

# Q1 Topics (1/2)



As of April 24, 2024

Approved	<b>Piasky</b>	Paroxysmal nocturnal hemoglobinuria (PNH)	February 2024 (China) March 2024 (Japan)
	<b>Alecensa</b>	ALK-positive early-stage NSCLC (adjuvant)	April 2024 (U.S.)
	<b>Mitchga</b>	Pruritus associated with atopic dermatitis (children aged $\geq 6$ and $< 13$ years), Prurigo nodularis* <sup>1</sup>	March 2024 (Japan)
	<b>Vabysmo</b>	Macular edema associated with retinal vein occlusion (RVO)	March 2024
	<b>FoundationOne Liquid CDx</b>	Talazoparib for <i>BRCA</i> gene mutation-positive castration-resistant prostate cancer with distant metastases	February 2024
	<b>FoundationOne Liquid CDx</b>	Selpercatinib for <i>RET</i> fusion-positive solid tumors	February 2024
	<b>FoundationOne Liquid CDx</b>	Capivasertib for advanced HR-positive, HER2-negative breast cancer with <i>PIK3CA</i> , <i>AKT1</i> or <i>PTEN</i> alterations	March 2024
Filed	<b>nemolizumab</b>	Prurigo nodularis, Atopic dermatitis* <sup>2</sup>	February 2024 (filing accepted in U.S./EU)
	<b>CellCept</b>	Systemic sclerosis with interstitial lung disease (SSc-ILD)	February 2024
	<b>Evrysdi</b>	Pre-symptomatic spinal muscular atrophy (SMA)	February 2024
	<b>mosunetuzumab</b>	FL (3rd line)	March 2024
	<b>Tecentriq</b>	Alveolar soft part sarcoma	March 2024

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

\*<sup>1</sup> Conducted by Maruho, a domestic licensee, \*<sup>2</sup> Conducted by Galderma, an overseas licensee

# Q1 Topics (2/2)



As of April 24, 2024

Initiation of study	<b>RG6299(ASO Factor B)</b>	IgA nephropathy	P1 study (February 2024)
	<b>RG6356/SRP-9001</b>	Duchenne muscular dystrophy (Non-ambulatory)	P3 study (March 2024)
	<b>glofitamab+Polivy</b>	Previously untreated large B-cell lymphoma	P3 study (April 2024)
Readout	<b>Enspryng</b>	Luminesce study (gMG) met its primary endpoint (the results did not reach our expectations on the degree of clinical benefit)	March 2024
	<b>mosunetuzumab</b>	Domestic phase I study in expansion cohort for FL (3rd line) met its primary endpoint	February 2024
	<b>Vabysmo</b>	NIHONBASHI study (AS) met its primary endpoint	April 2024
Removed from pipeline	<b>Enspryng</b>	Luminesce study (gMG): Development discontinued	
Medical conference	<b>nemolizumab</b>	OLYMPIA LTE study(Prurigo nodularis), ARCADIA 1&2 maintenance study (Atopic dermatitis)*: American Academy of Dermatology (AAD)	March 2024
	<b>Vabysmo</b>	BALATON study, COMINO study (RVO): Angiogenesis Exudation and Degeneration 2024	February 2024
Priority review designation	<b>nemolizumab</b>	Prurigo nodularis*	February 2024 (U.S.)
License-in agreement	<b>zilebesiran (RNAi Therapeutic)</b>	Hypertension (created by Alnylam Pharmaceuticals, Inc. and license-in from Roche)	April 2024

