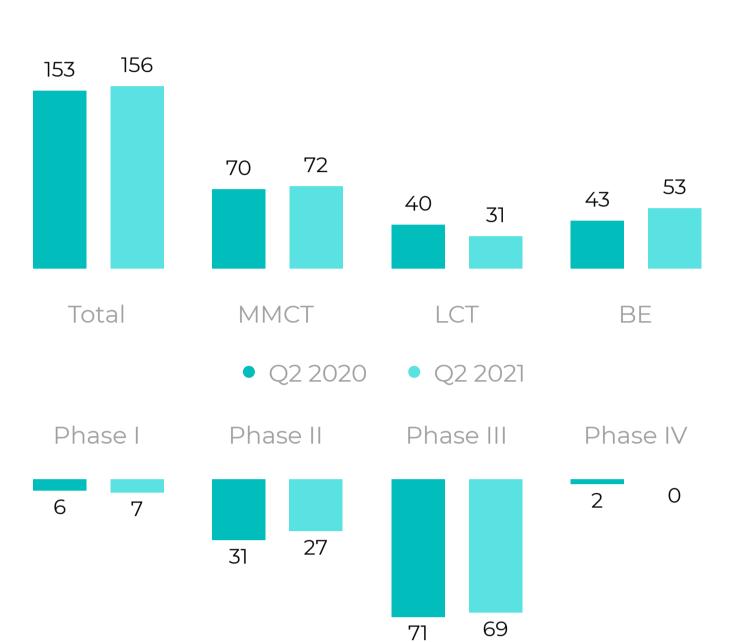
O Trial Data

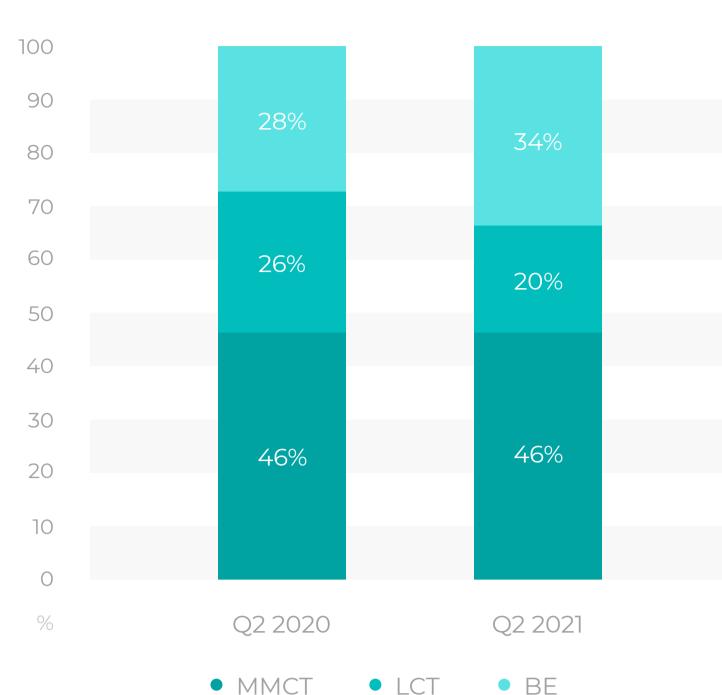
During Q2 2021 the Ministry of Health of the Russian Federation approved the start of 156 new clinical trials of all types, including local and bioequivalence studies. This represents a 2% year on year increase by the total number of studies.

The dominant type of clinical trials conducted across Russian sites in Q2 2021 were MMCT (Multinational Multi-center Clinical Trials). The market share of MMCTs remains the same as in the previous year with 46% of the total number of trials. The market share of Local Clinical Trials (LCTs) dipped from 26% to 20% whilst the Bio-equivalent (BE') share increased from 28% to 34%.

