



Software for  
Business Intelligence

**BizInt Smart Charts**

# How unique features of GlobalData can help in building reports and visualizations



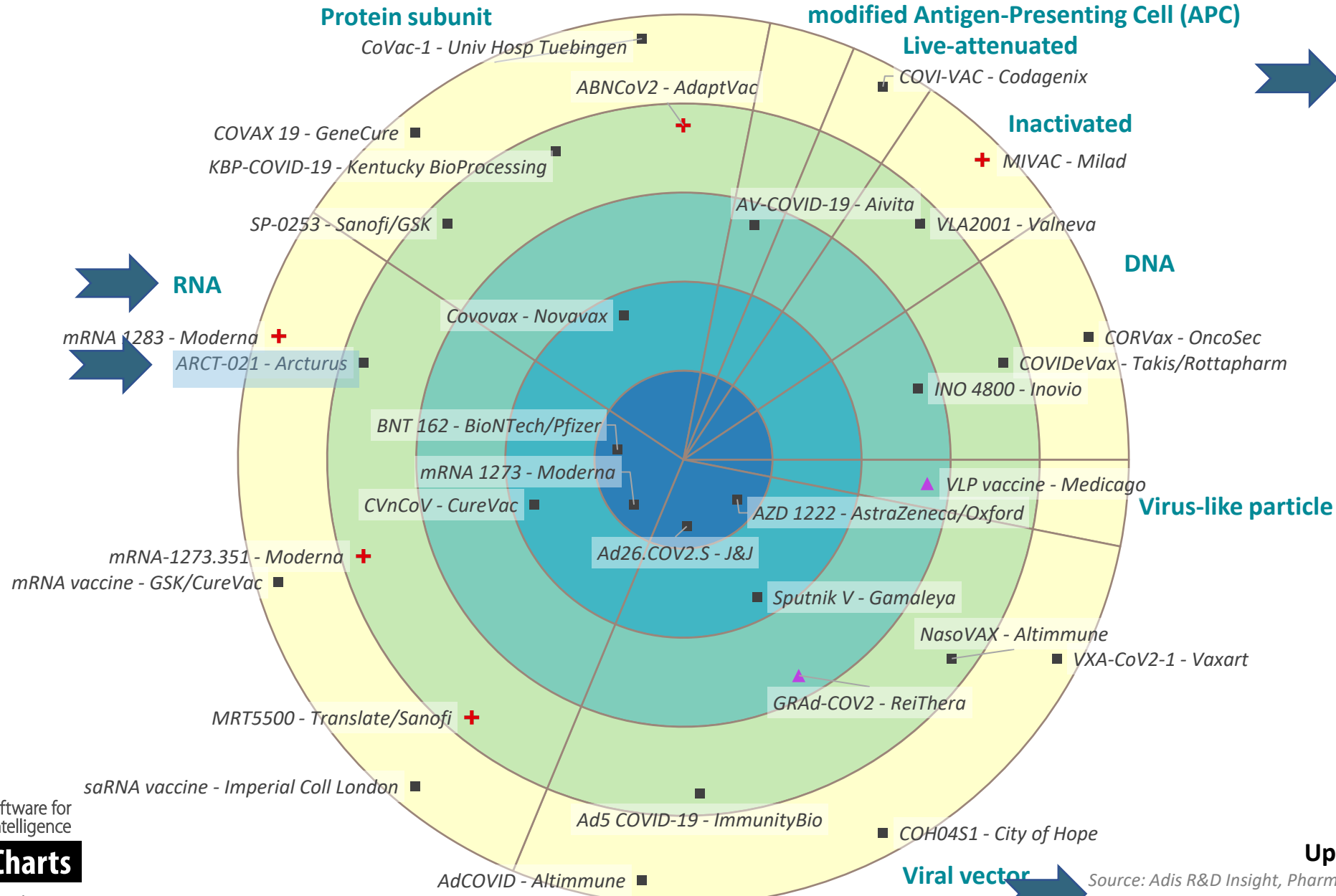
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[www.bizint.com](http://www.bizint.com)

# COVID-19 Vaccines – US, UK, & Europe

VP-SCE Bullseye<sup>SM</sup>



**Included:** clinical phase or above in the US, UK, or Europe. Vaccines are placed at the highest phase attained in any of these countries. Some vaccines are at a higher phase globally.