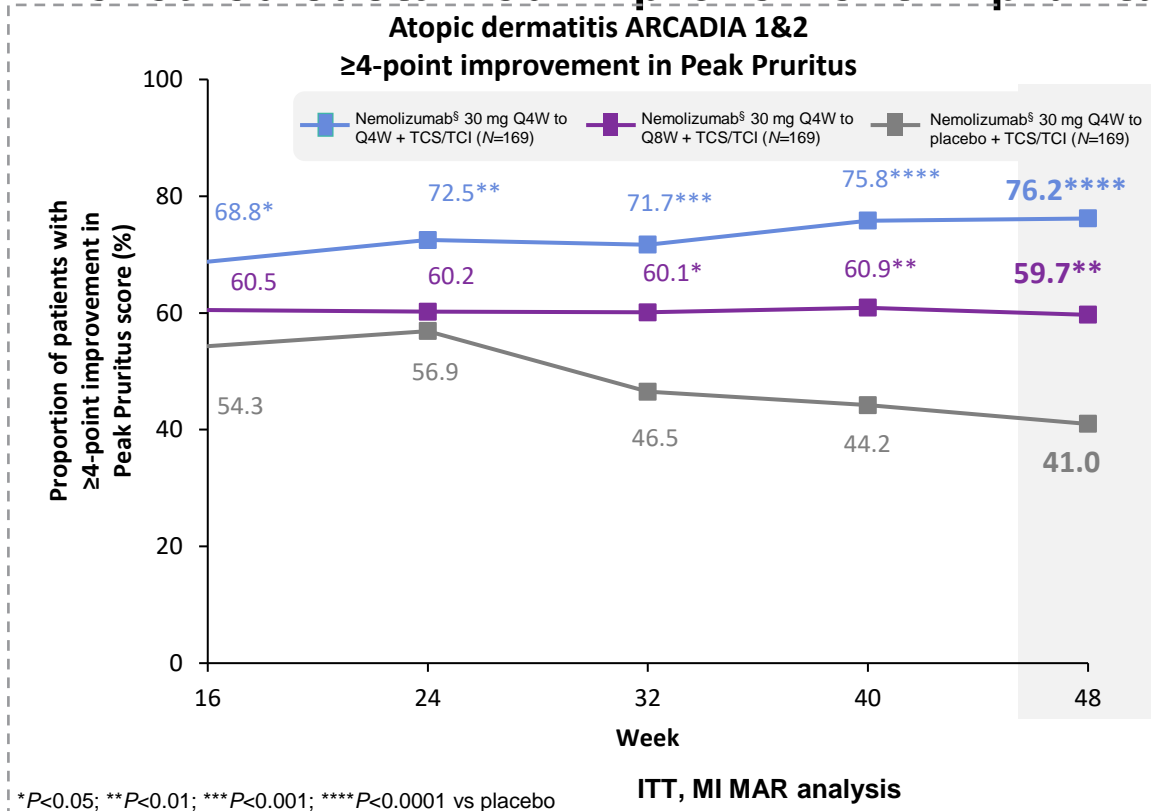
# 2024: Key R&D Milestones

Underlined and bolded are new progress since February 1, 2024

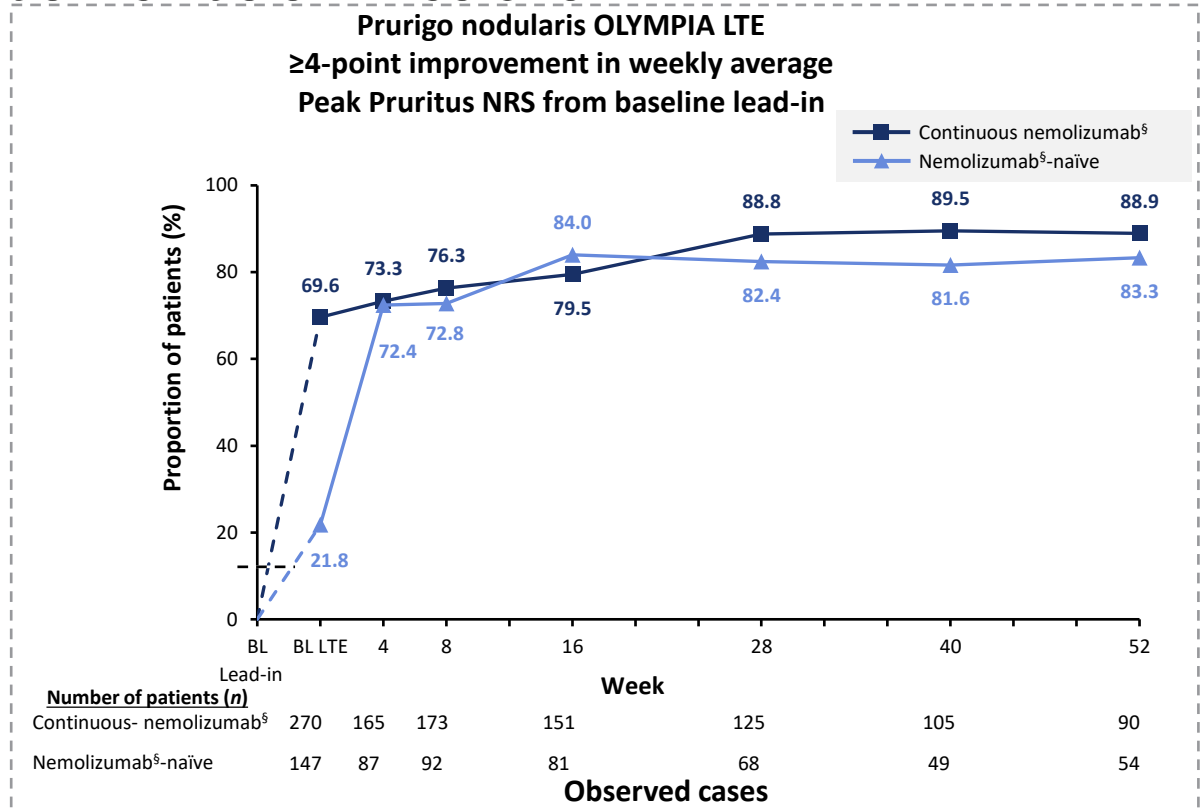
	Product	Indication/Study name	Progress
Projects to be approved	<b>crovalimab</b>	Paroxysmal nocturnal hemoglobinuria (Japan/EU/U.S.)	<u>Approved (Japan)</u>
	<b>Alecensa</b>	NSCLC (adjuvant) (U.S./EU/Japan)	<u>Approved (U.S.)</u>
	<b>Vabysmo</b>	Retinal vein occlusion	<u>Approved</u>
P3/Pivotal readouts	<b>Enspryng</b>	Luminesce study: generalized myasthenia gravis	<u>Achieved PE</u> <u>(the results did not reach our expectations on the degree of clinical benefit)</u> <u>/Development discontinued</u>
	<b>Tecentriq + tiragolumab</b>	SKYSCRAPER-01 study: NSCLC (1st Line)	
	<b>mosunetuzumab</b>	Domestic P1 (Expansion cohort): Follicular lymphoma (3rd Line)	<u>Achieved PE</u>
	<b>mosunetuzumab + Polivy</b>	SUNMO study: r/r aggressive B-cell non-Hodgkin's lymphoma	
	<b>Vabysmo</b>	NIHONBASHI study: Angioid streaks	<u>Achieved PE</u>
P2 readouts	<b>GYM329 + Evrysdi</b>	MANATEE study: Spinal muscular atrophy (SMA)	

## Overview of Development Pipeline

# Nemolizumab: Global Ph3 ARCADIA 1&2 maintenance and OLYMPIA LTE studies revealed sustained improvement in pruritus as well as skin lesions\*1, \*2



The safety profile was consistent across treatment arms and most treatment-related adverse events were non-serious and mild/moderate in intensity.



Long-term safety data were consistent with the previously reported safety profiles in the Phase 3 pivotal trials.

\*1 IGA0/1 and EASI-75 success rates in ARCADIA1&2 at 48wk were, IGA0/1: 49.7% (placebo), 60.4% (Q8W, P<0.05) and 61.5% (Q4W, P<0.05), and EASI-75: 63.9% (placebo), 75.7% (Q8W, P<0.05) and 76.3% (Q4W, P<0.05)  
 \*2 IGA0/1 success rates in OLYMPIA LTE at 52wk were 69.2% (Continuous nemolizumab) and 64.5% (Nemolizumab-naïve)

ITT, intent-to-treat; MAR, missing at random; MI, multiple imputation; N, total number of patients in the treatment group; NRS, Numerical Rating Scale; Q4/8W, every 4/8 weeks; TCI, topical calcineurin inhibitors; TCS, topical corticosteroids  
 Weekly PP NRS score was calculated using 7 consecutive days' diary data and set to missing if less than 4 days' data were available. Percentage (%) was calculated using the number of patients with available data (n) at the analysis visit as the denominator. Week 16 measurements serve as maintenance baseline measurements. Strata adjusted P-values were from Cochran-Mantel-Haenszel test adjusting for the stratification variable study. The estimates were from 50 complete datasets by MI with MAR assumption.  
<sup>§</sup>Week 16 data were from non-responder imputation.  
<sup>§</sup>Galderna is investigating the use of nemolizumab and has not received approval for any indication in any country.  
 Nemolizumab or corresponding placebo onto background TCS/TCI. Nemolizumab responder at 16wk were rerandomized to placebo, nemolizumab Q4W or Q8W arms.

