

R&D Pipeline – New Molecular Entities(*)

Phase 1 (Total : 19)		Phase 2 (Total : 7)		Phase 3 (Total : 6)	Registration (Total : 2)
SAR441344 ^{(**)(1)} Anti-CD40L mAb Multiple Sclerosis	BIVV001 ^{(**)(5)} rFVIII Fc – vWF – XTEN ⁽⁶⁾ Hemophilia A	SAR440340 ^{(**)(12)} Anti-IL33 mAb Atopic Dermatitis	SAR422459 ^{(**)(14)} ABCA4 gene therapy Stargardt Disease	avalglucosidase alfa Neo GAA Pompe Disease	isatuximab Anti-CD38 mAb 3L RRRM (ICARIA) (U.S., EU)
SAR408701 Maytansin-loaded anti-CEACAM5 mAb, Solid Tumors	ST400 ^{(**)(7)} Ex Vivo ZFN Gene-Edited Cell Therapy, Beta thalassemia	SAR156597 IL4/IL13 bispecific mAb Systemic Sclerosis	SAR442168 ^{(**)(15)} BTK inhibitor Multiple Sclerosis	venglustat Oral GCS inhibitor ADPKD ⁽¹⁶⁾	SAR341402 (insulin aspart) Rapid acting insulin Type 1/2 Diabetes (EU)
SAR439459 anti-TGFb mAb Advanced Solid Tumors	BIVV003 ^{(**)(7)} Ex Vivo ZFN Gene-Edited Cell Therapy, Sickle Cell Disease	olipudase alfa rhASM AS Deficiency ⁽¹³⁾	HIV Viral vector prime & rgp120 boost vaccine	fitusiran RNAi targeting anti-thrombin Hemophilia A and B	
REGN5458 ^{(**)(2)} Anti-BCMA-CD3 bispecific mAb Relapsing Refractory MM	SAR443060 ^{(**)(8)} RIPK1 inhibitor ⁽⁹⁾ Amyotrophic Lateral Sclerosis	SAR339375 miRNA-21 Alport Syndrome		sutimlimab Anti Complement C1s mAb Cold Agglutinin Disease	
REGN4018 ^{(**)(2)} Anti-MUC16-CD3 bispecific mAb Ovarian Cancer	Next Gen PCV ^{(**)(10)} Pneumococcal Conjugate Vaccines			efpeglenatide ^{(**)(17)} Long-acting GLP-1 agonist Type 2 Diabetes	
SAR439859 SERD Metastatic Breast Cancer	Herpes Simplex Virus Type 2 HSV-2 therapeutic vaccine			nirsevimab ^{(**)(18)} Respiratory syncytial virus Monoclonal Antibody	
SAR442720 ^{(**)(3)} SHP2 inhibitor Solid Tumors	Respiratory syncytial virus Infants 4-month and older Vaccines				
SAR440234 T cell engaging multi spe mAb Leukemia	SAR441169 ^{(**)(11)} RORC (ROR gamma T) antagonist, Psoriasis				
SAR441000 ^{(**)(4)} Cytokine mRNA Solid tumors	SAR441255 Trigonal GLP1R/GIPR/GCGR agonist Obesity / Type 2 Diabetes				
SAR441236 Tri-specific neutralizing mAb HIV					

R Registrational Study (other than Phase 3)

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

 Immuno-inflammation	 MS & Neuro
 Oncology	 Diabetes
 Rare Diseases	 Cardiovascular & metabolism
 Rare Blood Disorders	 Vaccines

(1) Developed in collaboration with Immunext

(2) Regeneron product for which Sanofi has opt-in rights

(3) Developed in collaboration with REVOLUTION Medicines

(4) Developed in collaboration with BioNtech

(5) Sanofi product for which Sobi has opt-in rights in SOBI territories

(6) Recombinant Coagulation Factor VIII Fc – von Willebrand Factor – XTEN Fusion protein

(7) Developed in collaboration with Sangamo

(8) Developed in collaboration with Denali

(9) Receptor-interacting serine/threonine-protein kinase 5

(10) Developed in collaboration with SK

(11) Developed in collaboration with Lead Pharma

(12) Developed in collaboration with Regeneron

(13) Acid Sphingomyelinase Deficiency also known as Niemann Pick type B

(14) Identification of out-licensing partner ongoing

(15) Developed in collaboration with Principia

(16) Autosomal Dominant Polycystic Kidney Disease

(17) Developed in collaboration with Hanmi

(18) Developed in collaboration with AstraZeneca

(*) Phase of projects determined by clinicaltrials.gov disclosure timing

(**) Partnered and/or in collaboration – Sanofi may have limited or shared rights on some of these products

Additional Indications(*)

