

Summary of late-stage clinical trials

As of Jun. 30, 2020

Kyowa Kirin Co., Ltd.



KYOWA KIRIN

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<https://clinicaltrials.gov/>

To see the whole picture of our pipeline, please visit the following website:
https://www.kyowakirin.com/what_we_do/index.html#anc-pipeline

List of abbreviations

| | |
|------|----------------------------|
| AE | Adverse Events |
| DLT | Dose Limiting Toxicity |
| GFR | Glomerular Filtration Rate |
| iv | Intravenous |
| MTD | Maximum Tolerated Dose |
| ORR | Overall Response Rate |
| PD | Pharmacodynamics |
| PFS | Progression Free Survival |
| PK | Pharmacokinetics |
| po | Peroral |
| Q2W | Every Two Weeks |
| Q4W | Every Four Weeks |
| Q12W | Every Twelve Weeks |
| QD | Once Daily |
| QW | Once Weekly |
| sc | Subcutaneous |

Summary of Clinical Trials (As of June 30, 2020)

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|-----------|-------------|----------------------|-----------------|---|--|------------------------------|------------|---|-----------------|
| AMG531 | P III | Aplastic anemia | JP/KR | Single-Arm trial Weekly SC administration | <p>Primary Outcome Measures: Proportion of subjects achieving a hematological response</p> <p>Secondary Outcome Measures: 1. Proportion of subjects with a hematological response at the end-of- treatment examination 2. Time from the first romiplostim administration to hematological response 3. In subjects receiving platelet transfusion as a pretreatment within 8 weeks prior to the first romiplostim administration; proportion of subjects with transfusion independence or decreased platelet transfusion requirement 4. Proportion of subjects achieving platelet response, erythroid response, or neutrophil response at each of Week 27 and end of treatment.</p> | 20-Dec | N=46 | NCT02773290 | JapicCTI-163243 |
| AMG531 | P II | Aplastic anemia | KR | Randomized Parallel Assignment Open Label Arm1:Dose1 Weekly SC Arm2:Dose2 Weekly SC Arm3:Dose3 Weekly SC Arm4:Dose4 Weekly SC | <p>Primary Outcome Measures: The proportion of subjects achieving a platelet response</p> <p>Secondary Outcome Measures: 1. The proportion of subjects achieving a platelet response 2. The proportion of subjects who become platelet transfusion independent 3. The proportion of subjects achieving erythroid response 4. The proportion of subjects achieving neutrophil response 5. Changes in Gruppo Italiano Malattie Ematologiche Maligne dell' Adulto (GIMEMA) bleeding scale 6. Profiles of Pharmacokinetics 7. Pharmacokinetic parameters, including Tmax, Cmax and (AUC)0-t, will be assessed. 8. Incidences of adverse events</p> | 17-Nov | N=35 | NCT02094417 | |

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| AMG531 | P II / III | Aplastic anemia | JP/KR/TW | Single-Arm trial SC administration Initial dose is 10 ug/kg/. Maximum dose is 20 ug/kg | <p>Primary Outcome Measures: Achievement of complete response (CR) or partial response (PR)</p> <p>Secondary Outcome Measures: 1. Achievement of CR or PR 2. Achievement of CR 3. The time to CR or PR 4. Reduction or independence of platelet and/or erythrocyte transfusion 5. Change from baseline in platelet count (/μL) 6. Change from baseline in hemoglobin (Hb) concentration (g/dL) 7. Change from baseline in neutrophil count (/μL) 8. Change from baseline in reticulocyte count (/μL)</p> | December 2021 | N=14 | NCT03957694 | JapicCTI-194746 |
| AMG531 | P II / III | Aplastic anemia | JP/KR | Single-Arm Trial SC administration of 0 to 20ug/kg for 6 months | <p>Primary Outcome Measures: Rate of achievement of CR or PR</p> <p>Secondary Outcome Measures: 1. Rate of achievement of CR or PR [] 2. Rate of achievement of C 3. The time to CR or PR 4. Reduction or independence of platelet and/or erythrocyte transfusion 5. Change from baseline in platelet count (/μL) 6. Change from baseline in hemoglobin (Hb) concentration (g/dL) 7. Change from baseline in neutrophil count (/μL) 8. Change from baseline in reticulocyte count (/μL)</p> | August 2021 | N=24 | NCT04095936 | JapicCTI-194962 |
| AMG531 | P I / II | Immune Thrombocytopenia (ITP) | CN | Randomized Parallel Assignment Open Label - Experimental: 1 mcg/kg AMG531 - Experimental: 3 mcg/kg AMG531 | <p>Primary Outcome Measures: The incidence of all adverse events including evaluation of antidrug antibody status</p> | August 2017 | N=16 | NCT02868060 | |

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| AMG531 | P III | Immune Thrombocytopenia | CN | multi-center, Randomized, Placebo-controlled, Double-blinded then Open-label - Placebo Comparator: Placebo - Experimental: Drug | Primary Outcome Measures: Number of weeks in which the platelet response counts increase above $50 \times 10^9/L$ Secondary Outcome Measures: 1. Proportion of subjects whose platelet counts relative to the baseline increase $\geq 20 \times 10^9/L$ 2. Proportion of subjects who have received emergency treatment to increase the platelet counts | June 2017 | N=203 | NCT02868099 | |
| ASKP1240 | P I | Healthy Volunteers | US | Randomized Parallel Assignment Arm A: lowest dose Arm B: second lowest dose Arm C: third lowest dose Arm D: fourth lowest dose Arm E: fifth lowest dose Arm F: middle dose Arm G: sixth highest dose Arm H: fifth highest dose Arm I: fourth highest dose Arm J: third highest dose Arm K: second highest dose Arm L: highest dose Arm M: Placebo | Primary Outcome Measures: 1. Pharmacodynamic variable: Individual subject cell surface antigen (CD40) occupancy levels over time 2. Pharmacokinetics profile: AUCinf and Cmax Secondary Outcome Measures: 1. Pharmacokinetics profile: AUClast, tmax, t1/2, Vz, and CLtot 2. Total lymphocyte counts 3. Peripheral lymphocyte subset quantification 4. Safety assessed by recording adverse events, laboratory assessments, vital signs, electrocardiograms (ECGs), physical examination, pulse oximetry, and incidence of anti-ASKP1240 antibody formation | December 2009 | N=109 | NCT01565681 | |
| ASKP1240 | P I b | Kidney Transplantation | US | Randomized Parallel Assignment Double-blind Arm1: lowest dose Arm2: low dose Arm3: high dose Arm4: highest dose Arm5: Placebo | Primary Outcome Measures: Pharmacokinetic assessment through analysis of blood samples | January 23, 2012 | N=50 | NCT01279538 | |
| ASKP1240 | P I | Healthy Volunteers | US | Randomized Parallel Assignment | Primary Outcome Measures: Pharmacokinetic profile: AUClast, AUCinf, and F | September 2012 | N=24 | NCT01582399 | |

