatric patients	Ulcerative colitis in pediatric patients
Phase	**Phase III**	**Phase III**
# of Patients	N = 120	N = 120
Target Patients	Pediatric patients with Crohn's disease between 2 to 17 years old at the time of randomization for Study NCT04779320	Pediatric patients with ulcerative colitis between 2 to 17 years old at the time of randomization for Study NCT04779307
Arms/ Intervention	**Induction period:** • Subjects ≥30 kg will receive open–label vedolizumab, 300 mg IV • Subjects >15 to <30kg open–label vedolizumab, 200 mg IV • Subjects 10 to 15 kg open–label vedolizumab 150 mg IV **Maintenance period:** • ≥30 kg weight cohort): Vedolizumab IV 300 mg or 150 mg (Q8W) • >15 <30 kg weight cohort: Vedolizumab IV 200 mg or 100 mg (Q8W) • 10 to 15 kg weight cohort: Vedolizumab IV 150 mg or 100 mg (Q8W	**Induction period:** • Subjects ≥30 kg will receive open–label vedolizumab, 300 mg IV • Subjects >15 to <30kg open–label vedolizumab, 200 mg IV • Subjects 10 to 15 kg open–label vedolizumab 150 mg IV **Maintenance period:** • ≥30 kg weight cohort): Vedolizumab IV 300 mg or 150 mg (Q8W) • >15 <30 kg weight cohort: Vedolizumab IV 200 mg or 100 mg (Q8W) • 10 to 15 kg weight cohort: Vedolizumab IV 150 mg or 100 mg (Q8W
Primary endpoint and key secondary endpoint(s)	Primary endpoint: • Co-primary 1 (based on PCDAI): Clinical remission at Week 54. • Co-primary 2 : Endoscopic response at Week 54 Secondary endpoints • Clinical and endoscopic remission at Week 14 • Clinical and endoscopic remission at Week 54 • Sustained clinical and endoscopic remission at Week 54, • Corticosteroid-free remission at Week 54 • PK/AVA	Primary endpoint: • Clinical remission at Week 54, based on the modified Mayo score Secondary endpoint • Clinical remission at Week 14 • Sustained clinical remission at Week 54 • Sustained endoscopic remission • Endoscopic response at Week 14 and at Week 54 • Corticosteroid-free clinical remission at Week 54 • PK/AVA
Status	• Start date: April 2021 • Study completion date: January 2025	• Start date: April 2021 • Study completion date: January 2025

ALOFISEL/CX601 (DARVADSTROCEL): *ALLOGENEIC EXPANDED ADIPOSE-DERIVED STEM CELLS (ASC)*

Study	NCT03279081
Indication	Complex perianal fistula(s) in patients with Crohn's disease
Phase	**Phase III** **ADMIRE-CD II**
# of Patients	N = 554
Target Patients	Patients with Crohn's disease who have complex perianal fistula(s), previously treated and have shown an inadequate response to immunosuppressants, anti TNF, ustekinumab
Arms/Intervention	• Arm 1: Cx601, adult allogeneic expanded adipose-derived stem cells (eASC 120 million cells (5 million cells per milliliter)) administered once by intralesional injection • Arm 2: Placebo-matching eASCs cells administered once by intralesional administration
Primary endpoint and key secondary endpoint(s)	**Primary: Combined Remission, defined as:** • The clinical assessment of closure of all treated external openings at week 24, and • Absence of collections >2 cm (in at least 2 dimensions) confirmed by blinded central MRI assessment at Week 24. **Key Secondary:** • Clinical Remission at weeks 24 and 52 • Time to Clinical Remission at weeks 24 and 52
Status	• Study start date: September 2017 • Estimated primary completion date: FY22

VONOPRAZAN:
POTASSIUM-COMPETITIVE ACID BLOCKER, ORAL

Study	NCT04198363
Indication	Acid related disease (adjunct to Helicobacter pylori eradication)
Phase	**Phase III** **China**
# of Patients	N = 510
Target Patients	Helicobacter pylori (HP)-positive participants who require HP eradication
Arms/Intervention	• Experimental: Vonoprazan 20 mg BID in combination with bismuth containing quadruple therapy for 2 weeks • Active Comparator: Esomeprazole 20 mg BID in combination with bismuth containing quadruple therapy for 2 weeks
Primary endpoint and key secondary endpoint(s)	Percentage of Helicobacter pylori positive (HP+) participants with successful HP eradication at week 4 post-treatment
Status	• Study start date: 09 April 2020 • Actual primary completion date (LPO): 25 Oct 2021