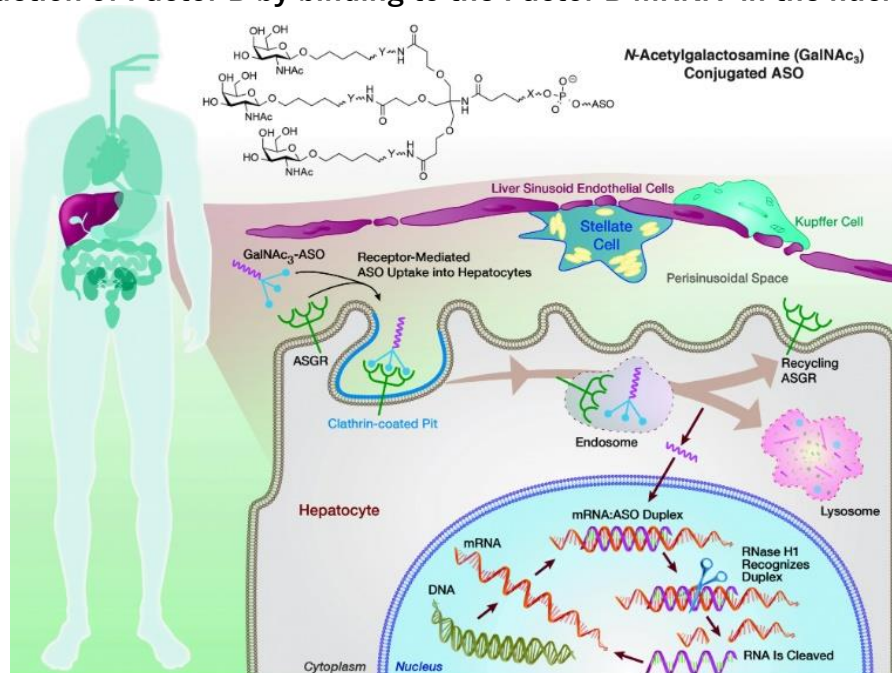
BL, baseline; LTE, long-term extension; n, number of patients with available data based on observed cases for each cohort at the respective visit; NRS, Peak Pruritus Numerical Rating Scale  
 Weekly values were calculated as average of 7 consecutive days data up to the actual visit day or target study day (excluding) and set to missing, if <4 days data were available. Baseline Lead-in is defined as the last non-missing value before the first dose of study drug in Lead-in study. Baseline/Day 1 (Baseline LTE) is the last non-missing value prior to first dose of study drug in this study. Observed cases are presented where all observed data even after use of rescue therapy are included; No imputations for missing data. **Continuous nemolizumab<sup>§</sup>**: Patients with a <12-week interval between the last nemolizumab<sup>§</sup> dose in the lead-in study and the first dose in LTE. (Patients could have different exposure duration before entering LTE). **Nemolizumab<sup>§</sup>-naïve**: Patients who never received nemolizumab<sup>§</sup> before LTE  
<sup>§</sup>Galderna is investigating the use of nemolizumab and has not received approval for any indication in any country.

# ASO(AntiSense Oligonucleotide) Factor B (RG6299)

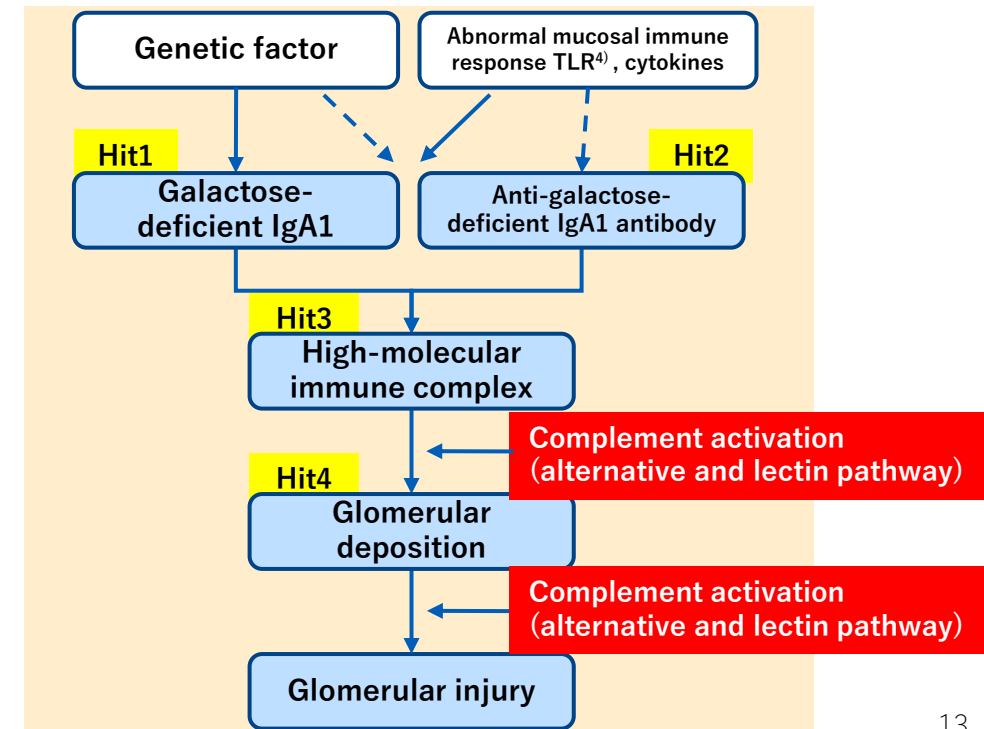
Oligonucleotide therapeutics, selectively taken up by hepatocytes to inhibit complement factor B production

- IgA nephropathy (IgAN) is characterized by persistent abnormalities in urinalysis such as glomerular hematuria and proteinuria, and deposition of IgA and complements in the glomeruli. The complement alternative pathway is thought to contribute to the development of IgAN, and complement factor B is involved in the activation of the alternative pathway.
- ASO Factor B is being developed for the treatment of IgAN and is an oligonucleotide therapeutics that inhibits the production of complement factor B and thereby suppressing the activation of the alternative complement pathway.

N-acetylgalactosamine (GalNAc)-conjugated ASO is selectively taken up into hepatocytes by binding to ASGPR<sup>1</sup>. (figure below<sup>2</sup>) GalNAc-ASO is metabolized and free-ASO Factor B inhibits the production of Factor B by binding to the Factor B mRNA in the nucleus.