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| | | | | Open Label Arm A: IV infusion Arm B: SC | Secondary Outcome Measures: 1. Pharmacodynamic profile: CD40 receptor occupancy over time 2. Pharmacodynamic profile: Total lymphocyte count and peripheral lymphocyte subset quantification 3. Pharmacokinetics profile: Cmax, Tmax, t1/2, Vz, and CLtot | | | | |
| ASKP1240 | P II a | Psoriasis | AU, CA, NZ | Randomized Parallel Assignment Double-blind Cohort 1: lowest dose iv Cohort 2: low dose iv Cohort 3: high dose iv Cohort 4: highest dose iv Placebo | Primary Outcome Measures: 1. Pharmacokinetics of ASKP1240: AUC336 2. Pharmacokinetics of ASKP1240: Cmax 3. Pharmacodynamic variable: CD40 receptor occupancy on peripheral blood B cells 4. Characterize safety profile of ASKP1240 through adverse event reporting, vital signs, clinical laboratory evaluations, physical examinations and 12-lead electrocardiograms (ECGs) Secondary Outcome Measures: 1. Mean change from baseline to 8 weeks in Psoriasis Area Severity Index (PASI) score 2. Mean change from baseline to 8 weeks in Physicians Static Global Assessment (PSGA) score 3. Proportion of Subjects Achieving Treatment Success 4. Success of the treatment of psoriasis is defined as a score of 1 (almost clear) or 0 (clear) as measured by the PSGA 5. Mean change from baseline to 8 weeks in % Body Surface Area (BSA) 6. Cytokine Concentration 7. Anti-ASKP1240 antibodies 8. Lymphocyte subset quantitation | January 2015 | N=60 | NCT01585233 | |

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| ASKP1240 | P II a | Kidney Transplantation | US | Randomized Parallel Assignment Open Label Standard of Care: Basiliximab induction + Tacrolimus + MMF + Corticosteroids CNI avoidance: Basiliximab induction + ASKP1240 + MMF + Corticosteroids CNI minimization-MMF avoidance: Basiliximab induction + ASKP1240 + Tacrolimus + Corticosteroids | Primary Outcome Measures: Biopsy-proven acute (T or B cell) rejection (BPAR) (Banff 2007 Grade \geq 1) by local review Secondary Outcome Measures: 1. Glomerular Filtration Rate (GFR) 2. Patient Survival 3. Graft Survival | January 27, 2017 | N=149 | NCT01780844 | |
| ASKP1240 | P II a | Kidney Transplantation Focal Segmental Glomerulosclerosis (FSGS) | US/CA | Randomized Parallel Assignment Open Label - Standard of Care regimen: (basiliximab induction, tacrolimus, methylprednisone, prednisone and MMF). - Bleselumab regimen: (basiliximab, methylprednisone, prednisone, bleselumab and tacrolimus). | Primary Outcome Measures: Recurrence of focal segmental glomerulosclerosis (FSGS) defined as nephrotic range proteinuria with protein-creatinine ratio (\geq 3.0 g/g) through 3 months post-transplant. Secondary Outcome Measures: 1. Recurrence of FSGS defined as nephrotic range proteinuria with protein-creatinine ratio (\geq 3.0 g/g). 2. Biopsy-proven acute rejection (BPAR) (Banff Grade \geq 1, local read) 3. Efficacy failure 4. Biopsy-proven (blinded, central read) rFSGS | April 2021 | N=60 | NCT02921789 | |
| KHK2455 | P I | Solid Tumor Cancer Carcinoma | US/FR | Part 1 (Dose Escalation Part): KHK2455 monotherapy [Cycle 0] followed by KHK2455 +mogamulizumab combination [Cycle 1]. Part 2 (Expansion Part): Subjects with a selected tumor type will be enrolled and treated with the recommended dose of | Primary Outcome Measures: Number of Participants with Adverse Events as a Measure of Safety and Tolerability | October 2020 | N=50 | NCT02867007 | |

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| | | | | KHK2455 established in Part 1 in combination with mogamulizumab. | | | | | |
| KHK2455 | P I | Urothelial Carcinoma | US | KHK2455 in Combination with Avelumab | Primary Outcome Measures: Number of participants with treatment-related adverse events as assessed by CTCAE v.5.0 | February 25, 2022 | N=44 | NCT03915405 | |
| KHK4083 | P I | Dermatitis, Atopic | JP | KHK4083 iv | Primary Outcome Measures: Incidence of treatment-emergent adverse events (TEAEs) or drug-related TEAEs and their nature Secondary Outcome Measures: 1. Serum KHK4083 concentration 2. Maximum concentration (Cmax) 3. Time to reach Cmax (tmax) 4. Area under the curve (AUC) 5. Anti-KHK4083 antibody production | February 7, 2018 | N=26 | NCT03096223 | JapicCTI-173543 |
| KHK4083 | P II | Atopic Dermatitis | US/CA/DE/JP | Randomized Parallel Assignment Arm A Placebo sc Arm B KHK4083 (dose level 1, dosing regimen 2) sc Arm C KHK4083 (dose level 2, dosing regimen 1) sc Arm D KHK4083 (dose level 3, dosing regimen 1) sc Arm E KHK4083 (dose level 3, dosing regimen 2) sc | Primary Outcome Measures: Percent change from baseline to Week 16 in EASI Secondary Outcome Measures: 1. EASI-50, EASI-75, or EASI-90 2. Change in EASI score 3. Change and percent change from baseline in SCORAD score 4. Achievement of an IGA score of 0 or 1 and a reduction from baseline of ≥ 2 points 5. Change in percent BSA 6. Change and percent change in pruritus NRS score 7. Change and percent change in sleep disturbance NRS score 8. Change in DLQI 9. Change and percent change in EASI score 10. Achievement of EASI-50, EASI-75, or EASI-90 11. Change and percent change in SCORAD score 12. Achievement of an IGA score of 0 or 1 and a reduction from baseline of ≥ 2 points 13. Change in percent BSA | February 2021 | N=250 | NCT03703102 | JapicCTI-184115 |

