Software for Business Intelligence

BizInt Smart Charts

Using Integrated Search Results for Reports and Visualizations

John Willmore, VP Product Development

PIUG and PhMTI 2025 Biotechnology Conference

February 2025

www.bizint.com

A single result

That recent patent from Vertex on CFI

US 20250011379A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2025/0011379 A1**

BLOUSE et al. (43) **Pub. Date: Jan. 9, 2025**

(54) **COMPLEMENT FACTOR I-RELATED COMPOSITIONS AND METHODS**

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(21) Appl. No.: **18/750,921**

(22) Filed: **Jun. 21, 2024**

Related U.S. Application Data

(63) Continuation of application No. PCT/US2022/082177, filed on Dec. 21, 2022.

(60) Provisional application No. 63/293,040, filed on Dec. 22, 2021.

Publication Classification

(51) **Int. Cl.**

C07K 14/47	(2006.01)
A61K 47/60	(2006.01)
A61P 37/06	(2006.01)
C07K 14/76	(2006.01)

(52) **U.S. Cl.**

CPC ***C07K 14/4703*** (2013.01); ***A61K 47/60*** (2017.08); ***A61P 37/06*** (2018.01); ***C07K 14/76*** (2013.01); *C07K 2319/30* (2013.01)

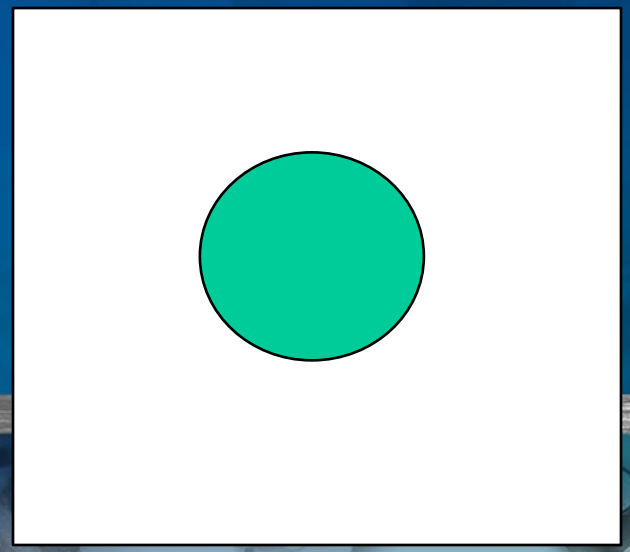
(57) **ABSTRACT**

Provided herein are Complement Factor I (CFI) variants and CFI containing fusion constructs that exhibit at least one improved characteristic relative to a wild type CFI. The CFI variants and fusion constructs of the disclosure can exhibit tunable specificity and activity. The CFI variants and fusion constructs provided herein may be useful for treating a disease or condition associated with dysregulation of the complement system or a deficiency of CFI.

Specification includes a Sequence Listing.

US 20250011379 A1
2025-01-09

COMPLEMENT FACTOR I-RELATED COMPOSITIONS AND METHODS



A simple result set

- Complement factor-I by Vertex

FAMPAT: orbit-vertex-cfi

	Title	US Patent Number	Patent Assignee	Patent Number	Patent Date
1	Complement factor-i formulations		VERTEX PHARMACEUTICALS	JP 2025503483 A	2025-02-04
2	Complement factor i-related compositions and methods		VERTEX PHARMACEUTICALS	JP 2025501749 A	2025-01-23
3	Complement factor I-related compositions and methods	US 12116606 B2 US 20230038638 A1	CATALYST BIOSCIENCES MOSAIC BIOSCIENCES U S BUSINESS MEDIA CONTROL BIOCHEMICAL TECHNOLOGY VERTEX PHARMACEUTICALS	US 12116606 B2	2024-10-15
4	Complement factor i dosing regimens for treating ocular diseases		VERTEX PHARMACEUTICALS	KR 20250008764 A	2025-01-15
5	Complement factor-i formulations	US 20250009855 A1	VERTEX PHARMACEUTICALS	US 20250009855 A1	2025-01-09
6	Complement factor i-related compositions and methods	US 20250011379 A1	VERTEX PHARMACEUTICALS	US 20250011379 A1	2025-01-09

This could quickly get tricky

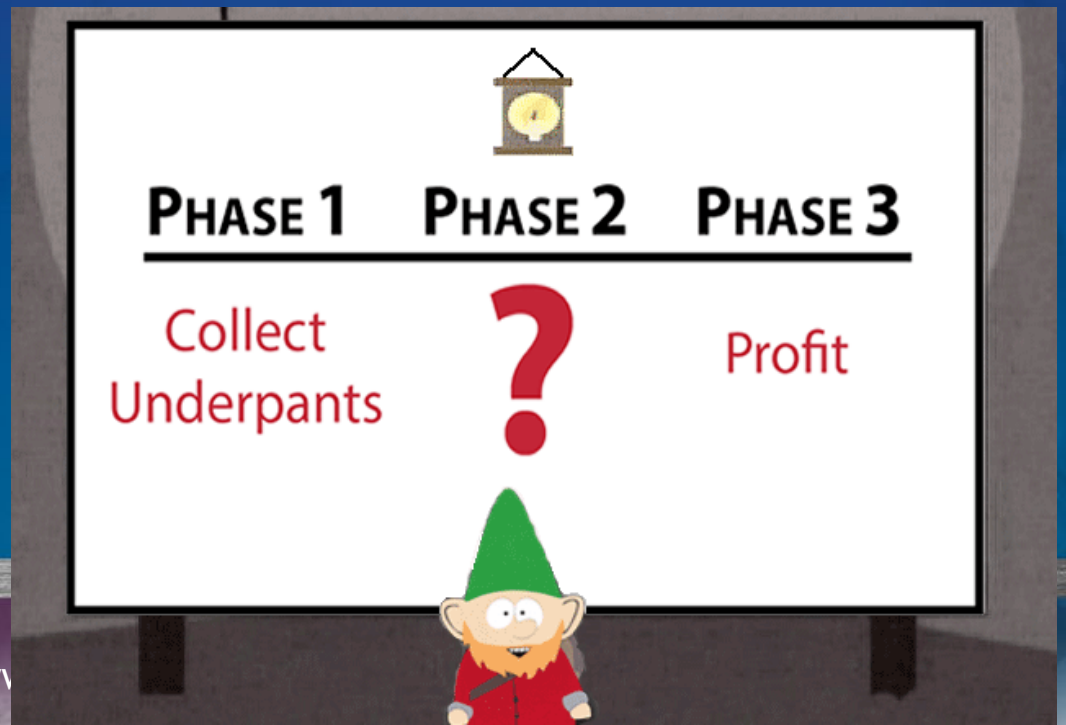
- This was a simple text search…
- What if we look at synonyms, sequences, rich indexing?
- A more expansive view of ownership?
- Or what if we start with a CI resource like a drug pipeline database and retrieve related patents?

