Software for
Business Intelligence

BizInt Smart Charts

Using Integrated Search Results for Reports and Visualizations

John Willmore, VP Product Development

2025 PIUG Annual Meeting

May 2025

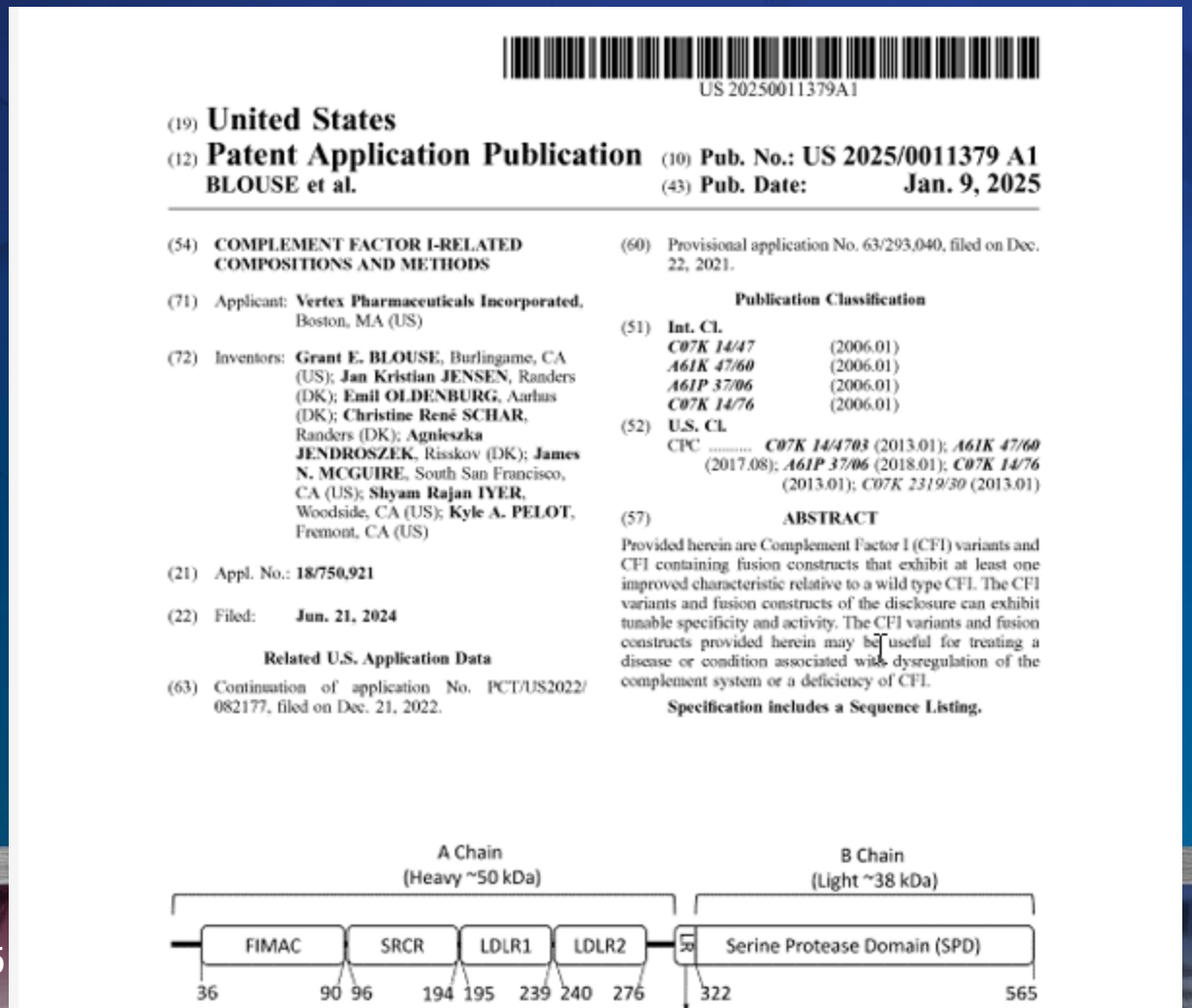
www.bizint.com

Today's Topics

- A Taxonomy of Integration Methods
- Workflow Changes
- Database Changes

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)