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| | | | | | 14. Change and percent change in pruritus NRS score 15. Change and percent change in sleep disturbance NRS score 16. Change in DLQI | | | | |
| KHK4827 | P I | Psoriasis | Japan | Randomized Parallel Assignment Single # Experimental: KHK4827 #Placebo Comparator: Placebo | Primary Outcome Measures: 1. Safety 2. Adverse events 3. Clinical laboratory test data 4. Vital signs Secondary Outcome Measures: Plasma KHK4827 concentrations and pharmacokinetic parameters | September 2012 | N=48 | NCT01488201 | JapicCTI-173543 |
| KHK4827 | P II | Moderate to Severe Plaque Psoriasis | Japan | Randomized Parallel Assignment Double-blind # KHK4827 70mg SC # KHK4827 140mg SC # KHK4827 210mg SC # Placebo SC | Primary Outcome Measures: Percent improvement from baseline in PASI at Week 12 Secondary Outcome Measures: 1. PASI 75 2. PASI 50, 90 and 100 3. sPGA of "clear or almost clear (0 or 1)" 4. sPGA of "clear (0)" 5. BSA involvement of lesion 6. ACR 20% response (only in subjects with psoriasis arthritis) 7. Incidence and types of adverse events and adverse reactions Profiles of Pharmacokinetics | September 2013 | N=140 | NCT01748539 | JapicCTI-122023 |
| KHK4827 | P III | Psoriasis | Japan | Randomized Parallel Assignment # KHK4827 140mg SC # KHK4827 210mg SC | Primary Outcome Measures: 1. Incidence and types of adverse events and adverse reactions 2. Laboratory values and vital signs 3. Development of anti-KHK4827 antibody Secondary Outcome Measures: 1. Percent improvement from baseline in PASI 2. PASI 50, PASI 75, PASI 90 and PASI 100 response | February 2015 | N=145 | NCT01782924 | JapicCTI-132056 |

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| | | | | | 3. sPGA of "clear or almost clear (0 or 1)" 4. sPGA of "clear (0)" 5. BSA involvement of lesion 6. ACR 20 (only in subjects with psoriasis arthritis) 7. Profiles of pharmacokinetics | | | | |
| KHK4827 | P III | Psoriasis | Japan | Single Group Assignment Open Label # KHK4827 140mg | Primary Outcome Measures: Clinical Global Impression (CGI) Secondary Outcome Measures: 1. Percent improvement from baseline in PASI 2. ACR 20 (only in subjects with psoriasis arthritis) 3. Pustular symptom score (only in subjects with pustular psoriasis) 4. sPGA of "clear or almost clear (0 or 1)" (only in subjects with psoriatic erythroderma) 5. sPGA of "clear (0)" (only in subjects with psoriatic erythroderma) 6. BSA involvement of lesion 7. Incidence and types of adverse events and adverse reactions 8. Laboratory values and vital signs 9. Profiles of pharmacokinetics 10. Development of anti-KHK4827 antibody | December 2014 | N=30 | NCT01782937 | JapicCTI-132057 |
| KHK4827 | P III | Psoriasis Vulgaris Psoriatic Arthritis Pustular; Psoriasis, Palmaris Et Plantaris Psoriatic Erythroderma | Japan | Non-Randomized Parallel Assignment Open Label # KHK4827 140mg SC # KHK4827 210mg SC | Primary Outcome Measures: 1. Incidence and types of adverse events and adverse reactions 2. Anti-KHK4827 antibody Secondary Outcome Measures: 1. Change in PASI compared to the data obtained before the first dose of investigational product in this study. 2. Percent improvement in PASI 3. PASI 50, 75, 90, and 100 4. sPGA of "0 (clear) or 1(almost clear)" 5. sPGA of "0 (clear)" 6. Change in BSA of lesion 7. CGI | July 4, 2016 | N=155 | NCT02052609 | JapicCTI-142430 |

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| | | | | | 8. ACR 20 9. Pustular symptom score 10. Serum KHK4827 concentration | | | | |
| KHK4827 | P III | Moderate to Severe Plaque Psoriasis | KR | Randomized Parallel Assignment Double-blind - KHK4827 SC injection - Placebo Comparator: Placebo | Primary Outcome Measures: 1. PASI 75 response 2. sPGA of "0 (clear)" or "1 (almost clear)" Secondary Outcome Measures: 1. PASI 50/75/90/100 response by visit 2. sPGA of "0 (clear) or 1 (almost clear)" by visit 3. BSA involvement of lesion 4. NAPSI score (applicable only to subjects who had nail symptoms at baseline) 5. PSSI score (applicable only to subjects who had scalp symptoms at baseline) 6. DLQI 7. TEAEs or drug-related TEAEs 8. Laboratory values 9. Vital signs 10. Anti-KHK4827 antibodies 11. Serum KHK4827 concentration | August 14, 2018 | N=62 | NCT02982005 | |
| KHK4827 | P I | Systemic Sclerosis | JP | Single Group Assignment Open Label - KHK4827 210 mg Q2W, SC | Primary Outcome Measures: Serum KHK4827 concentration Secondary Outcome Measures: Change in modified Rodnan skin score (mRSS) from baseline | March 31, 2023 | N=8 | NCT04368403 | JapicCTI-173686 |
| KHK4827 | P III | Moderate to Severe Systemic Sclerosis | JP | Randomized Parallel Assignment Double-blind - Experimental: KHK4827 210 mg Q2W, SC - Placebo Comparator: Placebo | Primary Outcome Measures: Change in modified Rodnan skin score (mRSS) from baseline at Week 24 Secondary Outcome Measures: Change in modified Rodnan skin score (mRSS) from baseline at Week 52 | March 31, 2023 | N=100 | NCT03957681 | JapicCTI-194761 |

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| KHK4827 | P III | Palmoplantar Pustulosis | JP | Randomized Parallel Assignment Double-blind - Experimental: KHK4827 210mg Q2W SC - Placebo Comparator: Placebo Q2W SC | Primary Outcome Measures: Change from baseline in Palmoplantar Pustulosis Area and Severity Index (PPPASI) total score at Week 16 Secondary Outcome Measures: 1. Change from baseline in PPP-SI total score 2. The percentage of participants who achieved at least 50% improvement in PPPASI score 3. The percentage of participants who achieved at least 75% improvement in PPPASI score 4. The percentage of participants who achieved a PGA score of 0 or 1 5. Change in PPPASI total score 6. Change in PPP-SI total score at each assessment time point 7. Change in DLQI score | March 2021 | N=120 | NCT04061252 | JapicCTI-194862 |
| KHK4827 | P III | Axial Spondyloarthritis | JP/KR/TW | Randomized Parallel Assignment Double-blind - KHK4827 administered SC - Placebo administered SC | Primary Outcome Measures: Percentage of ASAS 40 in axSpA subjects Secondary Outcome Measures: 1. Percentage of ASAS 40 in AS subjects 2. Percentage of ASAS 40 in nr-axSpA subjects 3. ASDAS-CRP change from baseline in axSpA subjects 4. Number of adverse events 5. Number of patients exposed to anti-KHK4827 antibodies 6. Serum KHK4827 concentration | September 23, 2019 | N=159 | NCT02985983 | JapicCTI-163449 |
| KHK4827 | P III | Axial Spondyloarthritis | JP/KR/TW | Randomized Parallel Assignment Double-blind - KHK4827 administered SC - Placebo administered SC | Primary Outcome Measures: Percentage of ASAS 40 in axSpA subjects Secondary Outcome Measures: 1. Percentage of ASAS 40 in AS subjects 2. Percentage of ASAS 40 in nr-axSpA subjects 3. ASDAS-CRP change from baseline in axSpA subjects 4. Number of adverse events | September 23, 2019 | N=159 | NCT02985983 | JapicCTI-163449 |