**Excluded:** Vaccines only showing development outside of the selected countries.

Updated March 23, 2021

Source: Adis R&D Insight, Pharmaprojects, Cortellis, GlobalData  
Created with VantagePoint – Smart Charts Edition (VP-SCE)

# COVID-19 Vaccines – US, UK, & Europe

Phase I	Phase II	Phase III	In Review	Authorized
CORVax - OncoSec US	COVIDeVax - Takis/Rottapharm Italy	INO 4800 - Inovio US	Covovax - Novavax Australia, EU, UK, US, Canada, NZ	BNT 162 - BioNTech/Pfizer Multiple countries including US and EU
MIVAC - Milad Iceland	VLA2001 - Valneva .....	AV-COVID-19 - Aivita US	CVnCoV - CureVac Europe	mRNA 1273 - Moderna Multiple countries including US and EU
COVAX 19 - GeneCure US, Australia	GRAd-COV2 - ReiThera Italy	Sputnik V - Gamaleya EU, India	Ad26.COVS.2 - J&J US, EU Liechtenstein, Norway, Canada, Iceland	AZD 1222 - AstraZeneca/Oxford Multiple countries outside of US including EU, UK, Canada, Mexico
CoVac-1 - Univ Hosp Tuebingen Germany	KBP-COVID-19 - Kentucky BioProcessing US	VLP vaccine - Medicago US, Canada		
mRNA 1283 - Moderna US	SP-0253 - Sanofi/GSK Panama, US, Honduras			
mRNA vaccine - GSK/CureVac US	ARCT-021 - Arcturus Singapore, US			
saRNA vaccine - Imperial Coll London UK	mRNA-1273.351 - Moderna US			
AdCOVID - Altimune US	MRT5500 - Translate/Sanofi US, France			
COH04S1 - City of Hope US	Ad5 COVID-19 - ImmunityBio US			
VXA-CoV2-1 - Vaxart US	NasoVAX - Altimune US			

**MIVAC - Milad  
Iceland**

**Vaccine type**

DNA
Inactivated
Live-attenuated
modified Antigen-Presenting Cell (APC)
Protein subunit
RNA
Viral vector
Virus-like particle

# Data needed for COVID-19 vaccine visualizations...

*...and tabular reports too.*

- **Vaccine technology** (*usually* not in the data)
- **Drug name** + “key” **company name**
- Current **phase** (highest or for indication).
- *Country for phase*

## For the Vaccine Technology, we can review the relevant columns

Common Drug Name	Database	Chemical/Biological Class	Other Actions	Therapeutic Class Status	
				Class	Status
mRNA 1273	Cortellis from Clarivate Analytics		RNA vaccine Prophylactic vaccine		
mRNA 1273	Citeline Pharmaprojects			Messenger RNA Prophylactic vaccine, anti-infective	Launched Launched
mRNA 1273	Adis R&D Insight	COVID-19 vaccines RNA vaccines Viral vaccines			




# Records from multiple databases help

Not all records make the category clear

Drug	Common Drug Name	Database	Chemical/Biological Class	Other Actions	Therapeutic Class Status	
					Class	Status
NVX-CoV2373	NVX CoV 2373	Citeline Pharmaprojects			Recombinant vaccine	Pre-registrati on
					Prophylactic vaccine, anti-infective	Pre-registrati on
NVX-CoV2373	NVX CoV 2373	Cortellis from Clarivate Analytics		Adjuvant Prophylactic vaccine Protein subunit vaccine		
NVX CoV 2373	NVX CoV 2373	Adis R&D Insight	COVID-19 vaccines Synthetic vaccines Viral vaccines			

