Overview of Development Pipeline

Q4 Topics (1/2)

As of February 1, 2024

Launched	**Phesgo**	“HER2+ BC” and “advanced or recurrent HER2+ CC that has progressed following cancer chemotherapy and is not amenable to curative resection”	November 2023
Approved	**Rituxan**	Suppression and treatment of antibody-mediated rejection in organ transplantation	December 2023
Filed	**Alecensa**	Postoperative adjuvant therapy for *ALK* fusion gene-positive non-small cell lung cancer	November 2023 (US/EU/China) December 2023 (Japan)
Initiation of study	**avutometinib/VS-6766**	Recurrent LGSOC (combination with defactinib) *	P3 study (December 2023)
	REVN24	Acute diseases	P1 study (October 2023)
Phase Transition	**AMY109**	Endometriosis	P1 study→P2 study (January 2024)
Readout	**RG6356/SRP-9001**	EMBARK study (DMD) did not meet its primary endpoint (favorable secondary endpoints)	October 2023
	Tecentriq	IMvoke010 study (head and neck carcinoma) did not meet its primary endpoint	2023 Q4
Removed from pipeline	**Tecentriq**	IMvoke010 study (head and neck carcinoma): development discontinued	
	semorinemab	Domestic P1 (Alzheimer’s disease): development discontinued	

Letters in orange : in-house projects (global development) **Letters in blue** : in-licensed from Roche (development and distribution in Japan) *Conducted by Verastem Oncology, a global licensee

Overview of Development Pipeline

Q4 Topics (2/2)

As of February 1, 2024

Medical conference	**Hemlibra**	HAVEN 7 study (babies with severe hemophilia A): American Society of Hematology (ASH)	December 2023
	Kadcyla	KATHERINE study (HER2+ early-stage breast cancer): San Antonio Breast Cancer Symposium (SABCS)	December 2023
Literature publication	**nemolizumab**	OLYMPIA 2 study* (prurigo nodularis): New England Journal of Medicine (NEJM)	October 2023
	NXT007	Non-clinical research results: Journal of Thrombosis and Haemostasis	November 2023
	DONQ52	Non-clinical research results: Nature Communications	December 2023
Orphan drug designation	**Alecensa**	Postoperative adjuvant therapy for *ALK* fusion gene-positive non-small cell lung cancer	December 2023 (Japan)
Priority review designation	**Alecensa**	Postoperative adjuvant therapy for *ALK* fusion gene-positive non-small cell lung cancer	January 2024 (US)
Exercise of option rights by out-licensing partners	**EOS789**	Worldwide exclusive license to develop, manufacture, and commercialize: Alebund Pharmaceuticals Ltd.	October 2023
Business Transfer	**Xeloda**	Transfer of the business in Japan: CHEPLAPHARM K.K.	November 2023

Letters in orange：in-house projects (global development) **Letters in blue**：in-licensed from Roche (development and distribution in Japan) *Conducted by Galderma, an overseas licensee

Overview of Development Pipeline

2023: Key R&D Milestones

Underlined and bolded are new progress since October 24, 2023

	Product	Indication/Study name	Progress
Projects to be approved	Actemra	Systemic sclerosis with interstitial lung disease (SSc-ILD) (EU)	withdrawal
	Hemlibra	Moderate hemophilia A (EU)	approved
	crovalimab	PNH (China)	2024
	Phesgo	**HER2+ breast cancer/colorectal cancer**	Approved/**launched**
P3/Pivotal readouts	Alecensa	**ALINA study: NSCLC [adjuvant]**	met PE/**filed**
	crovalimab	COMMODORE 1/2 study: PNH	met PE/filed
	nemolizumab	ARCADIA 1/2 study[1]: Atopic dermatitis	met PE
	Tecentriq + Avastin	IMbrave050 study: Hepatocellular carcinoma [adjuvant]	met PE
	Tecentriq	IMpassion030: early breast cancer [adjuvant]	Development discontinued
	Tecentriq	**IMvoke010 study: Head and neck carcinoma [adjuvant]**	**did not meet PE /development discontinued**
	Tecentriq+ tiragolumab	SKYSCRAPER-01 study: NSCLC [1st line]	H2 2024[2]
	mosunetuzumab+Polivy	SUNMO study: r/r aggressive B-cell non-Hodgkin's lymphoma	2024
	delandistrogene moxeparvovec	**EMBARK study: Duchenne muscular dystrophy (DMD)**	**did not meet PE (favorable secondary endpoints)**

Letters in orange：in-house projects (development in global)　Letters in blue：in-licensed from Roche (development and distribution in Japan)

1. Conducted by Galderma, an overseas licensee　2. 2024→H2 2024

Overview of Development Pipeline

2024: Key R&D Milestones

	Product	Indication/Study name	Progress
Projects to be approved	crovalimab	Paroxysmal nocturnal hemoglobinuria（Japan/US/EU）	
	Alecensa	NSCLC (adjuvant)（Japan/US/EU）	
	Vabysmo	Retinal vein occlusion	
P3/Pivotal readouts	Enspryng	Luminesce study: generalized myasthenia gravis	
	Tecentriq＋tiragolumab	SKYSCRAPER-01 study: NSCLC(1st Line)	
	mosunetuzumab	Domestic P1 (Expansion cohort): Follicular lymphoma (3rd Line)	
	mosunetuzumab＋Polivy	SUNMO study: r/r aggressive B-cell non-Hodgkin’s lymphoma	
	Vabysmo	NIHONBASHI study: Angioid streaks	
P2 readouts	GYM329＋Evrysdi	MANATEE study: Spinal muscular atrophy (SMA)	

Letters in orange：in-house projects (development in global)　Letters in blue：in-licensed from Roche (development and distribution in Japan)

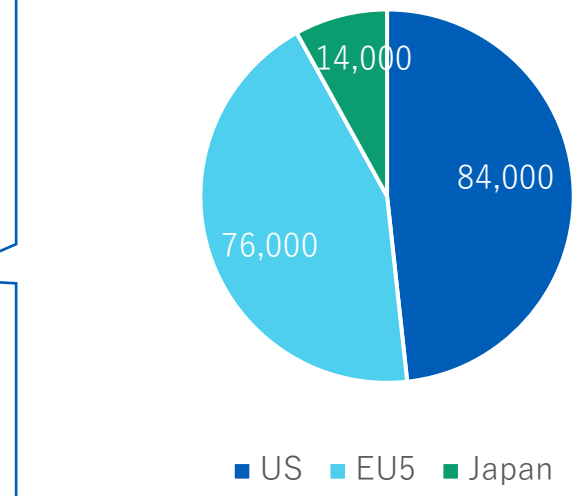
Market Opportunity of Enspryng

- Launched in 2020 for the indication of NMOSD. Global sales in 2023 total 256mCHF
- Readout of Global P3 study for gMG and regulatory filing are expected in 2024. Four indications are simultaneously under development
- First antibody utilizing Chugai's proprietary Recycling Antibody® technology which enables convenient every four-week subcutaneous injection. Confirmed favorable safety profile in the data from clinical studies for NMOSD

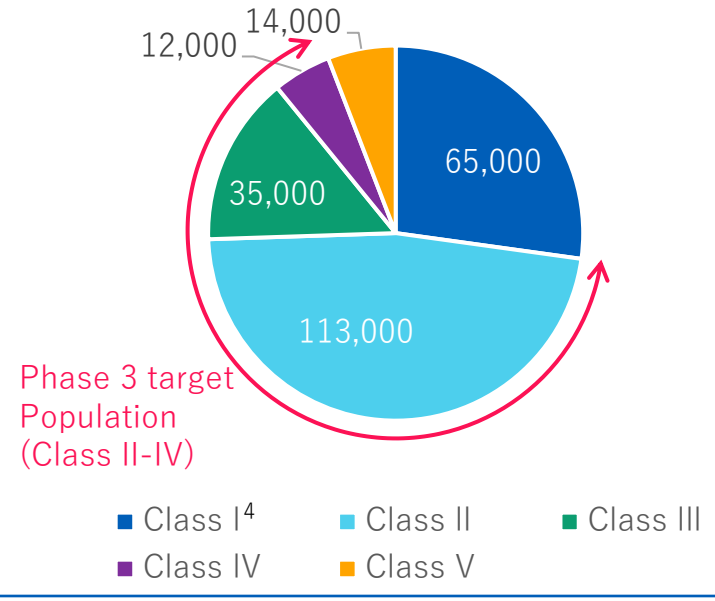
Diagnosed prevalence in 2025 (# of patients in US/EU5/Japan)