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| | | | | | 5. Number of patients exposed to anti-KHK4827 antibodies 6. Serum KHK4827 concentration | | | | |
| KHK6640 | P I | Alzheimer's Disease | BE/NL/RS/SE | Randomized Parallel Assignment Double-blind - Experimental: KHK6640 - Placebo Comparator: Placebo | Primary Outcome Measures: Number of Participants with Adverse Events | May 2017 | N=57 | NCT02127476 | |
| KHK6640 | P I | Alzheimer's Disease | JP | Randomized Parallel Assignment Double-blind - Experimental: KHK6640 - Placebo Comparator: Placebo | Primary Outcome Measures: Number of Participants with Adverse Events | September 2016 | N=20 | NCT02377713 | JapicCTI-152818 |
| KHK6640 | P I | Alzheimer's Disease | JP | Randomized Parallel Assignment Double-blind - Experimental: KHK6640 - Placebo Comparator: Placebo | Primary Outcome Measures: Number of Participants with Adverse Events | December 6, 2017 | N=21 | NCT03093519 | JapicCTI-173541 |
| KHK7580 | P I / II | Hyperparathyroidism | JP | Single Group Assignment - KHK7580 Oral administration | Primary Outcome Measures: The safety of KHK7580 assessed by number and types of adverse events, laboratory tests, vital signs, electrocardiogram and ophthalmic examination Secondary Outcome Measures: 1. Profiles of pharmacokinetics 2. Profiles of pharmacodynamics | March 2014 | N=20 | NCT01935856 | JapicCTI-132255 |
| KHK7580 | P I | Secondary Hyperparathyroidism | JP | Single Group Assignment - KHK7580 Oral administration | Primary Outcome Measures: Number and types of adverse events Secondary Outcome Measures: Profiles of pharmacokinetics | December 2014 | N=13 | NCT02143271 | JapicCTI-142537 |

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| KHK7580 | P II b | Secondary Hyperparathyroidism | JP | Randomized Parallel Assignment Double-blind - Placebo Comparator: Placebo - Experimental: KHK7580 low dose - Experimental: KHK7580 middle dose - Experimental: KHK7580 high dose - Active Comparator: KRN1493 | Primary Outcome Measures: The percent changes in intact PTH levels from baseline Secondary Outcome Measures: 1. Intact PTH, whole PTH, corrected serum Ca, ionized Ca, serum phosphorus, intact FGF 23 and corrected serum Ca X serum phosphorus 2. Safety | February 2015 | N=201 | NCT02216656 | JapicCTI-142631 |
| KHK7580 | P III | Secondary Hyperparathyroidism | JP | Randomized Parallel Assignment Double-blind - Experimental: KHK7580 - Active Comparator: KRN1493 | Primary Outcome Measures: Percentage of subjects in the evaluation period achieving a mean intact PTH level of ≥ 60 pg/mL and ≤ 240 pg/mL Secondary Outcome Measures: 1. Percentage of subjects in the evaluation period achieving a mean percent decrease in intact PTH level of $\geq 30\%$ (percent change $\leq -30\%$) from baseline 2. Mean percent change in the evaluation period in intact PTH level from baseline | November 2016 | N=634 | NCT02549391 | JapicCTI-153013 |
| KHK7580 | P III | Secondary Hyperparathyroidism | JP | Single Group Assignment - KHK7580 | Primary Outcome Measures: Number of participants with adverse events Secondary Outcome Measures: 1. Percentage of subjects achieving intact PTH level of ≥ 60 pg/mL and ≤ 240 pg/mL 2. Percentage of subjects achieving a mean percent decrease in intact PTH level of $\geq 30\%$ (percent change $\leq -30\%$) from baseline 3. Mean percent change in intact PTH level from baseline | December 28, 2016 | N=137 | NCT02549404 | JapicCTI-153015 |

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| KHK7580 | P III | Secondary Hyperparathyroidism | JP | Single Group Assignment - KHK7580 | <p>Primary Outcome Measures: Percentage of subjects in the evaluation period achieving a mean intact PTH level of ≥ 60 pg/mL and ≤ 240 pg/mL</p> <p>Secondary Outcome Measures: 1. Percentage of subjects in the evaluation period achieving a mean percent decrease in intact PTH level of $\geq 30\%$ (percent change $\leq -30\%$) from baseline 2. Mean percent change in the evaluation period in intact PTH level from baseline</p> | December 22, 2016 | N=39 | NCT02549417 | JapicCTI-153016 |
| KHK7580 | P III | Parathyroid Carcinoma Primary Hyperparathyroidism | JP | Single Group Assignment - KHK7580 | <p>Primary Outcome Measures: Percentage of subjects whose corrected serum calcium level is maintained ≤ 10.3 mg/dL for 2 weeks in the evaluation period</p> <p>Secondary Outcome Measures: 1. Percentage of subjects whose corrected serum calcium level decreases by ≥ 1.0 mg/dL from baseline and the decrease is maintained for 2 weeks in the evaluation period. 2. Corrected serum calcium level 3. intact PTH level 4. whole PTH level</p> | April 9, 2019 | N=10 | NCT03280264 | JapicCTI-173684 |
| KHK7580 | P III | Secondary Hyperparathyroidism | CN/KR/ TW/HK | Randomized Parallel Assignment Double-blind #Experimental: KHK7580 #Active Comparator: Cinacalcet | <p>Primary Outcome Measures: Mean percent change in intact PTH level from baseline in the evaluation period</p> <p>Secondary Outcome Measures: 1. Number of subjects achieving a mean intact PTH level of ≥ 150pg/mL and ≤ 300pg/mL in the evaluation period 2. Percentage of subjects achieving a mean intact PTH level of ≥ 150pg/mL and ≤ 300pg/mL in the evaluation period 3. Number of subjects achieving a mean percent</p> | June 2021 | N=400 | NCT03822507 | |

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| | | | | | decrease in intact PTH level of $\geq 30\%$ (percent change $\leq -30\%$) from baseline in the evaluation period 4. Percentage of subjects achieving a mean percent decrease in intact PTH level of $\geq 30\%$ (percent change $\leq -30\%$) from baseline in the evaluation period 5. Intact PTH level 6. corrected serum Ca level serum P level | | | | |
| KHK7580 | P I | Healthy Volunteer | CN | Non-Randomized Sequential Assignment Open Label - 1mg KHK7580 po - 3mg KHK7580 po - 6mg KHK7580 po - 12mg KHK7580 po - 6mg KHK7580 for 8days | Primary Outcome Measures: 1. Plasma KHK7580 concentration 2. Time to Reach Tmax 3. Cmax of KHK7580 4. AUC0-t 5. AUCinf 6. t1/2 7. CL/F Secondary Outcome Measures: 1. Incidence of TEAEs 2. QTcF 3. QTcB 4. intact PTH level 5. serum P level | December 2020 | N=42 | NCT04206657 | |
| KHK7791 | P II | Hyperphosphatemia | JP | Randomized Parallel Assignment Double-blind - Arm A: KHK7791 low dose BID. - Arm B: KHK7791 middle dose BID. - Arm C: KHK7791 high dose BID. - Arm D: KHK7791 high dose and down titrate. | Primary Outcome Measures: To investigate the clinically recommended dose by comparing changes in serum phosphorus levels from baseline values at Week 6 Secondary Outcome Measures: 1. Changes in serum Ca \times P levels 2. Changes in corrected serum calcium levels | December 31, 2019 | N=207 | NCT03864458 | JapicCTI-194626 |