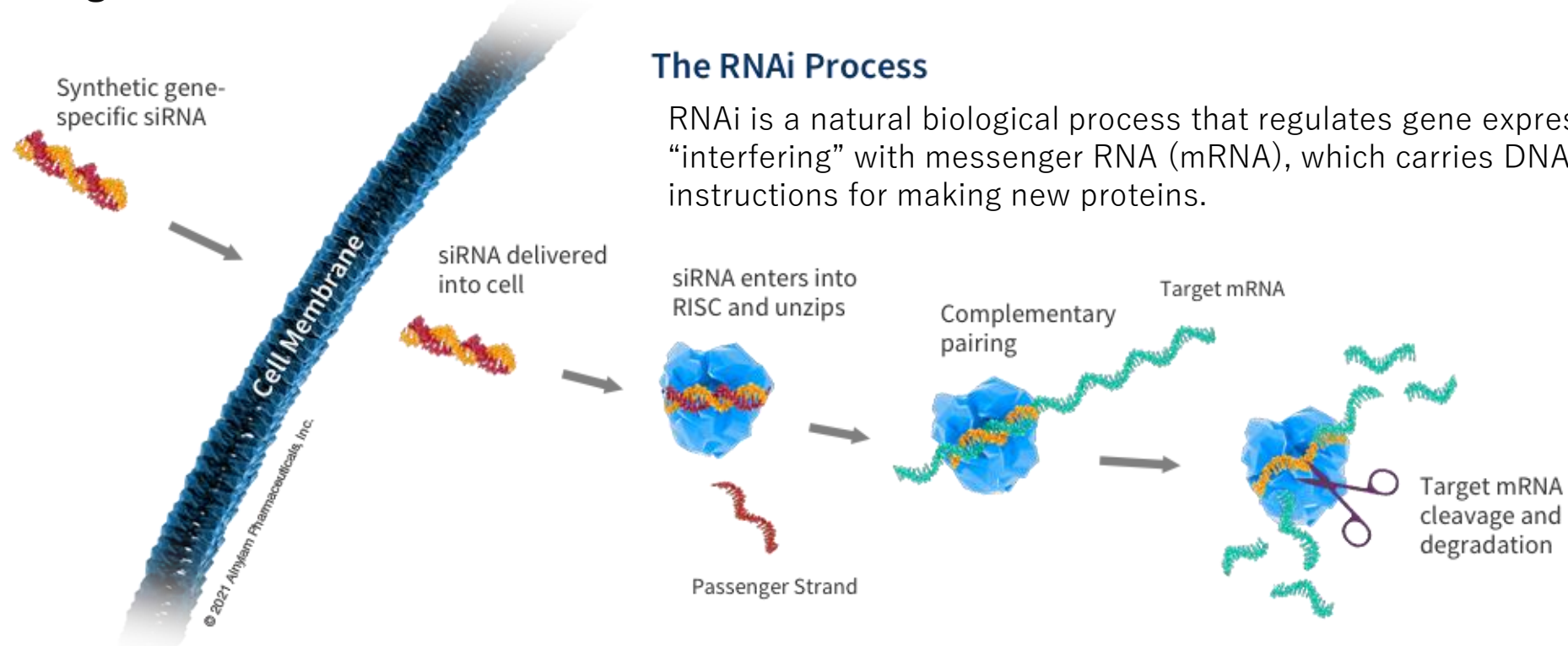
The Multi Hit Hypothesis for the development of IgAN<sup>3</sup> and complement



1) Abbreviation for asialoglycoprotein receptor; 2) Nucleic Acid Ther. 2019;29(1):16-32; 3) Adapted from Nihon jinzo gakkai shi2015; 57(8) 4) Abbreviation for toll-like receptor

# Zilebesiran, an RNAi Therapeutic Agent as a New Modality

RNAi is an RNA interference mechanism by which genes are naturally regulated in cells, and one of the innovative drugs based on RNAi is an siRNAs



## The RNAi Process

RNAi is a natural biological process that regulates gene expression by “interfering” with messenger RNA (mRNA), which carries DNA’s instructions for making new proteins.

- Zilebesiran, a siRNA<sup>\*1</sup>, is internalized into hepatocytes and forms a protein complex with RISC <sup>\*2</sup>. Protein complexes bind to target mRNAs and degrade them, thereby inhibiting the synthesis of disease-causing proteins.
- The protein complex of siRNA and RISC can degrade target mRNA multiple times, which is expected to enable treatment once every six months.
- GalNAc<sup>\*3</sup> conjugation technology for siRNA, etc. increased the delivery rate into hepatocytes and enabled the formulation for subcutaneous injection.

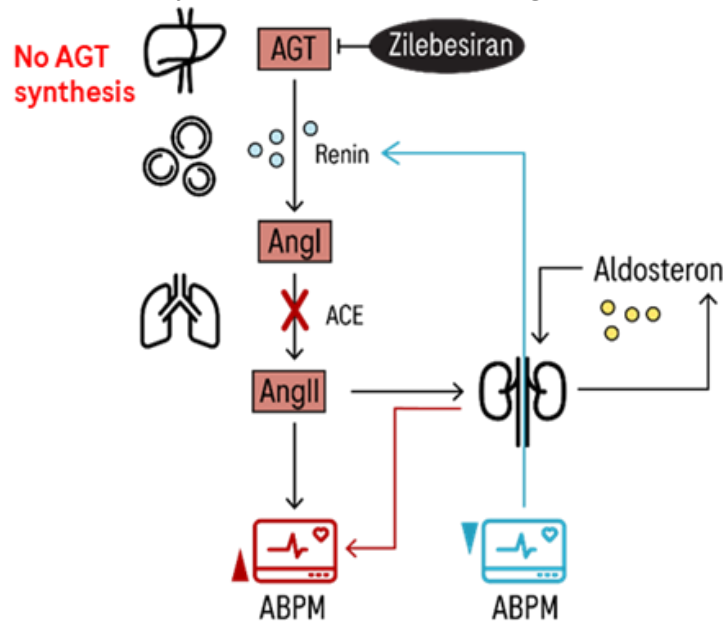
<sup>\*1</sup> siRNA: small interfering RNA  
<sup>\*2</sup> RISC: a complex of intracellular proteins known as RNA-induced silencing complex, which recognizes and uses double-stranded RNA to play an important role in gene regulation (inhibition of protein synthesis)  
<sup>\*3</sup> GalNAc: ligand for the Asialoglycoprotein receptor (ASGPR), which is highly expressed in hepatocytes  
Source: Alnylam website; <https://www.alnylam.com/our-science/the-science-of-rnai> (searched in March 2024)

# About Zilebesiran

- Zilebesiran, an RNAi therapy for hypertension, achieve sustained suppression of angiotensinogen (AGT) expression and is expected to be a promising solution to unmet medical needs in hypertensive patients with poor blood pressure control and a high risk of cardiovascular events

## Zilebesiran targets the most upstream part of RAAS

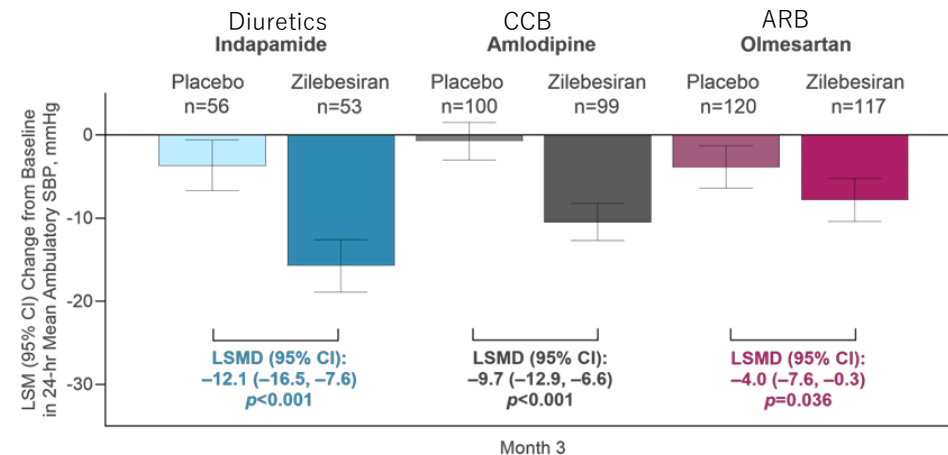
RAAS system: renin-angiotensin-aldosterone system  
 AngI/II=Angiotensin I/II  
 ACE=angiotensin-converting enzyme  
 ABPM:Ambulatory Blood Pressure Monitoring



It continuously inhibits the synthesis of AGT, the highest precursor of the renin-angiotensin-aldosterone system involved in blood pressure regulation, by degrading mRNA, and finally shows an antihypertensive effect by reducing angiotensin II.