MOGAD	26,000
TED	69,000[2]
AIE	3,000-12,000[1]
gMG	174,000
NMOSD	24,000

gMG prevalence by regions



MG MGFA[3] Classification



1. AIE; Incidence-based with ranges 2. TED: Incidence-based
Source: Citeline data as of Dec. 2023, numbers are rounded
3. MGFA: Myasthenia Gravis Foundation of America
4. Class I is not included in gMG

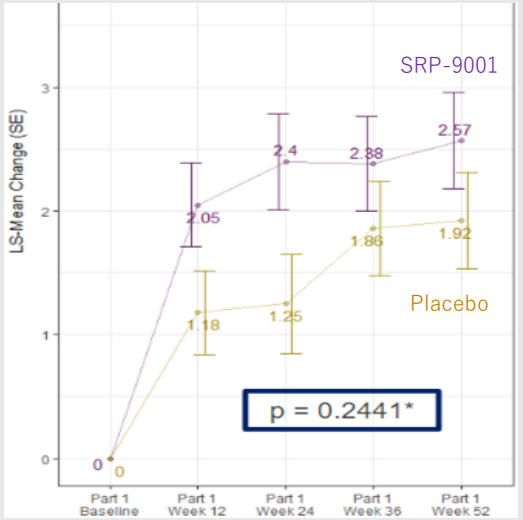
NMOSD: neuromyelitis optica spectrum disorder, gMG: generalized myasthenia gravis, AIE: autoimmune encephalitis, TED: thyroid eye disease, MOGAD: myelin oligodendrocyte glycoprotein antibody–associated disease

Overview of Development Pipeline

delandistrogene moxeparvovec (RG6356/SRP-9001)

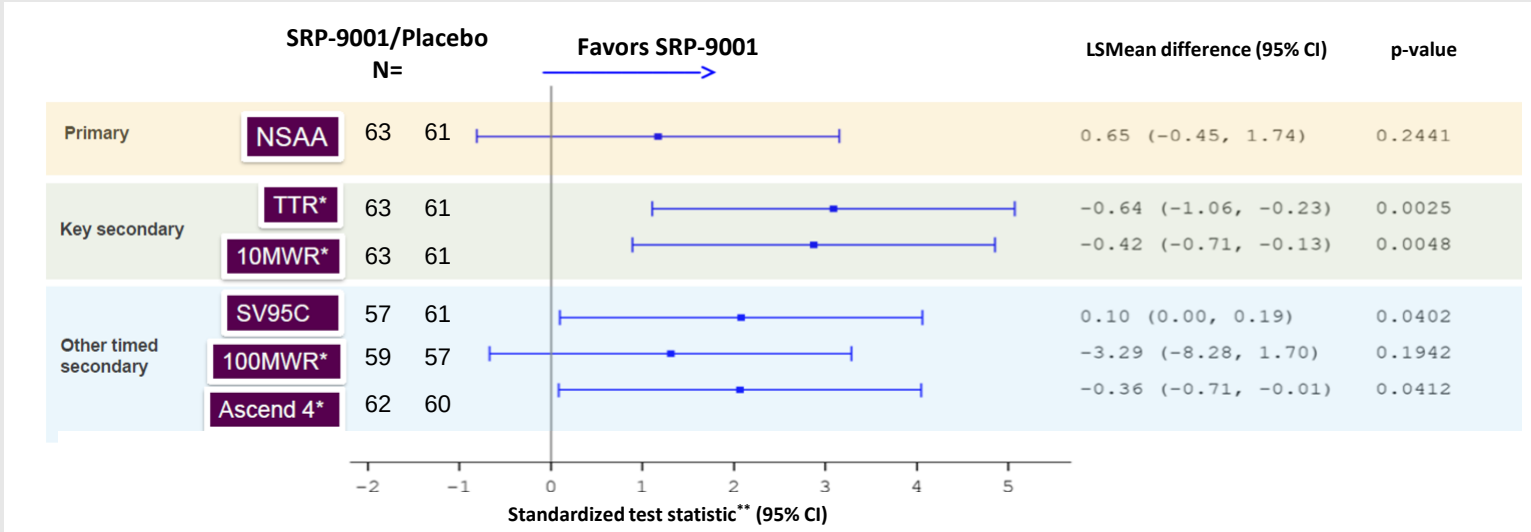
Global Phase 3 EMBARK study did not reach the primary endpoint, but shows positive efficacy outcomes on all timed functional key endpoints.

Primary Endpoint (NSAA)



- SRP-9001-treated patients improved 2.6 points on their NSAA total score at 52 weeks compared to 1.9 points in placebo-treated patients (0.65; n=125; p=0.24).
- The NSAA is a 17-item rating scale used to measure functional motor abilities in ambulant children with DMD. It is used to monitor the progression of the disease and treatment effects in clinical studies for DMD.

Key secondary functional EPs (TTR, 10MWR) with clinically significant treatment benefit



- Both key pre-specified functional secondary endpoints demonstrated robust evidence for a clinically meaningful treatment benefit across age groups in SRP-9001-treated patients (age of 4-7) compared to placebo at 52 weeks.
- TTR (Time To Rise) predicts altered trajectories for the time to loss of ambulation in natural history. At 52w, 3% of SRP-9001-treated patients showed a TTR >5sec compared to 16% in the placebo group (n=124, p=0.0135)[a].
- Safety: Pattern and severity of AE/SAE were consistent with prior studies, no deaths and no discontinations occurred.
- Based on the results, Chugai will work together with Sarepta and Roche to consult with regulatory authority in Japan.

[a]post hoc analysis

NSAA:North Star Ambulatory Assessment, TTR:Time To risefrom floor, 10MWR:10m walk run test, SV96C: stride velocity 95C measured with ankle pedometer Syde, 100MWR:100m walk run test, Ascend 4: time to climb 4 stairs
**Lines plot standardized t-test statistic (+/- 1.96) after dividing LSM (95%CI) by standard error; t-test statistic signs reversed to align favorable directions among effect endpoints (endpoints with *)
Source; Sarepta Therapeutics Update_30 Oct 2023 https://investorrelations.sarepta.com/static-files/4871976b-aebc-4ab1-b598-b9ad15c660bf (Accessed Jan 2024)

Overview of Development Pipeline

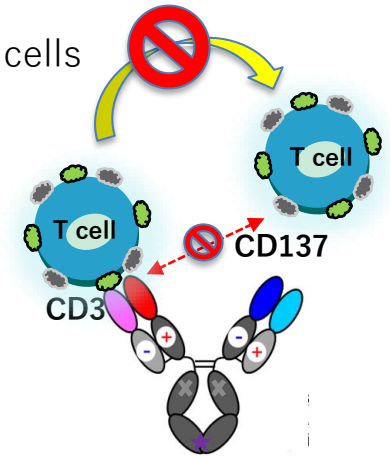
SAIL66: Anti-CLDN6/CD3/CD137 trispecific (Dual-Ig®)

Next Generation T-cell Redirecting Antibody Targeting Claudin 6 using our Dual-Ig® Technology