Simple Integration

- Search on a variety of platforms
- Transfer PN lists to another platform
- Present that combined list to your client
- Pros: easy; client can drill down to details
- Con: lose context of how you found the results

Simple but sometimes not easy

- Structure search on STN
- Somehow find Derwent document numbers?
- Present users with data from in-house DerPict server



Simple and Very Easy

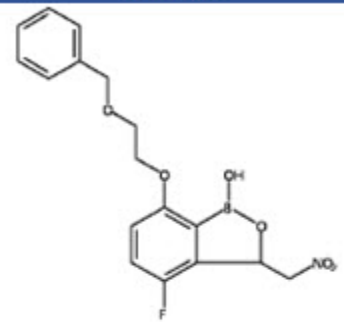
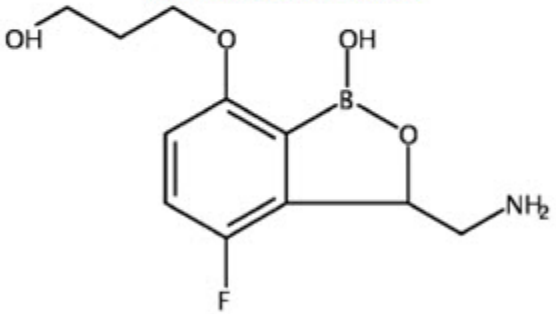
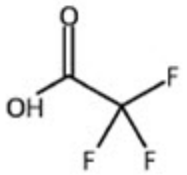
- In some cases you might be able to do several types of search on a single platform
- Orbit + Orbit Biosequences
- PatBase + Chemical Explorer
- Patsnap Analytics + Patsnap Bio
- STN (except for end-user access)

Simple - Plus

- You can enhance this simple report with search specifics in a number of ways
- For example, add an index of chemical structures (Hit Structures) linked to families from Orbit

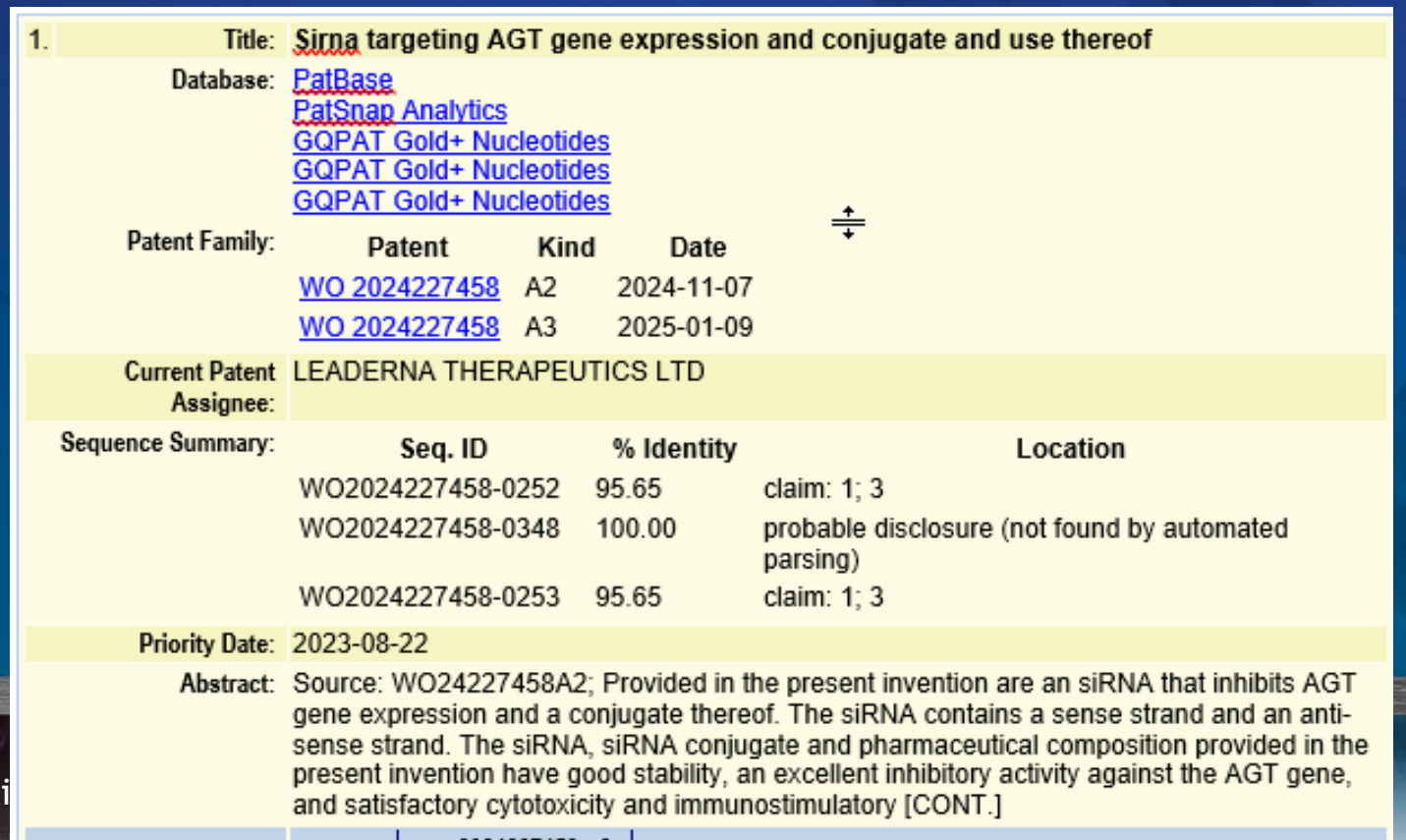
Simple - Plus

Index of Hit Structures

	Substance	Structure	Reference
1	1655492-02-6 2,1-Benzoxaborole, 4-fluoro-1,3-dihydro-1-hydroxy-3-(nitromethyl)-7-[2-(phenylmethoxy)ethoxy]-		prepn. and anti-mycobacterial activity of benzoxaborole compds. *Reference 1* prepn. and biol. applications of tricyclic benzoxaborole compds. *Reference 2*
2	1364682-96-1 1-Propanol, 3-[[3-(aminomethyl)-4-fluoro-1,3-dihydro-1-hydroxy-2,1-benzoxaborol-7-yl]oxy]-, 2,2,2-trifluoroacetate (1:2)	CM1 CRN 1364682-95-0  CM2 CRN 76-05-1 	prepn. of benzoxaborole derivs. useful for treating bacterial infections *Reference 3*

Simple - Plus

- Or adding a summary of sequence hits from GenomeQuest to each family from PatBase



1.	Title:	**Sirna targeting AGT gene expression and conjugate and use thereof**
	Database:	PatBase PatSnap Analytics GQPAT Gold+ Nucleotides GQPAT Gold+ Nucleotides GQPAT Gold+ Nucleotides

Patent Family:

Patent	Kind	Date
WO 2024227458	A2	2024-11-07
WO 2024227458	A3	2025-01-09

Current Patent Assignee:	LEADERNA THERAPEUTICS LTD

Sequence Summary:

Seq. ID	% Identity	Location
WO2024227458-0252	95.65	claim: 1; 3
WO2024227458-0348	100.00	probable disclosure (not found by automated parsing)
WO2024227458-0253	95.65	claim: 1; 3

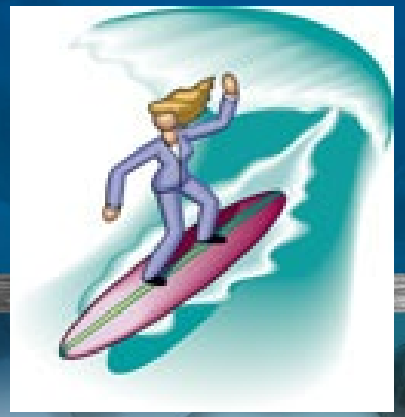
Priority Date:	2023-08-22
Abstract:	Source: WO24227458A2; Provided in the present invention are an siRNA that inhibits AGT gene expression and a conjugate thereof. The siRNA contains a sense strand and an anti-sense strand. The siRNA, siRNA conjugate and pharmaceutical composition provided in the present invention have good stability, an excellent inhibitory activity against the AGT gene, and satisfactory cytotoxicity and immunostimulatory [CONT.]