TAK-951:
PEPTIDE AGONIST, SC

Study	NCT04486950	NCT04557189
Indication	Nausea & Vomiting (TAK-951-1004: completed trial)	Nausea & Vomiting
Phase	**Phase I**	**Phase IIa**
# of Patients	N = 40	N = 100
Target Patients	Healthy participants	Surgical patients under general anesthesia with 3 or more Apfel risk factors
Arms/Intervention	• Cohort 1: TAK-951 20 mcg or matching placebo infusion (intravenous (IV)) over 60 minutes • Cohort 2: TAK-951 (dose TBD) or matching placebo infusion (IV) over 60 minutes • Cohort 3: TAK-951 (dose TBD) or matching placebo infusion (IV) < 60 minutes	• **Group A:** Ondansetron placebo-matching intravenous (IV) injection, once immediately before induction of anesthesia and prophylaxis followed by TAK-951 4 mg subcutaneous (SC) injection once 30 to 45 mins before the end of surgery; • **Group B:** Ondansetron IV 4 mg once immediately before induction of anesthesia followed by TAK-951 placebo-matching injection SC administered 30 to 45 minutes before the end of surgery
Primary endpoint and key secondary endpoint(s)	Safety and tolerability of IV administered TAK-951 in healthy participants	Complete response in the immediate postoperative period (time frame: 6 hours post surgery) Percentage of participants with complete response, defined as no emesis (vomiting or retching) and no need for rescue therapy (indicated if vomiting/retching and/or nausea score ≥4 or upon participant's request), will be reported. The severity of nausea will be scored using a self-reported, 11-point numerical Verbal Rating Scale (VRS), where 0 represents "no nausea" and 10 represents the "worst nausea possible." Significant nausea is defined as a VRS score ≥4
Status	• Study start date: July 2020 • Study completion date: May 2021	• Study start date: October 2020 • Estimated study completion date: Dec 2022

TAK-510:
PEPTIDE AGONIST, SC

Study	NCT04731922
Indication	Nausea & Vomiting
Phase	**Phase I**
# of Patients	N = 160
Target Patients	Healthy participants
Arms/Intervention	• Part 1 (Cohort 1-12): TAK-510 single rising dose • Part 2 (Cohort 13-17): TAK-510 multiple rising dose • Part 3 (Cohort 18-20): TAK-510 dose titration and redosing cohorts
Primary endpoint and key secondary endpoint(s)	Safety and tolerability, pharmacokinetic, and immunogenicity of SC administered TAK-510 in healthy participants
Status	• Study start date: Feb 2021 • Estimated study completion date: Sep 2022

TAK-105:
PEPTIDE AGONIST, SC

Study	NCT04964258
Indication	Nausea & Vomiting
Phase	**Phase I**
# of Patients	N = 216
Target Patients	Healthy participants
Arms/Intervention	• Part 1 (Cohort 1-12): TAK-105 single rising dose • Part 2 (Cohort 13-17): TAK-105 multiple rising dose • Part 3 (Cohort 18-23): TAK-105 dose titration cohorts • Part 4 (Cohort 24-27): TAK-105 redosing cohorts
Primary endpoint and key secondary endpoint(s)	Safety and tolerability, pharmacokinetic, and immunogenicity of SC administered TAK-105 in healthy participants
Status	• Study start date: Jul 2021 • Estimated study completion date: Jan 2023