## Overseas phase II clinical study results\*

Mean 24 hour ambulatory systolic blood pressure: from baseline  
 Mean change up to three months post-dose (primary endpoint)



CCB, calcium channel blocker; ARB, angiotensin receptor blocker

### Study Design

- After randomization to three cohorts - on top of a diuretic, a CCB, or an ARB- the efficacy and safety of a single subcutaneous dose of zilebesiran or placebo were evaluated in hypertensive patients with an inadequate response to each treatment.

### Result

- Serum AGT decreased by  $\geq 95\%$  and persist for six months
- Clinically significant reductions in 24 hour ambulatory systolic blood pressure at three months compared with placebo
- There were no deaths or AEs leading to study discontinuation, and the AE of hypotension was transient.

\* Presented at the American College of Cardiology Annual Scientific Session & Expo , April 6-8, 2024, Atlanta, GA, USA

# Potential Market Sales of Main Projects

as of April 24, 2024

## Domestic Sales

In-house Products	Indications	Domestic Sale* <sup>1</sup>	Roche products		Domestics Sales* <sup>1</sup>	Peak Sales Year		Changes from previous disclosure
			Roche products	Indications		Peak Sales Year	Peak Sales Year	
<b>Hemlibra</b>	Hemophilia A, Acquired Hemophilia A	50 bn+ JPY	<b>Tecentriq</b>	LC, BC, HCC, Urological cancer, and others	100 bn+ JPY	~2030		Reschedule of the filing timing for multiple indications and discontinuation of development
<b>Alecensa</b>	NSCLC, ALCL	30 bn+ JPY	<b>Polivy</b>	DLBCL, aNHL	50 bn+ JPY		2031 and beyond	Added SKYGLO study
<b>Enspryng</b>	NMOSD, AIE, MOGAD, TED	20 bn+ JPY	<b>Vabysmo</b>	nAMD, DME, RVO, AS	30 bn+ JPY		2031 and beyond	Changes of disclosure policy* <sup>2</sup>
<b>Piasky</b>	PNH, aHUS	10 bn+ JPY	<b>Phesgo</b>	BC, Colorectal cancer	20 bn+ JPY	~2030		Changes of disclosure policy* <sup>2</sup>
<b>GYM329</b>	SMA	< 10 bn JPY	<b>Evrysdi</b>	SMA	15 bn+ JPY	~2030		Changes of disclosure policy* <sup>2</sup>
			<b>mosunetuzumab</b>	FL, aNHL	20 bn+ JPY		2031 and beyond	—
			<b>glofitamab</b>	LBCL	20 bn+ JPY		2031 and beyond	—
			<b>tiragolumab</b>	NSCLC, Esophageal cancer	15 bn+ JPY		2031 and beyond	Changes of disclosure policy* <sup>2</sup>
			<b>giredestrant</b>	BC	10 bn+ JPY		2031 and beyond	Changes in competitive landscape
			<b>ranibizumab (PDS)</b>	nAMD, DME	< 10 bn JPY		2031 and beyond	—

\*<sup>1</sup> without considering the development success rate

\*<sup>2</sup> Changes associated with the revision of the amount category

## Overseas Sales

[Products out-licensed to Roche] based on the forecast by Roche

- **Enspryng** (NMOSD, AIE, MOGAD, TED) : 1bn+ CHF
- **crovalimab** (PNH, aHUS, SCD, LN) : 1bn+ CHF
- **GYM329** (FSHD, SMA) : 1bn+ CHF

[Out-Licensed to 3rd Parties]

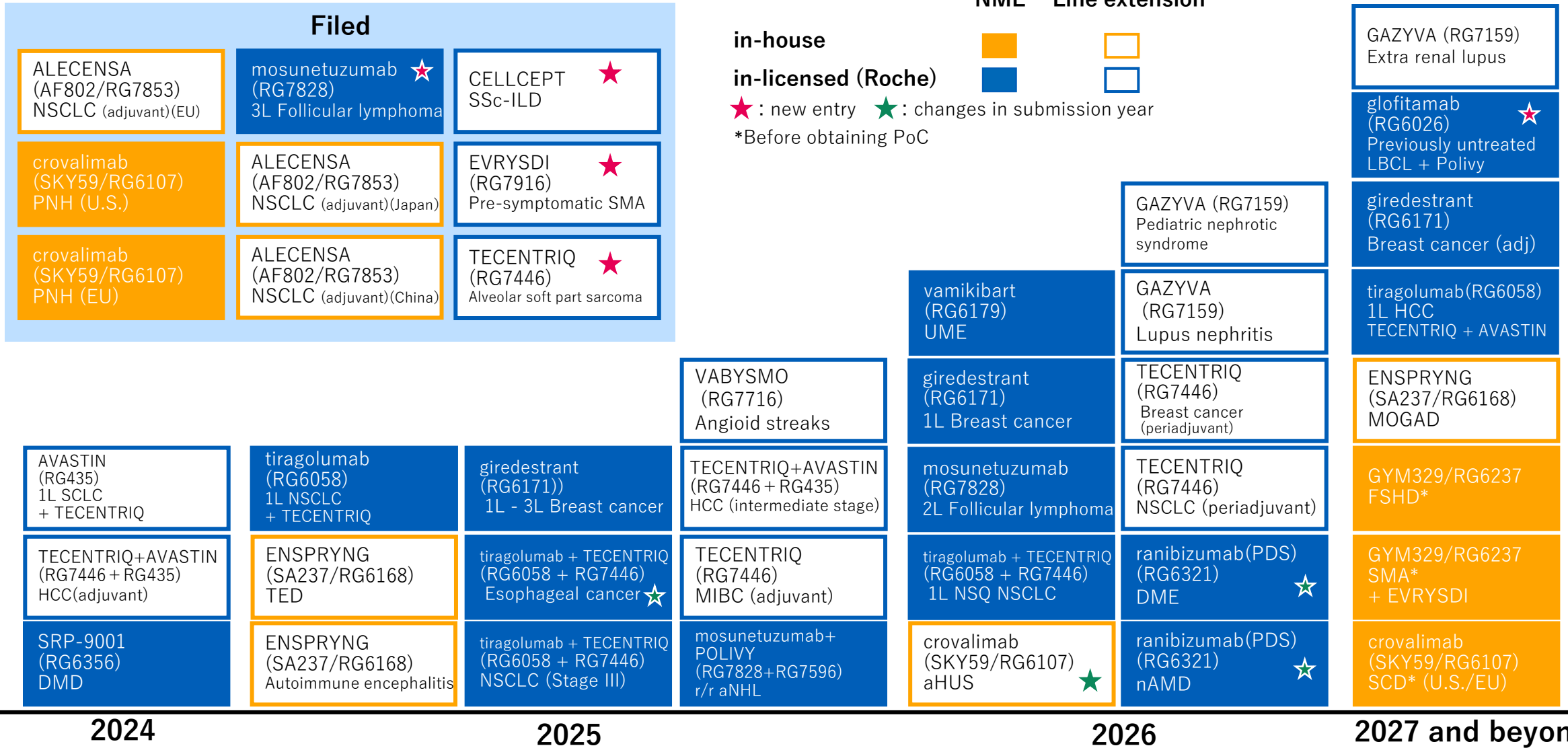
- **nemolizumab**\*<sup>3</sup> (AD, PN) : 2bn+ USD