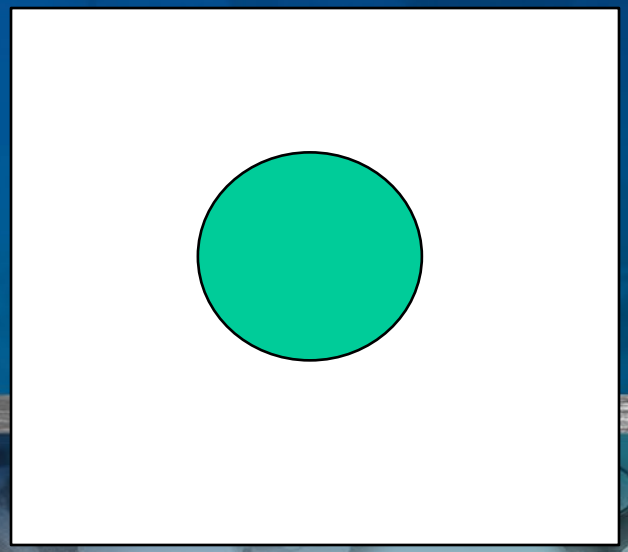
(57) **ABSTRACT**

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

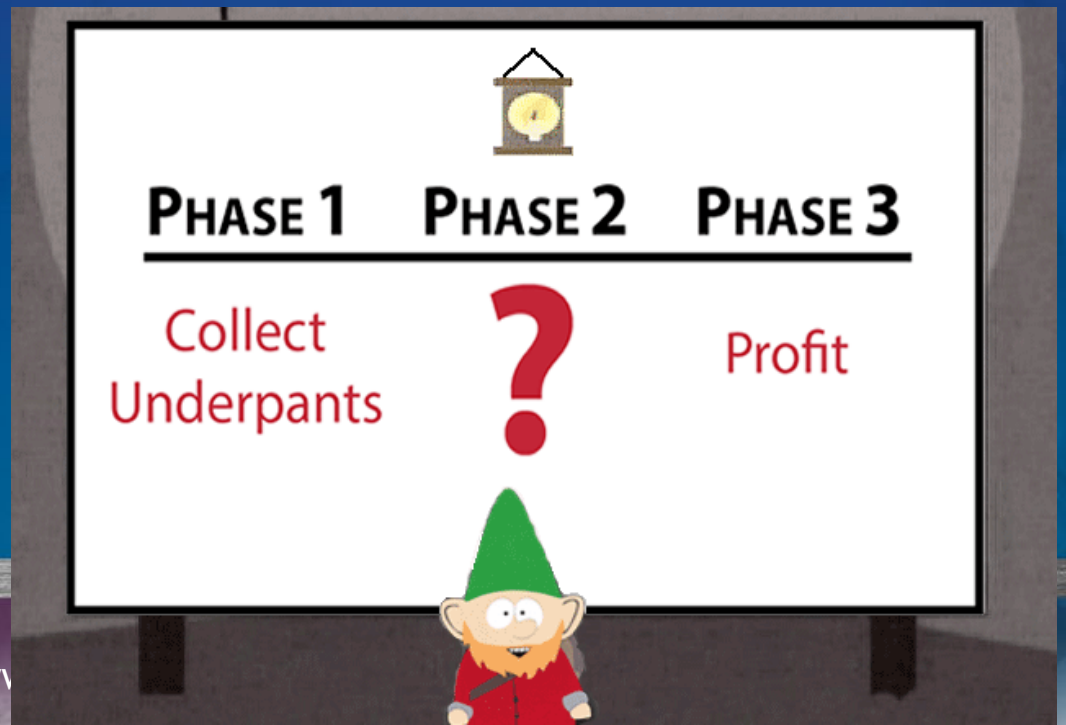
- This was a simple text search…
- What if we look at synonyms, sequences, rich indexing?
- A more expansive view of ownership?
- Or what if we start with a CI resource like a drug pipeline database and retrieve related patents?

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; what if you don't find a PN on the platform?

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

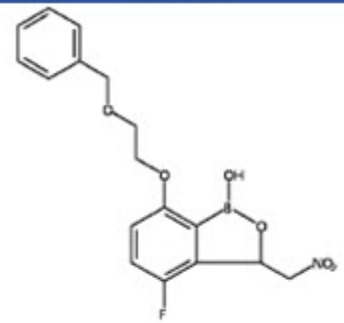
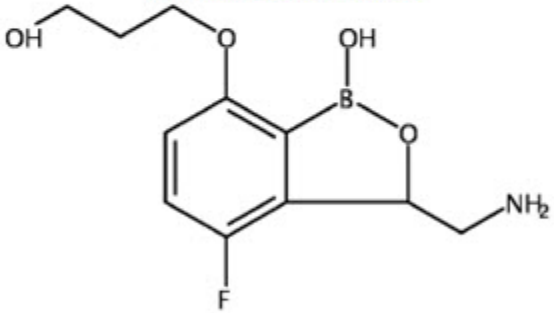
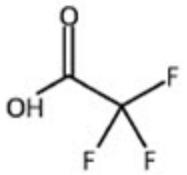
- In some cases you might be able to do several types of search on a single platform
- Orbit + Orbit Biosequences
- PatBase + Chemical Explorer
- Patsnap Analytics + Patsnap Bio
- STN (except for end-user access)

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
- Or add links to your preferred platform (add links to Patbase to your GenomeQuest results)

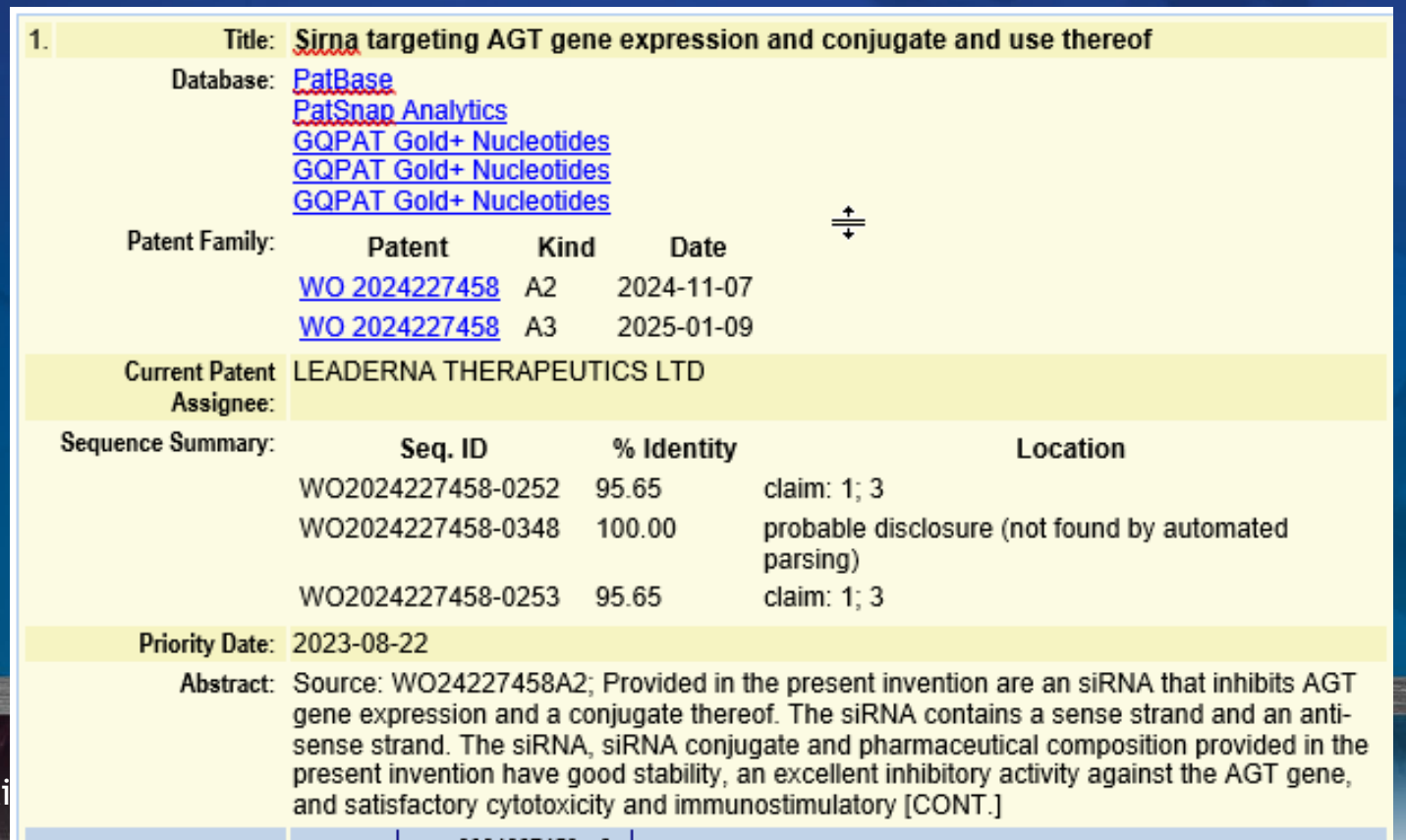
Simple - Plus

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

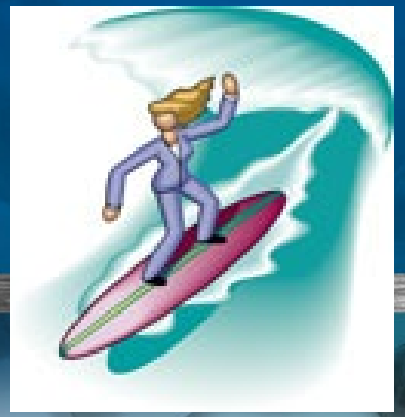
Priority Date:	2023-08-22
Abstract:	Source: WO24227458A2; Provided in the present invention are an siRNA that inhibits AGT gene expression and a conjugate thereof. The siRNA contains a sense strand and an anti-sense strand. The siRNA, siRNA conjugate and pharmaceutical composition provided in the present 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 as long as you can find the 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.