TAK-954:
5-HT4-HYDROXYTRYPTAMINE RECEPTOR AGONIST, IV

Study	NCT03827655
Indication	Post-Operative Gastrointestinal Dysfunction (POGD)
Phase	**Phase II**
# of Patients	N = 180
Target Patients	Participant is scheduled to undergo a laparoscopic-assisted or open partial small- or large-bowel resection.
Arms/Intervention	• Regimen 1: Placebo (NS 100 mL infusion over 60 minutes) pre-operation and daily post-operation until return of upper and lower GI function (ie, resolution of POGD) or for up to 10 days. • Regimen 3: TAK-954 (0.5 mg/100 mL infusion over 60 minutes) pre-operation and daily post-operation until return of upper and lower GI function or for up to 10 days. • Regimen 5: TAK-954 (0.5 mg/100 mL infusion over 60 minutes) pre-operation and daily placebo infusions post-operation until return of upper and lower GI function or for up to 10 days.
Primary endpoint and key secondary endpoint(s)	To assess the efficacy and safety of intravenous (IV) TAK-954 for accelerating the recovery of GI function post-surgery in patients undergoing open or laparoscopic-assisted partial small- or large-bowel resection.
Status	• Study start date: March 2018 • A blinded interim analysis was conducted in January of 2021 leading to the recommendation of an independent monitoring committee to drop two of the 5 arms (regimen 2 & 4). The study will continue with regimens 1, 3 & 5. • Study recruitment ongoing; estimated study completion date: June 2022

SIBOFIMLOC (TAK-018): *FIMH ANTAGONIST, ORAL*

Study	NCT03943446
Indication	Prevention of the Recurrence of Postoperative Crohn's Disease (CD)
Phase	**Phase II**
# of Patients	N = 96
Target Patients	Documented diagnosis of CD confirmed by endoscopic biopsy before resection or by tissue obtained at resection.
Arms/Intervention	• Cohort 1: TAK-018 0.30 g Low Dose BID for up to 26 weeks • Cohort 2: TAK-018 1.5 g High Dose BID for up to 26 weeks • Placebo
Primary endpoint and key secondary endpoint(s)	% of participants with endoscopic recurrence of CD as assessed by Rutgeerts Grading Scale at Week 26
Status	• Study start date: August 2020 • Estimated study completion (Data readout): February 2023

OVERVIEW OF CLINICAL TRIAL SUMMARY

- ONCOLOGY
- GASTROENTEROLOGY (GI)
- RARE GENETIC & HEMATOLOGY
- **PLASMA-DERIVED THERAPIES**
- NEUROSCIENCE
- VACCINES

HYQVIA (TAK-771): *IMMUNE GLOBULIN INFUSION 10% (HUMAN) WITH RECOMBINANT HUMAN HYALURONIDASE*

PDT

Study	NCT02549170	NCT02955355
Indication	Chronic Inflammatory Demyelinating Polyradiculoneuropathy (CIDP)	Chronic Inflammatory Demyelinating Polyradiculoneuropathy (CIDP)
Phase	**Phase III**	**Phase III**
# of Patients	N = 138	N = 85
Target Patients	Adult subjects with a confirmed diagnosis of CIDP and who have remained on a stable dosing regimen of IV immunoglobulin G (IGIV) therapy for at least 12 weeks prior to screening.	Adult subjects who have completed Epoch 1 of Study NCT02549170 without CIDP worsening.
Arms/Intervention	• Epoch 1: SC Treatment Period – Double blind assignment of HYQVIA/HyQvia or 0.25% albumin placebo solution with rHuPH20 6 months or until relapse. • Epoch 2: IV Treatment Period - Open-label phase providing IGIV for subjects who meet relapse criteria during Epoch 1.	• Subjects remain on same dosing regimen they were administered in Epoch 1 of study 161403 (1 to 2 g/kg body weight every 4 weeks). The first infusion will be at the subject's full dose; there will be no ramp-up of dose.
Primary endpoint and key secondary endpoint(s)	To evaluate the efficacy of HYQVIA/HyQvia as a maintenance therapy for CIDP to prevent relapse of neuromuscular disability and impairment. Safety and tolerability.	To evaluate the long-term safety, tolerability, and immunogenicity of HYQVIA/HyQvia.
Status	• Study start date: December 2015 • Actual primary completion date (LPO): February 2022	• Study start date: December 2016 • Estimated primary completion date (LPO): September 2023

HYQVIA (TAK-771): *IMMUNE GLOBULIN INFUSION 10% (HUMAN) WITH RECOMBINANT HUMAN HYALURONIDASE*

PDT

Study	NCT03277313
Indication	Primary Immunodeficiency Diseases (PID)
Phase	**Phase III**
# of Patients	N = 44
Target Patients	Pediatric subjects (ages 2 to <16 Years) with primary immunodeficiency diseases in the US

