# **Innovation Review**

Benefiting from our continued focus on innovation, Novartis has one of the industry's most innovative and inventive pipelines with ~150 projects in clinical development.

### Selected Innovative Medicines approvals: US, EU and Japan in Q4

Product	Active ingredient/ Descriptor	Indication	Region
Pluvicto	lutetium ( <sup>177</sup> Lu) vipivotide tetraxetan	Metastatic castration-resistant prostate cancer, post-taxane	EU - Dec

#### Selected Innovative Medicines projects awaiting regulatory decisions

		Completed submissions			
Product	Indication	US	EU	Japan	News update
Cosentyx	300mg auto-injector and pre-filled syringe	Q4 2022	Approved	Approved	- US resubmission
Cosentyx	Intravenous formulation for psoriatic arthritis (PsA), ankylosing spondylitis (AS), and non-radiographic axial SpA (nr-axSpA)	Q4 2022			
Cosentyx	Hidradenitis suppurativa	Q3 2022	Q2 2022		
Jakavi	Acute graft-versus-host disease (GvHD)		Approved	Q1 2021	- US filing by Incyte
	Chronic GvHD		Approved	Q1 2021	- US filing by Incyte
SEG101 (crizanlizumab)	Sickle cell disease, pediatrics				<ul> <li>Results from the ongoing global</li> <li>Ph3 STAND study did not show</li> <li>superiority compared to placebo;</li> <li>health authorities have been informed</li> </ul>
VDT482 (tislelizumab)	2L Esophageal cancer (ESCC)	Q3 2021	Q1 2022		<ul> <li>FDA deferred action pending completion of required inspections</li> </ul>
	NSCLC		Q1 2022		

#### Selected Innovative Medicines pipeline projects

Compound/ product	Potential indication/ Disease area	First planned submissions	Current Phase	News update
Aimovig	Migraine, pediatrics	≥2026	3	
AVXS-101 (OAV101)	Spinal muscular atrophy (IT formulation)	2025	3	
Beovu	Diabetic retinopathy	2025	3	
CFZ533 (iscalimab)	Sjögren's syndrome	≥2026	2	
Coartem	Malaria, uncomplicated (<5 kg patients)	2024	3	<ul> <li>Submission will use the MAGHP procedure in Switzerland to facilitate rapid approval in developing countries</li> </ul>
Cosentyx	Giant cell arteritis	2025	3	
	Lupus nephritis	≥2026	3	

Compound/ product	Potential indication/ Disease area	First planned submissions	Current Phase	News update
JDQ443	Non-small cell lung cancer, 2/3L	2024	3	
	Non-small cell lung cancer (combos)	≥2026	2	
KAE609 (cipargamin)	Malaria, uncomplicated	≥2026	2	
	Malaria, severe	≥2026	2	
KAF156 (ganaplacide)	Malaria, uncomplicated	≥2026	2	<ul> <li>FDA Orphan Drug designation</li> <li>FDA Fast Track designation for the ganaplacide-containing combination therapy</li> </ul>
Kisqali + endocrine therapy	Hormone receptor-positive (HR+)/human epidermal growth factor receptor 2-negative (HER2-) early breast cancer (adjuvant)	2023	3	
Leqvio	Secondary prevention of cardiovascular events in patients with elevated levels of LDL-C	≥2026 }	3	
LMI070 (branaplam)	Huntington's disease		2	<ul> <li>Program discontinued based on an overall assessment of potential benefit-risk from the Ph2b VIBRANT-HD study</li> </ul>
LNA043	Osteoarthritis	≥2026	2	- FDA Fast Track designation
LNP023 (iptacopan)	Paroxysmal nocturnal hemoglobinuria	2023	3	<ul> <li>FDA, EU Orphan Drug designation</li> <li>FDA Breakthrough Therapy designation</li> <li>Ph3 APPLY-PNH full data presentation at ASH</li> <li>Ph3 APPOINT-PNH trial met primary endpoint</li> </ul>
	IgA nephropathy	2024	3	<ul> <li>EU Orphan Drug designation</li> <li>Few months submission delay but readout confirmed for 2023 (Slightly slower recruitment than planned)</li> </ul>
	C3 glomerulopathy	2024	3	- EU Orphan Drug designation - EU PRIME designation - FDA Rare Pediatric designation - China Breakthrough Therapy designation - Few months submission delay but readout confirmed for 2023 (Slightly slower recruitment than planned)
	Membranous nephropathy		2	Program discontinued (uncompelling competitive profile)
	IC-MPGN	≥2026	3	- Ph3 start planned in H2 2023
	Atypical haemolytic uraemic syndrome	≥2026	3	- Recruitment slower than anticipated
LOU064 (remibrutinib)	Chronic spontaneous urticaria	2024	3	
	Multiple sclerosis	≥2026	3	
	Sjögren's syndrome	≥2026	2	
Lutathera	Gastroenteropancreatic neuroendocrine tumors, 1L in G2/3 tumors	2023	3	
<sup>177</sup> Lu-NeoB	Multiple solid tumors	≥2026	1	
LXE408	Visceral leishmaniasis	≥2026	2	
MBG453 (sabatolimab)	Myelodysplastic syndrome	2024	3	<ul><li>FDA Fast Track designation</li><li>EU Orphan Drug designation</li></ul>
	Unfit acute myeloid leukemia	≥2026	2	
MIJ821 (onfasprodil)	Depression	≥2026	2	
NIS793	1L Pancreatic cancer	2025	3	- FDA Orphan Drug designation
Piqray	Triple negative breast cancer		3	<ul> <li>Project will be discontinued to prioritize other key programs in portfolio</li> </ul>
	Human epidermal growth factor receptor 2-positive (HER2+) advanced breast cancer		3	Project will be discontinued to prioritize other key programs in portfolio
	Ovarian cancer	2023	3	
Pluvicto	Metastatic castration-resistant prostate cancer pre-taxane	2023	3	<ul> <li>Ph3 PSMAfore trial met primary endpoint</li> </ul>
	Metastatic hormone sensitive prostate cancer	2024	3	
PPY988 (GT005)	Geographic atrophy	≥2026	2	- Gyroscope acquisition

