

R&D Pipeline – Phase III & Registration

Phase III

Name	Description	Indication
Libtayo ⁽¹⁾	Anti-PD-1 mAb monotherapy	1L NSCLC
Libtayo ⁽¹⁾	Anti-PD-1 mAb + chemotherapy	1L NSCLC
Libtayo ⁽¹⁾	Anti-PD-1 mAb	2L Cervical Cancer
Libtayo ⁽¹⁾	Anti-PD-1 mAb	adjuvant in CSCC
Sarclisa [®]	Anti-CD38 mAb	1L Newly Diag. MM Ti (IMROZ)
Sarclisa [®]	Anti-CD38 mAb	Newly Diag. MM Te (GMMG)
Sarclisa [®]	Anti-CD38 mAb	Smoldering multiple myeloma (ITHACA)
SAR408701	anti-CEACAM5 ADC	NSCLC 2/3L
Dupixent ⁽¹⁾	Anti-IL4/IL13 mAb	Asthma 6 - 11 years old
Dupixent ⁽¹⁾	Anti-IL4/IL13 mAb	AD 6 months - 5 years old
Dupixent ⁽¹⁾	Anti-IL4/IL13 mAb	Prurigo nodularis
Dupixent ⁽¹⁾	Anti-IL4/IL13 mAb	Eosinophilic Esophagitis
Dupixent ⁽¹⁾	Anti-IL4/IL13 mAb	Bullous pemphigoid
Dupixent ⁽¹⁾	Anti-IL4/IL13 mAb	Chronic spontaneous urticaria
Dupixent ⁽¹⁾	Anti-IL4/IL13 mAb	Chronic obstructive pulmonary disease
rilzabrutinib	BTK inhibitor	Pemphigus
venglustat	Oral GCS inhibitor	ADPKD ⁽²⁾
venglustat	Oral GCS inhibitor	GM2 gangliosidosis
Cerdelga [®]	Oral GCS inhibitor	Gaucher T1, ERT switch Pediatric
Tolebrutinib ⁽³⁾	BTK inhibitor	Multiple Sclerosis
fitusiran	RNAi targeting anti-thrombin	Hemophilia A and B
fitusiran	RNAi targeting anti-thrombin	Hemophilia A and B pediatric
BIVV001 ⁽⁴⁾	rFVIII Fc – vWF – XTEN ⁽⁵⁾	Hemophilia A
Nirsevimab ⁽⁶⁾	Monoclonal Antibody	Respiratory syncytial virus
MenQuadfi TM	Meningococcal (A,C,Y,W) conjugate vaccine	Meningitis 6w+ (US / EU)
VerorabVax [®] (VRVg)	Purified vero rabies vaccine	Rabies

As of September 30, 2020

Registration

Name	Description	Indication
Sarclisa [®]	Anti-CD38 mAb	2L RRM (IKEMA)
Dupixent ⁽¹⁾	Anti-IL4/IL13 mAb	AD 6 – 11 years old (EU)
avalglucosidase alfa	Enzyme replacement therapy	Pompe Disease
Aubagio [®]	Pyrimidine synthesis inhibitor	Relapsing Multiple Sclerosis – Pediatric
sutimlimab	Anti Complement C1s mAb	Cold Agglutinin Disease
MenQuadfi TM	Meningococcal conjugate vaccine	EU 1y+
Shan 6 [®]	Pediatric hexavalent vaccine	DTP-HepB-Polio-Hib
Supemtek [®]	Recombinant influenza vaccine	EU

 Immuno-inflammation	 Rare Blood Disorders
 Oncology	 Multiple Sclerosis & Neurology
 Rare Diseases	 Vaccines

- (1) Developed in collaboration with Regeneron
(2) Autosomal Dominant Polycystic Kidney Disease
(3) Proposed international nonproprietary name for SAR442168
(4) Developed in collaboration with Sobi
(5) Recombinant Coagulation Factor VIII Fc – von Willebrand Factor – XTEN Fusion protein
(6) Developed in collaboration with AstraZeneca

Ti: transplant ineligible; Te: transplant eligible; ADC: antibody drug conjugate; RRM: relapsed refractory multiple myeloma; BTKi: Bruton's Tyrosine Kinase inhibitor; GCS: glucosylceramide synthase