Breakdown of Clinical Trials by Type and Phase

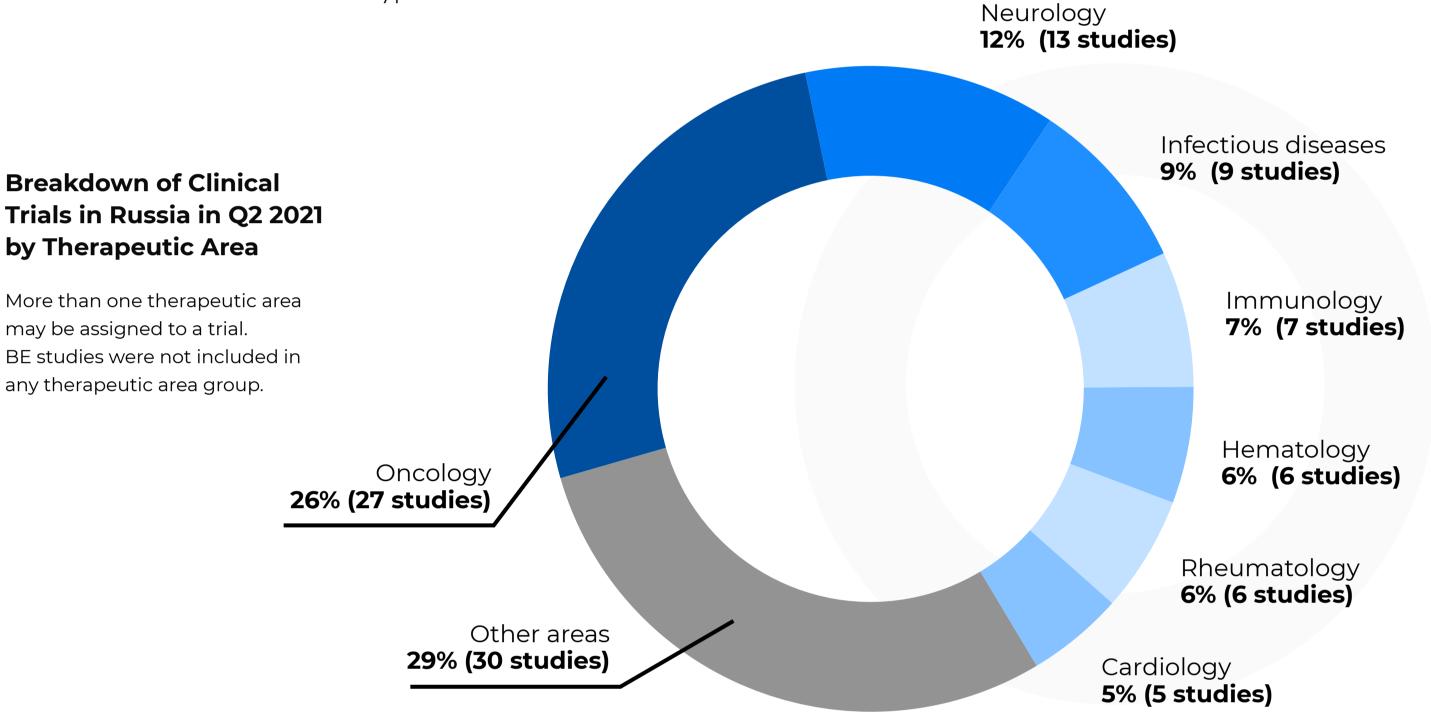


Percentage Breakdown of Clinical Trials by Type



The most prevalent Phase of clinical trials conducted in Russian sites by total number of studies was Phase III. The total number of Phase III trials declined by 3% – from 71 trials in Q2 2020 to 69 trials in Q2 2021.

The largest number of clinical trials initiated in Russia during Q2 2021 were related to Oncology (27 studies), Neurology (13 studies) and Infectious diseases (9 studies). Other dominant therapy areas include Immunology, Hematology, Rheumatology and Cardiology.