\*<sup>3</sup> based on the forecast by Galderma without considering the development success rate



# Projected Submissions (Post PoC NMEs and Products)

as of April 24, 2024



# Projects under Development (1/2)



As of April 24, 2024

	Phase I	Phase II	Phase III	Filed		
Cancer	<b>LUNA18</b> - Solid tumors	<b>RG7421 / cobimetinib</b> - Solid tumors	<b>RG6396 / pralsetinib</b> - NSCLC (2L) - Solid tumors	<b>AF802 (RG7853) / Alecensa</b> - NSCLC (stage III)* <b>RG7446 / Tecentriq</b> - NSCLC (periadjuvant) - MIBC (adjuvant) - BC (periadjuvant) - HCC (2L) - Prostate cancer (2L) <b>RG7446 / Tecentriq +RG435 / Avastin</b> - SCLC (1L) - HCC (adjuvant) - HCC (intermediate stage) <b>RG6058 / tiragolumab + RG7446 / Tecentriq</b> - NSCLC (1L) - NSCLC (stage III) - NSQ NSCLC (1L) - Esophageal cancer	<b>RG6058 / tiragolumab+RG7446 / Tecentriq+RG435 / Avastin</b> - HCC (1L) <b>RG6171 / giredestrant</b> - BC (adjuvant) - BC (1L) - BC (1L-3L) <b>RG7828 / mosunetuzumab</b> - Follicular lymphoma (2L) <b>RG7828 / mosunetuzumab + RG7596 / Polivy</b> - r/r aNHL <b>RG6396 / pralsetinib</b> - NSCLC (1L) <b>RG6026 / glofitamab +RG7596 / Polivy</b> - Previously untreated large B-cell lymphoma ★	<b>AF802 (RG7853) / Alecensa</b> - NSCLC (adjuvant) (EU/China/Japan) <b>RG7446 / Tecentriq</b> - Alveolar soft part sarcoma★ <b>RG7828 / mosunetuzumab</b> - Follicular lymphoma (3L)★
	<b>GC33 / codrituzumab</b> - HCC	<b>RG6026 / glofitamab</b> - Hematologic tumors				
	<b>ERY974</b> - Solid tumors	<b>RG6194 / runimotamab</b> - Solid tumors				
	<b>STA551</b> - Solid tumors	<b>RG6330 / divarasib</b> - Solid tumors				
	<b>SOF10 (RG6440)</b> - Solid tumors	<b>RG6433 / migoprotafib</b> - Solid tumors				
	<b>SPYK04</b> - Solid tumors	<b>RG6160 / cevostamab</b> - r/r multiple myeloma				
	<b>ALPS12 (RG6524)</b> - Solid tumors	<b>RG6139 / tobemstomig</b> - Solid tumors				
	<b>SAIL66</b> - CLDN6 positive solid tumors					
	<b>ROSE12</b> - Solid tumors					

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 February 1, 2024

# Projects under Development (2/2)

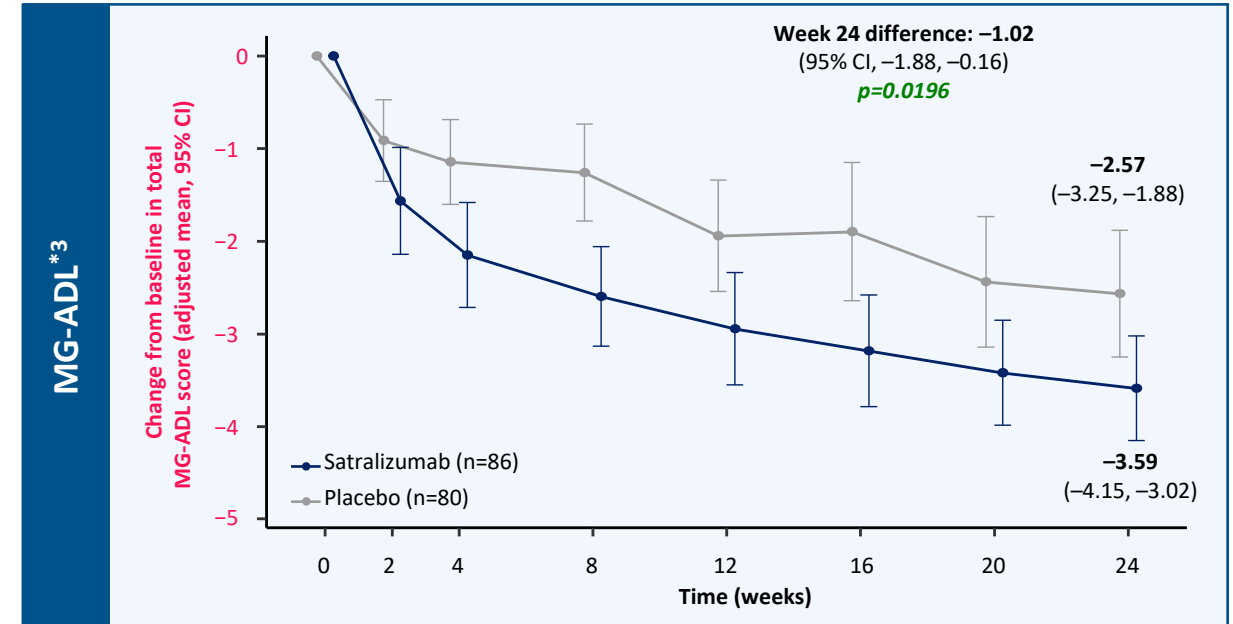
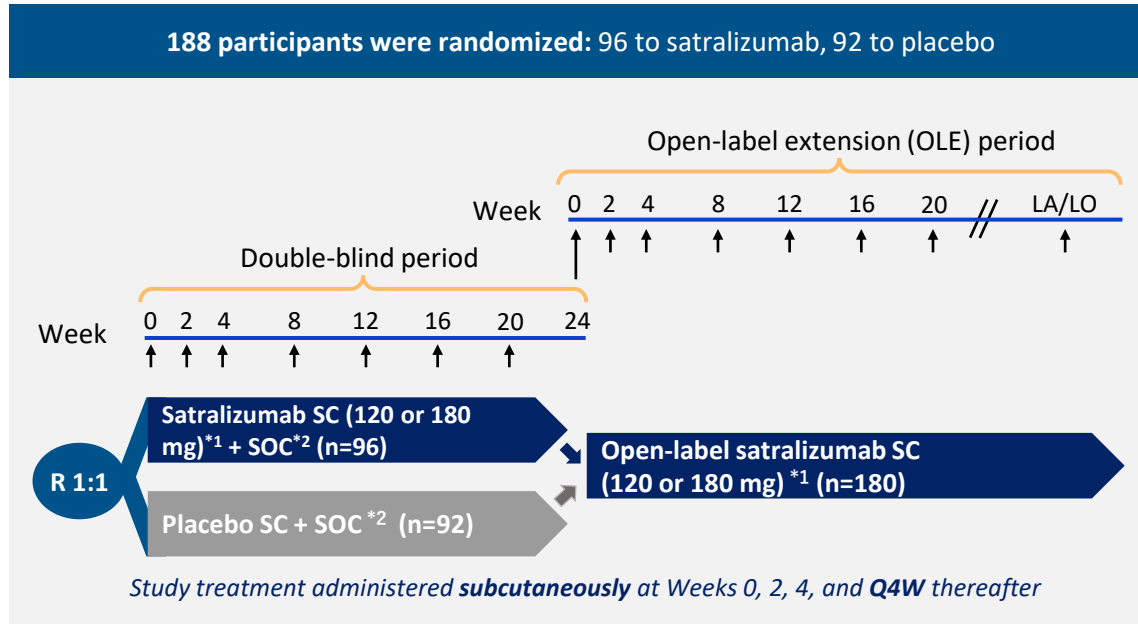
As of April 24, 2024