Arms/Intervention	Single-Group:
	• Epoch 1: HyQvia SC dose and ramp up for all patients; up to 6 weeks duration; patients were previously treated with IVIG or other SC immunoglobulin
	• Epoch 2: HYQVIA treatment (final dosing); 1-3 years
	  • For IV-pre-treated subjects: every three or four weeks, depending on the subject's previous IV dosing schedule.
	  • For SC-pre-treated subjects: every three or four weeks, at the discretion of investigator and subject.
	• Epoch 3: Safety Follow-Up: up to 1 year, if needed

Primary endpoint and key secondary endpoint(s)	Primary: Efficacy - rate of acute serious bacterial infections per participant per year. Secondary: Safety, tolerability, immunogenicity, efficacy, PK, health-related Quality of Life.
Status	• Study start date: September 2017 • Estimated primary completion date : May 2023 • Interim Analysis Study Report completed 04 Jun 2021

HYQVIA (TAK-771): *IMMUNE GLOBULIN INFUSION 10% (HUMAN) WITH RECOMBINANT HUMAN HYALURONIDASE*

PDT

Study	NCT05150340	NCT05084053
Indication	Primary Immunodeficiency Diseases (PID)	Chronic Inflammatory Demyelinating Polyradiculoneuropathy (CIDP) Multifocal Motor Neuropathy (MMN)
Phase	**Phase III**	**Phase III**
# of Patients	N = 15	N = 21
Target Patients	Japanese persons ages 2 and above with primary immunodeficiency diseases	Japanese persons ages 18 and older with definite or probable CIDP or MMN
Arms/Intervention	• Cohort 1 (TAK-771 for CIDP Participants): rHuPH20 SC dose of 80 U/g IgG followed by SC infusion of 10% IGI within 10 min of completion of infusion of rHuPH20 solution; The dose of 10% IGI will be increased from 1/3 of full dose to full dose in 3 weeks for participants who will receive TAK-771 once every 3 week, or from 1/4 of full dose to full dose in 6 weeks for participants who will receive TAK-771 once every 4 week • Cohort 2 (TAK-771 for MMN Participants): rHuPH20 SC dose of 80 U/g IgG followed by SC infusion of 10% IGI within 10 min of completion of infusion of rHuPH20 solution, every 3 or 4 weeks up to 24 weeks • Intervention: Immune Globulin Infusion (IGI) 10% and Recombinant Human Hyaluronidase (rHUPH20)	• Cohort 1 (TAK-771 for CIDP Participants): rHuPH20 SC dose of 80 U/g IgG followed by SC infusion of 10% IGI within 10 min of completion of infusion of rHuPH20 solution, every 2,3,4 weeks • Cohort 2 (TAK-771 for MMN Participants): rHuPH20 SC dose of 80 U/g IgG followed by SC infusion of 10% IGI within 10 min of completion of infusion of rHuPH20 solution, every 2,3,4 weeks • Intervention: Immune Globulin Infusion (IGI) 10% and Recombinant Human Hyaluronidase (rHUPH20)
Primary endpoint and key secondary endpoint(s)	Primary: Serum trough levels of total IgG antibodies after administration of TAK-771 Secondary: Safety, tolerability, immunogenicity, efficacy, PK, infusion parameters, health-related Quality of Life.	Primary: % of participants with CIDP who experience relapse in 6 months; change in maximum grip strength in the more affected hand in 6 months for MMN participants Secondary: Tolerability, safety, and CIDP/MMN health-related metrics.
Status	• Study start date: January 2022 • Estimated primary completion date: April 2023	• Study start date: December 2021 • Estimated Primary completion date: October 2023 • Estimated Secondary completion date: June 2025

TAK-881 (Facilitated 20% SCIG): *Immune Globulin Subcutaneous (Human), 20% Solution With Recombinant Human Hyaluronidase*