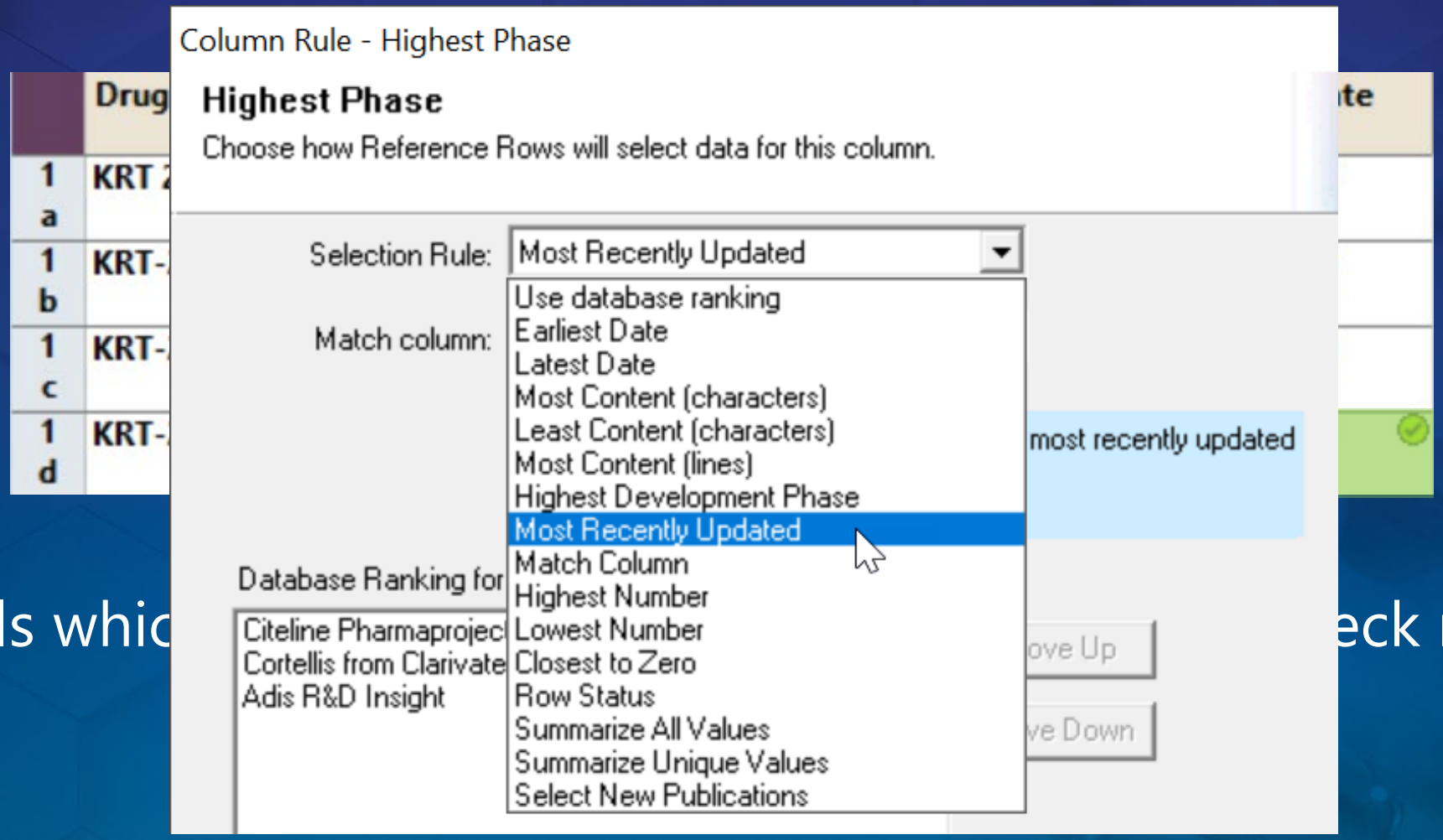
And create a single integrated row…

	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…



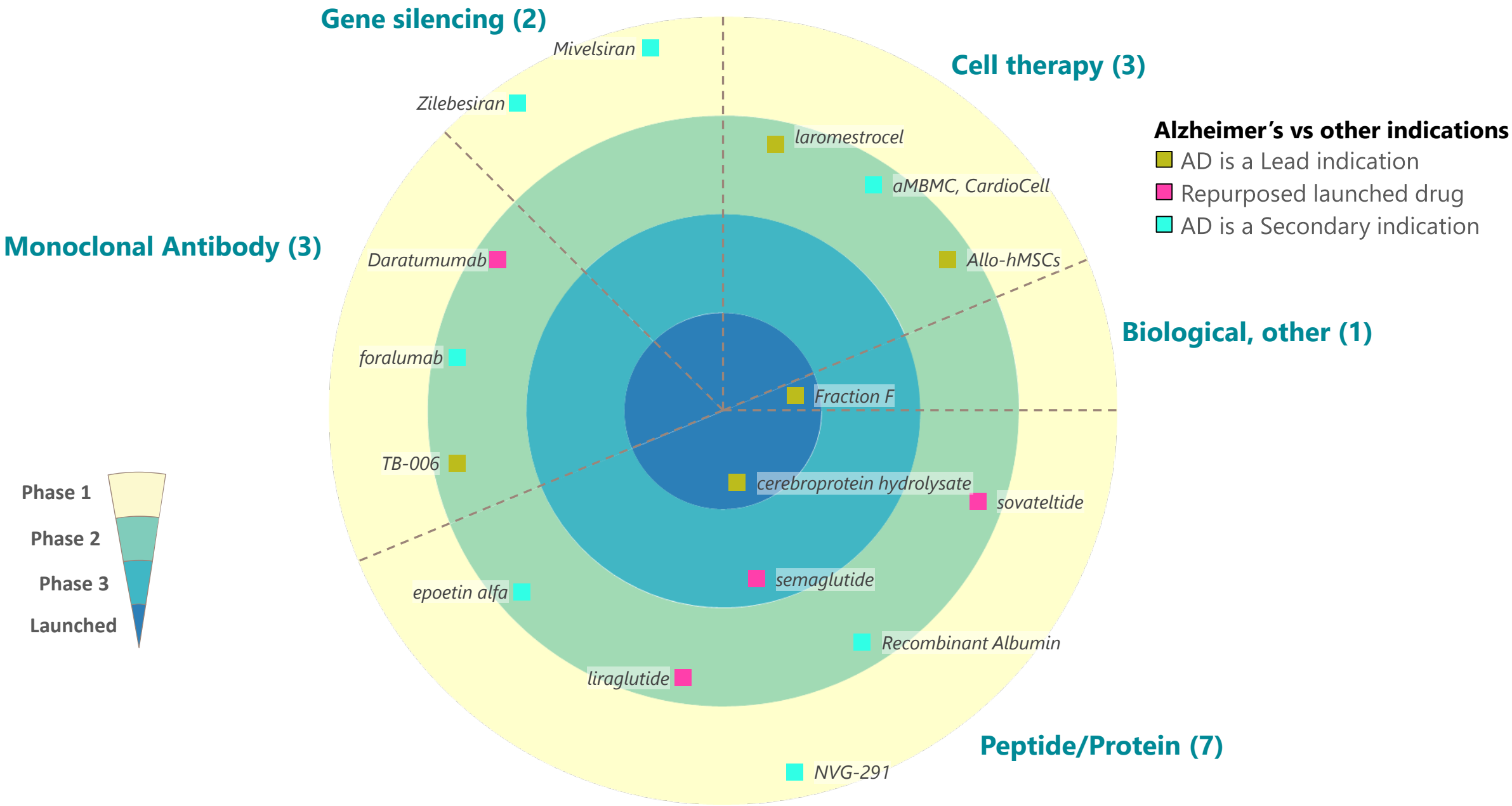