# Extracting just the relevant terms really helps

Common Drug Name	Database	Chemical/Biological Class	Other Actions	Therapeutic Class Status		Category (VP-SCE)
				Class	Status	
NVX CoV 2373	Citeline Pharmaprojects			Recombinant vaccine	Pre-registration	
				Prophylactic vaccine, anti-infective	Pre-registration	
NVX CoV 2373	Cortellis from Clarivate Analytics		Adjuvant Prophylactic vaccine Protein subunit vaccine			Protein subunit
NVX CoV 2373	Adis R&D Ins 	COVID-19 vaccines Synthetic vaccines Viral vaccines				

## But, there will always be decisions to make...

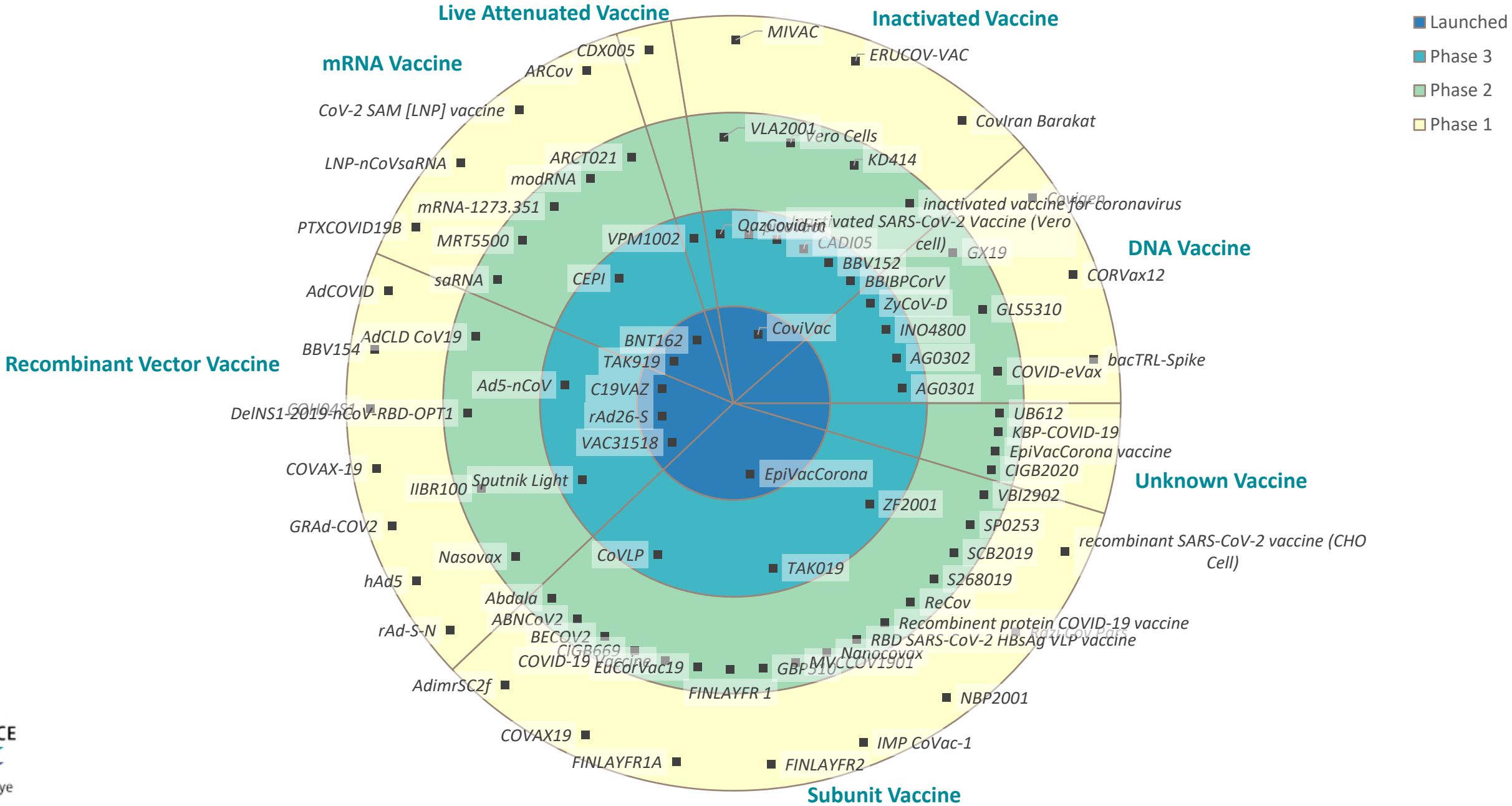
Common Drug Name	Database	Chemical/Biological Class	Other Actions	Therapeutic Class Status		Category (VP-SCE)
				Class	Status	
GX 19N ✓	Adis R&D Insight	COVID-19 vaccines ✓ DNA vaccines Viral vaccines				DNA ✓
GX 19N	Adis R&D Insight	COVID-19 vaccines DNA vaccines Viral vaccines				DNA
GX 19N	Cortellis from Clarivate Analytics		Recombinant viral vector vaccine ✓ Therapeutic vaccine DNA vaccine Antiviral Prophylactic vaccine		➔	DNA Viral vector
GX 19N	Citeline Pharmaprojects			Prophylactic vaccine, anti-infective	Phase II Clinical Trial ✓	
GX 19N	Citeline Pharmaprojects			Prophylactic vaccine, anti-infective	Discontinued	



