Selected development projects

Project/ product	Common name	Mechanism of action	Potential indication	Business franchise	Formulation/ route of administration	Year project entered current development phase	Planned filing dates/current phase
ABL001	asciminib	BCR-ABL inhibitor	Chronic myeloid leukemia, 3 rd line	Oncology	Oral	2016	2021/III
ACZ885	canakinumab	Anti-interleukin-1 beta monoclonal antibody	2 nd line non-small cell lung cancer	Oncology	Subcutaneous injection	2017	2021/III
			1st line non-small cell lung cancer	Oncology	Subcutaneous injection	2017	2021/III
			Adjuvant non-small cell lung cancer	Oncology	Subcutaneous injection	2017	2022/III
AVXS-101 ¹	onasemno- gene abepar- vovec	Survival motor neuron (SMN) gene replacement therapy	Spinal muscular atrophy (IV formulation)	Neuroscience	Intravenous infusion	2018	US approved EU registration
			Spinal muscular atrophy (IT formulation) ²	Neuroscience	Intrathecal injection	2018	2020/I
AVXS-201	TBD	Methyl-CpG binding protein 2 (MECP2) gene replacement therapy	Rett syndrome	Neuroscience	Intrathecal injection	2018	2023/I
BYL719 ³	alpelisib	PI3K-alpha inhibitor	PIK3CA mutant hormone receptor-positive (HR+)/human epidermal growth factor receptor 2-negative (HER2-) postmenopausal advanced breast cancer, 2 nd line (+ fulvestrant)	Oncology	Oral	2018	US approved EU registratio
			PIK3CA-related overgrowth spectrum	Oncology	Oral	2019	2020/III
			Triple negative breast cancer	Oncology	Oral	2019	2023/III
			Hormone receptor-negative (HR-)/human epidermal growth factor receptor 2-positive (HER2+) advanced breast cancer	Oncology	Oral	2019	2023/III
			Ovarian cancer	Oncology	Oral	2019	2023/III
			Head and neck squamous cell carcinoma	Oncology	Oral	2019	≥2024/III
CEE321	TBD	Pan-JAK inhibitor	Atopic dermatitis	Immunology, Hepatology and Dermatology	Topical	2019	≥2024/II
CFZ533	iscalimab	Blocking, non-depleting, anti-CD40 monoclonal antibody	Solid organ transplantation	Immunology, Hepatology and Dermatology	Intravenous infusion	2017	2023/II
			Sjögren's syndrome	Immunology, Hepatology and Dermatology	Intravenous infusion	2018	≥2024/II
Cosentyx	secukinumab	Anti-interleukin-17 monoclonal antibody	Non-radiographic axial spondyloarthritis	Immunology, Hepatology and Dermatology	Subcutaneous injection	2015	US/EU registration
			Psoriatic arthritis head-to-head study versus Humira* (adalimumab)	Immunology, Hepatology and Dermatology	Subcutaneous injection	2015	2020/III
			Ankylosing spondylitis head-to-head study versus Sandoz biosimilar <i>Hyrimoz</i> (adalimumab)	Immunology, Hepatology and Dermatology	Subcutaneous injection	2015	2022/III
			Hidradenitis suppurativa	Immunology, Hepatology and Dermatology	Intravenous infusion	2017	2022/III
			Giant cell arteritis	Immunology, Hepatology and Dermatology	Intravenous infusion	2018	≥2024/II
			Lichen planus	Immunology, Hepatology and Dermatology	Intravenous infusion	2019	≥2024/II
CSJ117	TBD	Anti-thymic stromal lymphopoietin monoclonal antibody fragment	Severe asthma	Respiratory	Inhalation	2018	2023/II
ECF843	TBD	Boundary lubricant	Dry eye	Ophthalmology	Eye drops	2017	2022/II
Entresto	valsartan and sacubitril (as sodium salt complex)	Angiotensin receptor/ neprilysin inhibitor	Chronic heart failure with preserved ejection fraction	Cardiovascular, Renal and Metabolism	Oral	2012	2020/III
			Post-acute myocardial infarction	Cardiovascular, Renal and Metabolism	Oral	2015	2021/III