PDT

Study	NCT05059977
Indication	Healthy Volunteers
Phase	**Phase I/II**
# of Patients	N = 80
Target Patients	Healthy volunteers
Arms/Intervention	Open label, single dose (3 dose levels) TAK-881 0.4 g/kg (in-line warmed). Participants will receive a single dose of TAK-881 comprising of 0.4 gram per kilogram (g/kg) (in-line warmed) Immune Globulin Subcutaneous (IGSC), 20 percent (%) at progressively increased infusion rates and Recombinant Human Hyaluronidase (rHuPH20) dose of 80 unit per gram (U/g) immunoglobulin G (IgG) on Day 1 of the study treatment period. TAK-881 1.0 g/kg (in-line warmed). Participants will receive a single dose of TAK-881 comprising of 1.0 g/kg (in-line warmed) IGSC, 20% at progressively increased infusion rates and rHuPH20 dose of 80 U/g IgG on Day 1 of the study treatment period. TAK-881 1.0 g/kg (un-warmed). Participants will receive a single dose of TAK-881 comprising of 1.0 g/kg (un-warmed) IGSC, 20% at progressively increased infusion rates and rHuPH20 dose of 80 U/g IgG on Day 1 of the study treatment period.
Primary endpoint and key secondary endpoint(s)	**Primary** : Number of Participants With Tolerability Events Related to Infusion of **TAK-881** **Key Secondary:** Number of Participants With Treatment-Emergent Adverse Events Number of Participants With Binding and Neutralizing Antibodies to rHuPH20 Maximum Tolerable Infusion Rate and Volume Achieved per Infusion Site Time to Deliver the Total Infused Volume per Infusion Site
Status	Study start date: October 2021 Estimated primary completion date: March 2022

CUVITRU (TAK-664): *IMMUNE GLOBULIN SUBCUTANEOUS (HUMAN), 20% SOLUTION (20% SCIG) IN JAPANESE SUBJECTS WITH PID*

PDT

Study	NCT04346108, JapicCTI-205162
Indication	Primary Immunodeficiency Diseases (PID)
Phase	**Phase III**
# of Patients	N = 17
Target Patients	Japanese Subjects with PID (2 years and older)
Arms/Intervention	• Epoch 1 (13 weeks): IGIV: IGIV will be administered via IV infusions every 3 or 4 weeks, as per local product label, at the same dose as during pre-study period (equivalent to approximately 200 - 600 mg/kg BW at 3- or 4- week intervals). • Epoch 2 (24 weeks): approximately 50 - 200 mg/kg of Immune Globulin Subcutaneous (Human), 20% Solution (IGSC, 20%), will be administered subcutaneously once a week. The dose in Epoch 2 will be adjusted so that it is an equivalent weekly dose of the dose administered in Epoch 1. • Epoch 3 (12 weeks): approximately 100 - 400 mg/kg of Immune Globulin Subcutaneous (Human), 20% Solution (IGSC, 20%), will be administered subcutaneously once every 2 weeks in a subset of 7 subjects. The dose in Epoch 3 will be twice the dose in Epoch 2.
Primary endpoint and key secondary endpoint(s)	1. To assess serum trough IgG concentrations following weekly administration of IGSC, 20% (Epoch 2) and serum trough IgG concentration after biweekly administration of IGSC, 20% (Epoch 3), in Japanese subjects with PID. 2. To assess serum trough IgG concentrations following every 3-week or every 4-week administration of IGIV (Epoch 1) in Japanese subjects with PID. 3. To characterize the pharmacokinetic (PK) profiles of IGSC, 20% in Japanese subjects with PID following weekly subcutaneous (SC) administration (Epoch 2). 4. To evaluate the safety and tolerability of IGSC, 20% (Epoch 2, Epoch 3) and of intravenous immunoglobulin (IGIV) (Epoch 1) in Japanese subjects with PID. 5. To evaluate the efficacy of IGSC, 20% (Epoch 2, Epoch 3) and of IGIV (Epoch 1) in Japanese subjects with PID. 6. To assess quality of life aspects, treatment satisfaction, and treatment preference of Japanese subjects with PID (Epoch1, Epoch2, Epoch3).
Status	• Study start date: August 2020 • Actual primary completion date (LPO): December 2021

CEPROTIN (TAK-662): *PROTEIN C CONCENTRATE*

PDT

Study	NCT04984889
Indication	Congenital protein C deficiency
Phase	**Phase I/II**
# of Patients	N = 3
Target Patients	Japanese participants with congenital protein C deficiency
Arms/Intervention	Open label, Single-dose of IV Ceprotin (80 IU/kg) over 15 minutes in day 1; extension part, dose of TAK-662 will be modified per participant.
Primary endpoint and key secondary endpoint(s)	Primary: Protein C activity, Terminal Phase Elimination Half-life (t1/2), Incremental recovery (IR), In-vivo recovery (IVR) , AUClast, AUC∞, Cmax, Tmax Secondary: Number of Participants with Treatment-Related Adverse Experiences (AEs) ; evaluation of short-term and long-term prophylaxis in extension part
Status	Study start date: August 2021 Estimated Primary completion date: March 2022 Estimated Study Completion Date: June 2023