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|-----------|-------------|--|-----------------|--|--|------------------------------|------------|---|-----------------|
| | | | | - Arm E: Placebo BID. | | | | | |
| KHK7791 | P II | Hyperphosphatemia | JP | Randomized Parallel Assignment Double-blind - KHK7791 BID - Placebo BID | Primary Outcome Measures: Comparing changes in serum phosphorus levels between hemodialysis patients taking KHK7791 in combination with phosphate binders and those taking placebo in combination with phosphate binders. Secondary Outcome Measures: 1. Changes in serum Ca × P levels 2. Changes in corrected serum calcium levels | December 3, 2019 | N=47 | NCT03864445 | JapicCTI-194625 |
| KHK7791 | P II | Hyperphosphatemia | JP | Single Group Assignment - KHK7791 Patients start at KHK7791 30 mg BID and can down titrate weekly to 20, 15, 10, and 5 mg BID, sequentially based on a GI tolerability question. | Primary Outcome Measures: Percentage of subjects who reduce the total number of taking phosphate binder tablets at the last assessment from baseline Secondary Outcome Measures: 1. Serum phosphorus levels 2. Corrected serum calcium level | November 26, 2019 | N=67 | NCT03831607 | JapicCTI-184562 |
| KRN125 | P II | Peripheral Blood Stem Cell Transplantation | JP | Single Group Assignment Single center, open label, non-control, dose setting study - KRN125 Single dose of SC administration | Primary Outcome Measures: Achievement of >20 cells/μL positive for CD34 in peripheral blood from baseline to Day 7 Secondary Outcome Measures: • Period from baseline to first time peripheral blood CD34 positive cells >20 cells/μL • Time from baseline to peak peripheral blood CD34 positive cells • Achievement of >10 cells/μL positive for CD34 in peripheral blood from baseline to Day 7 • Peripheral blood CD34 positive cell count • Peripheral blood white blood cell count • Peripheral blood neutrophil count | December 2020 | N=41 | NCT03993639 | JapicCTI-194774 |

Summary of Clinical Trials (As of June 30, 2020)

| Drug Name | Trial Phase | Condition or disease | Country /region | Design | Endpoints | Study completion (Estimated) | Enrollment | Access to Clinical Trial Protocols | Remarks |
|-----------|-------------|----------------------|-----------------|---|--|------------------------------|------------|---|-----------------|
| KRN125 | P I | Breast Cancer | JP | multicenter, uncontrolled, open-label study - 3.6 mg administered subcutaneously once per chemotherapy cycle | Primary Outcome Measures: Safety - Adverse events - Laboratory examination - Vital Signs Secondary Outcome Measures: Exploratory (concentrations in sera) | March 31 2021 | N=30 | | JapicCTI-205130 |
| KRN23 | P III | XLH | JP/KR | Single Group Assignment Open Label - SC injections of KRN23 every 4 weeks (adult) 2 weeks (pediatric) | Primary Outcome Measures: 1. Number of subjects for each adverse event 2. Body temperature 3. Pulse rate 4. Respiratory rate 5. SBP in sitting position 6. DBP in sitting position 7. Effect to 12-lead ECG 8. Effect to renal ultrasound 9. Effect to Echocardiogram Secondary Outcome Measures: 1. Concentration of serum phosphorus 2. Concentration of serum 1,25(OH)2D 3. Concentration of urinary phosphorus 4. Tubular reabsorption of phosphate from 2-hour urine 5. Concentration of maximum tubular reabsorption of TmP/GFR 6. Carboxy terminal cross-linked telopeptide of type 1 collagen (CTX) 7. P1NP 8. BALP 9. Concentration of serum ALP (Pediatric patients with XLH) 10. Motor functions (6MWT) 11. Radiographic findings of fracture and enthesopathy (Adult patients with XLH) 12. RSS 13. RGI-C | December 31, 2020 | N=27 | NCT04308096 | |

Summary of Clinical Trials (As of June 30, 2020)

| Drug Name | Trial Phase | Condition or disease | Country /region | Design | Endpoints | Study completion (Estimated) | Enrollment | Access to Clinical Trial Protocols | Remarks |
|-----------|-------------|--|-----------------|---|---|------------------------------|------------|---|-----------------|
| | | | | | 14. Z score of height (LMS method) (Pediatric patients with XLH) Other Outcome Measures: 1. Pharmacokinetics (Serum KRN23 concentration) 2. Immunogenicity (Anti-KRN23 Antibody) | | | | |
| KRN23 | P II | Tumor-Induced Osteomalacia or Epidermal Nevus Syndrome | JP/KR | Single Group Assignment Open Label - SC injections of KRN23 Q4W from Week 0 through Week 44 | Primary Outcome Measures: Serum phosphorus concentration Secondary Outcome Measures: 1. ALP 2. 1,25(OH)2D 3. urine P 4. tubular reabsorption of phosphate 5. renal tubular maximum phosphate reabsorption rate to glomerular filtration rate 6. skeletal disease/osteomalacia through trans-iliac crest bone biopsy 7. STS test 8. HHD 9. WAL test 10. 6MWT 11. patient reported outcomes 12. KRN23 Cmax 13. KRN23 AUC 14. KRN23 t1/2 Other Outcome Measures: Number and types of adverse events | December 2020 | N=6 | NCT02722798 | JapicCTI-163191 |
| KW-0761 | P III | HTLV-1 Associated Myelopathy | JP | Randomized Parallel Assignment Double-blind - Experimental: KW-0761 0.3 mg/kg IV - Placebo Comparator: Placebo (saline) | Primary Outcome Measures: Improvement in Osame's motor disability score Secondary Outcome Measures: 1. HTLV-1 Proviral load in peripheral blood 2. Mean of twice 10 m walking time 3. Modified Ashworth Scale 4. Evaluation of Clinical Global Impression (CGI-I) 5. Evaluation of Clinical Global Impression (VAS) | December 2020 | N=66 | NCT03191526 | JapicCTI-173608 |