Compound/ product	Potential indication/ Disease area	First planned submissions	Current Phase	News update
QGE031 (ligelizumab)	Food allergy	≥2026	3	Optimized clinical program     strategy to maximize potential
SAF312 (libvatrep)	Chronic ocular surface pain	≥2026	2	
Scemblix	1L Chronic myeloid leukemia	2025	3	- Ph3 ASC4FIRST trial completed enrollment
TQJ230 (pelacarsen)	Secondary prevention of cardiovascular events in patients with elevated levels of lipoprotein(a)	2025	3	FDA Fast Track designation     China Breakthrough Therapy designation
VAY736 (ianalumab)	Auto-immune hepatitis	≥2026	2	
	Sjögren's syndrome	≥2026	3	- FDA Fast Track designation
	Lupus nephritis	≥2026	3	
	Systemic lupus erythematosus	≥2026	2	
	1L Immune thrombocytopenia	≥2026	3	- Ph3 study VAYHIT1 initiating
	2L Immune thrombocytopenia	≥2026	3	- Ph3 study VAYHIT2 initiating
	warm Autoimmune hemolytic anemia	≥2026	3	- Ph3 study VAYHIA initiated
VDT482 (tislelizumab)	1L Nasopharyngeal carcinoma	2023	3	- FDA Orphan designation
	1L Gastric cancer	2023	3	
	1L ESCC	2023	3	
	Localized ESCC	2024	3	- Protocol amendment
	1L Hepatocellular carcinoma	2023	3	
	1L Small cell lung cancer	2024	3	
	1L Urothelial cell carcinoma	≥2026	3	
	Adj/Neo adj. NSCLC	≥2026	3	
VPM087 (gevokizumab)	Colorectal cancer, 1L	≥2026	1	
Xolair	Food allergy	2023	3	
YTB323	1L High-risk large B-cell lymphoma	≥2026	2	<ul> <li>Development plan update</li> </ul>
XXB750	Hypertension	≥2026	2	- Ph2b initiated

## Selected Sandoz approvals and pipeline projects

Project/	Potential indication/	
Compound	Disease area	News update
GP2411 (denosumab)	Osteoporosis (same as originator)	– In Ph3
SOK583 (aflibercept)	Ophthalmology (same as originator)	– In Ph3
Insulin glargine, lispro, aspart	Diabetes	- Collaboration with Gan & Lee
Natalizumab	Multiple sclerosis and Crohn's disease	<ul><li>Collaboration Polpharma Biologics</li><li>In registration</li></ul>
Trastuzumab	HER2-positive cancer tumors	– Collaboration EirGenix – In registration
Bevacizumab	Solid tumors	<ul><li>Collaboration Bio-Thera Solutions</li><li>In registration</li></ul>