FEIBA (TAK-666):
FACTOR VIII INHIBITOR BYPASSING AGENT

PDT

Study	NCT02764489
Indication	Hemophilia A and B with inhibitors
Phase	**Phase III**
# of Patients	N = 32
Target Patients	Patients with hemophilia A and B
Arms/Intervention	Open-label, Randomized, Crossover Study of FEIBA Part 1 Regular then reduced volume Part 2 Faster infusion rate STUDY PART 1- FEIBA reconstituted in regular volume then FEIBA reconstituted in 50% reduced volume STUDY PART 2- Infusion rate escalation to 4 U/min/kg and reconstituted in 50% reduced volume; Followed by FEIBA reconstituted in 50% reduced volume with infusion rate: 4 U/min/kg; Followed by FEIBA reconstituted in 50% reduced volume with infusion rate: 10 U/min/kg.
Primary endpoint and key secondary endpoint(s)	Primary Outcome Measures : Number of Participants With Serious Adverse Events (SAEs) and Non-Serious Adverse Events Number of Participants With Adverse Events (AEs) Related to Hypersensitivity Reactions Number of Participants With Adverse Events (AEs) Related to Thromboembolic Number of Participants With Adverse Events (AEs) Related to Infusion Site Number of Participants With Adverse Events (AEs) Leading to Discontinuation
Status	Study start date: March 2019 Actual primary completion date: December 2021

TAK-330: *PROTHROMPLEX*

PDT

Study	NCT05156983
Indication	Coagulation Disorder: Reversal of Direct Oral Factor Xa Inhibitor-induced Anticoagulation
Phase	Phase 3
# of Patients	328
Target Patients	Patients >18 years of age currently on Factor Xa inhibitor requiring urgent surgery/invasive procedure
Arms/Intervention	Parallel group sequential design Experimental: PROTHROMPLEX TOTAL 25 IU/kg. Participants will receive PROTHROMPLEX TOTAL 25 international unit per kilogram (IU/kg) single intravenous infusion on Day 1 (prior to surgery) as an initial dose and an additional dose of 25 international unit per kilogram (IU/kg). PROTHROMPLEX TOTAL can be administered during the surgery if deemed necessary by the surgeon. The total dose of PROTHROMPLEX TOTAL administered to the participant should not exceed 50 IU/kg or 5,000 IU, whichever is smaller. Active Comparator: 4F-PCC. Participants will receive 4F-PCC (excluding Prothromplex total and activated 4F-PCC) as SOC on Day 1 (prior to surgery). The dose and infusion speed of the SOC 4F-PCC will be based on local institutional protocols. An additional dose of SOC 4F-PCC not exceeding label specified limits can be given during the surgery if required. Intervention: Prothromplex total 25 IU/kg single IV on day 1 and an additional dose of 25 IU/kg if required
Primary endpoint and key secondary endpoint(s)	Primary: Percentage of participants with intraoperative effective hemostasis using Intraoperative Four Point Hemostatic Efficacy Scale that incorporates the surgeon's subjective opinion as to whether intraoperative hemostasis is sufficient and if there is the need for administration of non-study hemostatic treatments will be reported Secondary: Occurrence of postoperative, intraoperative effective hemostasis based on the surgeon's assessment using the Hemostatic Efficacy Rating Algorithm. Usage of blood products or non-study hemostatic agents for bleeding control within 24 hours after the end of investigational product infusion. Number of units of packed red blood cells (PRBCs) administered to achieve bleeding control within 24 hours after the end of investigational product infusion. Occurrence of serious adverse events (SAEs), and/or adverse events (AEs), treatment -emergent AEs (TEAEs), and adverse events of special interest (AESIs) within 30 days after the end of the surgery/invasive procedure. Occurrence of thrombotic events within 30 days after the end of the surgery/invasive procedure. All-cause deaths within 30 days post-surgery/invasive procedure.
Status	Estimated study start date: June 2022 Estimated primary completion date: June 2023