Simple - Plus

- Or we could add PatentPak information to each Orbit family, showing the location of structures in the patent publication
- BizInt matches records related to the same family
- Integrating unique content into a single row

When Simple Fails

- This technique works for patents and clinical trials because there is an underlying document
- When doing pharma competitive intelligence in drug pipeline databases this falls flat
- Indexing differences – the search concept might not be present in the preferred source
- BizInt.com/surfing



Fully Integrated

- Use results from multiple sources
- Selecting source contents field by field
- Selection rules based on uniqueness,
  field content,
  preference for a particular source,
  or user review.

Further integrate your data...

	Title	Database	Patent Family			Probable Assignee	FTO Family with Expiry						Sequence Locations			
			Patent	Kind	Date		Pub No.	Kind	Pub Date	State	Status	Est Expiry	Seq. ID #	% Identity	Length	Location
1 a	COMPOSITIONS AND METHODS FOR TARGETED GENE DISRUPTION IN PROKARYOTES	PatBase	WO 2015070193 US 2015132263 US 2015353901	A1 A A	2015-05-14 2015-05-14 2015-12-10	RADIANT GENOMICS IN										
1 b	Compositions and methods for targeted gene disruption in prokaryotes	FAMPAT	WO 201570193 US 20150132263 US 20150353901	A1 A1 A1	2015-05-14 2015-05-14 2015-12-10	ZYMERGEN	WO 201570193 US 20150132263 US 20150353901	A1 A1 A1	2015-05-14 2015-05-14 2015-12-10	DEAD DEAD DEAD	LAPSED LAPSED LAPSED	2017-05-11 2016-10-11 2016-10-03				
1 c	COMPOSITIONS AND METHODS FOR TARGETED GENE DISRUPTION IN PROKARYOTES	GQPAT Gold+ Proteins	US20150132263 US20150353901 WO2015070193		20150514								US20150132263-0002	100.00	1368	claim: 19; 20
1 d	Compositions and Methods for Targeted Gene Disruption in Prokaryotes	GQPAT Gold+ Proteins	US20150353901 US20150132263 WO2015070193		20151210								US20150353901-0002	100.00	1368	claim: 19; 20
1 e	New bacteriophage comprises polynucleotide expressing RNA-directed DNA-binding polypeptide comprising nuclease module, and targeting module comprising guide RNA, for restricting growth of host cell, and for preparing antiseptic composition	Derwent Innovation DWPI	US 20150353901	A1	2015-12-10											
1 f	New bacteriophage comprising polynucleotide that expresses RNA-directed DNA-binding polypeptide and targeting module comprising guide RNA, used e.g. for treating autoimmune and inflammatory disease, and disease caused by bacterial infection	Derwent Innovation DWPI	US 20150132263 WO 2015070193	A1 A1	2015-05-14 2015-05-14											

Use the Smart Data Integrator to select key data for each set of related records, based on your rules and selections.