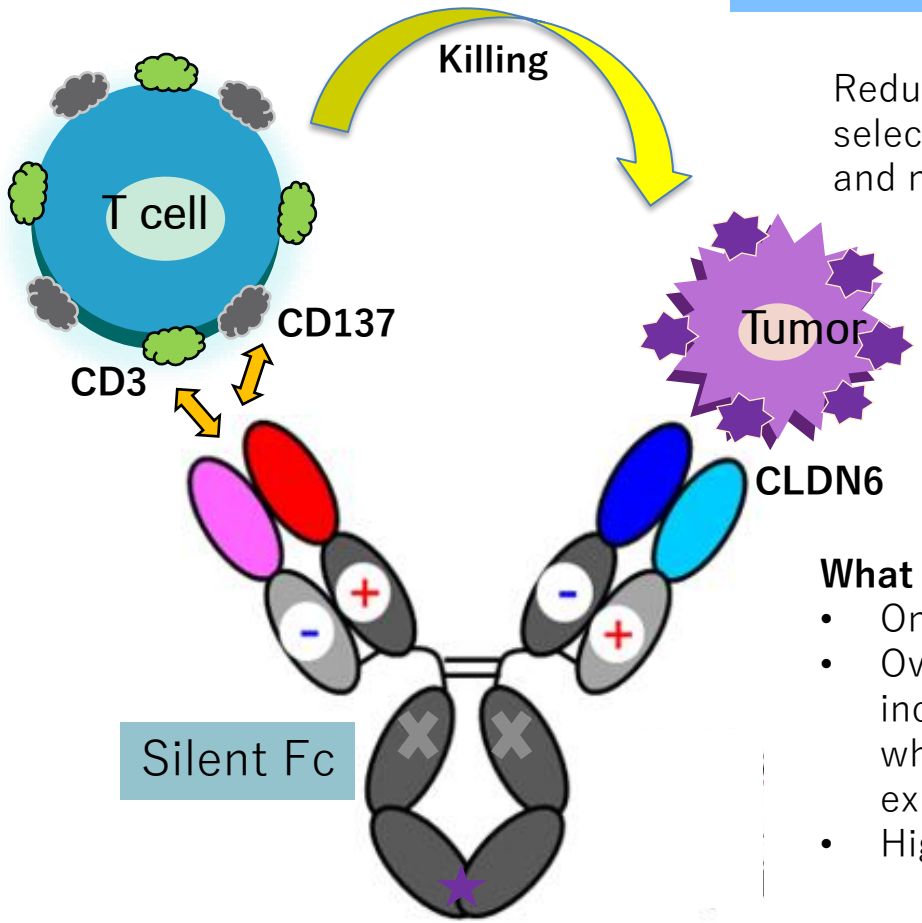
Phase 1 study in patients with CLDN6-positive solid tumors is currently ongoing.

Dual-Ig®

- Non-simultaneous binding to CD3 and CD137 and induction of potent T cell activation stimuli in the presence of tumor antigen
- The potential for long-term efficacy through T cell proliferation and the inhibition of exhausted T cell by CD137 costimulatory signals
- Non-simultaneous binding to CD3 and CD137 avoids activation of T cell in a tumor antigen independent manner and killing of immune cells



Anti-CLDN6

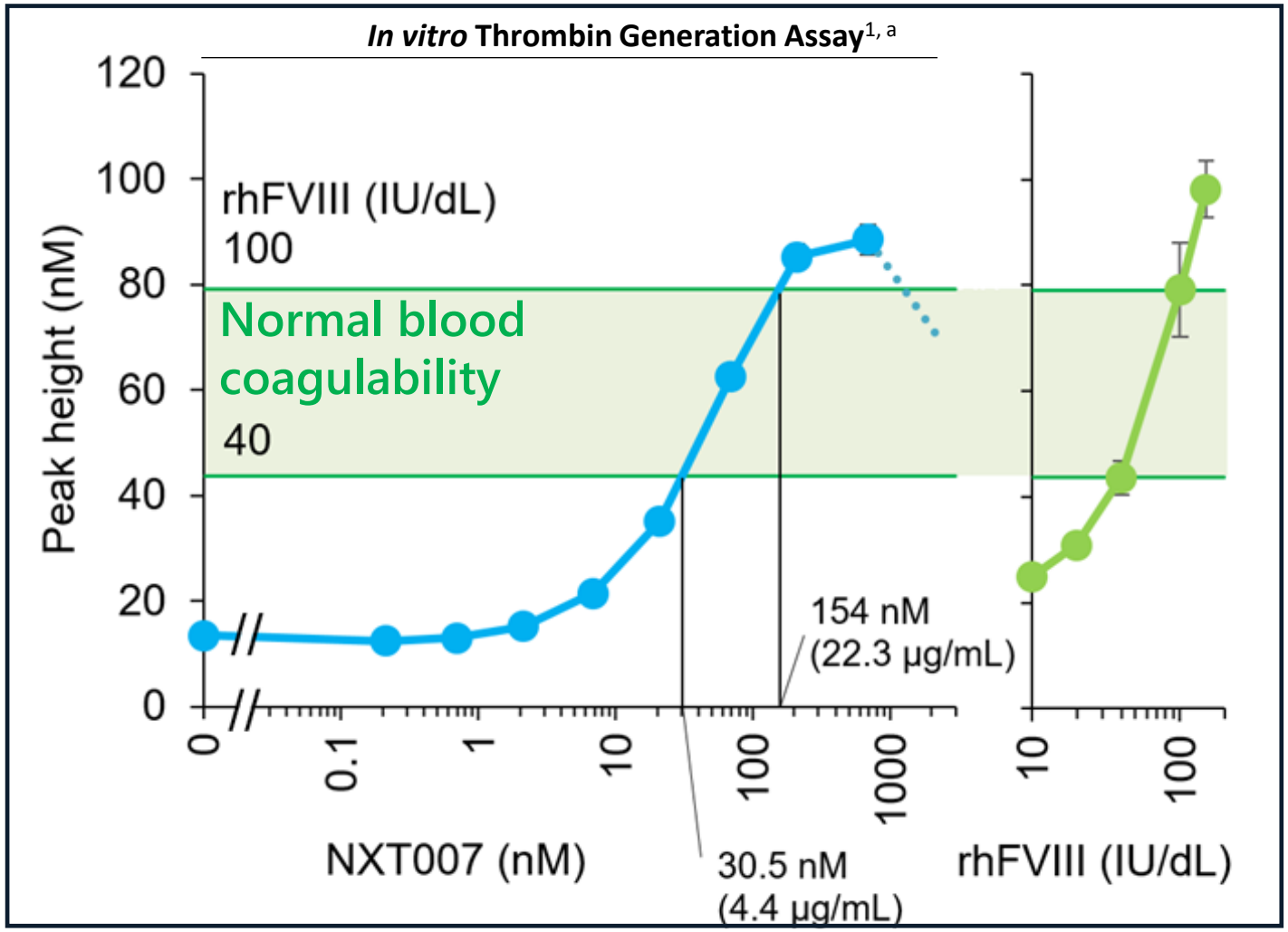


Reduce safety risk by having high selectivity for Claudin 6 (CLDN6) and not binding to CLDN3/4/9

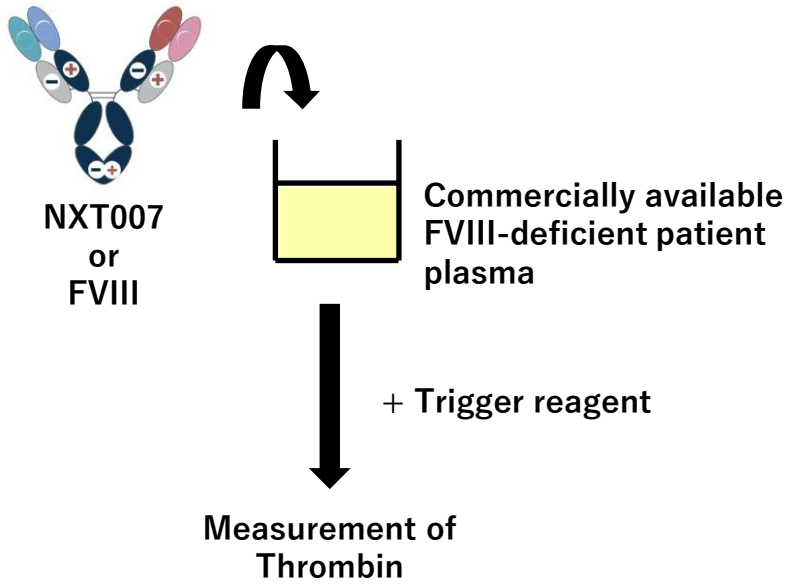
What is Claudin 6 ?