Phase 1 (Total : 5)	Phase 2 (Total : 17)	Phase 3 (Total : 23)	Registration (Total : 4)
SAR439459 + cemiplimab (**)(1) Anti-TGFβ mAb + PD-1 inh mAb Advanced Solid Tumors	dupilumab (**)(1) Anti-IL4Rα mAb Grass Immunotherapy	isatuximab + cemiplimab (**)(1) Anti-CD38 mAb + PD-1 inh mAb Relapsing Refractory MM	Dupixent (**)(1) dupilumab Asthma 6 - 11 years old
O cemiplimab (**)(1) + REGN4018 (**)(2) PD-1 inh mAb + Anti-MUC16-CD3 bispe mAb - Ovarian Cancer	R sarilumab (**)(1) Anti-IL6R mAb Polyarticular Juvenile Idiopathic Arthritis	isatuximab + cemiplimab (**)(1) Anti-CD38 mAb + PD-1 inh mAb Advanced Malignancies	isatuximab Anti-CD38 mAb Newly Diag. MM Te [®] (GMMG)
SAR439859 + palbociclib (3) SERD + CDK4/6 inh Metastatic Breast Cancer	sarilumab (**)(1) Anti-IL6R mAb Systemic Juvenile Arthritis	isatuximab + cemiplimab (**)(1) Anti-CD38 mAb + PD-1 inh mAb Lymphoma	Dupixent (**)(1) dupilumab AD 6 – 11 years old
sutimlimab Anti Complement C1s mAb Immune Thrombocytopenic Purpura	SAR440340 (**)(1) Anti-IL33 mAb COPD	isatuximab + atezolizumab (6) Anti-CD38 mAb + PD-L1 inh mAb mCRC	Aubagio [®] teriflunomide RMS – Pediatric
SAR443060 (**)(4) RIPK1 inhibitor(5) Multiple sclerosis	dupilumab (**)(1) Anti-IL4Rα mAb Peanut Allergy - Pediatric	isatuximab + atezolizumab (6) Anti-CD38 mAb + PD-L1 inhibitor mAb Solid Tumors	Lemtrada [®] alemtuzumab RRMS - Pediatric
	SAR440340 (**)(1) Anti-IL33 mAb Asthma	venlustat Oral GCS inhibitor Fabry Disease	Cerdelga [®] Eliglustat Gaucher T1, ERT switch Pediatric
	R cemiplimab (**)(1) PD-1 inhibitor mAb 2-L Basal Cell Carcinoma	venlustat Oral GCS inhibitor Gaucher Type 3	Praluent (**)(1) Alicrocumab LDL-C reduction - Pediatric
	isatuximab Anti-CD38 mAb 1-2L AML / ALL pediatrics	venlustat Oral GCS inhibitor Gaucher related Parkinson's Dis.	MenQuadfi TM Advanced generation meningococcal ACYW conjugate vaccine EU 1y+, US/EU 6w+
		SP0173 Tdap booster US	Pediatric pentavalent vaccine DTP-Polio-Hib Japan
		cemiplimab (**)(1) + chemotherapy PD-1 inh mAb + chemotherapy 1L NSCLC	Shan 6 DTP-HepB-Polio-Hib Pediatric hexavalent vaccine
		cemiplimab (**)(1) PD-1 inhibitor mAb 2L Cervical Cancer	VerorabVax (**)(1) (VRVg) Purified vero rabies vaccine
		cemiplimab (**)(1) PD-1 inhibitor mAb adjuvant in CSCC	isatuximab Anti-CD38 mAb 1L Newly Diag. MM T [®] (IMROZ)
		fitusiran RNAi targeting anti-thrombin Hemophilia A and B pediatric	

R Registrational study (other than Phase 3)

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

- | | |
|---|--|
| (1) Developed in collaboration with Regeneron | (6) Studies in collaboration with Roche (atezolizumab) |
| (2) Regeneron product for which Sanofi has opt-in rights | (7) Transplant ineligible |
| (3) Pfizer product (palbociclib) | (8) Transplant eligible |
| (4) Developed in collaboration with Denali | (9) Chronic rhinosinusitis with nasal polyps |
| (5) Receptor-interacting serine/threonine-protein kinase 1 | |
| (*) Phase of projects determined by clinicaltrials.gov disclosure timing | |
| (**) Partnered and/or in collaboration - Sanofi may have limited or shared rights on some of these products | |

- Immuno-inflammation
- Oncology
- Rare Diseases
- Rare Blood Disorders
- MS & Neuro
- Diabetes
- Cardiovascular & metabolism
- Vaccines

Pipeline Movements Since Q1 2019

Pipeline charts as communicated at Q2 2019 results meeting dated July 29, 2019

	Additions / Moves	Removals from Sanofi pipeline
Registration	<p>isatuximab Anti-CD38 mAb 3L RRM (ICARIA) (U.S., EU)</p> <p>MenQuadfi™ Advanced generation meningococcal ACYW conjugate vaccine 2y+ (U.S.)</p>	<p>SAR341402, insulin aspart Rapid acting insulin Type 1/2 Diabetes (EU)</p> <p>Zynquista™^{(**)(3)} (sotagliflozin) Oral SGLT-1&2 inhibitor Type 1 Diabetes (U.S.)</p>
Phase 3	<p>dupilumab^{(**)(1)} Anti-IL4Rα mAb COPD</p> <p>nirsevimab^{(**)(2)} Respiratory syncytial virus Monoclonal Antibody</p> <p>fitusiran RNAi targeting anti-thrombin Hemophilia A and B pediatric</p>	<p>cemiplimab^{(**)(1)} PD-1 inhibitor mAb adjuvant in CSCC</p> <p>VerorabVax® (VRVg) Purified vero rabies vaccine</p> <p>sotagliflozin^{(**)(3)} Oral SGLT-1&2 inhibitor Type 2 Diabetes</p> <p>sotagliflozin^{(**)(3)} Oral SGLT-1&2 inhibitor Worsening Heart Failure in Diabetes</p>
Phase 2		
Phase 1	<p>SAR441236 Tri-specific neutralizing mAb HIV</p>	<p>SAR441255 Trigonal GLP1R/GIPR/GCGR agonist Obesity / Type 2 Diabetes</p>