Summary of Clinical Trials (As of June 30, 2020)

| Drug Name | Trial Phase | Condition or disease | Country /region | Design | Endpoints | Study completion (Estimated) | Enrollment | Access to Clinical Trial Protocols | Remarks |
|-----------|-------------|---|-----------------|---|---|------------------------------|------------|---|-----------------|
| | | | | | 6. Evaluation of Urinary dysfunction (OABSS) 7. Evaluation of Urinary dysfunction (I-PSS) 8. Evaluation of sensory dysfunction (numbness in the lower limbs (VAS)) 9. Evaluation of sensory dysfunction (Pain in the lower limbs (VAS)) 10. Neopterin Concentration in CSF | | | | |
| KW-0761 | P I | Adult T-Cell Leukemia and Lymphoma (ATL) Adult Peripheral T-Cell Lymphoma (PTCL) | JP | Single Group Assignment Open Label # KW-0761 IV administration at 4 escalating dose levels. | Primary Outcome Measures: 1. Incidence of Dose-Limiting Toxicities (DLTs) 2. Maximum Tolerated Dose (MTD) 3. Pharmacokinetics-Plasma KW-0761 Concentrations 4. Pharmacokinetics-Pharmacokinetic Parameters of KW-0761 (AUC0-7 Days) 5. Pharmacokinetics-Pharmacokinetic Parameters of KW-0761 (t1/2) Secondary Outcome Measures: 1. Antitumor Effect 2. Time to Progression (TTP) | October 2008 | N=16 | NCT00355472 | |
| KW-0761 | P II | Adult T-cell Leukemia-lymphoma | JP | Single Group Assignment Open Label - KW-0761 is administered weekly for 8 weeks as an intravenous infusion of 2 hours at a dose of 1.0 mg/kg. | Primary Outcome Measures: 1. Overall Response Rate (ORR) 2. Pharmacokinetics-Plasma KW-0761 Concentrations 3. Pharmacokinetics-Plasma KW-0761 Concentrations (AUC0-7days) 4. Pharmacokinetics-Plasma KW-0761 Concentrations (t1/2) Secondary Outcome Measures: 1. Progression Free Survival (PFS) 2. Overall Survival (OS) | November 2010 | N=28 | NCT00920790 | JapicCTI-090772 |

Summary of Clinical Trials (As of June 30, 2020)

| Drug Name | Trial Phase | Condition or disease | Country /region | Design | Endpoints | Study completion (Estimated) | Enrollment | Access to Clinical Trial Protocols | Remarks |
|-----------|-------------|---|-----------------|--|--|------------------------------|------------|---|-----------------|
| KW-0761 | P II | Adult T-cell Leukemia-Lymphoma | JP | Randomized Parallel Assignment Open Label - Active Comparator: mLSG15 - Experimental: mLSG15 + KW-0761 | Primary Outcome Measures: Complete response rate in the best overall response assessment for antitumor effect Secondary Outcome Measures: 1. Response rate in the best overall response assessment for antitumor effect, complete or response rates by lesion site in the best overall response assessment for antitumor effect 2. Progression-free survival and Overall survival 3. Adverse event 4. anti-KW-0761 antibody 5. Plasma KW-0761 concentrations and pharmacokinetic parameters | April 2012 | N=44 | NCT01173887 | JapicCTI-101209 |
| KW-0761 | P II | Peripheral T/NK-cell Lymphoma | JP | Single Group Assignment - KW-0761 Intravenously 8 times at 1-week intervals | Primary Outcome Measures: Antitumor effect Secondary Outcome Measures: 1. Antitumor effect (best response by disease lesion), progression-free survival and overall survival 2. Adverse events and anti-KW-0761 antibody levels 3. Plasma KW-0761 concentrations and pharmacokinetic parameters | May 2012 | N=38 | NCT01192984 | JapicCTI-101256 |
| KW-0761 | P I / II | Peripheral T-Cell Lymphoma | US | Single Group Assignment Open Label - KW-0761 open label, dose escalation (0.1, 0.3, 1.0 mg/kg) | Primary Outcome Measures: Maximum Tolerated Dose Secondary Outcome Measures: time to progression | September 2012 | N=42 | NCT00888927 | |
| KW-0761 | P II | Peripheral T-cell Lymphoma Cutaneous T-cell Lymphoma | US | Single Group Assignment Open Label - In the first treatment course KW-0761 will be administered i.v. once a week for four weeks, followed by a 2-week observation period. Subsequent treatment courses are | Primary Outcome Measures: To determine a Global Composite Response (skin, blood, lymph nodes) as determined by skin evaluations, blood counts and PET/CT imaging Secondary Outcome Measures: To determine the number of participants with | September 2012 | N=1 | NCT01226472 | |

Summary of Clinical Trials (As of June 30, 2020)

| Drug Name | Trial Phase | Condition or disease | Country /region | Design | Endpoints | Study completion (Estimated) | Enrollment | Access to Clinical Trial Protocols | Remarks |
|-----------|-------------|--------------------------------|----------------------------------|---|---|------------------------------|------------|---|-----------------|
| | | | | permissible for subjects demonstrating a response or maintaining stable disease and will consist of an infusion of KW-0761 every other week. | adverse events as a measure of safety and tolerability. | | | | |
| KW-0761 | P II | Peripheral T-Cell Lymphoma | DK/FR/IT/NL/ES/UK | Single Group Assignment Open Label - intravenously weekly x 4 then every other week until progression | Primary Outcome Measures: Overall Response Rate | May 2015 | N=38 | NCT01611142 | |
| KW-0761 | P II | Adult T-cell Leukemia-Lymphoma | US/BE/BR/FR/PE/UK | Randomized Parallel Assignment Open Label - Experimental: KW-0761 - Comparator is investigator's choice of pralatrexate or gemcitabine plus oxaliplatin or DHAP | Primary Outcome Measures: Overall Response Rate Secondary Outcome Measures: 1. Progression Free Survival 2. Overall Survival 3. Change in Functional Assessment of Cancer Therapy-Lymphoma (FACT-Lym) Total Score | February 2018 | N=71 | NCT01626664 | |
| KW-0761 | P III | Cutaneous T-Cell Lymphoma | US/AU/DE/FR/DE/IT/JP/NL/EP/CH/UK | Randomized Parallel Assignment Open Label - Experimental: KW-0761 - Active Comparator: Vorinostat | Primary Outcome Measures: Progression Free Survival Secondary Outcome Measures: 1. Overall Response Rate 2. Quality of Life (QoL) Assessment - Skindex-29 3. Pruritis Evaluation | December 2020 | N=372 | NCT01728805 | |
| KW-3357 | P III | Preeclampsia | JP | Randomized Parallel Assignment Double Blind - Experimental: KW-3357: 72 IU/kg - Placebo Comparator: placebo | Primary Outcome Measures: Days of maintaining pregnancy Secondary Outcome Measures: 1. Presence or absence of achievement of 32 weeks of gestation 2. Presence or absence of achievement of 34 weeks of gestation 3. Presence or absence of achievement of 28 weeks of gestation in subjects enrolled in the period of | June 2022 | N=180 | NCT04182373 | JapicCTI-194997 |