- One of the tight junction proteins
- Overexpressed in some malignancies including ovarian cancer and NSCLC, while showing almost silent expression in normal tissues
- High tumor specificity expected

NXT007 Demonstrated Possibility of Maintaining Blood Coagulability Equivalent to Healthy Individuals in People with Hemophilia A

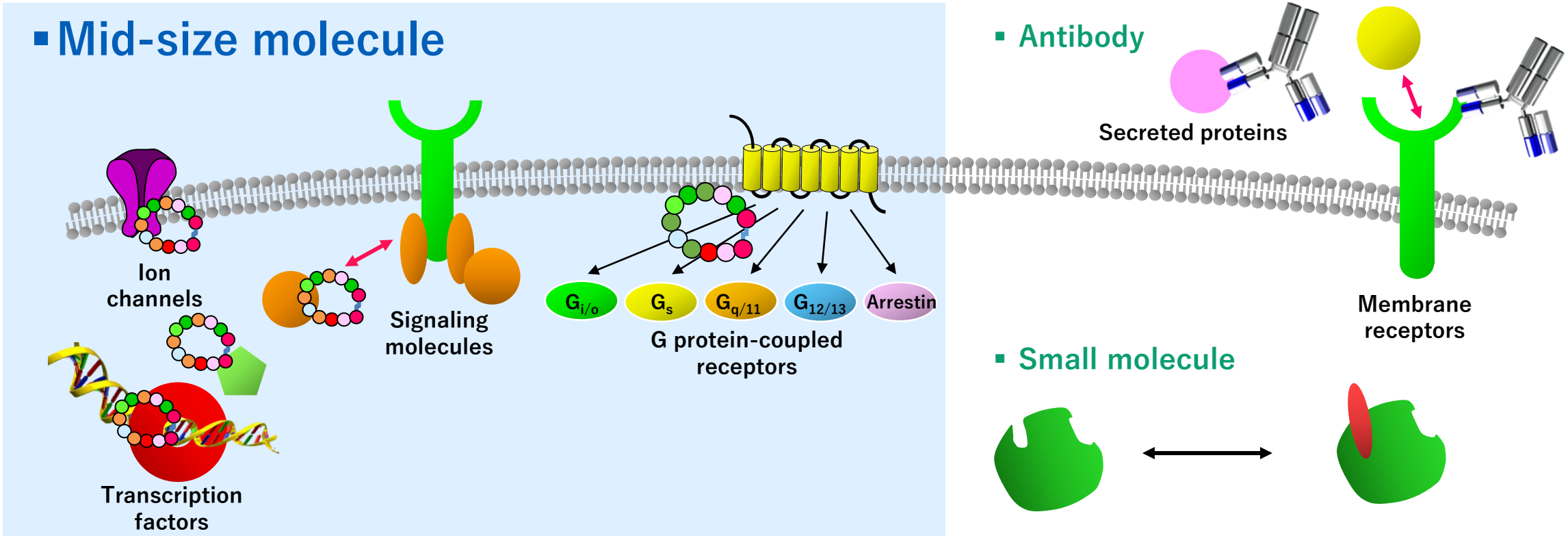


Non-clinical research data (*in vitro*)



[1] *Yuri Teranishi-Ikawa et. al. Journal of Thrombosis and Haemostasis 2023* (partially modified)
[a] tissue factor triggered

Chugai's Mid-Size Molecule Can Address Intracellular Tough Targets Undruggable by Small Molecules and Antibodies



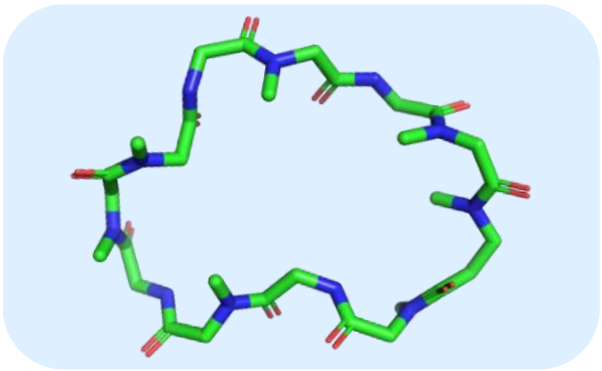
- ✓ Antibodies can be applied targets only extracellular molecules (approx. 20% of the total proteins)
- ✓ Small molecules can only be applied to targets with clear pockets (approx. 20% of proteins)

Chugai has Established Unique Mid-Size Molecules Technology

“Chugai Criteria” to create drug-like mid-size molecule beyond “Rule of 5”

Oral bioavailability **Intracellular targeting** **High affinity binding**

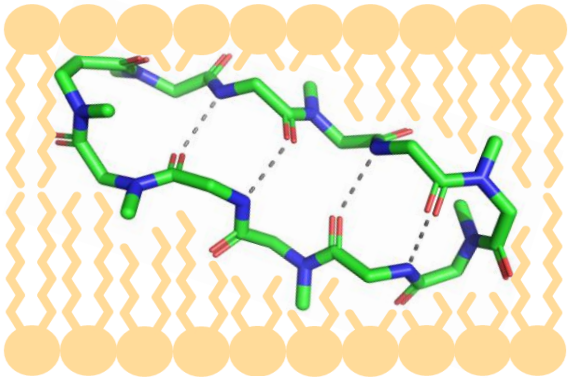
Cyclic peptides with 9-11 amino acids, more than half should be N-alkylated



Metabolically stable
(hydrophilic and water soluble)

Structure flip

Conformational change



Membrane permeable
(lipophilic only inside the cell membrane)

Ohta et al, JACS. 2023

Overview of Development Pipeline

Portfolio of Each Modality

As of February 1, 2024

Drug Discovery	Pre-clinical development	Clinical	Launched

Antibody drugs, cellular and gene therapy products

>20

GC33
ERY974
AMY109
GYM329
NXT007
STA551
SOF10
DONQ52
RAY121
ALPS12
SAIL66
ROSE12

Enspryng
(gMG, MOGAD, AIE, TED)

crovalimab
(PNH*, aHUS, SCD, LN)

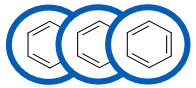
Enspryng
Hemlibra
Actemra

Developments licensed out to 3rd parties excl. Roche

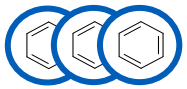
nemolizumab
(AD(overseas), PN)

Mitchga (JPN)

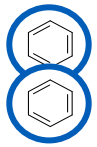
Small molecule drugs



Screening
3



Selection of candidates
8



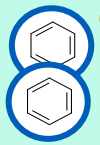
SPYK04
REVN24

Alecensa
(NSCLC adjuvant*)

Alecensa
Edirol
Oxarol

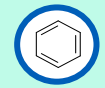
Developments licensed out to 3rd parties excl. Roche

EOS789



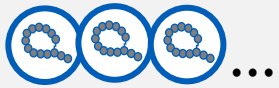
orforglipron
(T2D, obesity)

avutometinib
(LGSOC, NSCLC)

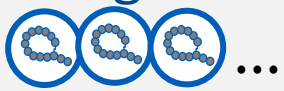


Deberza

Mid-size molecule drugs



Screening
17



Selection of candidates
11

LUNA18

* Filed(JP/US/EU/China) Blue: Joint development with Roche Orange: Outsourced to a third party other than Roche

Overview of Development Pipeline

Projected Submissions (Post PoC NMEs and Products)

as of February 1, 2024

	NME	Line extension
in-house	■	□
in-licensed (Roche)	■	□

★: new entry ★: changes in submission year

*Before obtaining PoC

Filed

crovalimab (SKY59/RG6107) PNH (China)	ALECENSA (AF802/RG7853) NSCLC (adjuvant)(US) ★	VABYSMO (RG7716) RVO
crovalimab (SKY59/RG6107) PNH (Japan)	ALECENSA (AF802/RG7853) NSCLC (adjuvant)(EU) ★	
crovalimab (SKY59/RG6107) PNH (US)	ALECENSA (AF802/RG7853) NSCLC (adjuvant)(China) ★	
crovalimab (SKY59/RG6107) PNH (EU)	ALECENSA (AF802/RG7853) NSCLC (adjuvant)(Japan) ★	

2024		2025		2026 and beyond	
SRP-9001 (RG6356) DMD		giredestrant (RG6171)) 1L - 3L breast cancer	Vabysmo (RG7716) Angioid streaks	tiragolumab + TECENTRIQ (RG6058 + RG7446) 1L NSQ NSCLC	giredestrant (RG6171) 1L breast cancer
mosunetuzumab (RG7828) 3L Follicular lymphoma	AVASTIN (RG435) 1L SCLC + TECENTRIQ	tiragolumab + TECENTRIQ (RG6058 + RG7446) NSCLC (Stage III)	TECENTRIQ+AVASTIN (RG7446＋RG435) HCC (intermediate stage)	ENSPRYNG (SA237/RG6168) MOGAD	giredestrant (RG6171) breast cancer (adj)
ENSPRYNG (SA237/RG6168) gMG	TECENTRIQ+AVASTIN (RG7446＋RG435) HCC(adjuvant)	tiragolumab (RG6058) 1L NSCLC + TECENTRIQ ★	TECENTRIQ (RG7446) MIBC (adjuvant)	ALECENSA (AF802/RG7853) NSCLC (Stage III)	RG6179 UME
		ENSPRYNG (SA237/RG6168) TED ★	ranibizumab(PDS) (RG6321) DME	crovalimab (SKY59/RG6107) SCD* (US/EU)	mosunetuzumab (RG7828) 2L Follicular lymphoma
		ENSPRYNG (SA237/RG6168) Autoimmune encephalitis	ranibizumab(PDS) (RG6321) nAMD	GYM329/RG6237 FSHD*	tiragolumab(RG6058) 1L HCC TECENTRIQ + AVASTIN
		crovalimab (SKY59/RG6107) aHUS	mosunetuzumab+ POLIVY (RG7828+RG7596) r/r aNHL	GYM329/RG6237 SMA* + EVRYSDI	tiragolumab + TECENTRIQ (RG6058 + RG7446) Esophageal cancer