# GlobalData has Molecule Type...

			Molecule Type
Drug	Database	Vaccine - sponsor	Molecule Type
PTX COVID19 B	✓ Adis R&D Insight	PTX-COVID19-B - Providence	✓
PTX-COVID19-B	Citeline Pharmaprojects	PTX-COVID19-B - Providence	
PTX-COVID19-B	Cortellis from Clarivate Analytics	PTX-COVID19-B - Providence	
PTXCOVID-19B	GlobalData Drugs	PTX-COVID19-B - Providence	mRNA Vaccine ✓
mRNA-1273.351	✓ Citeline Pharmaprojects	mRNA-1273.351 - Moderna	✓
mRNA-1273.351	Cortellis from Clarivate Analytics	mRNA-1273.351 - Moderna	
Coronavirus Disease 2019 (COVID-19) (Strain B.1.351) vaccine	GlobalData Drugs	mRNA-1273.351 - Moderna	mRNA Vaccine ✓
self-amplifying RNA vaccine (im, COVID-19), Imperial College London	✓ Cortellis from Clarivate Analytics	saRNA vaccine - Imperial Coll London	✓
Coronavirus Disease 2019 (COVID-19) vaccine	GlobalData Drugs	saRNA vaccine - Imperial Coll London	mRNA Vaccine ✓
MRT 5500	✓ Adis R&D Insight	MRT5500 - Translate/Sanofi	✓
COVID-19 vaccine, Translate Bio	Citeline Pharmaprojects	MRT5500 - Translate/Sanofi	
MRT-5500	GlobalData Drugs	MRT5500 - Translate/Sanofi	mRNA Vaccine ✓