Cells whic eck mark.

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

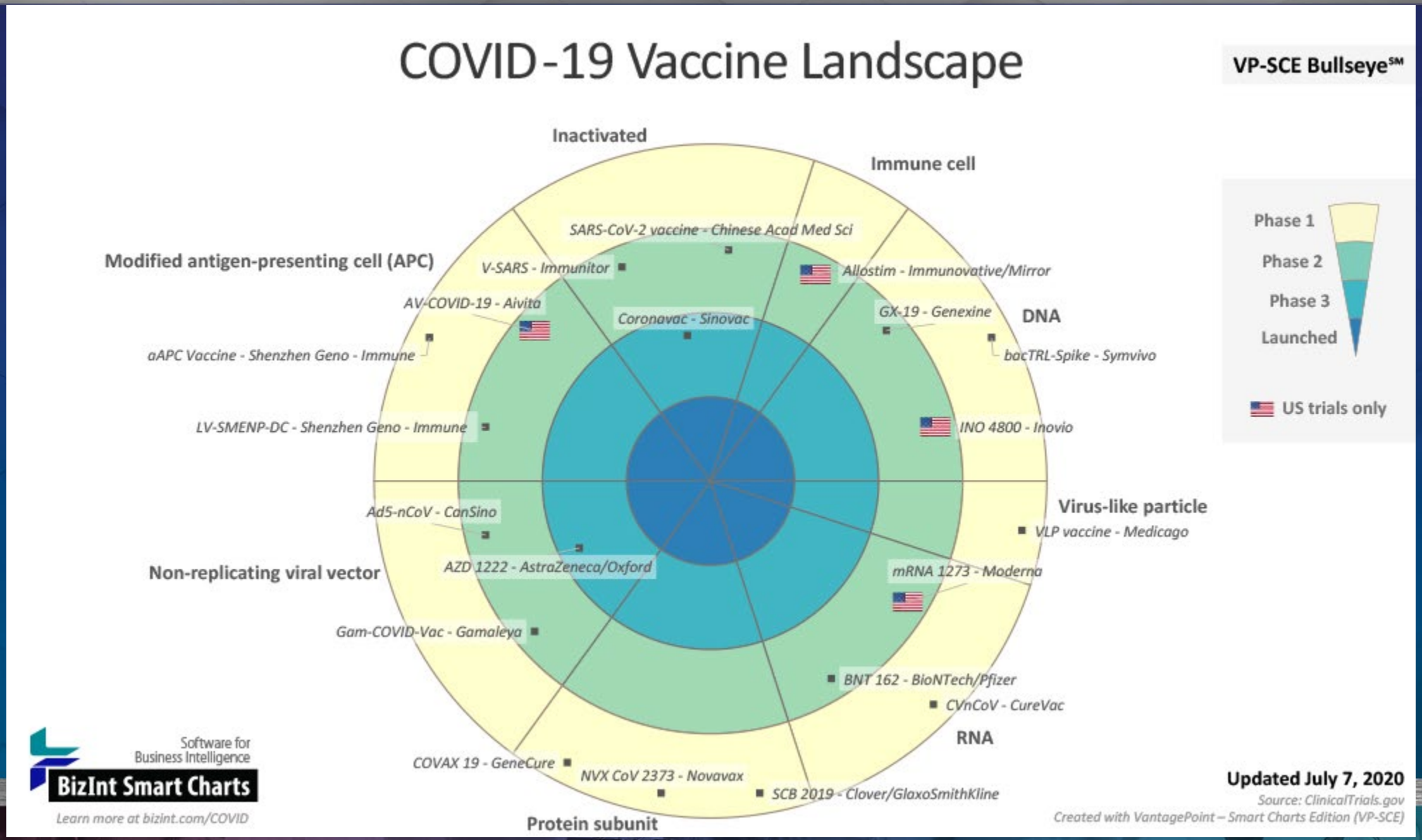
Cardiovascular Drugs for Alzheimer's - Biologics