2026 and beyond	
GAZYVA (RG7159) Extra renal lupus	
GAZYVA (RG7159) Pediatric nephrotic syndrome	
GAZYVA (RG7159) Lupus nephritis	
TECENTRIQ (RG7446) 2L HCC	
TECENTRIQ (RG7446) ★ early breast cancer (neoadjuvant)	
TECENTRIQ (RG7446) NSCLC (neoadjuvant)	

Overview of Development Pipeline

Projects under Development (1/2)

As of February 1, 2024

	Phase I	Phase II	Phase III	Filed
Cancer	**LUNA18** - solid tumors **GC33 / codrituzumab** - HCC **ERY974** - solid tumors **STA551** - solid tumors **SOF10 (RG6440)** - solid tumors **SPYK04** - solid tumors **ALPS12 (RG6524)** - solid tumors **SAIL66** - CLDN6 positive solid tumors **ROSE12** - solid tumors **RG7828 / mosunetuzumab** - Follicular lymphoma (3L) **RG7421 / cobimetinib** - solid tumors **RG6026 / glofitamab** - hematologic tumors **RG6194 / runimotamab** - solid tumors **RG6330 / KRAS G12C inhibitor** - solid tumors **RG6433 / SHP2 inhibitor** - solid tumors **RG6160 / cevostamab** - r/r multiple myeloma **RG6139 / tobemstomig** - solid tumors	**RG6396 / pralsetinib** - NSCLC (2L) - solid tumors	**AF802 (RG7853) / Alecensa** - NSCLC (stage III)* **RG7446 / Tecentriq** - NSCLC (neoadjuvant) - MIBC (adjuvant) - Ealy BC (neoadjuvant) - HCC (2L) - Prostate cancer (2L) **RG7446 / Tecentriq +RG435 / Avastin** - SCLC (1L) - HCC (adjuvant) - HCC (intermediate stage) **RG6058 / tiragolumab + RG7446 / Tecentriq** - NSCLC (1L) - NSCLC (stage III) - NSQ NSCLC (1L) - Esophageal cancer **RG6058 / tiragolumab+RG7446 / Tecentriq+RG435 / Avastin** - HCC (1L) **RG6171 / giredestrant** - BC (adjuvant) - BC (1L) - BC (1L-3L) **RG7828 / mosunetuzumab** - Follicular lymphoma (2L) **RG7828 / mosunetuzumab + RG7596 / Polivy** - r/r aNHL **RG6396 / pralsetinib** - NSCLC (1L)	**AF802 (RG7853) / Alecensa** - NSCLC (adjuvant) (US/EU/China/Japan)★

Letters in orange：in-house projects (development in global) **Letters in blue**：in-licensed from Roche (development and distribution in Japan)

* maintenance therapy after chemoradiation

In principle, completion of first dose is regarded as pipeline entry into each phase of clinical studies. ★: Projects with advances in stages since October 24, 2023

Overview of Development Pipeline

Projects under Development (2/2)

As of February 1, 2024

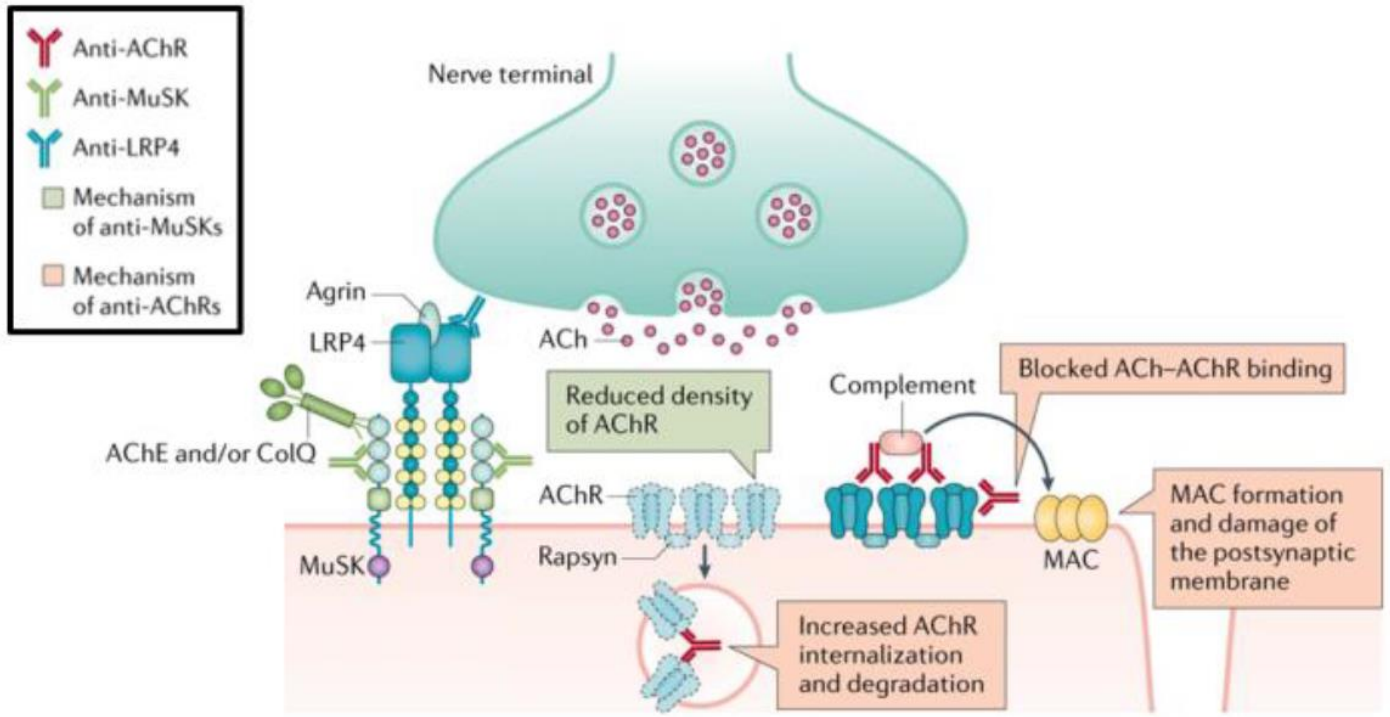
	Phase I	Phase II	Phase III	Filed
Immunology	**DONQ52** - Celiac disease **RAY121** - Autoimmune disease **SKY59(RG6107)/ crovalimab** - Lupus nephritis		**RG7159 / Gazyva** - Lupus nephritis - Pediatric nephrotic syndrome - Extra renal lupus	
Neurology	**RG7935 / prasinezumab** - Parkinson's disease **RG6102 / trontinemab** - Alzheimer's disease (PI/II)	**GYM329 (RG6237) + Evrysdi** - SMA (PII/III) - FSHD **RG6042 / tominersen** - Huntington's disease	**SA237 (RG6168) / Enspryng** - gMG - MOGAD - AIE **SRP-9001(RG6356) / delandistrogene moxeparvovec** -DMD*	
Hematology	**NXT007 (RG6512)** - hemophilia A (PI/II)	**SKY59 (RG6107) / crovalimab (US/EU)** - SCD	**SKY59 (RG6107) / crovalimab** - aHUS	**SKY59 (RG6107) / crovalimab (Japan, US, EU)** - PNH **SKY59 (RG6107) / crovalimab (China)** - PNH
Ophthalmology	**RG6321 / PDS** - nAMD (PI/II) - DME (PI/II)		**RG7716 / Vabysmo** - Angioid streaks **RG6179** - UME	**RG7716 / Vabysmo** - RVO
Other	**REVN24** - acute diseases ★	**AMY109** - Endometriosis ★		