Approved in the US as Zolgensma for spinal muscular atrophy (IV formulation)
 The FDA has placed a partial clinical hold on AVXS-101 intrathecal trials for spinal muscular atrophy patients based on findings in a small preclinical animal study.
 Approved in the US as Piqray for PIK3CA mutant HR+/HER2- postmenopausal advanced breast cancer, 2nd line (+ fulvestrant)

Project/	Common name	Mechanism of action	Potential indication	Business franchise	Formulation/ route of administration	Year project entered current development phase	Planned filing dates/current phase
INC280	capmatinib	c-MET inhibitor	Non-small cell lung cancer	Oncology	Oral	2014	US registration
			Solid tumors	Oncology	Oral	2019	≥2024/II
Jakavi	ruxolitinib	JAK1/2 inhibitor	Acute graft-versus-host disease	Oncology	Oral	2016	2021/III
			Chronic graft-versus-host disease	Oncology	Oral	2016	2021/III
KAE609	cipargamin	PfATP4 inhibitor	Malaria	Established Medicines	Oral	2012	≥2024/II
			Severe malaria	Established Medicines	Oral	2019	≥2024/II
KAF156	ganaplacide	Imidazolopiperazines derivative	Malaria	Established Medicines	Oral	2014	≥2024/II
Kisqali	ribociclib	CDK4/6 inhibitor	HR+/HER2- breast cancer (adjuvant)	Oncology	Oral	2018	2022/III
KJX839	inclisiran	Small-interfering RNA (PCSK9)	Hyperlipidemia	Cardiovascular, Renal and Metabolism	Subcutaneous injection	2019	US/EU registration
			Secondary prevention of cardiovascular events in patients with elevated levels of LDL-C	Cardiovascular, Renal and Metabolism	Subcutaneous injection	2019	≥2024/III
Kymriah	tisagen- lecleucel	CD19-targeted chimeric antigen receptor T-cell immunotherapy	Relapsed/refractory follicular lymphoma	Oncology	Intravenous infusion	2017	2021/II
			Relapsed/refractory diffuse large B-cell lymphoma in 1st relapse	Oncology	Intravenous infusion	2018	2021/III
			Relapsed/refractory diffuse large B-cell lymphoma (+ pembrolizumab)	Oncology	Intravenous infusion	2017	≥2024/II
LAM320	clofazimine	Mycobacterial DNA binding	Multidrug-resistant tuberculosis	Established Medicines	Oral	2016	2021/III
LJC242	tropifexor, cenicriviroc (in fixed-dose combination)		Nonalcoholic steatohepatitis	Immunology, Hepatology and Dermatology	Oral	2017	≥2024/II
LJN452	tropifexor	FXR agonist	Nonalcoholic steatohepatitis	Immunology, Hepatology and Dermatology	Oral	2015	≥2024/II
LMI070	branaplam	SMN2 RNA splicing modulator	Spinal muscular atrophy	Neuroscience	Oral	2017	≥2024/II
LNP023	TBD	Factor B inhibitor	IgA nephropathy	Cardiovascular, Renal and Metabolism	Oral	2018	2023/II
			C3 glomerulopathy	Cardiovascular, Renal and Metabolism	Oral	2018	2023/II
			Paroxysmal nocturnal hemoglobinuria	Cardiovascular, Renal and Metabolism	Oral	2019	2023/II
			Membranous nephropathy	Cardiovascular, Renal and Metabolism	Oral	2018	≥2024/II
LOU064	TBD	BTK inhibitor	Chronic spontaneous urticaria	Immunology, Hepatology and Dermatology	Oral	2017	2023/II
¹⁷⁷ Lu- PSMA-617	TBD	Targeted DNA destruction via beta-particle radiation	Metastatic castration-resistant prostate cancer	Oncology	Intravenous infusion	2018	2020/III
LXE408	TBD	Kinetoplastid proteasome inhibitor	Visceral leishmaniasis	Established Medicines	Oral	2019	≥2024/II
MBG453	TBD	TIM-3 antagonist	Myelodysplastic syndrome	Oncology	Intravenous infusion	2018	2021/II
			Acute myeloid leukemia	Oncology	Intravenous infusion	2019	≥2024/II
OMB157	ofatumumab	Anti-CD20 monoclonal antibody	Relapsing multiple sclerosis	Neuroscience	Subcutaneous injection	2015	US/EU registration
PDR001	spartalizumal	Anti-PD-1 monoclonal antibody	Metastatic BRAF V600+ melanoma (w/ Tafinlar + Mekinist)	Oncology	Intravenous infusion	2017	2020/III
			Metastatic melanoma (combo)	Oncology	Intravenous infusion	2017	2023/II
QBW251	TBD	CFTR potentiator	Chronic obstructive pulmonary disease	Respiratory	Oral	2017	≥2024/II
QGE031	ligelizumab	High-affinity anti-IgE monoclonal antibody	Chronic spontaneous urticaria/ chronic idiopathic urticaria	Immunology, Hepatology and Dermatology	Subcutaneous injection	2017	2021/III
QMF149	indacaterol, mometasone furoate (in fixed-dose combination)	Long-acting beta ₂ - adrenergic agonist and inhaled corticosteroid	Asthma	Respiratory	Inhalation	2019	EU registration