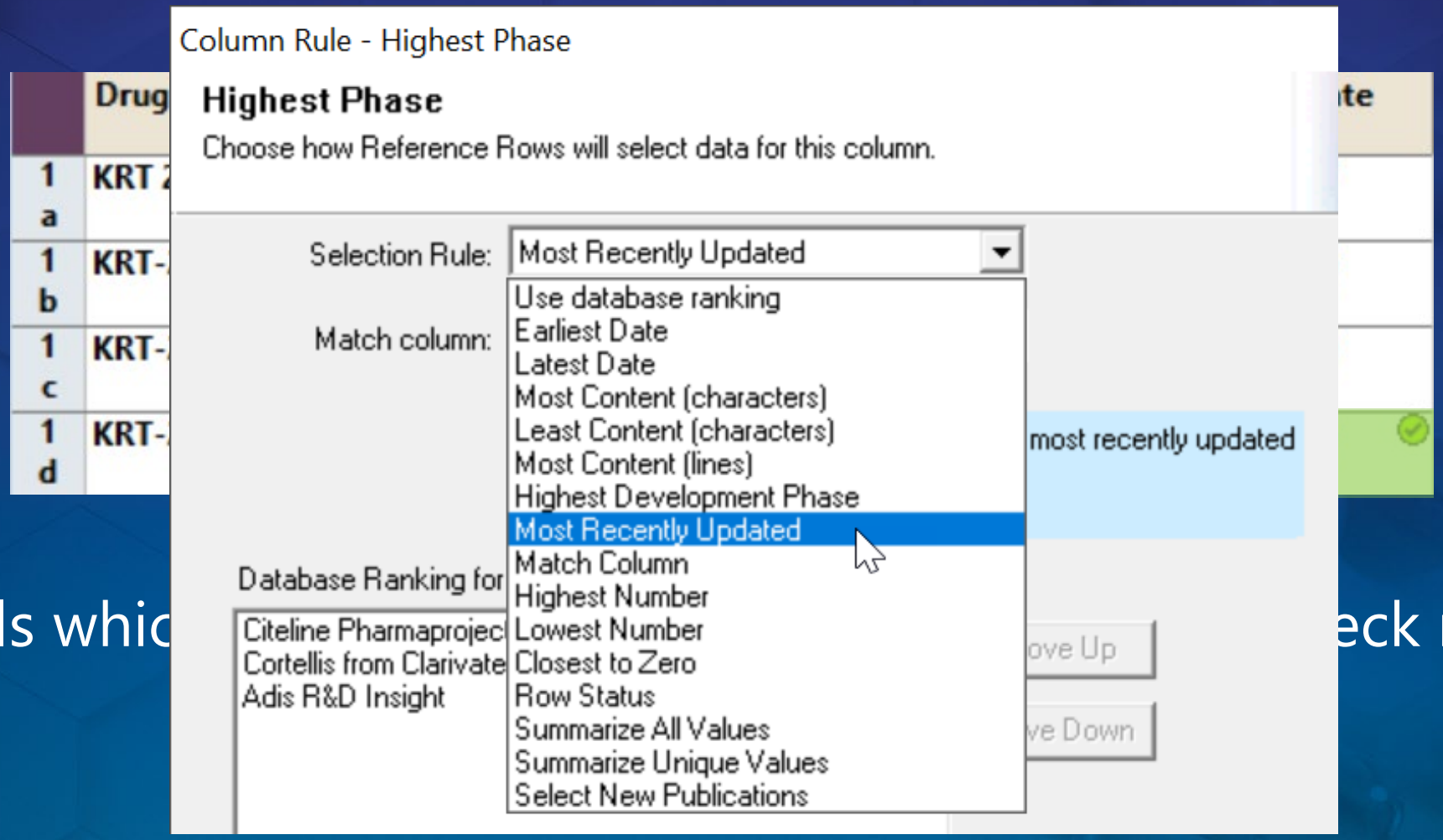
And create a single integrated row…

	Title	Database	Patent Family: Patent	Kind	Date	Probable Assignee	FTO Family with Expiry: Pub No.	Kind	Pub Date	State	Status	Est Expiry	Sequence Locations: Seq. ID #	% Identity	Length	Location	
1	New bacteriophage comprises polynucleotide expressing RNA-directed DNA-binding polypeptide comprising nuclease module, and targeting module comprising guide RNA, for restricting growth of host cell, and for preparing antiseptic composition *1e Innov*	**1a Patbase** | *link* **1b FAM** | *link* **1c GQP** | *link* **1d GQP** | *link* **1e Innov** | *link* **1f Innov** | *link*	WO 2015070193 US 2015132263 US 2015353901	A1 A A	2015-05-14 2015-05-14 2015-12-10	RADIANT GENOMICS INC	WO 201570193 US 20150132263 US 20150353901	A1 A1 A1	2015-05-14 2015-05-14 2015-12-10	DEAD DEAD DEAD	LAPSED LAPSED LAPSED	2017-05-11 2016-10-11 2016-10-03	US20150132263-0002 US20150353901-0002	100.00 100.00	1368 1368	claim: 19; 20 claim: 19; 20	1c 1d
2	**RNA-GUIDED TRANSCRIPTIONAL REGULATION** New bacteriophage comprises polynucleotide expressing RNA-directed DNA-binding polypeptide comprising nuclease module, and targeting module comprising guide RNA, for restricting growth of host cell, and for preparing antiseptic composition *2 Patbase*	**2 Patbase** | *link* **2 FAM** | *link* **2 GQP** | *link*	US 9267135 US 20140356959 US 10640789 US 20160237456 US 10767194 US 20200024618 US 20140356956 US 20200299732	B2 A1 B2 A1 B2 A1 A1 A1	2016-02-23 2014-12-04 2020-05-05 2016-08-18 2020-09-08 2020-01-23 2014-12-04 2020-09-24	PRESIDENT AND FELLOWS OF HARVARD COLLEGE	US 9267135 US 20140356959 US 10640789 US 20160237456 US 10767194 US 20200024618 US 20140356956 US 20200299732	B2 A1 B2 A1 B2 A1 A1 A1	2016-02-23 2014-12-04 2020-05-05 2016-08-18 2020-09-08 2020-01-23 2014-12-04 2020-09-24	ALIVE ALIVE ALIVE ALIVE ALIVE	GRANTED GRANTED GRANTED PENDING PENDING	2034-06-04 2034-06-04 2034-06-04 2034-06-04 2034-06-04	US20140356959-0001 US9267135-0001 US20200024618-0001 US20160237456-0001 US20140356956-0001	100.00 100.00 100.00 100.00 100.00	1368 1368 1368 1368 1368	probable disclosure (not found by automated parsing) probable disclosure (not found by automated parsing) probable disclosure (not found by automated parsing) probable disclosure (not found by automated parsing) probable disclosure (not found by automated parsing)	2 2 2 2 2
3	**LARGE GENE EXCISION AND INSERTION**	**3a Patbase** | *link* **3b FAM** | *link* **3c GQP** | *link* **3d GQP** | *link* **3e GQP** | *link* **3f GQP** | *link* **3g GQP** | *link* **3h GQP** | *link* **3i GQP** | *link* **3j GQP** | *link* **3k Innov** | *link*	US 20150140664 WO 2015077290 WO 2015077290 CA 2930828 AU 2014353100 KR 2016078502 EP 3071698 JP 2016537982 EP 3071698 HK 1229380 EP 3071698 EP 3604543	A1 A2 A3 A1 A1 A A2 A A4 A B1 A1	2015-05-21 2015-05-28 2015-08-06 2015-05-28 2016-06-02 2016-07-04 2016-09-28 2016-12-08 2017-06-28 2017-11-17 2019-09-04 2020-02-05	PRESIDENT AND FELLOWS OF HARVARD COLLEGE	EP 3071698 EP 3071698 EP 3071698 EP 3604543 WO 201577290 WO 201577290 US 10787684 US 20150140664 JP 2016537982 JP 2020062033 DK 3071698T ES 2754498	B1 A2 A4 A1 A2 A3 B2 A1 A A T3 T3	2019-09-04 2016-09-28 2017-06-28 2020-02-05 2015-05-28 2015-08-06 2020-09-29 2015-05-21 2016-12-08 2020-04-23 2019-11-18 2020-04-17	ALIVE ALIVE ALIVE DEAD ALIVE ALIVE ALIVE	GRANTED PENDING LAPSED GRANTED GRANTED PENDING GRANTED	2034-11-19 2034-11-19 2017-05-19 2034-06-30 2034-11-19 2034-11-19 2034-11-19	JP2016537982-0001 US20150140664-0001 WO2015077290-0001	100.00 100.00 100.00	1368 1368 1368	probable disclosure (not found by automated parsing) probable disclosure (not found by automated parsing) probable disclosure (not found by automated parsing)	3c 3d 3e

…for each family in your final

US20150132263-0002	100.00	1368	claim: 19; 20	
US20150353901-0002	100.00	1368	claim: 19; 20	

Choose between conflicting values…



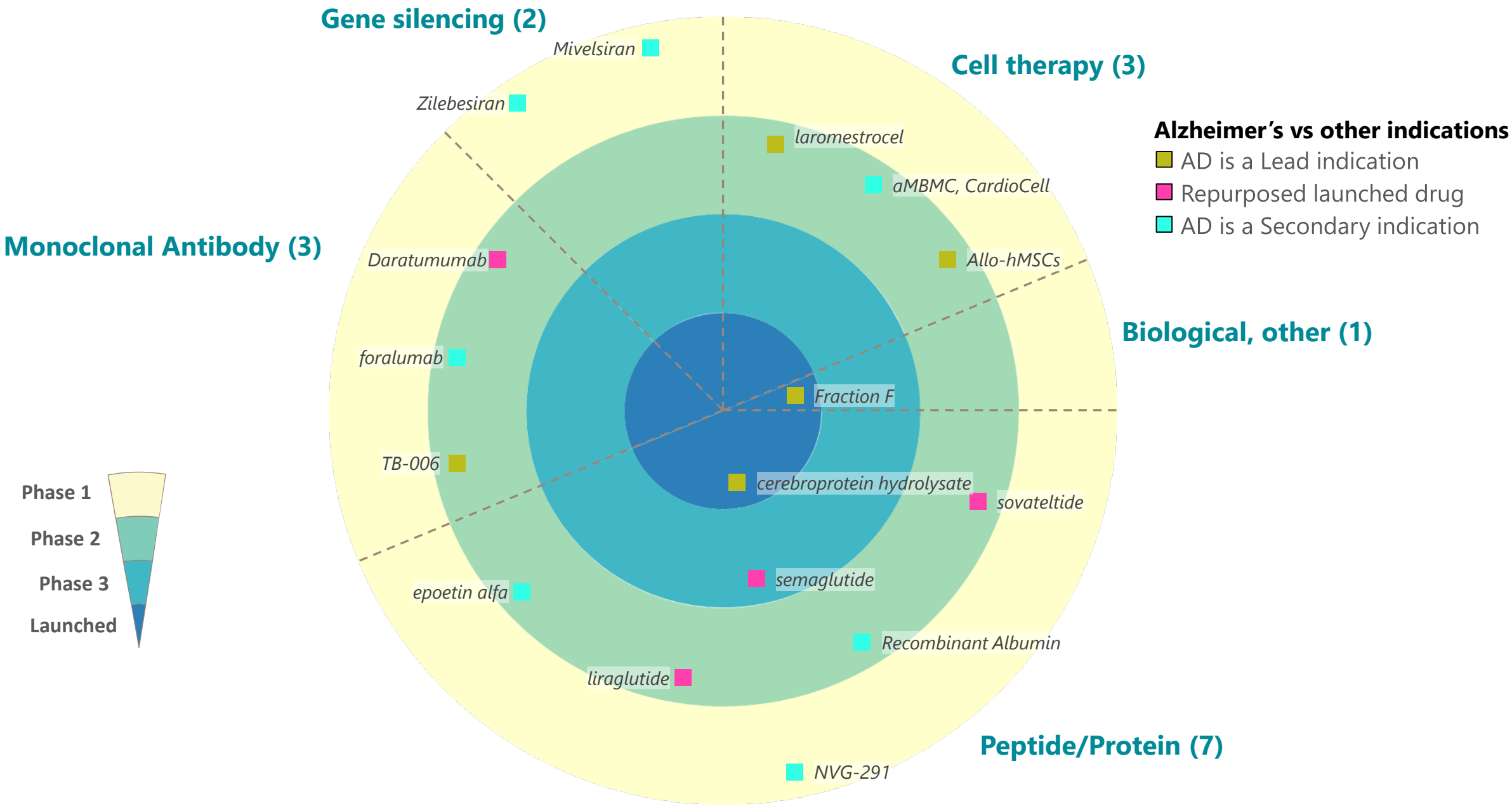
Cells whic eck mark.