	Phase I	Phase II	Phase III	Filed
<b>Immunology</b>	<b>DONQ52</b> - Celiac disease  <b>RAY121</b> - Autoimmune disease  <b>SKY59(RG6107)/crovalimab</b> - Lupus nephritis <b>RG6299</b> -IgA nephropathy ★		<b>RG7159 / Gazyva</b> - Lupus nephritis - Pediatric nephrotic syndrome - Extra renal lupus	<b>CellCept</b> - SSc-ILD ★
<b>Neurology</b>	<b>RG7935 / prasinezumab</b> - Parkinson's disease  <b>RG6102 / trontinemab</b> - Alzheimer's disease (PI/II)	<b>GYM329 (RG6237) + Evrysdi</b> - SMA (PII/III) - FSHD  <b>RG6042 / tominersen</b> - Huntington's disease	<b>SA237 (RG6168) / Enspryng</b> - MOGAD - AIE  <b>SRP-9001(RG6356) / delandistrogene moxeparvovec</b> -DMD*	<b>RG7916 / Evrysdi</b> - Pre-symptomatic SMA ★
<b>Hematology</b>	<b>NXT007 (RG6512)</b> - Hemophilia A (PI/II)	<b>SKY59 (RG6107) / crovalimab (U.S./EU)</b> - SCD	<b>SKY59 (RG6107) / crovalimab</b> - aHUS	<b>SKY59 (RG6107) / crovalimab (EU/U.S.)</b> - PNH
<b>Ophthalmology</b>	<b>RG6321 / PDS</b> - nAMD (PI/II) - DME (PI/II)		<b>SA237 (RG6168) / Enspryng</b> - TED  <b>RG7716 / Vabysmo</b> - Angioid streaks	<b>RG6179/ vamikibart</b> - UME
<b>Other</b>	<b>REVN24</b> - Acute diseases	<b>AMY109</b> - 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 February 1, 2024

# Enspryng: Generalized Myasthenia Gravis

Ph III study (LUMINESCE): met primary endpoint, but did not reach our expectations



- LUMINESCE, which compared the use of satralizumab + SOC vs placebo + SOC, investigated the available pre-clinical and clinical data hypothesizing the role of IL-6 inhibition in gMG. It demonstrated a statistically significant improvement in mean change from baseline in total MG-ADL score at Week 24 in patients with AChR-IgG+ gMG, although the effect size was small and did not reach our expectations on the degree of clinical benefit across various endpoints.
- Safety of satralizumab in gMG was consistent with established data in NMOSD with no new safety signals emerging. Satralizumab has a favorable safety profile and is generally well tolerated.
- Results from LUMINESCE do not impact the long-term experience of satralizumab's benefit:risk profile in NMOSD. Additionally, satralizumab continues to be evaluated in clinical trials in other neurological autoimmune and inflammatory diseases that may benefit from inhibition of IL-6 signaling, including AIE, MOGAD and TED.

† Administration of SC satralizumab or placebo. \*1 Satralizumab 120 mg for patients with a body weight  $\leq 100$  kg or 180 mg for patients with a body weight  $> 100$  kg. \*2 Background therapies permitted were AChEI monotherapy or the following therapies (with or without AChEI): OCS, one IST, or an OCS in combination with one IST. \*3 Analysis of covariance model fitted per visit adjusted for stratification factors on a data set that has been imputed using a mixed model repeated measures approach based on the protocol defined estimand.

# Advances in Major Chugai Originated Projects Out-Licensed to 3rd Parties (1/2)



As of April 24, 2024

Generic name/development code	Mode of Action	Licensee	Granted rights to licensee	Indication	Stage	Progress
<b>avutometinib /VS-6766</b>	RAF/MEK inhibitor	Verastem Oncology	exclusive global license for the manufacturing, development and marketing	Recurrent LGSOC	global: P3	<ul style="list-style-type: none"> <li>US FDA BTB (recurrent LGSOC in combination with defactinib)</li> <li>US orphan drug designation (avutometinib alone or in combination with defactinib in recurrent LGSOC) ★</li> <li>RAMP301 trial (P3) initiated</li> </ul>
				NSCLC	Global/U.S. : P1/2	<ul style="list-style-type: none"> <li>RAMP 203 trial (P1/2 in combination with KRAS G12C inhibitor sotorasib with or without defactinib) ongoing globally</li> <li>U.S. FDA fast track designation of avutometinib in combination with sotorasib ★</li> <li>RAMP 204 trial (P1/2 in combination with KRAS G12C inhibitor, adagrasib) ongoing in the U.S.</li> </ul>
				metastatic Pancreatic Ductal Adenocarcinoma (mPDAC)*	US: Phase 1/2	<ul style="list-style-type: none"> <li>RAMP 205 trial (P1/2 evaluating avutometinib and defactinib in combination with gemcitabine and nab-paclitaxel) ongoing</li> </ul>
<b>nemolizumab</b>	Anti-IL-31 receptor A humanized monoclonal antibody	Galderma	exclusive global license for the development and marketing excluding Japan and Taiwan	Atopic dermatitis	FDA BLA / EMA MAA review	<ul style="list-style-type: none"> <li>FDA BLA / EMA MAA accepted in Feb 2024 ★</li> </ul>
				Prurigo nodularis	FDA BLA / EMA MAA review	<ul style="list-style-type: none"> <li>FDA BLA / EMA MAA accepted in Feb 2024 ★</li> </ul>
				Chronic kidney disease associated pruritus (CKDaP)	global: P2/3	<ul style="list-style-type: none"> <li>On-going</li> </ul>

