KYOWA KIRIN

主な開発品の治験概要

2017年1月24日現在

本資料の内容は表紙に記載した時点における情報です。治験の進捗に伴い、治験データベース上の公開情報は随時更新されます。弊社が実施中の治験に関する最新情報につきましては、以下URLをご参照ください。
https://clinicaltrials.gov/

List of abbreviations

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AE	Adverse Events
BID	Twice daily
DLT	Dose Limiting Toxicity
GFR	Glomerular Filtration Rate
iv	Intravenous
MTD	Maximum Tolerated Dose
ORR	Overall Response Rate
OS	Overall Survival
PD	Pharmacodynamics
PFS	Progression Free Survival
PK	Phamacokinetics
po	Peroral
PPK	Population Pharmacokinetics
Q2W	Every Two Weeks
Q3W	Every Three Weeks
Q4W	Every Four Weeks
QD	Once Daily
QW	Once Weekly
sc	Subcutaneous
TID	Three Times a Day

Late-stage pipeline summary

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Phase II	Phase III
AMG531 (romiplostim) Aplastic Anemia	AMG531 (romiplostim) Aplastic Anemia
AMG531 (romiplostim) ITP	AMG531 (romiplostim) ITP
ASKP1240 (bleselumab) Organ transplant rejection	ARQ 197 (tivantinib) Hepatocellular cancer
KHK4083 Ulcerative colitis	KHK4563 (benralizumab) Asthma
KHK4563 (benralizumab) Eosinophilic chronic rhinosinusitis	KHK4563 (benralizumab) COPD
KRN23 TIO/ENS	KHK4827 (brodalumab) Psoriasis
KRN23 XLH (pediatric)	KHK7580 (evocalcet) Secondary hyperparathyroidism
KW-0761 (mogamulizumab) ATL	KRN23 XLH (adult)
KW-6356 Parkinson’s disease	KRN23 XLH (pediatric)
RTA 402 (bardoxolone methyl) CKD in patients with type 2 diabetes	KW-0761 (mogamulizumab) CTCL
	KW-6002 (istradefylline) Parkinson’s disease

KW-0761 (mogamulizumab)

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Hematological cancer - relapsed/refractory ATL

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase II NCT01626664	U.S., Europe, others	Nov-16 N=71	Arm 1: KW-0761 •1.0 mg/kg QW x 4 in cycle 1 then Q2W until progression Arm 2: Investigator's choice -pralatrexate (30 mg/m^2 Q3W until progression) -gemcitabine plus oxaliplatin (gemcitabine 1000 mg/m^2, oxaliplatin 100 mg/m^2 Q2W until progression) -DHAP (dexamethasone 40 mg on day 1-4, cisplatin 100 mg/m^2, cytarabine 2000 mg/m^2 Q4W until progression)	•Primary endpoint: ORR •Secondary endpoint: PFS, OS	

KW-0761 (mogamulizumab)

KYOWA KIRIN

Hematological cancer - relapsed/refractory CTCL

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase III NCT01728805	U.S., Europe, Japan, others	Feb-17 N=373	Arm 1: KW-0761 •1.0 mg/kg QW x 4 in cycle 1 then Q2W until progression Arm 2: Vorinostat •400 mg, po, QD	•Primary endpoint: PFS •Secondary endpoint: ORR	

KW-0761 (mogamulizumab)

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Solid tumor

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase I/II NCT02705105	U.S.	Mar-18 N=188	KW-0761 + Nivolumab •Part 1 (Dose Escalation Phase) KW-0761 and nivolumab are administered (iv) in combination. •Part 2 (Expansion Phase) Patients will be treated with MTD established in Part 1	•Primary endpoint: MTD, DLT •Secondary endpoint: Objective tumor response rate	Jointly developed with Bristol-Myers Squibb
Phase I NCT02301130	U.S.	Nov-17 N=108	Arm 1 : KW-0761 + MEDI4736 Arm 2 : KW-0761 + Tremelimumab •Part 1 (Dose Escalation Phase) Increased iv doses of Arm 1 or Arm 2. •Part 2 (Cohort Expansion Phase) Patients will be treated with MTD established in Part 1	•Primary endpoint: AE, DLT	Jointly developed with AstraZeneca
Phase I NCT02444793	U.S.	Aug-19 N=70	KW-0761 + PF-05082566 •Part 1 (PF-05082566 dose escalation phase) Increased iv doses of PF-05082566 with KW-0761. •Part 2 Patients will be treated with MTD established in Part 1.	•Primary endpoint: DLT •Secondary endpoint: PK, Response, PFS	Jointly developed with Pfizer

KW-0761 (mogamulizumab)

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Solid tumor – cont.