Project/ product	Common name	Mechanism of action	Potential indication	Business franchise	Formulation/ route of administration	Year project entered current development phase	Planned filing dates/current phase
QVM149	indacaterol, mometasone furoate, glyco- pyrronium bromide (in fixed-dose combination)	Long-acting beta ₂ - adrenergic agonist, long-acting muscarinic antagonist and inhaled corticosteroid	Asthma	Respiratory	Inhalation	2019	EU registration
RTH258 ⁴	brolucizumab	Anti-VEGF single-chain antibody fragment	Neovascular (wet) age-related macular degeneration	Ophthalmology	Intravitreal injection	2019	US approved EU registration
			Diabetic macular edema	Ophthalmology	Intravitreal injection	2017	2021/III
			Retinal vein occlusion	Ophthalmology	Intravitreal injection	2018	2023/III
			Proliferative diabetic retinopathy	Ophthalmology	Intravitreal injection	2019	2023/III
SAF312	TBD	TRPV1 antagonist	Chronic ocular surface pain	Ophthalmology	Topical	2019	≥2024/II
SEG101 ⁵	crizanlizumab	P-selectin inhibitor	Sickle cell disease	Oncology	Intravenous infusion	2019	US approved EU registration
TQJ230	TBD	Anti-apo(a) antisense oligonucleotide	Secondary prevention of cardiovascular events in patients with elevated levels of lipoprotein(a)	Cardiovascular, Renal and Metabolism	Subcutaneous injection	2018	≥2024/III
UNR844	TBD	Reduction of disulfide bonds	Presbyopia	Cardiovascular, Renal and Metabolism	Eye drops	2017	≥2024/II
VAY736	ianalumab	Anti-BAFF (B-cell- activating factor) monoclonal antibody	Autoimmune hepatitis	Immunology, Hepatology and Dermatology	Subcutaneous injection	2016	≥2024/II
			Primary Sjögren's syndrome	Immunology, Hepatology and Dermatology	Subcutaneous injection	2015	≥2024/II
VPM087	TBD	Interleukin-1 beta neutralization monoclonal antibody	Colorectal cancer, 1 st line; renal cell carcinoma, 1 st line	Oncology	Intravenous infusion	2018	≥2024/I
Xolair	omalizumab	Anti-IgE monoclonal antibody	Nasal polyps	Respiratory	Subcutaneous injection	2017	US/EU registration
			Food allergy	Respiratory	Subcutaneous injection	2019	2021/III
ZPL389	adriforant	Histamine H4 receptor antagonist	Atopic dermatitis	Immunology, Hepatology and Dermatology	Oral	2017	≥2024/II

Approved in the US as Beovu for neovascular (wet) age-related macular degeneration
 Approved in the US as Adakveo for sickle cell disease