Summary of Clinical Trials (As of June 30, 2020)

| Drug Name | Trial Phase | Condition or disease | Country /region | Design | Endpoints | Study completion (Estimated) | Enrollment | Access to Clinical Trial Protocols | Remarks |
|-----------|-------------|----------------------|-----------------|---|--|------------------------------|------------|---|-----------------|
| | | | | | less than 28 weeks of gestation 4. Change in AT activity 5. Change in PLT concentration 6. Change on D-dimer concentration 7. Change in FDP concentration 8. Sitting systolic blood pressure and sitting diastolic blood pressure 9. Proteinuria/creatinine ratio 10. Amount of blood lost during delivery 11. Biophysical Profile Score 12. Fetal growth rate 13. Apgar score 14. Presence or absence of neonatal asphyxia 15. Birth weight 16. Neonatal growth 17. Head and chest circumferences at birth 18. Short-term prognosis of neonates 19. The number of neonates who was hospitalized in the NICU 20. The number of days in the NICU 21. The number of neonates with respiratory management at the time of admission to the NICU 22. The number of days of respiratory management at the time of admission to the NICU | | | | |
| KW-6356 | P II | Parkinson's Disease | JP | Randomized Parallel Assignment Double Blind - Experimental: KW-6356 Low Dose Oral administration - Experimental: KW-6356 High Dose Oral administration - Placebo Comparator: Placebo Oral administration | Primary Outcome Measures: Change from baseline in the Movement disorder society-unified Parkinson's disease rating scale(MDS-UPDRS) part III score Secondary Outcome Measures: 1. CGI-I score 2. PGI-I score 3. Change from baseline in the PDQ-39 total scores 4. Number and percentage of subjects with treatment-emergent adverse events 5. Profiles of pharmacokinetics of plasma KHK6356 concentration | December 8, 2017 | N=175 | NCT02939391 | JapicCTI-163395 |

Summary of Clinical Trials (As of June 30, 2020)

| Drug Name | Trial Phase | Condition or disease | Country /region | Design | Endpoints | Study completion (Estimated) | Enrollment | Access to Clinical Trial Protocols | Remarks |
|-----------|-------------|----------------------|-----------------|--|---|------------------------------|------------|------------------------------------|-----------------|
| | | | | | 6. Change from baseline in the MDS-UPDRS subitem and total scores | | | | |
| KW-6356 | P I | Parkinson's Disease | JP | Randomized Parallel Assignment Quadruple - Experimental: Part A-1 KW-6356 Low Dose - Experimental: Part A-2 KW-6356 Middle Dose - Experimental: Part A-3 KW-6356 High Dose - Experimental: Part B KW-6356 Multiple Dose - Experimental: Part C-1 KW-6356 Multiple Dose - Experimental: Part C-2 KW-6356 Multiple Dose - Placebo Comparator: Placebo | Primary Outcome Measures: 1. Part A Number and percentage of subjects with treatment-emergent adverse events 2. Part B Number and percentage of subjects with treatment-emergent adverse events 3. Part C Profiles of pharmacokinetics of plasma KW-6356 concentrations Secondary Outcome Measures: 1. Part A Profiles of pharmacokinetics of plasma KW-6356 concentrations 2. Part B Profiles of pharmacokinetics of plasma KW-6356 concentrations 3. Part C Number and percentage of subjects with treatment-emergent adverse events | October 10, 2019 | N=48 | NCT03830528 | |
| KW-6356 | P II b | Parkinson's Disease | JP | An interventional, multicenter, randomized, double-blind, placebo-controlled, parallel-group trial - Experimental: KW-6356 Low Dose - Experimental: KW-6356 High Dose - Placebo Comparator: placebo | Primary Outcome Measures: Change from baseline in the Movement disorder society-unified Parkinson's disease rating scale (MDS-UPDRS) part III score Secondary Outcome Measures: Change from baseline in the total hours of awake time per day spent in the OFF stat | May 2020 | N=502 | NCT03703570 | JapicCTI-184111 |
| KW-6356 | P I | Parkinson's Disease | JP | Single Group Assignment Open Label - Experimental: KW-6356/Healthy Japanese adult male subjects Period 1: intake of the index substrates at Day 1 (Cohort 1: midazolam, Cohort 2: caffeine + rosuvastatin) followed by Period | Primary Outcome Measures: Geometric mean ratio of the major pharmacokinetic parameter (AUC _{0-t}) of the index substrates in combination with or without KW-6356 Secondary Outcome Measures: 1. C _{max} of the index substrates in combination with or without KW-6356 2. AUC _{0-∞} of the index substrates in combination | July 31, 2019 | N=50 | NCT03970798 | |

Summary of Clinical Trials (As of June 30, 2020)

| Drug Name | Trial Phase | Condition or disease | Country /region | Design | Endpoints | Study completion (Estimated) | Enrollment | Access to Clinical Trial Protocols | Remarks |
|-----------|-------------|----------------------|-----------------|---|--|------------------------------|------------|------------------------------------|---------|
| | | | | 2: intake of KW-6356 at Day 4-13, intake of the index substrates at Day 11 | with or without KW-6356 3. tmax of the index substrates 4. CL/F of the index substrates 5. Vz/F of the index substrates 6. t1/2 of the index substrates 7. Plasma concentrations of the index substrates 8. Plasma concentrations of KW-6356 9. Incidence of treatment-emergent adverse events | | | | |
| KW-6356 | P I | Hepatic Impairment | JP | Non-Randomized Parallel Assignment Open Label Single oral dose of KW-6356 - Experimental: Mild Hepatic Impairment -Experimental: Moderate Hepatic Impairment -Experimental: Healthy Subjects | Primary Outcome Measures: 1. Cmax 2. AUC0-t 3. AUC0-∞ 4. tmax 5. t1/2 6. CL/F 7. Vz/F Secondary Outcome Measures: 1. Plasma protein binding of KW-6356 and its major metabolite 2. Adverse Events 3. Clinical Laboratory Evaluations 4. Vital signs 5. 12-lead ECG 6. Physical examination | March 20, 2020 | N=26 | NCT04190654 | |
| KW-6356 | P I | Parkinson's Disease | JP | Randomized Parallel Assignment Quadruple - Experimental: KW-6356 therapeutic dose - Experimental: KW-6356 supratherapeutic dose - Placebo Comparator: Placebo | Primary Outcome Measures: Change from baseline in QTc interval [QTcF] (ΔQTcF) Secondary Outcome Measures: 1. HR 2. QTc interval [QTcF] 3. PR interval 4. QRS interval 5. Placebo-corrected ΔQTcF 6. Placebo-corrected ΔHR 7. Placebo-corrected ΔPR interval 8. Placebo-corrected ΔQRS interval | July 2020 | N=128 | NCT04342273 | |