# COVID-19 Vaccines – from GlobalData only



# Multi-database reports and visualizations

## *Making editorial decisions...*

	Drug Name	Database	Highest Status	Originator Company
1	Ad26.COVS 2	Adis R&D Insight	Registered	Janssen Pharmaceuticals (Originator)
2	COVID-19 vaccine, Johnson & Johnson	Citeline Pharmaprojects	Launched	Johnson & Johnson
3	JNJ-78436735	Cortellis from Clarivate Analytics	Registered	Johnson & Johnson
4	COVID-19 Vaccine	GlobalData Drugs	Marketed	Johnson & Johnson
5	AZD 1222	Adis R&D Insight	Registered	University of Oxford (Originator) Vaccitech (Originator)
6	COVID-19 vaccine, Oxford BioMedica	Citeline Pharmaprojects	Launched	Oxford BioMedica
7	AZD-1222	Cortellis from Clarivate Analytics	Launched	The Jenner Institute
8	COVID-19 Vaccine	GlobalData Drugs	Marketed	University of Oxford
9	Tozinameran - BioNTech/Pfizer	Adis R&D Insight	Registered	BioNTech (Originator)
10	COVID-19 vaccine, BioNTech	Citeline Pharmaprojects	Launched	BioNTech
11	tozinameran	Cortellis from Clarivate Analytics	Launched	BioNTech SE
12	tozinameran	GlobalData Drugs	Marketed	BioNTech SE
13	mRNA 1273	Adis R&D Insight	Registered	Moderna Therapeutics (Originator) National Institute of Allergy and Infectious Diseases (Originator)
14	COVID-19 vaccine, Moderna	Citeline Pharmaprojects	Launched	Moderna Therapeutics
15	mRNA-1273	Cortellis from Clarivate Analytics	Launched	Moderna Therapeutics
16	COVID-19 Vaccine	GlobalData Drugs	Marketed	Moderna Inc
17	NVX-CoV 2373	Adis R&D Insight	Preregistration	Bill & Melinda Gates Foundation (Originator) Novavax (Originator)
18	NVX-CoV2373	Citeline Pharmaprojects	Phase III Clinical Trial	Novavax
19	NVX-CoV2373	Cortellis from Clarivate Analytics	Pre-registration	Novavax Inc
20	NVX-CoV2373	GlobalData Drugs	Phase III	Novavax Inc

- Here are records from 4 pipeline databases for each of 5 vaccines.
- Which provide different vaccine names, company names, and phases...for the same vaccine.



# Multi-database reports and visualizations

## *Identifying a key company*

- **Company clean-up** is harder than it looks.
- How many ways can you say “Moderna”?
- Can you teach software that Janssen is part of J&J?
- And that the Jenner Institute and Vaccitech are affiliated with Oxford?
- Often we need a single “key company.”

Moderna Therapeutics (Originator)
National Institute of Allergy and Infectious Diseases (Originator)
Moderna Therapeutics
ModeRNA Therapeutics
Moderna Inc

Originator Company
Janssen Pharmaceuticals (Originator)
Johnson & Johnson
Johnson & Johnson
Johnson & Johnson

University of Oxford (Originator)
Vaccitech (Originator)
Oxford BioMedica
The Jenner Institute
University of Oxford

# Multi-database reports and visualizations

## Identifying a key company

Drug: COVID-19 Vaccine

Drug Name COVID-19 Vaccine	Brand Name COVID-19 Vaccine: Covishield	Company Name AstraZeneca Plc
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Partnering Details

Agreement Date	Event / Partnering Type	Entity Role	Entity	Geography
06-Aug-2020	Licensing	Licensee	Shenzhen Kangtai Biological Products Co Ltd	China
		Licensor	AstraZeneca Plc	
21-May-2020	Licensing	Licensee	AstraZeneca Plc	Global
		Licensor	University of Oxford	
	Development Partner	Developer	University of Oxford	Global
		Development Partner	Vaccitech Ltd	

GlobalData Drugs: COVID-19 Vaccines

	Drug Name	Company (Key)	Companies
1	Coronavirus Disease 2019 (COVID-19) Vaccine	Gamaleya Federal Research Center of Epidemiology and Microbiology	Gamaleya Federal Research Center of Epidemiology and Microbiology
2	COVID-19 Vaccine	Johnson & Johnson	Johnson & Johnson
3	COVID-19 Vaccine	Moderna Inc	Moderna Inc The National Institute of Allergy and Infectious Diseases
4	COVID-19 Vaccine	AstraZeneca Plc	University of Oxford Shenzhen Kangtai Biological Products Co Ltd AstraZeneca Plc Vaccitech Ltd
5	tozinameran	BioNTech SE	BioNTech SE Shanghai Fosun Pharmaceutical (Group) Co Ltd Pfizer Inc
6	MRT-5500	Sanofi	Translate Bio Inc Shire Pharmaceuticals International UC Massachusetts Institute of Technology Sanofi Pasteur SA RaNA Therapeutics Inc (now Translate Bio Inc)
7	MVCCOV-1901	Medigen Vaccine Biologics Corp	U.S. National Institutes of Health Dynavax Technologies Corp Medigen Vaccine Biologics Corp