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		

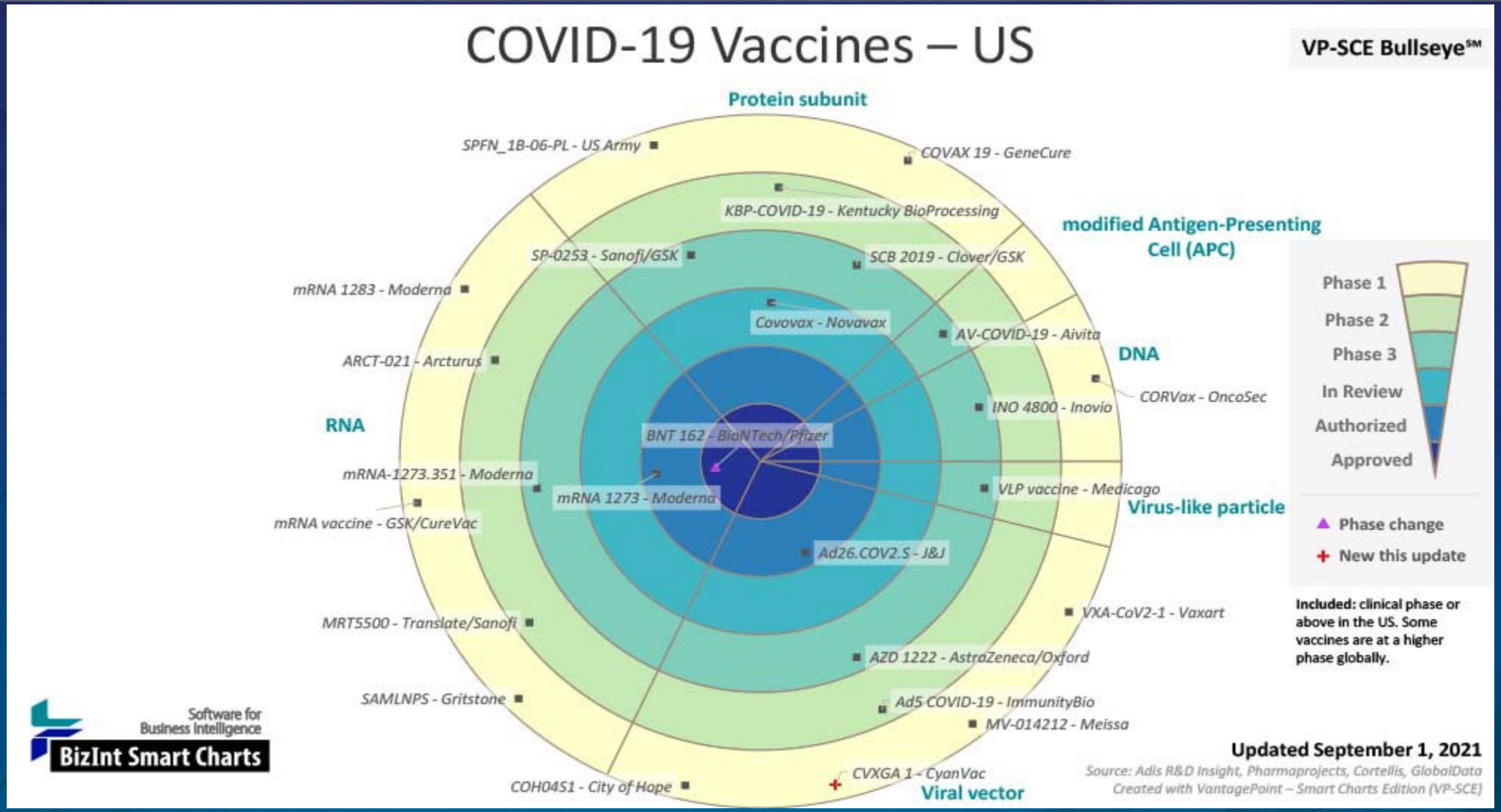
Drug Type

- 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.

BizInt Smart Charts

for Patents

New Chart Appearance

Version 5.9.3 – March 2025

Updated appearance for BizInt Smart Charts

- New fonts
- Adjusted margins
- Cleaner appearance
- Color indication of product

Updated appearance for BizInt Smart Charts

FAMPAT: orbit-vertex-cfi

	Title	FTO Family with Expiry						Patent Assignee	Patent Number	Patent Date
		Pub No.	Kind	Pub Date	State	Status	Est Expiry			
1	Complement factor-i formulations	JP 2025503483	A	2025-02-04				VERTEX PHARMACEUTICALS	JP 2025503483 A	2025-02-04
		BR 112024012847	A2	2024-11-05						
		EP 4452321	A1	2024-10-30	ALIVE	PENDING	2042-12-21			
		KR 20240124950	A	2024-08-19						
		CN 118450906	A	2024-08-06						
		IN 202447055854	A	2024-08-02						
		IL 313777	A	2024-08-01						
		SG 11202404181S	A	2024-07-31						
		BR 112024012847	A0	2024-07-02						
		MX 2024007731	A	2024-07-01						
		AU 2022420007	A1	2024-06-20						
		CA 3241714	A1	2023-06-29						
		WO 2023122691	A1	2023-06-29						
2	Complement factor i-related compositions and methods	JP 2025501749	A	2025-01-23				VERTEX PHARMACEUTICALS	JP 2025501749 A	2025-01-23
		EP 4452297	A2	2024-10-30	ALIVE	PENDING	2042-12-21			
		CN 118804759	A	2024-10-18						
		BR 112024012764	A2	2024-09-17						
		IN 202447055866	A	2024-08-02						
		IL 313780	A	2024-08-01						
		KR 20240117138	A	2024-07-31						
		SG 11202404179Y	A	2024-07-31						
		BR 112024012764	A0	2024-07-02						
		MX 2024007732	A	2024-07-01						
		AU 2022420600	A1	2024-06-20						
		WO 2023122689	A3	2023-08-10						
		CA 3241724	A1	2023-06-29						
		WO 2023122689	A2	2023-06-29						

Using color to identify the product

- BizInt Smart Charts uses blue column headings

PatSnap BIO: zilbesiran_sequences

	Patent Number	Patent Date	Title	Patent Assignee	Priority Date	SEQ ID NO
5	US 11015201 B2	2021-05-25	**Angiotensinogen (AGT) iRNA compositions and methods of use thereof**	ALNYLAM PHARMA INC	2018-05-14	SEQ ID. 737, 322, 596, 369, 690, 228, 275, 643
6	US 11015201 B2	2021-05-25	**Angiotensinogen (AGT) iRNA compositions and methods of use thereof**	ALNYLAM PHARMA INC	2018-05-14	SEQ ID. 378, 605, 652, 331, 699, 237, 284

- Smart Data Integrator uses tan

PatSnap BIO: zilbesiran_sequences

	Patent Number	Common Family	Patent Date	Title	Patent Assignee	Priority Date	SEQ ID NO
1a	US 11015201 B2	US 11015201	2021-05-25	**Angiotensinogen (AGT) iRNA compositions and methods of use thereof**	ALNYLAM PHARMA IN	2018-05-14	SEQ ID. 957, 713, 951, 345, 619, 9, 251, 298
1b	US 11015201 B2	US 11015201	2021-05-25	**Angiotensinogen (AGT) iRNA compositions and methods of use thereof**	ALNYLAM PHARMA INC	2018-05-14	SEQ ID. 529, 941, 12, 947, 114, 67, 161, 948, 946, 482, 435, 10