\* Newly added according to the progress of the project ★ Changes from the last announcement on February 1, 2024

# Advances in Major Chugai Originated Projects Out-Licensed to 3rd Parties (2/2)



As of April 24, 2024

Generic name/development code	Mode of Action	Licensee	Granted rights to licensee	Indication	Stage	Progress
<b>orforglipron/ LY3502970</b>	Oral non-peptidic GLP-1 receptor agonist	Eli Lilly and Company	worldwide development and commercialization rights	T2D	global: P3	<ul style="list-style-type: none"> <li>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 <i>The Lancet</i>*<sup>1</sup></li> </ul>
				Obesity	global: P3	<ul style="list-style-type: none"> <li>In the other phase 2 study, orforglipron demonstrated up to 14.7% weight reduction at 36 weeks. The results were published in the <i>New England Journal of Medicine</i>*<sup>2</sup></li> </ul>
<b>-/AP306 (EOS789)*<sup>3</sup></b>	Oral inhibitor of phosphate transporters	Alebund	Exclusive global license for the manufacturing, development and marketing	Hyperphosphatemia	China: P2	<ul style="list-style-type: none"> <li>In a phase 2 study, AP306 showed a clinically significant reduction in serum phosphorus levels at the end of treatment</li> </ul>

\*<sup>1</sup> 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.

\*<sup>2</sup> Sean W, et al. Daily Oral GLP-1 Receptor Agonist Orforglipron for Adults with Obesity. *NEJM* 2023.

\*<sup>3</sup> Newly added according to the progress of the project

# FoundationOne CDx Cancer Genomic Profile -Companion diagnostic indications-

As of April 24, 2024

Alterations	Cancer type	Relevant drugs
Activating <i>EGFR</i> alterations	NSCLC	afatinib maleate, erlotinib hydrochloride, gefitinib, osimertinib mesilate, dacomitinib hydrate
<i>EGFR</i> exon 20 T790M alteration		osimertinib mesilate
<i>ALK</i> fusion genes		alectinib hydrochloride, crizotinib, ceritinib, brigatinib
<i>ROS1</i> fusion genes		Entrectinib
<i>MET</i> exon 14 skipping alterations		capmatinib hydrochloride hydrate
<i>BRAF</i> V600E and V600K alterations	Malignant melanoma	dabrafenib mesylate, trametinib dimethyl sulfoxide, vemurafenib, encorafenib, binimetinib
<i>ERBB2</i> copy number alterations (HER2 gene amplification positive)	BC	trastuzumab (genetical recombination)
<i>AKT1</i> alterations		capiwasertib
<i>PIK3CA</i> alterations		
<i>PTEN</i> alterations		
<i>KRAS/NRAS</i> 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)
<i>NTRK1/2/3</i> fusion genes		entrectinib, larotrectinib sulfate
<i>RET</i> fusion genes		selpercatinib
<i>BRCA1/2</i> alterations	Ovarian cancer	olaparib
<i>BRCA1/2</i> alterations	Prostate cancer	olaparib, talazoparib tosilate
<i>FGFR2</i> fusion genes	Biliary tract cancer	pemigatinib

# FoundationOne Liquid CDx Cancer Genomic Profile

## Companion diagnostic indications

As of April 24, 2024

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

### Upcoming events:

**Information Meeting on Piasky June 27, 1:00-2:30 p.m. (JST)**



# Abbreviations



<b>AD</b>	atopic dermatitis	<b>MIBC</b>	muscle-invasive bladder cancer
<b>adj</b>	adjuvant	<b>MM</b>	multiple myeloma
<b>aHUS</b>	atypical hemolytic uremic syndrome	<b>MOGAD</b>	myelin oligodendrocyte glycoprotein antibody-associated disease
<b>AIE</b>	autoimmune encephalitis	<b>nAMD</b>	neovascular age-related macular degeneration
<b>aNHL</b>	aggressive B-cell non-Hodgkin lymphoma	<b>NHI</b>	national health insurance
<b>AS</b>	angioid streaks	<b>NME</b>	new molecular entity
<b>BC</b>	breast cancer	<b>NMOSD</b>	neuromyelitis optica spectrum disorder
<b>BS</b>	biosimilars	<b>NSCLC</b>	non-small cell lung cancer
<b>CKDaP</b>	Chronic kidney disease associated pruritus	<b>NSQ</b>	non-squamous
<b>CLDN</b>	Claudin	<b>PDAC</b>	pancreatic ductal adenocarcinoma
<b>CRC</b>	colorectal cancer	<b>PDS</b>	port delivery system with ranibizumab
<b>DLBCL</b>	diffuse large B-cell lymphoma	<b>PE</b>	primary endpoint
<b>DMD</b>	duchenne muscular dystrophy	<b>PN</b>	prurigo nodularis
<b>DME</b>	diabetic macular edema	<b>PNH</b>	paroxysmal nocturnal hemoglobinuria
<b>eBC</b>	early breast cancer	<b>PS</b>	profit share
<b>EC</b>	esophageal cancer	<b>r/r</b>	relapsed or refractory
<b>ePoC</b>	early proof of concept	<b>ROY</b>	royalty
<b>FL</b>	follicular lymphoma	<b>RVO</b>	retinal vein occlusion
<b>FSHD</b>	facioscapulohumeral muscular dystrophy	<b>SCD</b>	sickle cell disease
<b>gMG</b>	generalized myasthenia gravis	<b>SCLC</b>	small cell lung cancer
<b>HCC</b>	hepatocellular carcinoma	<b>SMA</b>	spinal muscular atrophy
<b>HNC</b>	head and neck carcinoma	<b>SSc-ILD</b>	systemic sclerosis with interstitial lung disease
<b>IV</b>	intravenous	<b>TED</b>	thyroid eye disease
<b>LBCL</b>	large B-cell lymphoma	<b>UME</b>	uveitic macular edema
<b>LGSOC</b>	low-grade serous ovarian cancer	<b>T2D</b>	type 2 diabetes
<b>LN</b>	lupus nephritis		