Letters in orange：in-house projects (development in global)　**Letters in blue**：in-licensed from Roche (development and distribution in Japan)　* Sarepta manages the global study, including Japan

In principle, completion of first dose is regarded as pipeline entry into each phase of clinical studies.　★: Projects with advances in stages since October 24, 2023

Generalized Myasthenia Gravis (gMG)

Enspryng: IL-6 blockade may reduce pathogenic autoantibody production



Source: Roche Pharma Day materials (September 14, 2021)

- gMG is an chronic autoimmune disease against molecules on the postsynaptic membrane of the neuromuscular junction and is characterized by painless muscle loss with easy fatiguability of skeletal muscle.[1)]
- Transition from initial symptoms such as ptosis and diplopia to systemic type is observed. gMG with cervical limb weakness, dysarthria, dysphagia, breathing disability, etc. accounts for 85% of the total. [1) 2)]
- Although the autoantibody positive rate varies slightly depending on the report, it is reported that 80-85% of the total are acetylcholine receptor (AChR) antibody positive and about 5% are muscle specific kinase (MuSK) antibody positive. [3)]
- In Japan, the 2018 National Epidemiological Survey estimates that there are 29,210 MG patients, or 23.1 per 100,000. [4)]

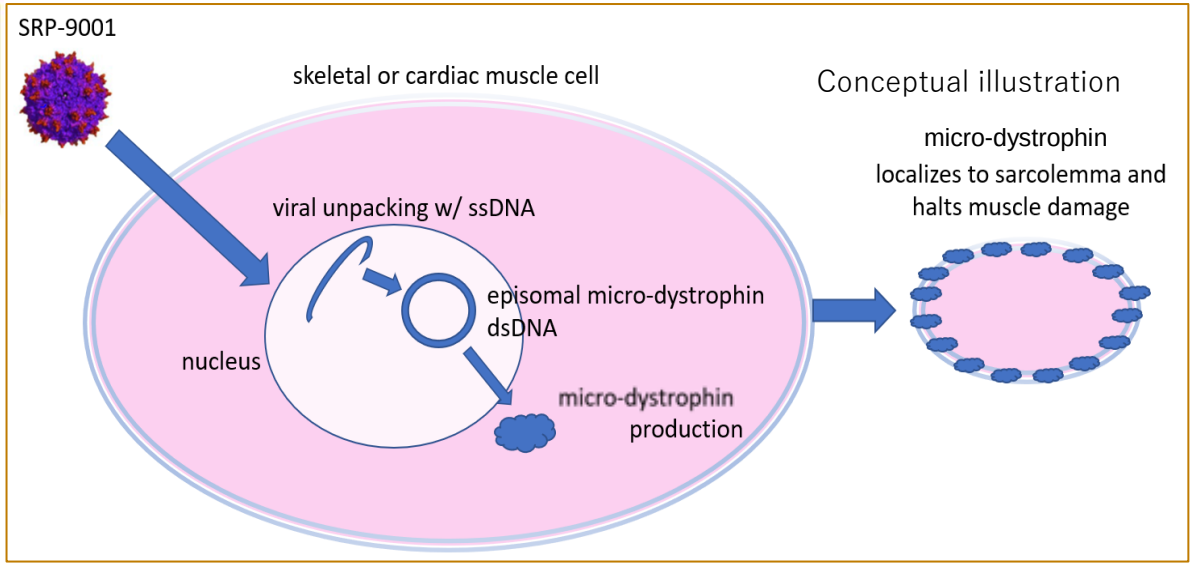
1) Myasthenia gravis clinical practice guideline 2014 (supervisor: Japanese Society of Neurology), Nankodo
2) Kerty E, Elsais A, Argov Z, et al. EFNS/ENS Guidelines for the treatment of ocular myasthenia. European Journal of Neurology 2014;21:687-93.
3) Gilhus N, Tzartos S, Evoli A, et al. Myasthenia gravis. Nat Rev Dis Primers 2019;5(30). Available from the Internet: https://www.nature.com/articles/s41572-019-0079-y
4) Health and Labor Sciences Research Grants Policy Research Project for Intractable Diseases (Policy Research Project for Intractable Diseases) Verification of Diagnostic Criteria, Severity Classification, Guidelines and Patient QOL Based on Evidence of Neuroimmune Diseases Summary / Sharing Research report (2018)

Delandistrogene moxeparvovec (RG6356/SRP-9001)

Gene transfer therapy developed for targeted muscle expression of micro-dystrophin, a shortened, functional dystrophin protein

Delandistrogene moxeparvovec (SRP-9001/ RG6356) is an investigational gene transfer therapy developed for targeted muscle expression of micro-dystrophin, a shortened, functional dystrophin protein, that addresses the genetic cause of DMD.

- Aims to express micro-dystrophin – a smaller but still functional version of dystrophin, used because naturally-occurring dystrophin is too large to fit in an AAV vector[1].
- Employs the AAVrh74 vector, which has a robust affinity for muscle cells, making it an ideal choice for delivering the micro-dystrophin transgene. AAVrh74 also has a relatively low level of pre-existing immunity[1].
- The MHCK7 promoter drives the expression of the micro-dystrophin transgene selectively in skeletal and cardiac muscle, and contains an α-MHC enhancer that has been shown to drive high protein expression, particularly in cardiac muscle.[1,2]



Source: Roche internal materials

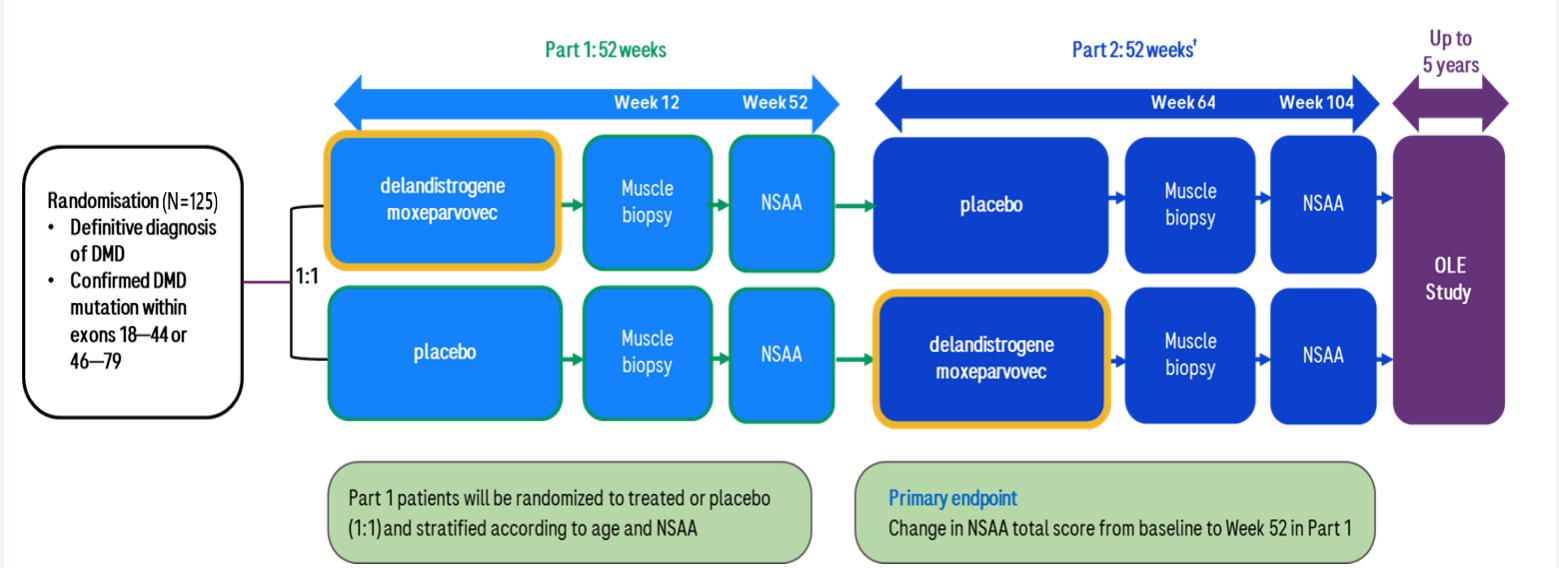
1. Asher D, et al. Clinical development on the frontier: gene therapy for duchenne muscular dystrophy. Expert Opinion on Biological Therapy. 2020; 20:263-274;
2. Salva MZ, et al. Design of Tissue-specific Regulatory Cassettes for High-level rAAV-mediated Expression in Skeletal and Cardiac Muscle. Mol Ther. 2007; 15:320-9;