Using color to identify the product

- Patents data uses teal for selection

PatSnap BIO: zilbesiran_sequences

	Patent Number	Common Family	Patent Date	Title	Patent Assignee	Priority Date	SEQ ID NO
1 a	US 11015201 B2	US 11015201	2021-05-25	**Angiotensinogen (AGT) iRNA compositions and methods of use thereof**	ALNYLAM PHARMA IN	2018-05-14	SEQ ID. 957, 713, 951 345, 619, 9, 251, 298
1 b	US 11015201 B2	US 11015201	2021-05-25	**Angiotensinogen (AGT) iRNA compositions and methods of use thereof**	ALNYLAM PHARMA INC	2018-05-14	SEQ ID. 529, 941, 12, 947, 114, 67, 161, 948, 946, 482, 435, 10

- Drug Development Suite uses plum for selection

Synapse Drugs: Takeda Synapse 3-7-25

	Drug Name	Common Drug Name	Developer	Highest Phase (Normalized)	Indication Phase (Normalized)		Indication
					Indication	Phase	
1	**Apadamtase alfa /Cinaxadamtase alfa**	Apadamtase alfa /Cinaxadamtase alfa	The Chemo-Sero-Therapeutic Research Institute	Launched	Congenital Thrombotic Thrombocytopenic Purpura	Launched	Congenital Thrombotic Thrombocytopenic Purpura
					Thrombotic Thrombocytopenic Purpura, Acquired	Phase 2	Thrombotic Thrombocytopenic Purpura, Acquired
					Anemia, Sickle Cell	Phase 1	Anemia, Sickle Cell
					[Purpura, Thrombotic Thrombocytopenic]	Phase 1	
2	**Dengue vaccine tetravalent(Takeda)**	Dengue vaccine tetravalent	Takeda Pharmaceutical Co., Ltd.	Launched	Dengue	Launched	Dengue
					[Hepatitis A]	Phase 3	
					[Yellow Fever]	Phase 3	

Beyond good looks

- Selecting cells, rows, or columns works better now
- BizInt Smart Charts doesn’t lose track of the selection
- Fixed issues with cell editing
- Laid the groundwork for new features