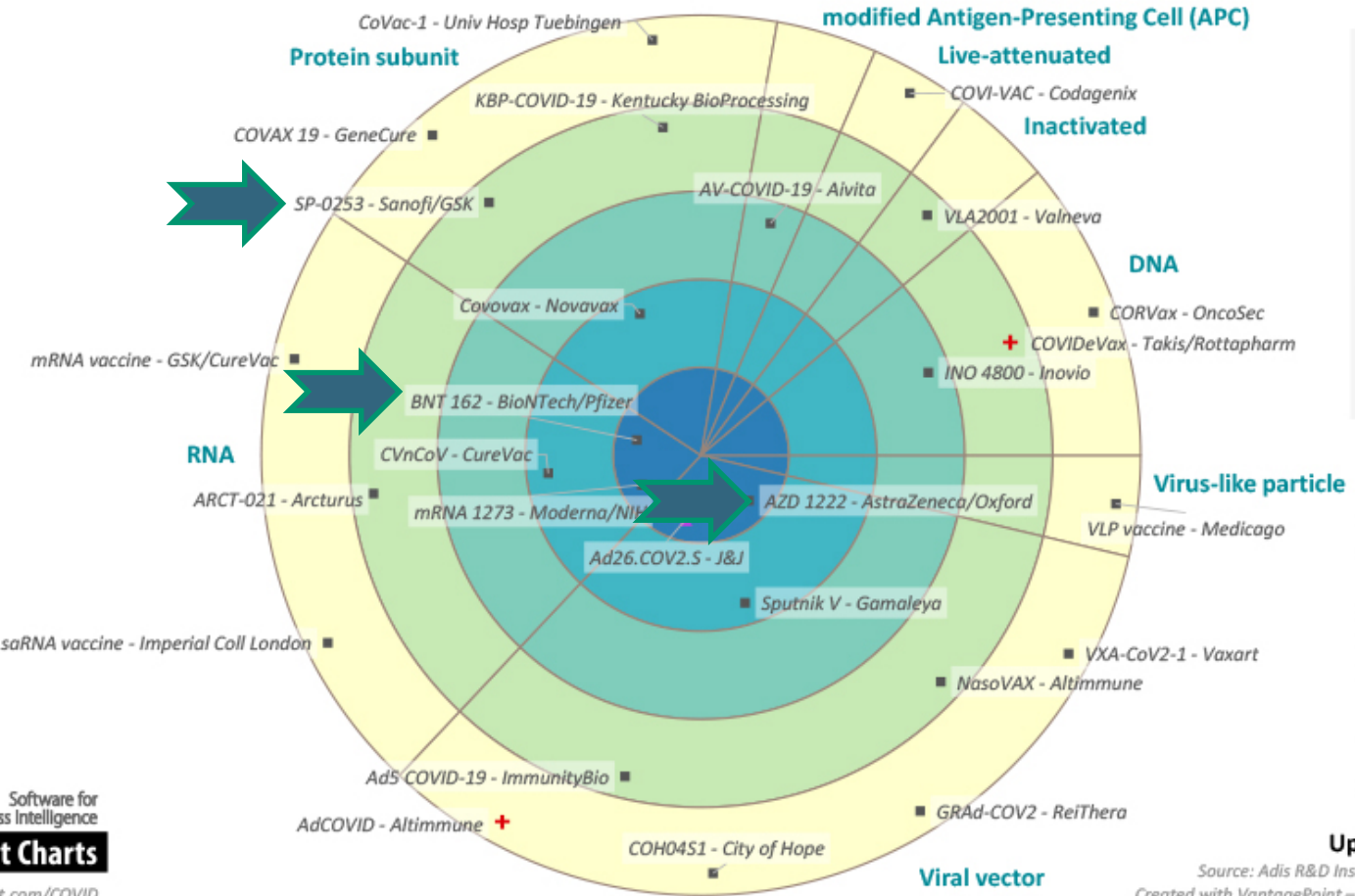
GlobalData identifies a single “key company” for each drug.