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase I NCT02476123	Japan	Oct-17 N=108	KW-0761 + Nivolumab •Part 1 (Dose Escalation Phase) KW-0761 and Nivolumab are administered (iv) in combination •Part 2 (Expansion Phase) Patients will be treated with MTD established in Part 1	•Primary endpoint: AE, DLT	Jointly developed with Ono Pharma-ceutical / Bristol-Myers Squibb
Phase I NCT02358473	U.S.	Dec-16 N=13	KW-0761 + Docetaxel KW-0761 will be given as monotherapy in a 4-week run-in period Then KW-0761 will be given in combination with docetaxel up to 6 cycles After that KW-0761 will be given at the same dose administered in Cycle 1, Q3W as monotherapy	•Primary endpoint: AE, DLT	Completed

KW-0761 (mogamulizumab)

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Solid tumor – cont.

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase I NCT02867007	U.S.	Aug-19 N=50	<u>KW-0761 + KHK2455</u> •Part 1 (Dose Escalation Phase) KHK2455 monotherapy [Cycle 0] followed by KHK2455 + KW-0761 combination [Cycle 1] •Part 2 (Expansion Phase) Patients will be treated with the recommended dose of KHK2455 established in Part 1 in combination with KW-0761	•Primary endpoint: AE, DLT	

KW-6002 (istradefylline)

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Parkinson's disease

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase III NCT01968031	North America, Europe, others	Nov-16 N=609	Arm 1: KW-6002 20 mg/day and placebo Arm 2: KW-6002 40 mg/day and placebo Arm 3: Placebo •po, 12 weeks, double-blind	•Primary endpoint: Change from Baseline in the total hours of awake time per day spent in the OFF state	Completed

KRN23

XLH (adult)

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Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase III NCT02526160	U.S., Europe, Japan, Korea	Mar-17 N=134	Arm 1: KRN23 Q4W •sc, 1mg/kg, double-blind Arm 2: Placebo Q4W •sc, double-blind •cross over to receive KRN23 treatment at Week 24	•Primary endpoint: Proportion of subjects achieving mean serum P (phosphorus) levels above the lower limit of normal •Secondary endpoint: BPI (Brief Pain Inventory) Q3 Pain, PD, Bone biomarker and so on	Jointly developed with Ultragenyx (U.S., Europe)
Phase III NCT02537431	North America, Europe, Japan, Korea	Aug-17 N=14	KRN23 Q4W •1.0 mg/kg, 28 days, rounded to the nearest 10 mg up to a maximum dose of 90 mg	•Primary endpoint: O.Th (Osteoid Thickness), OS/BS (Osteoid surface/Bone surface), MLt (Mineralization lag time), OV/BV (Osteoid volume/Bone volume) •Secondary endpoint: Proportion of subjects achieving mean serum P levels above the lower limit of normal, MAR, MS/BS/BFR and so on.	Jointly developed with Ultragenyx (U.S., Europe)
Phase II NCT02312687	U.S.	Sep-16 N=25	KRN23 Q4W •sc, 68 weeks (starting doses will be based on the subject's last dose in the previous study)	•Primary endpoint: AE •Secondary endpoint: Change from Baseline in serum FGF23, PD and so on	Jointly developed with Ultragenyx (U.S.)