Sponsor Data

Clinical trials initiated in Russia during Q2 2021 were

sponsored by pharmaceutical companies from Russia and 21 foreign country. The combined share of international pharmaceutical companies involved in the Russian Clinical trials market raised from 48% to 58% of all studies.

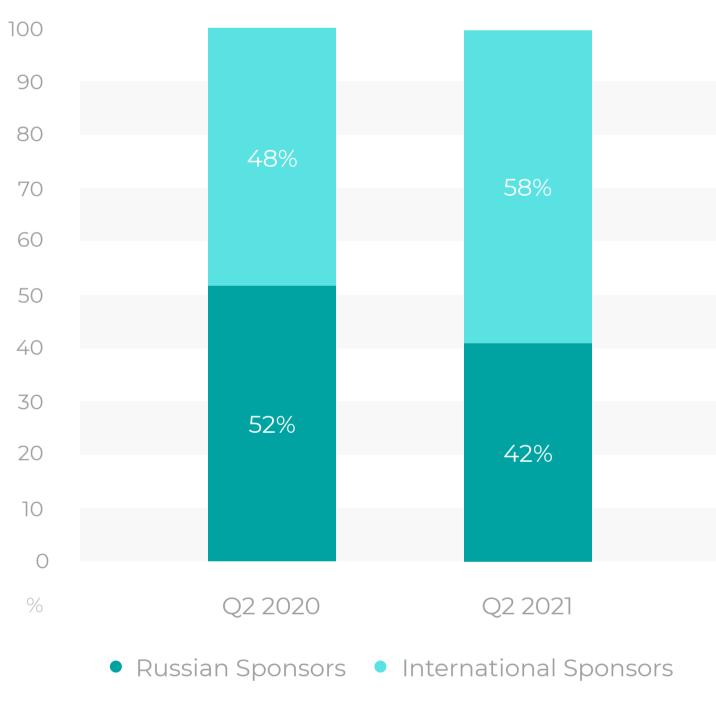
The dominant Phase of Clinical trials conducted across

Russian sites by international pharmaceutical companies in Q2 2021 was Phase III with 54% share among Phase I – IV studies.

The most prevalent Sponsor's countries of origin in Q2 2021

were Russia (65 studies), U.S. (29 studies) and Switzerland (12 studies). Other prominent countries include Austria and Sweden (5 studies each).

Percentage Breakdown of Clinical Trials by Sponsor's Country of origin



Combined market share shown as a percentage of both

Top-10 International Trial Sponsors in Russia in Q2 2021

Observational trials and trials without FDA-defined phases

(from I to IV) were not counted in the following ranking.

Nº	Company Name	Studies	Subjects
1	Merck	8	545
2	Hoffman-la Roche	6	414
3	AstraZeneca	5	630
4	Boehringer Ingelheim	5	493
5	GlaxoSmithKline	4	569
6	Novartis	4	160
7	Novo Nordisk	3	750
8	Chiesi Farmaceutici	2	960
9	Pfizer	2	478
10	Bio-Thera Solutions	2	268
	Combined market share	40%	10%
* Chumakov Federal Scientific Center for Research and			

Development of Immune and Biological Products of Russian Academy of Sciences ** Gamaleya Research Institute of Epidemiology and

Subject Data

The overall number of subjects enrolled (or planned to be enrolled) in clinical trials initiated in Russia during Q2 2021 reached a total of 52,460 subjects – a 260% jump in comparison with the previous year when only 14,612 subjects were enrolled. The most prevalent Phase of clinical trials by the number of participating subjects was Phase III with 95% of all subjects enrolled.

Studies indicated by sponsors as Phase I-II were counted as

Phase II; Phase II-III – as Phase III, Phase III-IV – as Phase IV.