TAK-880:
IGG (LOW IGA)

PDT

Study	NCT05269082
Indication	Drug Hypersensitivity
Phase	Non-interventional observational
# of Patients	60
Target Patients	Pediatric (>2 Yrs) and adult participants who are at increased risk of developing hypersensitivity reactions who have been prescribed immunoglobulin treatments according to the investigator's judgment
Arms/Intervention	*Cohort 1:* Pediatric and adult participants who are on Gammagard S/D prescribed for any approved indication will be enrolled in this cohort and evaluated during the observation period (approximately 6 months). *Cohort 2:* Pediatric and adult participants who were previously treated with Gammagard S/D prescribed for any approved indication and are on another human immunoglobulin treatment will be enrolled in this cohort and evaluated during the observation period (approximately 6 months). *Cohort 3:* Pediatric and adult primary immunodeficiency (PID) participants with immunoglobin A (IgA) deficiency who have a serum IgA level of less than (<) 7 milligrams per deciliter (mg/dL) (0.07 grams/liter [g/L]) or below the detectable limit and have received other therapies (prophylactic antibiotics or immunoglobulin treatment other than Gammagard S/D) will be enrolled in this cohort and evaluated during the observation period (approximately 6 months).
Primary endpoint and key secondary endpoint(s)	Primary outcome measures: Number of Participants with In Vitro Hypersensitivity to TAK-880 in Comparison to Gammagard S/D Number of Participants with Drug Hypersensitive Reactions to Immunoglobulin Products for Cohort 1 and 2 Number of Participants with History to Drug Hypersensitive Reactions Number of Participants Categorized by Clinical Characteristics Number of Participants Categorized by Treatment Patterns Health Related Quality of Life Measured by 36-Item Short Form Health Survey (SF-36) Health Related Quality of Life Measured by EuroQol 5 Dimensions Questionnaire (EQ-5D) Health Related Quality of Life Measured by Treatment Satisfaction Questionnaire for Medication-9 Patient Reported Outcomes (PROs) Using PID-Specific Life Quality Index (LQI) Questionnaire for Cohort 1 and 2
Status	Study start date: March 2022 Estimated primary completion date: September 2022

OVERVIEW OF CLINICAL TRIAL SUMMARY

- ONCOLOGY
- GASTROENTEROLOGY (GI)
- RARE GENETIC & HEMATOLOGY
- PLASMA-DERIVED THERAPIES
- NEUROSCIENCE
- VACCINES

TAK-003: *LIVE ATTENUATED TETRAVALENT VACCINE FOR PREVENTION OF DENGUE DISEASE*

Study	NCT02747927
Indication	The prevention of dengue fever of any severity caused by any dengue virus serotype in individuals 4 years to 60 years of age
Phase	**Phase III** **Tetravalent Immunization against Dengue Efficacy Study (TIDES)**
# of Patients	N = 20,100
Target Patients	Healthy children aged 4 to 16-year-old in dengue-endemic countries in Latin America and Asia
Arms/Intervention	• Randomized 2:1 to receive either TAK-003 or placebo on Day 1 and Day 90

Primary endpoint and key secondary endpoint(s) to be met per Trial Protocol	• Efficacy: Onset of protection 30 days post 2nd dose in all (seronegative and seropositive)
	  • Primary endpoint: ≥70% efficacy against all symptomatic dengue fever caused by any strain
	  • Secondary endpoints:
	  • ≥70% efficacy individual strains
	  • ≥60% efficacy in seronegatives
	• Safety:
	  • Comparable to other live attenuated viral vaccines (e.g., MMR, YF, Varicella)
	  • No disease enhancement in partially protected individuals

Status	• Study start date: September 2016 • Primary completion date: July 2018 • Estimated completion date: FY24/25 (following booster evaluation) Publication: • Biswal S, et al. *N Engl J Med.* 2019; 381:2009-2019. Biswal S, et al. Lancet. 2020; 395(10234):1423-1433. • López-Medina E, et al. *The Journal of Infectious Diseases*. 2020. • Biswal S, et al. *Clinical Infectious Disease. 2021*