Fully Integrated

Alzheimers and Cardiovascular Disease (Citeline, GlobalData, PatSnap) - Feb 2025

	Drug Name	Database	Developer	Indication Phase (Normalized)		Highest Phase (Alzheimers)	Product Description	Drug Modification
				Indication	Phase			
1 a	**zilebesiran**	Citeline Pharmaprojects	Alnylam	Hypertension, unspecified	Phase 2		Zilebesiran (ALN-AGT; RG6615) is an sc administered long-lasting RNAi therapeutic targeting angiotensinogen (AGT), under development by Alnylam using its ESC-GalNAc-conjugate delivery platform technology for the treatment of uncontrolled hypertension. It was previously under development for hypertensive disorders of pregnancy (HDP) which included preeclampsia (Press release, Alnlyam, 12 Sep 2014; [CONT.]	
				Pre-eclampsia	No Development Reported			
1 b	**zilebesiran sodium**	GlobalData Drugs	Alnylam Pharmaceuticals Inc	Hypertension	Phase 2		Zilebesiran sodium (ALNAGT-01) is under development for hypertension. The drug candidate is administered subcutaneously. The drug candidate is a siRNA which acts targeting angiotensinogen (AGT) and developed based on enhanced stabilization chemistry (ESC)-GalNAc-conjugate delivery platform technology. It was also under development for the treatment of pre-eclampsia.	
				Pre-Eclampsia	No Development Reported			
1 c	**Zilebesiran**	PatSnap Synapse	Alnylam Pharmaceuticals, Inc.	Hypertension	Phase 2	Phase 1		phosphorothioate 2'-O-methyl 2'-fluoro glycol nucleic acid sodium cation GalNAc-L96
				Alzheimer Disease	Phase 1			
2 a	**DB-105**	Citeline Pharmaprojects	Orion Pharma	Alzheimer's disease	No Development Reported	No Development Reported	DB-105 (formely ORM-12741) is an alpha2c receptor antagonist, which was under development by Denovo Biopharma for the treatment of Alzheimer's disease (Press release, Denovo, 18 Jun 2019, https://www.prnewswire.com/news-releases/denovo-biopharma-receives-global-rights-to-a-novel-late-stage-drug-for-alzheimers-disease-from-orion-corporation-for-development-as-a-personalized-medicine-300869563.html). [CONT.]	
				Depression, unspecified	Discontinued			
				Raynaud's disease	Discontinued			
				Schizophrenia	Discontinued			
2 b	**DB-105**	GlobalData Drugs	Orion Corp	Alzheimer's Disease	Phase 2	Phase 2	DB-105 is under development for the treatment of Alzhiemers disease. It is administered orally. The drug candidate acts by targeting Alpha 2 C adrenoceptor. The drug candidate is a new molecular entity (NME). DB-105 was under development for the treatment of	
				Raynauds Disease	No Development Reported			

Cardiovascular Drugs for Alzheimer's - Biologics



Visualizations

- Two key challenges in visualization are normalization and categorization
- Integrated reports may make normalization more difficult
- But additional indexing can often make categorization easier

Cardiovascular Drugs for Alzheimer's - Biologics

Phase 1	Phase 2	Phase 3	Launched
Mivelsiran *Alnylam Pharmaceuticals Inc*	**Allo-hMSCs** *University of Miami*	**semaglutide** *Novo Nordisk*	**Fraction F** *Gentium*
Zilebesiran *Alnylam Pharmaceuticals, Inc.*	**aMBMC, CardioCell** *CardioCell*		**cerebroprotein hydrolysate** *Invision Medi Sciences*
NVG-291 *Case Western, OSU*	**laromestrocel** *Longeveron*		
	Daratumumab *Janssen Global Services LLC*		
	foralumab *Brigham and Women's Hospital, Light Chain Bioscience*		
	TB-006 *TrueBinding*		
	epoetin alfa *Center of Molecular Immunology*		
	liraglutide *Novo Nordisk AS*		
	Recombinant Albumin *ProTgen*		
	sovateltide *Chicago Labs Inc, University of Illinois*		

Drug Type

- Biological, other
- Cell therapy
- Gene silencing
- Monoclonal Antibody
- Peptide/Protein

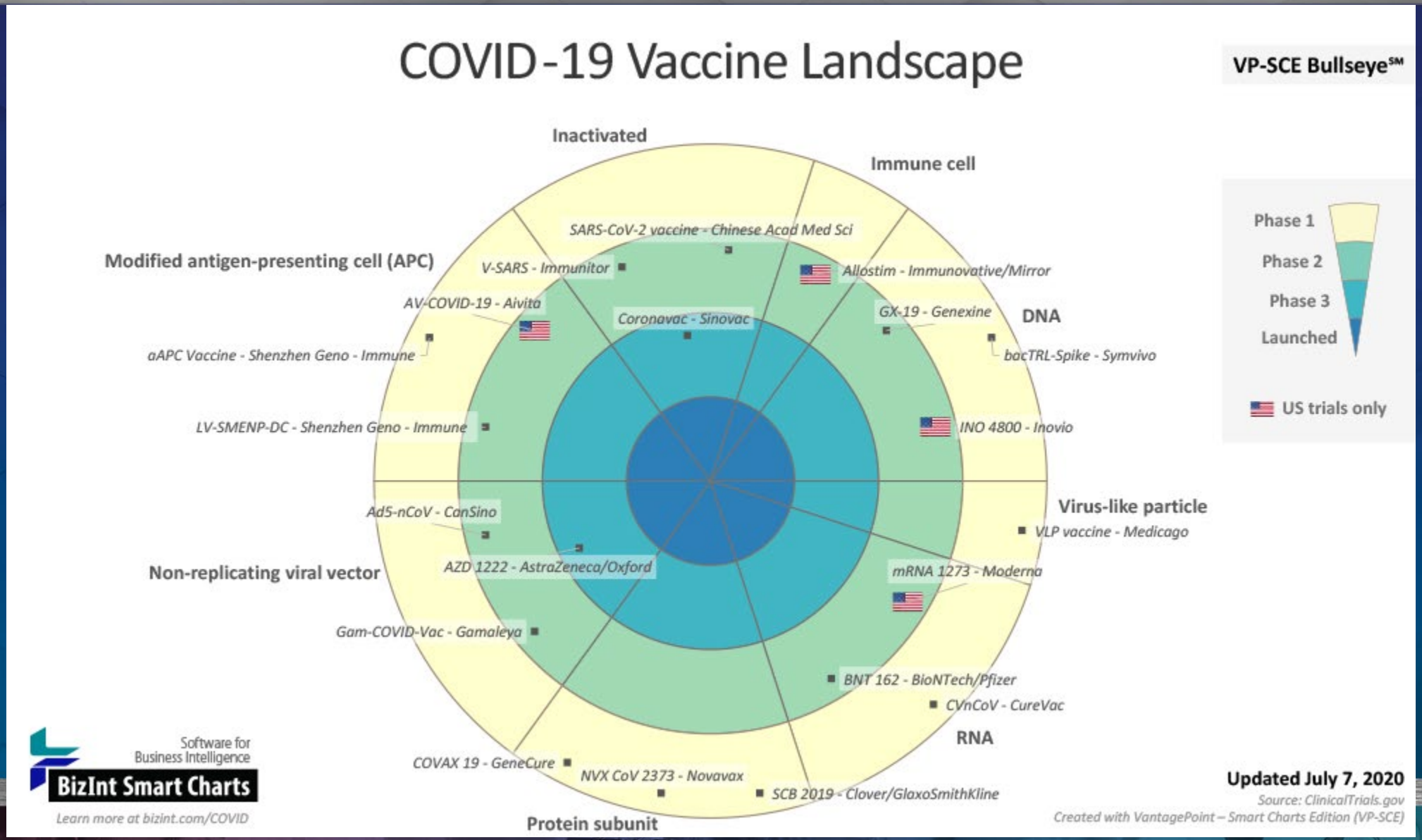
Cardiovascular Drugs for Alzheimer's - Biologics