BizInt Smart Charts

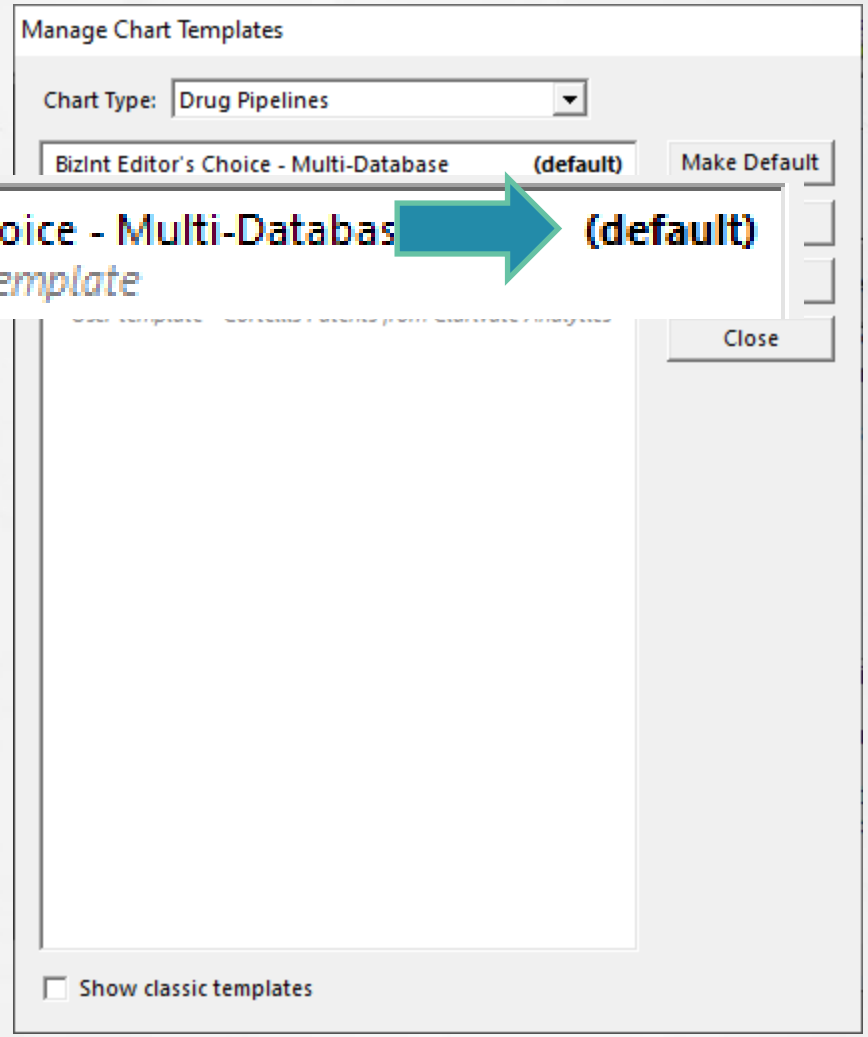
for Patents

Chart Template Enhancements

Version 5.8.4 – 2024

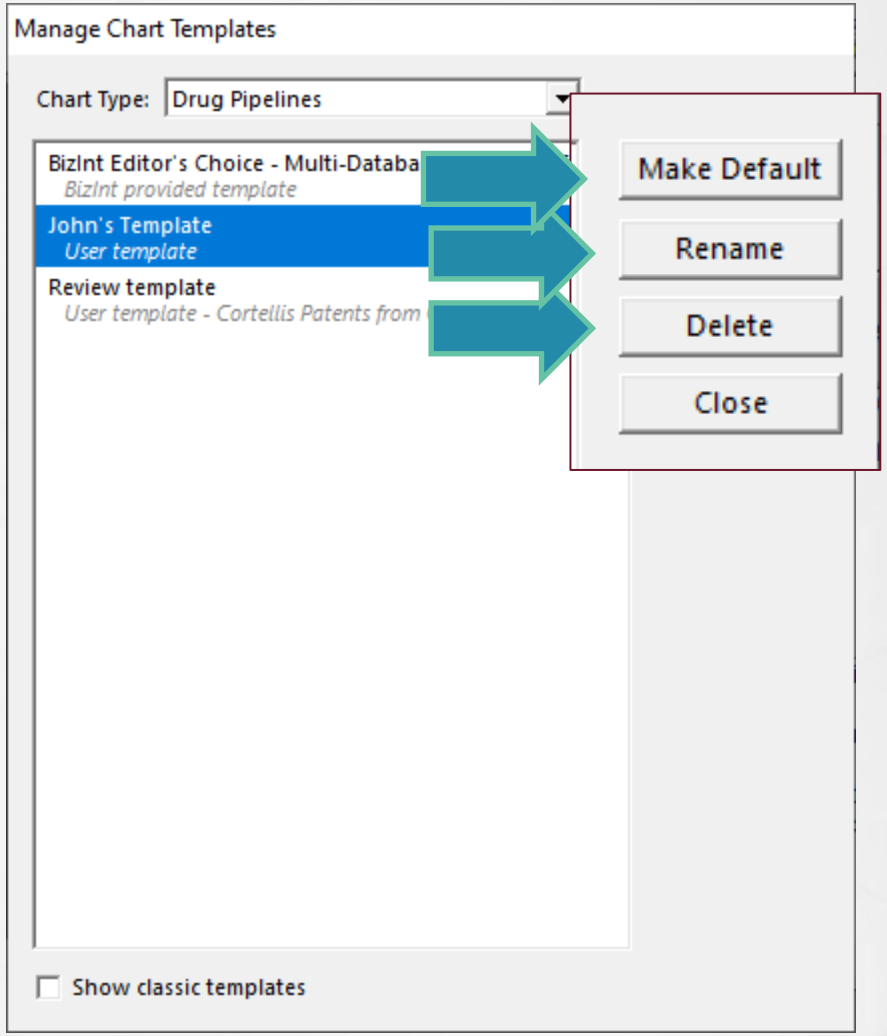
Default templates

- When you import data and create a chart, the default template is applied automatically
- Same template used when creating charts for a chart type



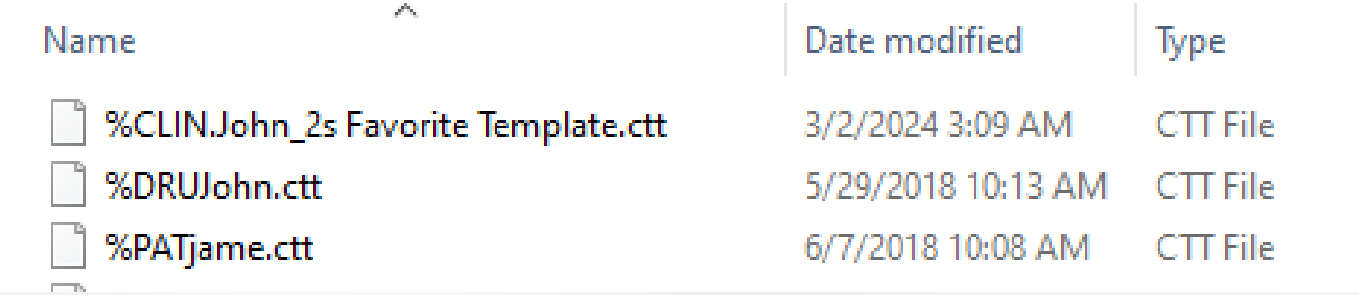
NEW Manage Templates command

- File menu or via Apply Template
- Rename a template*
- Delete a template*
- * user templates only
- Make a template the default template for that chart type



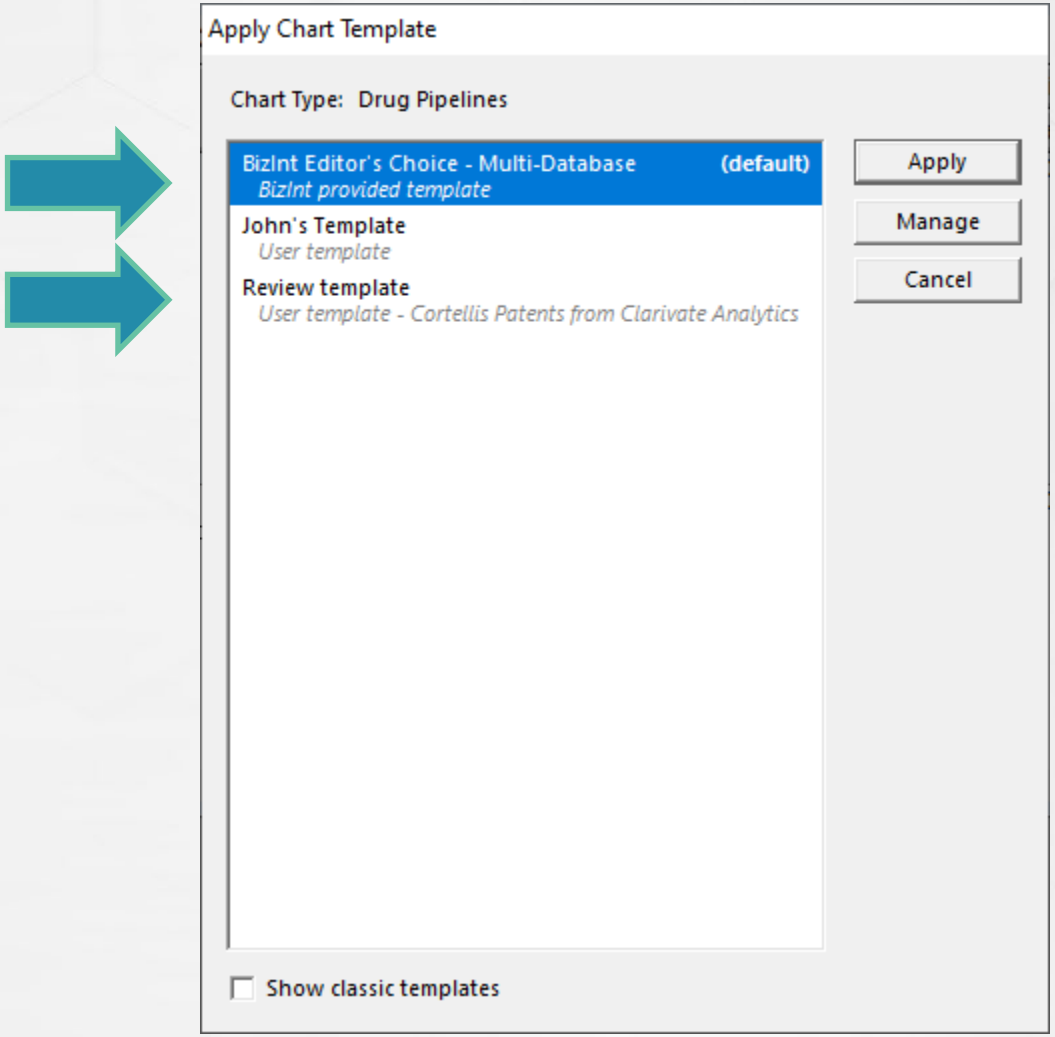
Long file names

- Chart template files now have long, descriptive file names
- Makes it easier to share files with your colleagues
- Find templates in %appdata%\bizint\template
- Older templates still have short file names