KRN23

KYOWA KIRIN

XLH (pediatric)

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase III NCT02915705	North America, Europe, Australia, Japan, Korea	Sep-18 N=60	Arm 1: KRN23 •sc, Q2W, 0.8 mg/kg starting dose Arm 2: Control (Phosphate and Active Vitamin D) •po, multiple daily doses	•Primary endpoint: Improvement in rickets •Other endpoint: Change in Serum P, $1,25(OH)_2D$ (1,25-dihydroxyvitamin D), Growth, Six Minute Walk Test and so on	Jointly developed with Ultragenyx (U.S., Europe)
Phase II NCT02163577	U.S., Europe	Dec-18 N=50	Arm 1: KRN23 Q4W Arm 2: KRN23 Q2W •sc, 64 weeks (16-week individual dose Titration Period, followed by a 48-week Treatment Period)	•Primary endpoint: Serum P, AE •Other endpoint: Increasing in height, Healing of rickets and so on	Jointly developed with Ultragenyx (U.S., Europe)
Phase II NCT02750618	U.S.	Dec-17 N=13	KRN23 •sc, Q2W, 64 weeks	•Primary endpoint: AE, PD •Other endpoint: Change in rickets, lower extremity skeletal abnormalities, recumbent length/standing height and so on	Jointly developed with Ultragenyx (U.S.)

KRN23

TIO/ENS

KYOWA KIRIN

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase II NCT02304367	U.S.	Sep-16 N=15	KRN23 Q4W •sc, starting dose of 0.3 mg/kg (Week 0), 44 weeks	•Primary endpoint: AE •Secondary endpoint: PK, PD, Evaluate changes in skeletal disease/osteomalacia and so on	Jointly developed with Ultragenyx (U.S.)
Phase II NCT02722798	Japan, Korea	Jul-17 N=6	KRN23 Q4W •sc, 44 weeks	•Primary endpoint: Serum P concentration •Secondary endpoint: PK, PD, Evaluate changes in skeletal disease/osteomalacia and so on	

RTA 402 (bardoxolone methyl)

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CKD in patients with type 2 diabetes

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase II NCT02316821	Japan	Dec-17 N=108	Arm 1: RTA 402 Arm 2: Placebo •QD, 16 weeks	•Primary endpoint: AE, change in GFR •Secondary endpoint: Change in eGFR (estimated GFR) , PK	

KHK7580 (evocalcet)

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Secondary hyperparathyroidism

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase III NCT02549391	Japan	Mar-17 N=600	Arm 1: KHK7580 Arm 2: KRN1493 •po, QD, 30 weeks	•Primary endpoint: Percentage of subjects achieving a mean intact PTH (parathyroid hormone) level of ≥ 60 pg/mL and ≤ 240 pg/mL	
Phase III NCT02549417	Japan	Sep-17 N=30	KHK7580 •po, QD, 32 weeks, after that 20 weeks (extension period)	•Primary endpoint: Percentage of subjects achieving a mean intact PTH level of ≥ 60 pg/mL and ≤ 240 pg/mL	
Phase III NCT02549404	Japan	Jun-17 N=120	KHK7580 •po, QD, 52 weeks	•Primary endpoint: AE •Secondary endpoint: Percentage of subjects achieving intact PTH level of ≥ 60 pg/mL and ≤ 240 pg/mL and so on	

ARQ 197 (tivantinib)

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Hepatocellular cancer

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase III NCT02029157	Japan	Dec-16 N=160	Arm 1: ARQ 197 Arm 2: Placebo •po, BID	•Primary endpoint: PFS •Secondary endpoint: OS	

KHK4083

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Ulcerative Colitis

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase II NCT02647866	U.S. Europe, others	Sep-18 N=60	Arm 1: KHK4083 Arm 2: Placebo •iv, multiple ascending doses from Baseline to Week 48	•Primary endpoint: AE, Improvement in the mucosa •Secondary endpoint: Antidrug antibody , Mucosal healing, mMES (modified Mayo endoscopy sub-score)	

KHK4563 (benralizumab)

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Asthma

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase III BORA NCT02258542	North America, Europe, Japan, Korea, others	Jul-18 N=2200	Arm 1: Benralizumab Arm 2: Benralizumab •sc	•Primary endpoint: AE •Secondary endpoint: Annual asthma exacerbation rate , ACQ-6 (Asthma Control Questionnaire-6), PK, FEV_1 (Forced expiratory volume in one second) and so on	Sponsored by AstraZeneca