TAK-919: *MESSENGER RIBONUCLEIC ACID (mRNA) VACCINE*

Moderna vaccine mRNA-1273, now known as Spikevax Intramuscular Injection

Study	NCT04677660
Indication	Prevention of infectious disease caused by Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2)
Phase	**Phase I/II (complete) and approved (May 21, 2021)**
# of Patients	N = 200
Target Patients	Healthy Japanese male and female adults aged 20 years and older

Arms/Intervention	• Participants were randomized to either receive two doses of the vaccine candidate (150), or placebo (50), at Day 1 and Day 29
	  • TAK-919 0.5 mL
	  • Matching placebo
	• Immunogenicity was measured at Day 1, 29, 43, 57, 209 and 394
	• The study includes 12-months safety follow-up after the second dose

Primary endpoint and key secondary endpoint(s)	Safety and Immunogenicity of 2 doses of TAK-919 given 28 days apart
Status	Start date: Jan 2021 Completion date: February 2022 Approved by the Japan Ministry of Health, Labour and Welfare in May 2021

TAK-019: *RECOMBINANT SPIKE PROTEIN NANOPARTICLE VACCINE*

Vaccines

Novavax vaccine (with Matrix-M™ adjuvant), NVX-CoV2373, now known as Nuvaxovid Intramuscular Injection

Study	NCT04712110
Indication	Prevention of infectious disease caused by Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2)
Phase	**Phase I/II (complete)**
# of Patients	N = 200
Target Patients	Healthy Japanese male and female adults aged 20 years and older

Arms/Intervention	• Participants were randomized to either receive two doses of the vaccine candidate (n=150), or placebo (n=50), at Day 1 and Day 21
	  • TAK-019 0.5 mL
	  • Matching placebo
	• Immunogenicity was measured at Day 1, 22, 36, 50, 202 and 387
	• The study includes 12-months safety follow-up after the second dose

Primary endpoint and key secondary endpoint(s)	Safety and Immunogenicity of 2 doses of TAK-019 given 21 days apart
Status	Start date: February 2021 Completion date: April 2022 Interim results completed December 2021

TAK-019: *RECOMBINANT SPIKE PROTEIN NANOPARTICLE VACCINE*

Vaccines

Novavax vaccine (with Matrix-M™ adjuvant), NVX-CoV2373, now known as Nuvaxovid Intramuscular Injection

Study	NCT05299359
Indication	Prevention of infectious disease caused by Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2)
Phase	**Phase III**
# of Patients	N = 150
Target Patients	Healthy Japanese male and female adults aged 20 years and older Participants who completed 2 doses primary vaccinations COMIRNATY intramuscular injection 6 to 12 months prior to the trial vaccination can take part in this study
Arms/Intervention	• Single dose of TAK-019 0.5 mL, intramuscular in all participants • Immunogenicity will be measured at Day 1, 8, 15, 29, 91, 181 and 366 • The study will include 12-months safety follow-up
Primary endpoint and key secondary endpoint(s)	Evaluate the immunogenicity and safety of a single heterologous booster vaccination of TAK-019
Status	Start date: April 2022 Estimated Completion date: April 2023 Interim results completed: Q3 CY 2022

TAK-426: *PURIFIED INACTIVATED ZIKA VIRUS VACCINE PIZV*

Study	NCT03343626
Indication	For active immunization for prevention of disease caused by Zika virus (ZIKV)
Phase	**Phase I**
# of Patients	N = 271 (125 in flavivirus naïve subjects and 146 in flavivirus exposed subjects)
Target Patients	Healthy Adult Participants aged 18-49-years of age
Arms/Intervention	• Placebo: TAK-426 placebo-matching injection, intramuscular, once on Days 1 and 29 • Low Dose: PIZV 2 microgram (mcg) (PIZV 0.5 milliliter (mL), 2 mcg antigen, injection, intramuscular, once on Days 1 and 29) • Medium Dose: PIZV 5 mcg (PIZV 0.5 mL, 5 mcg antigen, injection, intramuscular, once on Days 1 and 29) • High Dose: PIZV 10 mcg (PIZV 0.5 mL, 10 mcg antigen, injection, intramuscular, once on Days 1 and 29)
Primary endpoint and key secondary endpoint(s)	Safety, immunogenicity and dose ranging study
Status	•Study start date: November 2017 •Final study report: November 2021 Publication: •Han H, et al. *Lancet*. 2021.

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