Summary of Clinical Trials (As of June 30, 2020)

| Drug Name | Trial Phase | Condition or disease | Country /region | Design | Endpoints | Study completion (Estimated) | Enrollment | Access to Clinical Trial Protocols | Remarks |
|-----------|-------------|-----------------------|-----------------|--|--|------------------------------|------------|---|---------|
| | | | | - Active Comparator: Moxifloxacin | 9. Outliers in terms of category for HR 10. Outliers in terms of category for QTc interval (QTcF) 11. Outliers in terms of category for PR interval 12. Outliers in terms of category for QRS interval 13. Frequency of morphological changes in T wave 14. Frequency of morphological changes in U wave 15. Incidence of treatment-emergent adverse events 16. Plasma concentrations of KW-6356 | | | | |
| KW-6356 | P I | Parkinson's Disease | JP | Non-Randomized Single Group Assignment Open Label - Experimental: KW-6356 + Clarithromycin - Experimental: KW6356 + Rifampicin | Primary Outcome Measures: Geometric mean ratio of the pharmacokinetic parameter (AUC0-t) of KW-6356 in combination with or without a perpetrator drug Secondary Outcome Measures: 1. Cmax of KW-6356 in combination with or without a perpetrator drug 2. AUC0-∞ of KW-6356 in combination with or without a perpetrator drug 3. tmax of KW-6356 4. CL/F of KW-6356 5. Vz/F of KW-6356 6. t1/2 of KW-6356 7. Plasma concentrations of a perpetrator drug 8. Incidence of treatment-emergent adverse events | November 19, 2019 | N=20 | NCT04070495 | |
| KW-6356 | P I | Healthy Male Subjects | US | Single Group Assignment Open Label - Single oral dose of carbon-14-KW-6356. | Primary Outcome Measures: 1. Cmax 2. tmax 3. AUC0-t 4. %AUCextra 5. t1/2 6. kel 7. Vz/F 8. CL/F 9. MRT 10. Whole blood/plasma concentration ratio 11. Aeurine | October 2, 2019 | N=8 | NCT04147910 | |

Summary of Clinical Trials (As of June 30, 2020)

| Drug Name | Trial Phase | Condition or disease | Country /region | Design | Endpoints | Study completion (Estimated) | Enrollment | Access to Clinical Trial Protocols | Remarks |
|-----------|-------------|---|-----------------|--|--|------------------------------|------------|---|-----------------|
| | | | | | 12. feurine 13. Aefeces 14. fefeces 15. Aetotal 16. fetotal 17. Metabolic profiling and identification (plasma, urine, and feces) Secondary Outcome Measures: 1. Adverse Events 2. Severe adverse events 3. Serum chemistry, hematology, and urinalysis 4. Vital signs 5. 12-lead ECG 6. Physical examination | | | | |
| ME-401 | P I | Relapsed or Refractory Indolent B-cell Non-Hodgkin's Lymphoma | JP | Single Group Assignment Open Label - ME-401 administered orally | Primary Outcome Measures: Number of participants with treatment-emergent adverse events (TEAEs) Secondary Outcome Measures: 1. Plasma concentration level 2. Cmax 3. AUC 4. t1/2 5. OPR 6. DOR 7. PFS 8. TTR | September 30, 2021 | N=12 | NCT03985189 | JapicCTI-194790 |
| RTA 402 | P II | Chronic Kidney Disease Type 2 Diabetes | JP | Randomized Parallel Assignment Double Blind - Experimental: bardoxolone methyl (RTA 402) - Placebo Comparator: Placebo | Primary Outcome Measures: 1. Number and types of adverse events 2. Change in GFR from baseline to 16 weeks Secondary Outcome Measures: 1. Change in eGFR from baseline to 16 weeks 2. Profiles of pharmacokinetics of plasma RTA 402 concentration | September 2017 | N=216 | NCT02316821 | JapicCTI-142717 |

Summary of Clinical Trials (As of June 30, 2020)

| Drug Name | Trial Phase | Condition or disease | Country /region | Design | Endpoints | Study completion (Estimated) | Enrollment | Access to Clinical Trial Protocols | Remarks |
|-----------|-------------|-------------------------|-----------------|--|--|------------------------------|------------|---|-----------------|
| RTA 402 | P III | Diabetic Kidney Disease | JP | Randomized Parallel Assignment Double Blind - Experimental: bardoxolone methyl (RTA 402) - Placebo Comparator: Placebo | Primary Outcome Measures: Time to onset of a $\geq 30\%$ decrease in eGFR from baseline or ESRD Secondary Outcome Measures: 1. Time to onset of a $\geq 40\%$ decrease in eGFR from baseline or ESRD 2. Time to onset of a $\geq 53\%$ decrease in eGFR from baseline or ESRD 3. Time to onset of ESRD 4. Change in eGFR from baseline at each evaluation time point | March 2022 | N=1323 | NCT03550443 | JapicCTI-183955 |
| RTA 402 | P I | Healthy Subject | JP | Randomized Crossover Assignment Open Label - Experimental: RTA 402 5mg 3cap at fasting - Experimental: RTA 402 5mg 3cap after meal | Primary Outcome Measures: 1. Cmax 2. AUC0-t Secondary Outcome Measures: 1. tmax 2. AUC0- ∞ 3. t1/2 4. MRT 5. kel | June 14, 2019 | N=36 | NCT04023903 | JapicCTI-194865 |
| RTA 402 | P I | Obese Adult Male | JP | Randomized Parallel Assignment Single - Experimental: RTA 402 5mg or 10mg oral administration - Placebo Comparator: Placebo | Primary Outcome Measures: 1. weight 2. fat mass 3. lean body mass 4. skeletal muscle mass index 5. waist 6. grip 7. visceral adipose tissue 8. abdominal subcutaneous adipose tissue 9. muscle mass 10. body fat mass 11. segmental muscle mass 12. total body water 13. extracellular water 14. basal metabolic rate | May 2020 | N=18 | NCT04018339 | JapicCTI-194855 |

Summary of Clinical Trials (As of June 30, 2020)

| Drug Name | Trial Phase | Condition or disease | Country /region | Design | Endpoints | Study completion (Estimated) | Enrollment | Access to Clinical Trial Protocols | Remarks |
|-----------|-------------|-----------------------------------|-----------------|---|---|------------------------------|------------|---|--------------------------------------|
| RTA 402 | P II | CKD patients with type 2 diabetes | JP | Randomized, open | Primary Outcome Measures: - Safety Adverse events - Efficacy glomerular filtration rate - Pharmacokinetics Plasma level of RTA 402 | December 1, 2013 | N=40 | NCT01574365 | JapicCTI-121791 Terminated |
| RTA 402 | P II | CKD patients with type 2 diabetes | JP | Multi-center, open, single arm, exploratory study | Primary Outcome Measures: - Safety Adverse events - Efficacy glomerular filtration rate - Pharmacokinetics Plasma level of RTA 402 | December 1, 2013 | N=20 | NCT01572610 | JapicCTI-121792 Terminated |