Phase I	Phase II	Phase III	Launched
Mivelsiran Alnylam Pharmaceuticals Inc	**mesenchymal bone marrow-derived stem cells,** Stemedica-1 CardioCell	**semaglutide** Novo Nordisk	**Fraction F** Gentium
Zilebesiran Alnylam Pharmaceuticals, Inc.	**mesenchymal stem cells, Longeveron** Longeveron		**cerebroprotein hydrolysate** Invision Medi Sciences Pvt Ltd
NVG-291 Case Western Reserve University, Ohio State University	**Allo-hMSCs** University of Miami		
	Daratumumab Janssen Global Services LLC		
	foralumab Brigham and Women's Hospital, Light Chain Bioscience, Medarex Inc (Inactive)		
	TB-006 TrueBinding Inc		
	liraglutide Novo Nordisk AS		
	epoetin alfa Center of Molecular Immunology		
	Recombinant Human Serum Albumin ProTgen, Inc.		
	sovateltide Chicago Labs Inc, University of Illinois		

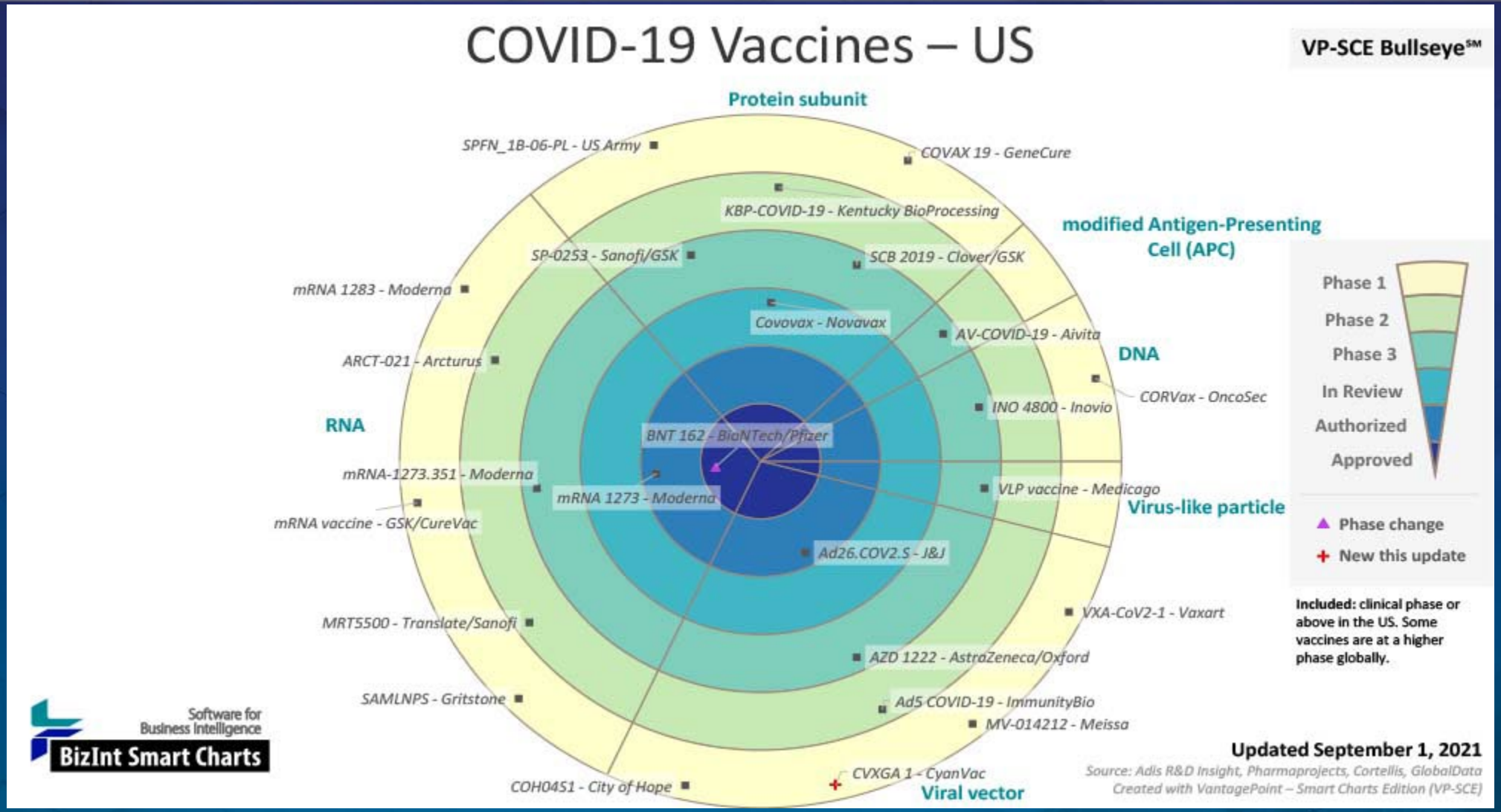
Drug Type

- Allogeneic
- Antisense RNAi Oligonucleotide
- Biological, other
- Mesenchymal stem cell therapy
- Monoclonal Antibody
- Peptide
- Recombinant Peptide
- Recombinant Protein
- siRNA
- Synthetic Peptide

Visualizations



Visualizations



Integrating over time

- What happens if you integrate result over time?
- What has changed?
- What refers to the same topic?