# Lessons Learned - It's not "Easy"

## Multi-Database Visualizations are Hard!

### COVID-19 Vaccines – US, UK, & Europe



In the bullseye we chose to concatenate Originators and Licensees for some vaccines.

# Multi-database reports and visualizations

## *Phases are Hard!*

	Drug Name	Database	Highest Status
1	Ad26.COV2 S	Adis R&D Insight	Registered
2	COVID-19 vaccine, Johnson & Johnson	Citeline Pharmaprojects	Launched
3	JNJ-78436735	Cortellis from Clarivate Analytics	Registered
4	COVID-19 Vaccine	GlobalData Drugs	Marketed

**Especially for COVID!**

Highest Phase for the J&J vaccine, which has **EUA** in USA.

- None of the pipeline databases have “emergency use authorization” as a standard phase.
- Citeline & GlobalData chose “Launched/Marketed” and Adis & Cortellis chose “Registered” as the highest phase.

# Multi-database reports and visualizations

## *Phases are Hard!*

17	NVX CoV 2373	Adis R&D Insight	Preregistration
18	NVX-CoV2373	Citeline Pharmaprojects	Phase III Clinical Trial
19	NVX-CoV2373	Cortellis from Clarivate Analytics	Pre-registration
20	NVX-CoV2373	GlobalData Drugs	Phase III