KHK4563 (benralizumab)

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Chronic Obstructive Pulmonary Disease (COPD)

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase III GALATHEA NCT02138916	North America, Europe, Japan, Korea, others	May-18 N=1626	Arm 1: Benralizumab Arm 2: Benralizumab Arm 3: Placebo •sc, 48 weeks	•Primary endpoint: Annual COPD exacerbation rate. •Secondary endpoint: SGRQ (St. George's Respiratory Questionnaire), CAT (COPD assessment tool), FEV_1, PK and so on	Sponsored by AstraZeneca

KHK4563 (benralizumab)

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Eosinophilic Chronic Rhinosinusitis (ECRS)

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase II NCT02772419	Japan	Oct-17 N=50	Arm 1: Benralizumab Arm 2: Benralizumab Arm 3: Placebo •sc, 24 weeks	・Primary endpoint: Change from baseline in nasal polyp score at Week 12 ・Secondary endpoint: Change from baseline in CT (Computed tomography) score, Blood eosinophil count, Nasal Airway Resistance and so on.	

KHK4827 (brodalumab)

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Psoriasis

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase III NCT02982005	Korea	Dec-18 N=60	Arm 1: KHK4827 •sc, 12 weeks Arm 2: Placebo •sc, 12 weeks Arm 1 and Arm 2 (from week 13 until week 62): •sc, administered KHK4827	•Primary endpoint: PASI (Psoriasis area and severity index) 75 response, sPGA (Static physician's global assessment) 0 (clear) or 1 (almost clear)	

ASKP1240 (bleselumab)

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Organ transplant rejection

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase II NCT01780844	U.S.	Feb-17 N=149	Arm 1: CNI avoidance •Basiliximab induction + ASKP1240 + MMF + Corticosteroids Arm 2: CNI minimization-MMF avoidance •Basiliximab induction + ASKP1240 + Tacrolimus + Corticosteroids Arm 3 (Active Comparator): Standard of Care •Basiliximab induction + Tacrolimus + MMF + Corticosteroids	•Primary endpoint: BPAR (Biopsy-proven acute rejection) •Secondary endpoint: GFR, Patient Survival, Graft Survival	Jointly developed with Astellas

AMG531 (romiplostim)

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Idiopathic (Immune) Thrombocytopenic Purpura (ITP)

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase III NCT02868099	China	Dec-17 N=200	Arm 1: AMG531 Arm 2: Placebo •sc, QW	•Primary endpoint: Number of weeks in which the platelet response counts increase above 50 x 10^9/L	
Phase I/II NCT02868060	China	Dec-17 N=24	Arm 1: AMG531 1 μg/kg Arm 2: AMG531 3 μg/kg Arm 3: AMG531 6 μg/kg •sc, on Day 1 and 8	•Primary endpoint: AE, antidrug antibody status	

AMG531 (romiplostim)

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Aplastic Anemia

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase II/III NCT02773290	Japan, Korea	Aug-18 N=27	AMG531 •sc, QW	•Primary endpoint: Proportion of subjects achieving a hematological response (any of the platelet response, erythroid response, and neutrophil response)	
Phase II NCT02094417	Korea	Mar-18 N=32	Arm 1: AMG531 (Dose 1) Arm 2: AMG531 (Dose 2) Arm 3: AMG531 (Dose 3) Arm 4: AMG531 (Dose 4) •sc, QW	•Primary endpoint: The proportion of subjects achieving a platelet response	

KW-6356

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Parkinson's Disease

Trial phase	Country/ region	Estimated study completion date / enrollment	Design	Endpoints	Remarks
Phase II NCT02939391	Japan	Dec-18 N=150	Arm 1: KW-6356 Low Dose Arm 2: KW-6356 High Dose Arm 3: Placebo •po, 12 weeks	•Primary endpoint: Change from baseline in MDS-UPDRS (Movement disorder society-unified Parkinson's disease rating scale) part III score	