Top-10 Russian Trial Sponsors in Russia in Q2 2021

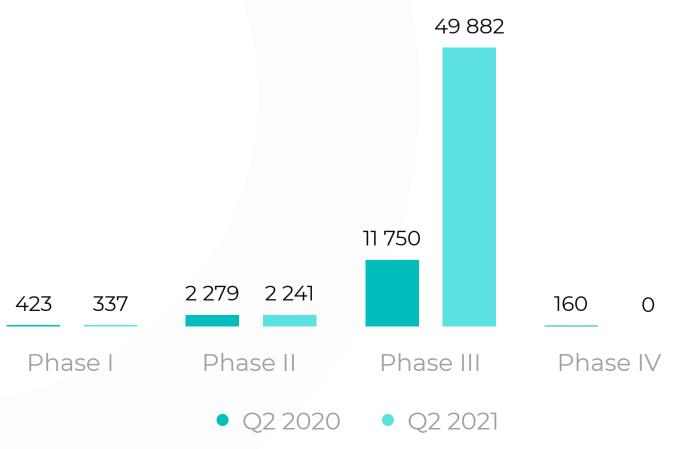
international and Russian sponsors.

Nº	Company Name	Studies	Subjects
7	Valenta Pharma	6	1 684
2	Moscow Endocrine Plant	2	340
3	PROMOMED	2	60
4	Chumakov Research *	1	32 000
5	Gamaleya Research **	1	7 978
6	GeroPharm	1	784
7	Microgen	1	460
8	Alium Pharm	1	360
9	NRCI of Immunology ***	1	317
10	VECTOR ****	1	300
	Combined market share	17 %	84%
*** National Research Center Institute of Immunology			

Federal Medical-Biological Agency **** State Research Center of Virology and Biotechnology VECTOR

49 882

Breakdown of number of Subjects enrolled by Phase



Microbiology

Q2 2021 Research report

O Research Site Data

Top-5 Russian research sites (all studies) in Q2 2021

Nº	Site Name	City	No. Studies
1	N.N. Blokhin Russian Cancer Research Center	Moscow	15
2	I.P. Pavlov First Saint Petersburg State Medical University	Saint-Petersburg	14
3	Ecosafety	Saint-Petersburg	14
4	V.A. Almazov National Medical Research Centre	Saint-Petersburg	13
5	Kazan State Medical University	Kazan	12
	Combined market share of these sites		44%

Site Name

O CRO Data No

in Q2 20

Top-5 C in Q2 20

Appr.Date

Top-10 CROs in Russia				_
in Q2 2021 (Phase I - IV studies)		Syneos Health	6	202
Observational Clinical trials and Clinical trials without FDA defined phases (from I to IV) were not included in this ranking.		Parexel	5	384
		PPD	5	130
		MedPace	4	69
		Covance	3	1 178
	6	Pharmaceutical Research Associates CIS	3	218
	7	Atlant Clinical	2	544
Top-5 CROs in Russia in Q2 2021 (BE studies) Only BE (bioequivalence) studies were included in this ranking.		IQVIA	2	79
		iPharma	1	7 978
		X7 Clinical Research	1	158
		Combined market share	31%	21%
Nº Site Name			No. Studies	No. Subjects
1 Probiotech			3	114
2 X7 Clinical Rese	earch		2	154
3 ClinPharmInve	est		2	140
4 ClinPharmDev	elopment		1	55
5 Accellena			1	40
Combined ma	rket share of these	companies	17%	19%

During Q2 2021 the Center for Drug Evaluation and Ten of these 36 drugs (and two of 7 NMEs) were (or are

Drug (Active Ingredient)

O Regulatory Data

including 7 new molecular entities (NME); other approvals concerned new dosages, combinations or manufacturers.

Research (CDER) of the U.S. FDA approved 36 new drugs,

Source: FDA

Company

being) studied in clinical trials involving Russian sites.