$$\int_{t=0s}^{t=2s} v(t)\,dt$$

See what is new and changed in updated reports…

	Title	FTO Family				Patent Assignee	Inventor(s)	Abstract
		Pub No.	Kind	Pub Date	Status			
1	Methods and compositions for sequences guiding cas9 targeting	W O2015112896 W O2015112896 W O2015112896	A2 A3 A9	2015-07-30 2015-10-29 2015-11-26		NORTH CAROLINA STATE UNIVERSITY	BARRANGOU RODOLPHE SELLE KURT M BRINER ALEXANDRA E	(WO2015112896) The present invention is directed to methods and compositions for genome editing and DNA targeting of proteins.
2	Rna modification to engineer cas9 activity	W O2015200555 W O2015200555	A2 A3	2015-12-30 2016-03-10		CARIBOU BIOSCIENCES	MAY ANDREW PAUL DONOHOUE PAUL NYE CHRISTOPHER SLORACH EUAN HAURWITZ RACHEL	(WO2015200555) The disclosure provides for compositions, methods and kits, for reducing off-target effects of genome engineering. In one aspect, a composition is provided comprising an engineered nucleoprotein complex. [CONT.]
3	Crispr-cas-related methods, compositions and components for cancer immunotherapy	W O2015161276 W O2015161276	A2 A3	2015-10-22 2015-12-10		EDITAS MEDICINE	WELSTEAD G GRANT FRIEDLAND ARI E MAEDER MORGAN L BUMCROT DAVID A	(WO2015161276) CRISPR/Cas-related composition and methods for treatment of cancer, in particular by using gRNA molecules comprising a targeting domain which is complementary with a target domain from the FAS, BID, CTLA4, PDCD1, CBLB, PTPN6, TRAC or TRBC gene. In some embodiments, gRNAs are used with Cas9 enzymes to cause a cleavage event in said genes within engineered chimeric antigen receptor (CAR) T cells [CONT.]
4	Crispr/cas-related methods and compositions for treating cystic fibrosis	W O2015157070 W O2015157070	A2 A3	2015-10-15 2015-12-30		EDITAS MEDICINE	REYON DEEPAK MAEDER MORGAN L FRIEDLAND ARI E WELSTEAD G GRANT BUMCROT DAVID A	(WO2015157070) CRISPR/CAS-related compositions and methods for treatment of Cystic Fibrosis (CF).
5	Crispr/cas-related methods and compositions for treating sickle cell disease	W O2015148863 W O2015148863	A2 A3	2015-10-01 2015-12-23		EDITAS MEDICINE	FRIEDLAND ARI E MAEDER MORGAN L WELSTEAD G GRANT BUMCROT DAVID A COTTA-RAMUSINO	(WO2015148863) CRISPR/CAS-related compositions and methods for treatment of Sickle Cell Disease (SCD) are disclosed.

	Title	Patent Assignee	FTO Family				Inventor(s)	International Patent Class
			Pub No.	Kind	Pub Date	Status		
1	RNA-guided transcriptional regulation	HARVARD COLLEGE	US 9267135 US 20140356959 US 10640789 US 20160237456 US 10767194 US 20200024618 US 20140356956 US 20200299732	B2 A1 B2 A1 B2 A1 A1 A1	2016-02-23 2014-12-04 2020-05-05 2016-08-18 2020-09-08 2020-01-23 2014-12-04 2020-09-24	GRANTED GRANTED GRANTED PENDING PENDING	CHURCH GEORGE M MALI PRASHANT G ESVELT KEVIN M	C12N-009/22 C12N-015/01 C12N-015/10 C12N-015/11 C12N-015/113 C12N-015/115 C12N-015/63 C12N-015/66 C12N-015/85 C12N-015/87 C12N-015/90
2	Dna writers, molecular recorders and uses thereof	MIT - MASSACHUSETTS INSTITUTE OF TECHNOLOGY US NAVY	WO 2018152197 US 20200063127	A1 A1	2018-08-23 2020-02-27	LAPSED PENDING	FARZADFARD FAHIM LU TIMOTHY	C12N-009/22 C12N-009/78 C12N-015/11 C12N-015/62 C12N-015/63 C12N-015/85
3	Method for producing genome-edited plants using plant virus vectors	NATIONAL AGRICULTURE & FOOD RESEARCH ORGANIZATION	WO 2018151155 US 20190359993 JP 2018151155W	A1 A1 A1	2018-08-23 2019-11-28 2019-12-12	LAPSED PENDING PENDING	ISHIBASHI Kazuhiro ARIGA Hirotaka TOKI Seiichi KAYA Hidetaka	A01H-001/00 C12N-005/10 C12N-005/14 C12N-015/09 C12N-015/82
4	Large gene excision and insertion	HARVARD COLLEGE	EP 3071698 EP 3071698 EP 3071698 EP 3604543 WO 201577290 WO 201577290 US 10787684 US 20150140664 JP 2016537982 JP 2020062033 DK 3071698T ES 2754498 CA 2930828 AU 2014353100 KR 20160078502	B1 A2 A4 A1 A2 A3 B2 A1 A A T3 T3 A1 A1 A	2019-09-04 2016-09-28 2017-06-28 2020-02-05 2015-05-28 2015-08-06 2020-09-29 2015-05-21 2016-12-08 2020-04-23 2019-11-18 2020-04-17 2015-05-28 2016-06-02 2016-07-04	GRANTED PENDING LAPSED GRANTED PENDING PENDING GRANTED GRANTED PENDING PENDING PENDING	BYRNE SUSAN M CHURCH GEORGE M	A61K-038/43 C07H-021/02 C07H-021/04 C12N-009/14 C12N-009/22 C12N-009/52 C12N-015/00 C12N-015/09 C12N-015/10 C12N-015/63 C12N-015/64 C12N-015/90 C12Q-001/68

Update your existing report…

New records and changes in updated records are highlighted.

	Title	Row Status	Patent Assignee	FTO Family				New Publications
				Pub No.	Kind	Pub Date	Status	
1	Method for producing genome-edited plants using plant virus vectors	Added	NATIONAL AGRICULTURE & FOOD RESEARCH ORGANIZATION	WO 2018151155 US 20190359993 JP 2018151155W	A1 A1 A1	2018-08-23 2019-11-28 2019-12-12	LAPSED PENDING PENDING	WO 2018151155 A1 US 20190359993 A1 JP 2018151155
2	Dna writers, molecular recorders and uses thereof	Added	MIT - MASSACHUSETTS INSTITUTE OF TECHNOLOGY US NAVY	WO 2018152197 US 20200063127	A1 A1	2018-08-23 2020-02-27	LAPSED PENDING	WO 2018152197 A1 US 20200063127 A1
3	RNA-guided transcriptional regulation	Added	HARVARD COLLEGE	US 9267135 US 20140356959 US 10640789 US 20160237456 US 10767194 US 20200024618 US 20140356956 US 20200299732	B2 A1 B2 A1 B2 A1 A1 A1	2016-02-23 2014-12-04 2020-05-05 2016-08-18 2020-09-08 2020-01-23 2014-12-04 2020-09-24	GRANTED GRANTED GRANTED PENDING PENDING	US 9267135 B2 US 20140356959 A1 US 10640789 B2 US 20160237456 A1 US 10767194 B2 US 20200024618 A1 US 20140356956 A1 US 20200299732 A1
4	Compositions and methods for targeted gene disruption in prokaryotes	Updated	ZYMERGEN	WO 201570193 US 20150132263 US 20150353901	A1 A1 A1	2015-05-14 2015-05-14 2015-12-10	LAPSED LAPSED LAPSED	
5	Large gene excision and insertion	Updated	HARVARD COLLEGE	EP 3071698 EP 3071698 EP 3071698 EP 3604543 WO 201577290 WO 201577290 US 10787684 US 20150140664 JP 2016537982 JP 2020062033 DK 3071698T ES 2754498 CA 2930828 AU 2014353100 KR 20160078502	B1 A2 A4 A1 A2 A3 B2 A1 A A T3 T3 A1 A1 A	2019-09-04 2016-09-28 2017-06-28 2020-02-05 2015-05-28 2015-08-06 2020-09-29 2015-05-21 2016-12-08 2020-04-23 2019-11-18 2020-04-17 2015-05-28 2016-06-02 2016-07-04	GRANTED PENDING LAPSED GRANTED PENDING PENDING GRANTED GRANTED PENDING PENDING PENDING	EP 3071698 B1 EP 3071698 A2 EP 3071698 A4 EP 3604543 A1 US 10787684 B2 JP 2016537982 A JP 2020062033 A DK 3071698 ES 2754498 CA 2930828 A1 AU 2014353100 A1 KR 20160078502 A

…with new data.