Highest Phase for the Novavax vaccine, which has **reported Phase 3 results.**

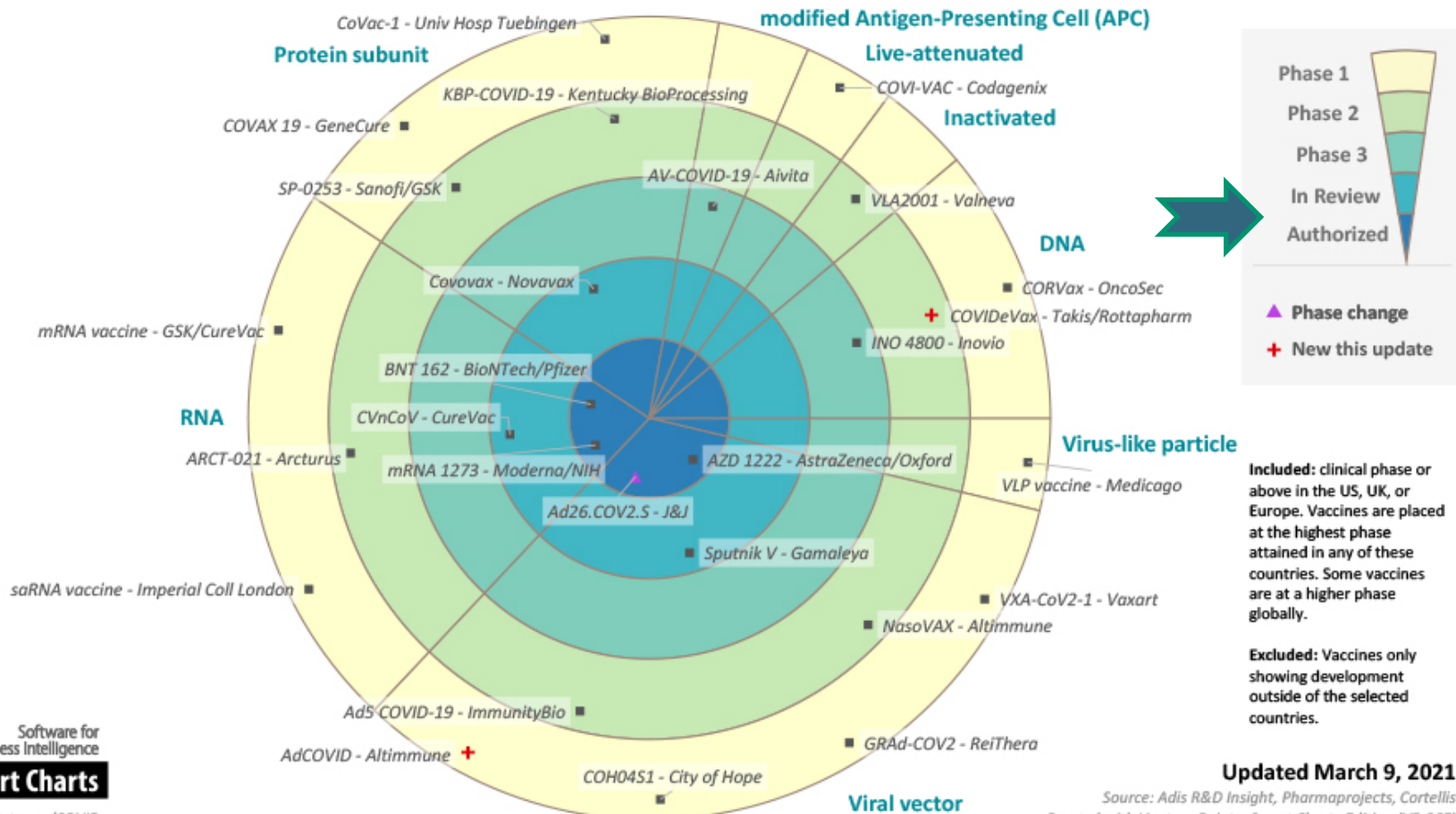
- Again, we see that the databases do not assign the same phase.
- We don't want to plot a vaccine in 2 different phases, so we have to make a choice.



# Lessons Learned - It's not "Easy"

## Multi-Database Visualizations are Hard!

### COVID-19 Vaccines – US, UK, & Europe



We decided to create new phases - **In Review** and **Authorized**, and map the database phases to these for the bullseye.

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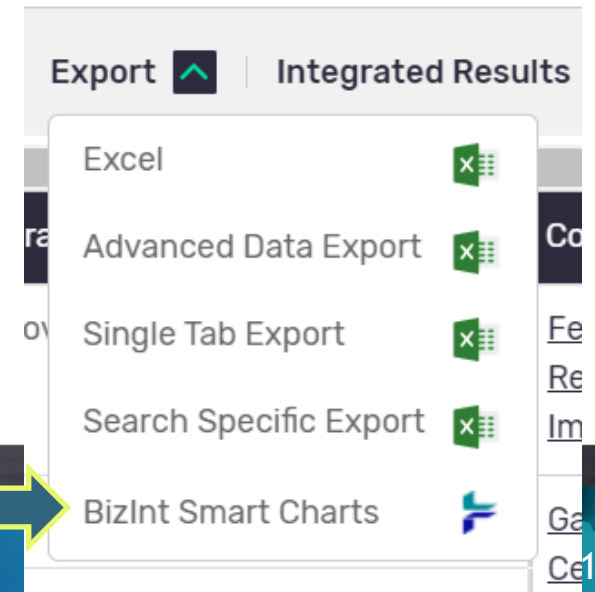
*Drug Development Suite*



## Welcome to GlobalData!

Pipeline Drugs and Clinical Trials

- In BizInt Smart Charts Drug Development Suite 5.3 (released on 28 March)
- Using the BizInt Smart Charts export for both drug and trials searches
- See [bizint.com/drugs](https://bizint.com/drugs)







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# Questions?



THE JOURNEY CONTINUES