R&D Pipeline – Phase I & II

Phase I

Name	Description	Indication
SAR439459	anti-TGFb mAb	Advanced Solid Tumors
Amcenenstrant ⁽¹⁾	SERD + palbociclib	Metastatic Breast Cancer
SAR440234	T cell engaging multi specific mAb	Leukemia
SAR441000 ⁽⁶⁾	Cytokine mRNA	Solid tumors
SAR442085	Anti CD38 mAb Fc engineered	Multiple Myeloma
SAR442257	Anti-CD38xCD28xCD3 trispecific mAb	MM / N-H Lymphoma
SAR442720 ⁽⁵⁾	SHP2 inhibitor + pembrolizumab	Solid tumors
SAR442720 ⁽⁵⁾	SHP2 inhibitor + cobimetinib	Relapsed Refractory solid tumors
SAR444245 (THOR-707)	Non-alpha IL-2	Solid tumors
REGN4018 ⁽⁴⁾	Anti-MUC16xCD3 + cemiplimab	Ovarian Cancer
REGN5459 ⁽⁴⁾	Anti-BCMAxCD3 bispecific mAb	Relapsed Refractory MM
REGN5458 ⁽⁴⁾	Anti-BCMAxCD3 bispecific mAb	Relapsed Refractory MM
REGN4018 ⁽⁴⁾	Anti-MUC16xCD3 bispecific mAb	Ovarian Cancer
SAR441169 ⁽¹⁰⁾	RORC (ROR gamma T) antagonist	Psoriasis
SAR441236	Tri-specific neutralizing mAb	HIV
SAR443122 ⁽⁹⁾	RIPK1 ⁽⁹⁾ inhibitor	Inflammatory indications
PRN473	BTK inhibitor	Immune mediated diseases
SAR441344 ⁽³⁾	Anti-CD40L mAb	Multiple Sclerosis
ST400 ⁽⁷⁾	Ex Vivo ZFN Gene-Edited Cell Therapy	Beta thalassemia
BIVV003 ⁽⁷⁾	Ex Vivo ZFN Gene-Edited Cell Therapy	Sickle Cell Disease
BIVV020	Complement C1s inhibitor	Cold Agglutinin Disease
sutimlimab	Complement C1s inhibitor	Immune Thrombocytopenic Purpura
SP0148 ⁽¹¹⁾	Therapeutic vaccine	Herpes Simplex Virus Type 2
SP0218	Vaccine (Vero cell)	Yellow Fever

As of September 30, 2020

- (1) Also known as SAR439859
- (2) Also known as SAR440340
- (3) Developed in collaboration with Immunext
- (4) Regeneron product for which Sanofi has opt-in rights
- (5) Developed in collaboration with Revolution Medicines
- (6) Developed in collaboration with BioNTEch

- (7) Developed in collaboration with Sangamo
- (8) Developed in collaboration with Denali
- (9) Receptor-interacting serine/threonine-protein kinase 1
- (10) Developed in collaboration with Lead Pharma
- (11) Developed in collaboration with Immune Design/Merck
- (12) Developed in collaboration with Regeneron

- (13) Acid Sphingomyelinase Deficiency also known as Niemann Pick type B
- (14) Developed in collaboration with SK

Phase II

Name	Description	Indication
R Amcenenstrant ⁽¹⁾	SERD	Metastatic Breast Cancer 2/3L
Amcenenstrant ⁽¹⁾	SERD	Early Breast Cancer
SAR408701	Anti-CEACAM5 ADC + ramucirumab	NSCLC 2/3L
R Libtayo ⁽¹²⁾	Anti-PD-1 mAb	2-L Basal Cell Carcinoma
R Sarclisa [®]	Anti-CD38 mAb	1-2L AML / ALL pediatric
R isatuximab	Anti-CD38 mAb	patients awaiting kidney transplantation
Sarclisa [®]	Anti-CD38 mAb + cemiplimab	Lymphoma
Sarclisa [®]	Anti-CD38 mAb + atezolizumab	mCRC
Itepekimab ⁽²⁾	Anti-IL33 mAb	COPD
Itepekimab ⁽²⁾	Anti-IL33 mAb	Asthma
romilkimab	Anti-IL4/IL13 bispecific mAb	Systemic Scleroderma
dupilumab ⁽²⁾	Anti-IL4/IL13 mAb	Grass pollen allergy
dupilumab ⁽²⁾	Anti-IL4/IL13 mAb	Peanut allergy
R Kevzara ⁽²⁾	Anti-IL6 mAb	Polyarticular Juvenile Idiopathic Arthritis
R Kevzara ⁽²⁾	Anti-IL6 mAb	Systemic Juvenile Arthritis
rilzabrutinib	BTK inhibitor	Immune Thrombocytopenia
rilzabrutinib	BTK inhibitor	IgG4-related disease
R olipudase alfa ⁽¹³⁾	rhASM	ASMD ad+ped
SAR339375	miRNA-21	Alport Syndrome
venglustat	Oral GCS inhibitor	Fabry Disease
venglustat	Oral GCS inhibitor	Gaucher Type 3
venglustat	Oral GCS inhibitor	GBA-PD
SP0202 ⁽¹⁴⁾	Next Gen Conjugate Vaccine	Pneumococcal
Fluzone [®] HD	Recombinant Vaccine	Pediatric Flu
SP0125	Vaccine	Respiratory syncytial virus (infants)
SP0253	Recombinant baculovirus vaccine	COVID-19

- Immuno-inflammation
- Oncology
- Rare Diseases
- Rare Blood Disorders
- Multiple Sclerosis
- Vaccines

R Registrational Study (other than Phase 3)

O Opt-in rights products for which rights have not been exercised yet