Overview of Development Pipeline

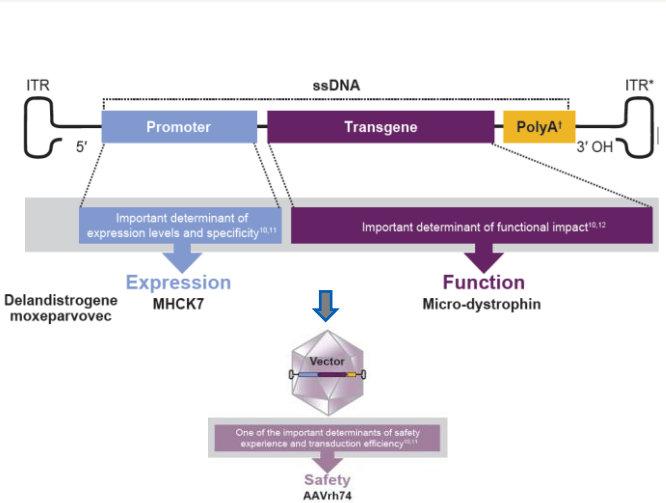
Delandistrogene moxeparvovec (RG6356/SRP-9001)

Phase 3 EMBARK study in ambulatory boys (≥4 to <8 yrs)with DMD, design and mode of action

Ph III EMBARK study design[1]



Mode of Action



- The EMBARK study is a double-blind, placebo-controlled trial in ambulatory 4-7 year-old boys with DMD (n=125, 1:1; Part1, 52 week observation period)
- † Patients, caregivers, investigators, and site staff remain blinded. Only a subset of patients will receive a muscle biopsy for expression assessments.

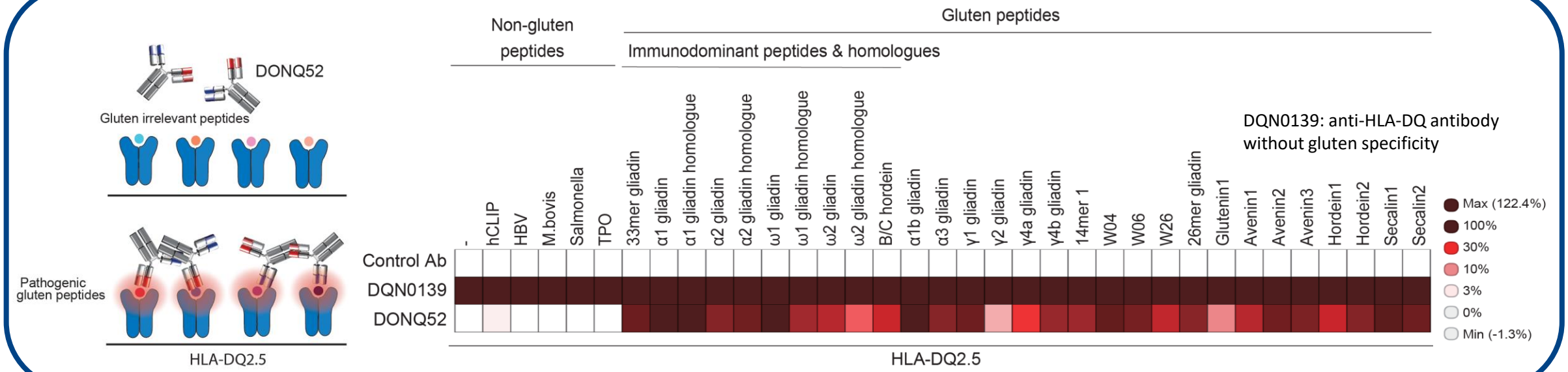
- Targeted delivery of micro-dystrophin transgene to key muscle tissue can enable meaningful and durable functional response
- AAVrh74 vector: low likelihood of pre-existing immunity and high tropism for skeletal & cardiac muscles
- Expression potentiated by the MHCK7 promoter in cardiac & skeletal muscle

DMD:duchenne muscular dystrophy, NSAA:North Star Ambulatory Assessment, 1.Muntoni et al MDA 2022

DONQ52: Non-Clinical Research Results Published in Nature Communications

DONQ52 binds to more than 25 types of gluten peptides that cause celiac disease

- Specific binding to complex of HLA-DQ2.5/gluten peptides. No binding to HLA molecule itself or complex of HLA-DQ2.5/irrelevant peptides.
- Binding to more than 25 peptides responsible for celiac disease by flexibly recognizing the unique motif of gluten epitopes



Overview of Development Pipeline

Small Molecule Drug Discovery: Portfolio

As of February 1, 2024

In-house molecule

- Chronic disease
- Chronic disease
- Chronic disease
- Chronic disease
- Chronic disease
- Chronic disease
- Chronic disease
- Chronic disease
- Cancer
- Cancer
- SPYK04 (cancer)
- REVN24 (acute disease)
- Alecensa (NSCLC adjuvant)
- Alecensa (NSCLC)
- Edirol (osteoporosis)
- Oxarol (psoriasis)

Outsourced to a third party other than Roche

- EOS789 (hyperphosphatemia)
- orforglipron (T2D /obesity)
- Deberza (T2D)
- avutometinib (LGSOC)

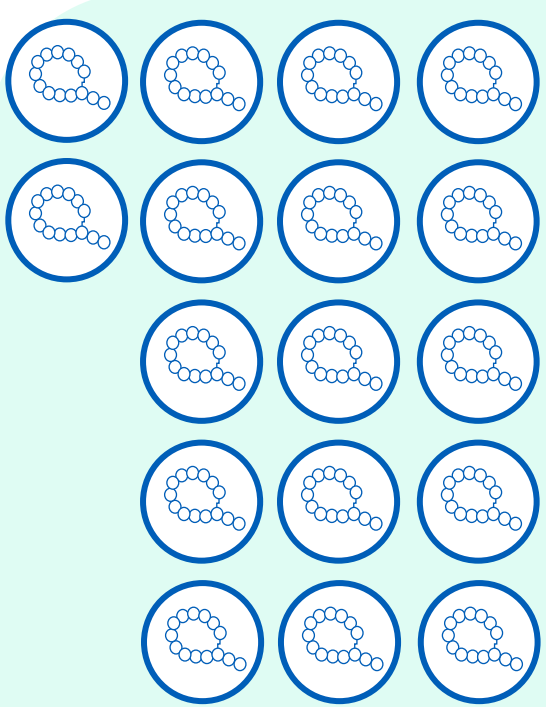
Screening | Selection of candidates | Pre-clinical development | Clinical | Launched

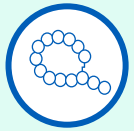
*Eli Lilly has licensed the worldwide development and commercialization rights to orforglipron

Overview of Development Pipeline

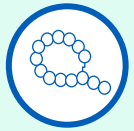
Mid-Size Molecule Drug Discovery: Portfolio

As of February 1, 2024

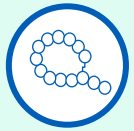




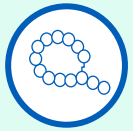
Chronic disease



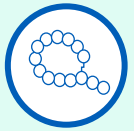
Chronic disease



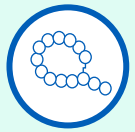
Chronic disease



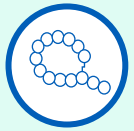
Cancer



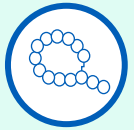
Acute disease



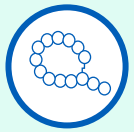
Chronic disease



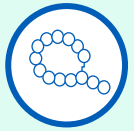
Chronic disease



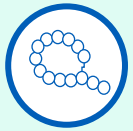
Cancer



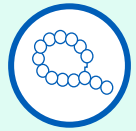
Cancer



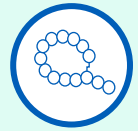
Cancer



Cancer



Cancer



Cancer

LUNA18 (Pan-RAS)

Screening | Selection of candidates | Pre-clinical development | Clinical

Overview of Development Pipeline

Antibody Drug, Cellular and Gene Therapy Product: Portfolio

* Projects that utilize multiple technologies are displayed in each technology.