No. Studies

No. Subjects

14.05.2021	Empavelinda (Pegcetacoplan)	Apellis Pharms
14.03.2021	Emparemida (i egectacopian)	Apenistriatins
21.05.2021	Rybrevantbla (Amivantamab)	Janssen
28.05.2021	Lybalvinda (Olanzapine; Samidorphan I-malate)	Alkermes
31.05.2021	Noxafil Powdermix (Posaconazole)	Merck
01.06.2021	Brexafemmenda (Ibrexafungerp Citrate)	Scynexis
04.06.2021	Wegovynda (Semaglutide)	Novo Nordisk
10.06.2021	Epclusanda (Sofosbuvir; Velpatasvir)	Gilead Sciences
10.06.2021	Mavyretnda (Glecaprevir; Pibrentasvir)	Abbvie
21.06.2021	Pradaxanda (Dabigatran Etexilate Mesylate)	Boehringer Ingelheim
23.06.2021	Verkazianda (Cyclosporine)	Santen

1 biosimilar and 10 orphan medicines. Drug (Active Ingredient) Appr.Date 22.04.2021 Maviret (Glecaprevir; Pibrentasvir)

In Q2 2021 the Committee for Medicinal Products for

(EMA) approved 32 new drugs, including 4 generics,

Human Use (CHMP) of the European Medicine Agency

Source: EMA

Seventeen of these 32 drugs were (or are being) studied in

clinical trials involved Russian sites.

Company

AbbVie

According to the U.S. FDA data, there were no FDA		According to the Roszdravnadzor quarterly report, as of		
F	FDA inspections Roszdravnadzor inspections			
	24.06.2021	Bimzelx (Bimekizumab)		UCB Pharma
	24.06.2021	Byooviz (Ranibizumab)		Samsung Bioepis
	24.06.2021	Minjuvi (Tafasitamab)		Incyte
	24.06.2021	Opdivo (Nivolumab)		Bristol-Myers Squibb
	24.06.2021	Xeljanz (Tofacitinib Citrate)		Pfizer
	24.06.2021	Rinvoq (Upadacitinib)		AbbVie
	24.06.2021	Edistride (Dapagliflozin; Propanediol Monol	nydrate)	AstraZeneca
	24.06.2021	Evrenzo (Roxadustat)		Astellas Pharma
	21.05.2021	Zomarist (Vildagliptin; Metformin Hydrochlo	oride)	Novartis
	20.05.2021	Xiliarx (Vildagliptin)		Novartis
	20.05.2021	Blincyto (Blinatumomab)		Amgen
	20.05.2021	Verquvo (Vericiguat)		Bayer
	20.05.2021	Darzalex (Daratumumab)		Janssen
	20.05.2021	Keytruda (Pembrolizumab)		Merck
	20.05.2021	Jardiance (Empagliflozin)		Boehringer Ingelheim
	22.04.2021	Koselugo (Selumetinib Sulfate)		AstraZeneca
	22.0 1.2021	Maynet (Gleeaptevii, Fibreritasvii)		7 (D D V 10

inspections conducted in a Russian investigative sites during Q2 2021.

About The Orange Paper

12/07/2021 there were no Regulatory inspections conducted

by Roszdravnadzor during Q2 2021.

The Orange Paper is a free publication produced by

Synergy Research Group for the pharmaceutical industry since 2007. It pulls together data from numerous public planning to conduct clinical trials.

close of each year. All of the data within this document are actual on date:

It is produced quarterly, with an annual summary at the

12/07/2021

sources into a single brief document to aid decision makers

About Synergy Research Group Synergy Research Group is a contract research organization

successfully operating in Russia, Kazakhstan, Ukraine and

We set up the highest level of world-class quality both for SOPs and for final study data in every clinical trial

Canada since 2002. Synergy consistently ranks in the top-10 market leaders by number of conducted clinical studies and enrolled patients. The high recruitment rates of the emerging markets

combined with innovative technology allows Synergy to

offer our clients conduct faster, more cost-effective studies

We are continuously improving our SOPs, study risk management and IT infrastructure – and replacing outdated R&D strategies by novel, more efficient

approaches to clinical research.



without sacrificing quality for our clients.

we conduct.