Clinical Trials

CITELINE

TrialTrove

ClinicalTrials.gov

New JSON export

Adis

Cortellis™
A Clarivate Analytics solution

Trials Intelligence

GlobalData.

Clinical Trials

 | www.bizint.com

Clinical Trials Sources

- Trial information entered in a registry by the investigators
- A trial protocol may appear in multiple registries with differing information (as a result of national laws or the individuals entering data)
- Commercial publishers aggregate registries and normalize or add indexing/structure

Clinical Trials Sources

- EU clinical trials registry
  (still waiting for the new system)
- WHO ICTRP
- ClinicalTrials.gov JSON exports (as of 2024)
- Synapse (coming later this year)

Drug Pipeline

NEW!

CITELINE

Pharmaprojects

Adis

R&D Insight

Cortellis™
A Clarivate Analytics solution

Including
Cortellis Drug Discovery Intelligence (CDDI)

GlobalData.

Drugs

patsnap

Synapse

 | www.bizint.com

Drug Pipeline Sources

- Each record is an editorial view of drug development
- Variety of sources including clinical trials
- Features:
  - Different indexing schemes
  - Different content types
  - Conflicting information between sources

Drug Pipeline Sources

- New content in Pharmaprojects (drug type)
- Several new fields in Adis R&D Insight
- Synapse Drugs support coming March 2025

- See our Surfing the Pipeline talks to learn more bizint.com/surfing

Patents

NEW!

CAS

minesoft

Questel

Derwent™
A Clarivate Analytics company

Cortellis™
A Clarivate Analytics solution

patsnap

STNext

PatBase

Orbit

Innovation

Patents

Analytics

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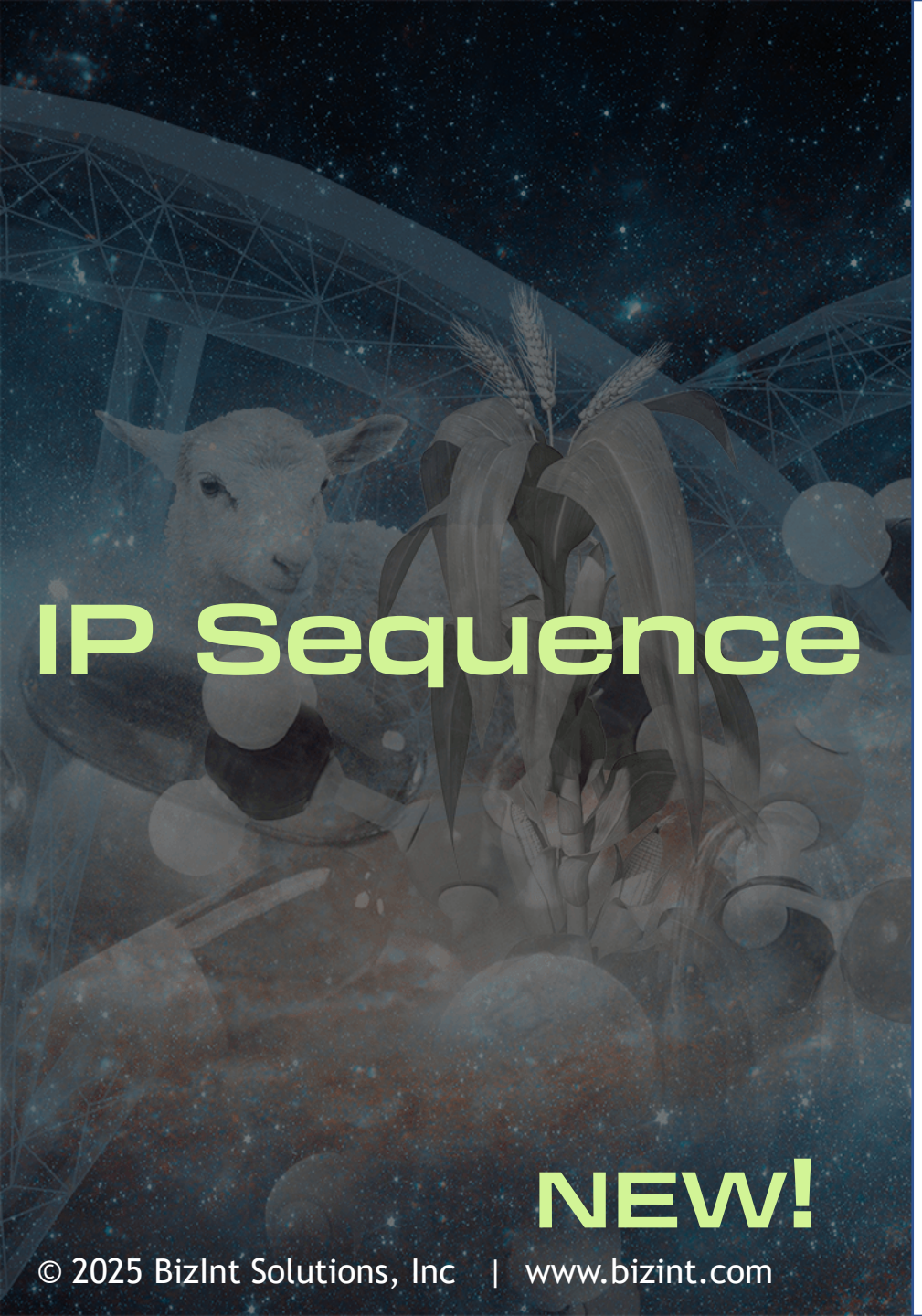
Patent Sources

- Publication or Family level
- Different family definitions
- Value added content
  - CAS & Derwent Abstracts, Titles
  - Indexing
  - Ownership, Legal Status
  - Associated drugs

Patent Sources

- See “What’s New” for database enhancements

- New support for Patsnap Analytics
- “BizInt” export from Orbit has been degraded we recommend using the XML export at this time



IP Sequence

NEW!

Aptean GenomeQuest

Questel

CAS
STNext

patsnap

GenomeQuest
CAS Biosequences

Orbit
Biosequence

USGENE
DGENE
PCTGEN

Bio

IP Seqence Sources

- Unique search algorithms on platforms
- One record per sequence
- Commonly multiple queries

IP Seqence Sources

- GenomeQuest: Discovery Browser Annotations; Support for private collections, virtual databases
- Orbit Biosequences: export degraded, expect updates soon
- STN: Several updates (and more coming)
- Derwent SequenceBase
- Patsnap BIO: new support March 2025

Questions?

support@bizint.com