As of February 1, 2024

Recycling Antibody®
Sweeping Antibody®
etc.

chronic disease

AMY109 (endometriosis/P2)

GYM329 (SMA/P2/3))

RAY121 (Autoimmune disease/P1)

Enspryng

crovalimab (PNH/Filed)

Multispecific antibody

chronic disease

NXT007 (hemophilia A/P1/2)

DONQ52 (Celiac disease/P1)

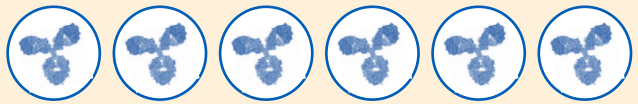
ERY974 (cancer/P1)

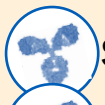
ALPS12 (cancer/P1)

SAIL66 (cancer/P1)

Hemlibra

Switch Antibody™



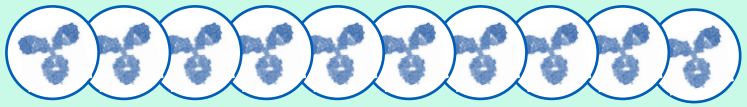


STA551 (cancer/P1)

ROSE12 (cancer/P1)

PAC-Ig®, new technologies, etc.

and more incl CAR-T



infectious disease

SOF10 (cancer/P1)

GC33 (cancer/P1)

nemolizumab (atopic dermatitis/prurigo nodularis)

Actemra

Mitchga (atopic dermatitis /JPN)

Discovery | Pre-clinical development | Clinical | Launched

Overview of Development Pipeline

Advances in Major Chugai Originated Projects Out Licensed to 3rd Parties

As of February 1, 2024

Generic name/development code	Mode of Action	Licensee	Granted rights to licensee	Indication	Stage	Progress
avutometinib/ VS-6766	RAF/MEK inhibitor	Verastem Oncology	exclusive global license for the manufacturing, development and marketing	Recurrent LGSOC	global: P3	• US FDA BTD（recurrent LGSOC in combination with defactinib) • RAMP301 trial initiated★
				NSCLC	global: P2	—
					global: P1/2	• RAMP 203 trial (in combination with KRAS G12C inhibitor sotorasib) initiated • RAMP 204 trial (in combination with KRAS G12C inhibitor, adagrasib) initiated
nemolizumab	Anti-IL-31 receptor A humanized monoclonal antibody	Global (Galderma) Japan (Maruho)	Galderma exclusive global license for the development and marketing excluding Japan and Taiwan Maruho rights for development and marketing in the skin disease area for the Japanese market	Atopic dermatitis	global: P3	• Two P3 studies met primary endpoints
					Japan: filed	• Filed for additional indication for pruritus associated with atopic dermatitis (pediatric)
				Prurigo nodularis	global: P3	• US FDA BTD • Two P3 studies met primary endpoints
					Japan: filed	• Filed for additional indication for prurigo nodularis
				CKDaP	global: P2/3	—
orforglipron/ LY3502970	Oral non-peptidic GLP-1 receptor agonist	Eli Lilly and Company	worldwide development and commercialization rights	T2D	global: P3	• In a phase 2 study, orforglipron achieved HbA1c reduction up to 2.1% and 10.1 kg of weight reduction at 26 weeks. The results were published in The Lancet*
				Obesity	global: P3	• In the other phase 2 study, orforglipron demonstrated up to 14.7% weight reduction at 36 weeks. The results were published in the New England Journal of Medicine**

* Juan PF, et al. Efficacy and safety of oral orforglipron in patients with type 2 diabetes: a multicentre, randomised, dose-response, phase 2 study. *Lancet* 2023.
** Sean W, et al. Daily Oral GLP-1 Receptor Agonist Orforglipron for Adults with Obesity. *NEJM* 2023.
★ Changes from the last announcement on October 24, 2023

FoundationOne CDx Cancer Genomic Profile -Companion diagnostic indications-

* Underlined are the companion diagnostic features and relevant drugs currently under application for regulatory approval

As of February 1, 2024

Alterations	Cancer type	Relevant drugs
Activated *EGFR* gene alterations	NSCLC	afatinib dimaleate, erlotinib hydrochloride, gefitinib, osimertinib mesilate, dacomitinib hydrate
EGFR exon 20 T790M alterations		osimertinib mesilate
ALK fusion genes		alectinib hydrochloride, crizotinib, ceritinib, brigatinib
ROS1 fusion genes		Entrectinib
MET exon 14 skipping alterations		capmatinib hydrochloride hydrate
BRAF V600E and V600K alterations	Malignant melanoma	dabrafenib mesylate, trametinib dimethyl sulfoxide, vemurafenib, encorafenib, binimetinib
ERBB2 copy number alterations (HER2 gene amplification positive)	BC	trastuzumab (genetical recombination)
KRAS/NRAS wild-type	CRC	cetuximab (genetical recombination), panitumumab (genetical recombination)
Microsatellite Instability-High		nivolumab (genetical recombination)
Microsatellite Instability-High	Solid tumors	pembrolizumab (genetical recombination)
Tumor Mutational Burden-High		pembrolizumab (genetical recombination)
NTRK1/2/3 fusion gene		entrectinib, larotrectinib sulfate
RET fusion genes		selpercatinib
BRCA1/2 alterations	Ovarian cancer	olaparib
BRCA1/2 alterations	Prostate cancer	olaparib, talazoparib tosilate
FGFR2 fusion genes	Biliary tract cancer	pemigatinib

FoundationOne Liquid CDx Cancer Genomic Profile

Companion diagnostic indications

As of February 1, 2024

Alterations	Cancer type	Relevant drugs
Activated *EGFR* gene alterations	Non-small cell lung cancer (NSCLC)	afatinib dimaleate, erlotinib hydrochloride, gefitinib, osimertinib mesilate
EGFR exon 20 T790M alterations		osimertinib mesilate
ALK fusion genes		alectinib hydrochloride, crizotinib, ceritinib
ROS1 fusion genes		entrectinib
MET exon14 skipping alterations		capmatinib hydrochloride hydrate
NTRK1/2/3 fusion gene	Solid tumors	entrectinib
BRCA1/2 alterations	Prostate cancer	olaparib

Abbreviations

AD	atopic dermatitis
adj	adjuvant
AE	adverse events
API	active pharmaceutical ingredient
aHUS	atypical hemolytic uremic syndrome
AIE	autoimmune encephalitis
aNHL	aggressive B-cell non-Hodgkin lymphoma
BC	breast cancer
bPoC	biology proof of concept
BS	biosimilars
CC	colorectal cancer
CKDaP	Chronic kidney disease associated pruritus
CLDN	Claudin
CPR	Chugai Pharmabody Research
CRC	colorectal cancer
CRS	cytokine release syndrome
DMD	duchenne muscular dystrophy
DME	diabetic macular edema
eBC	early breast cancer
EC	esophageal cancer
EHA	European Hematology Association
ePoC	early proof of concept
FL	follicular lymphoma
FSHD	facioscapulohumeral muscular dystrophy
GLP	Good Laboratory Practice
gMG	generalized myasthenia gravis
HCC	hepatocellular carcinoma
HNC	head and neck carcinoma
HR	human resources
IV	intravenous
LGSOC	low-grade serous ovarian cancer
LN	lupus nephritis
LSP	Life Science Park
MIBC	muscle-invasive bladder cancer
MM	multiple myeloma
MOGAD	myelin oligodendrocyte glycoprotein antibody–associated disease
nAMD	neovascular age-related macular degeneration
NHI	national health insurance
NME	new molecular entity
NMOSD	neuromyelitis optica spectrum disorder
NSCLC	non-small cell lung cancer
NSQ	non-squamous
PDS	port delivery system with ranibizumab
PE	primary endpoint
PN	prurigo nodularis
PNH	paroxysmal nocturnal hemoglobinuria
PS	profit share
QOL	quality of life
r/r	relapsed or refractory
RED	reserch & ealy development
ROY	royalty
RVO	retinal vein occlusion
SAE	severe adverse events
sc	subctaneous
SCD	sickle cell disease
SCLC	small cell lung cancer
SMA	spinal muscular atrophy
SSc-ILD	systemic sclerosis with interstitial lung disease
TED	thyroid eye disease
UME	uveitic macular edema
T2D	type 2 diabetes