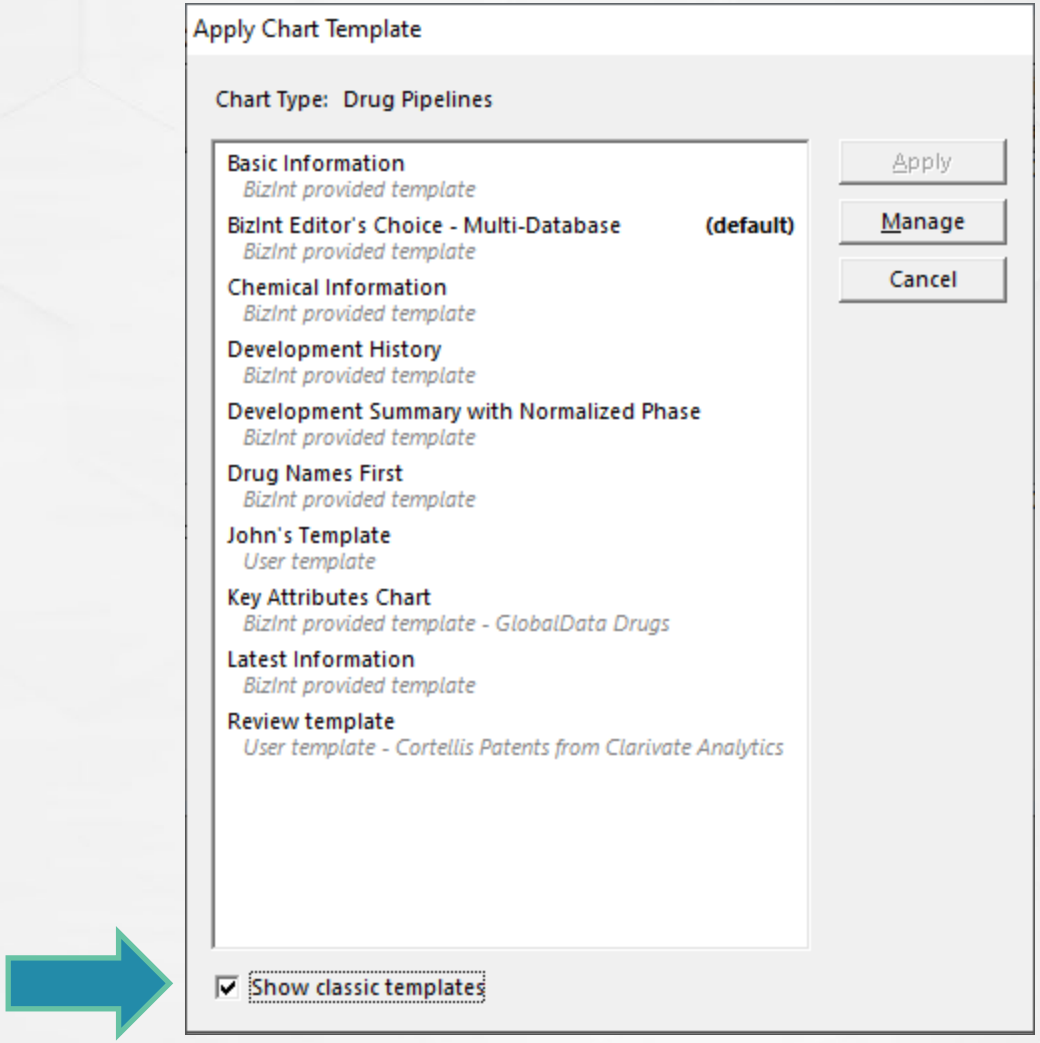
Use compatible templates

- You can apply any template for the same chart type to a chart
- Example: apply a chart template created from a combined chart to a chart from CAplus
- Example: apply template from Orbit to a chart from DWPI



Classic templates

- Many old templates provided by BizInt are no longer shown
- Click “Show classic templates” to make them visible
- Want a classic template on your list all the time?
  Apply it to a chart and save as a new template



BizInt Smart Charts

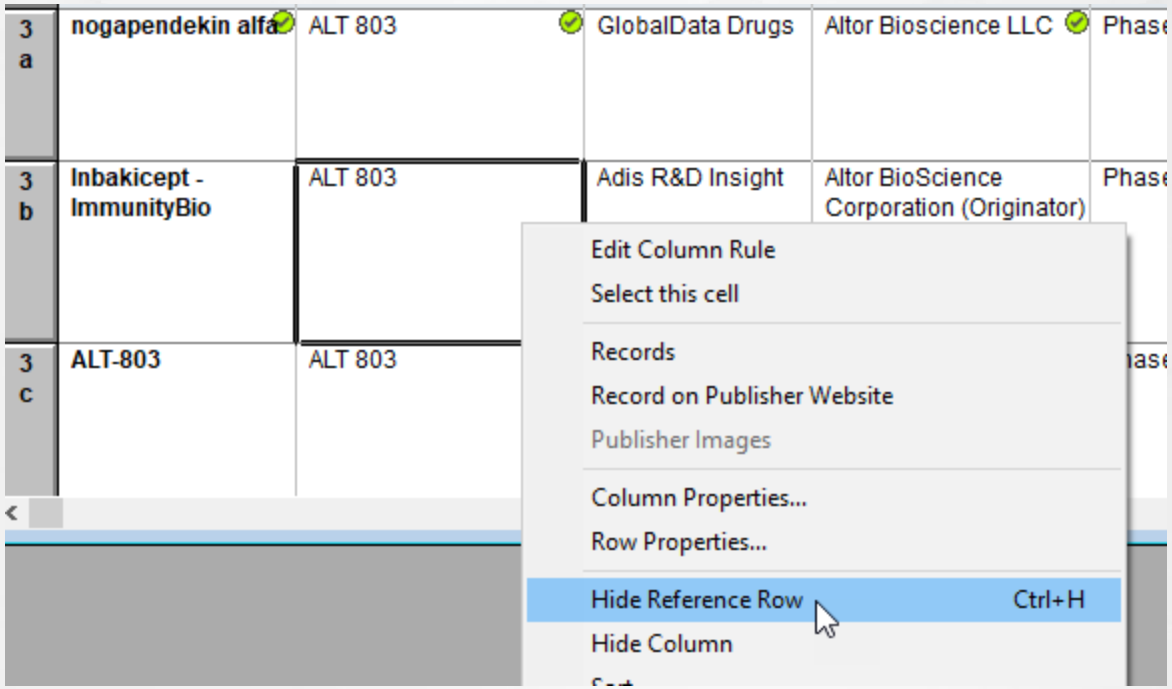
for Patents

Data Integrator Workflow

Version 5.6 – 2021

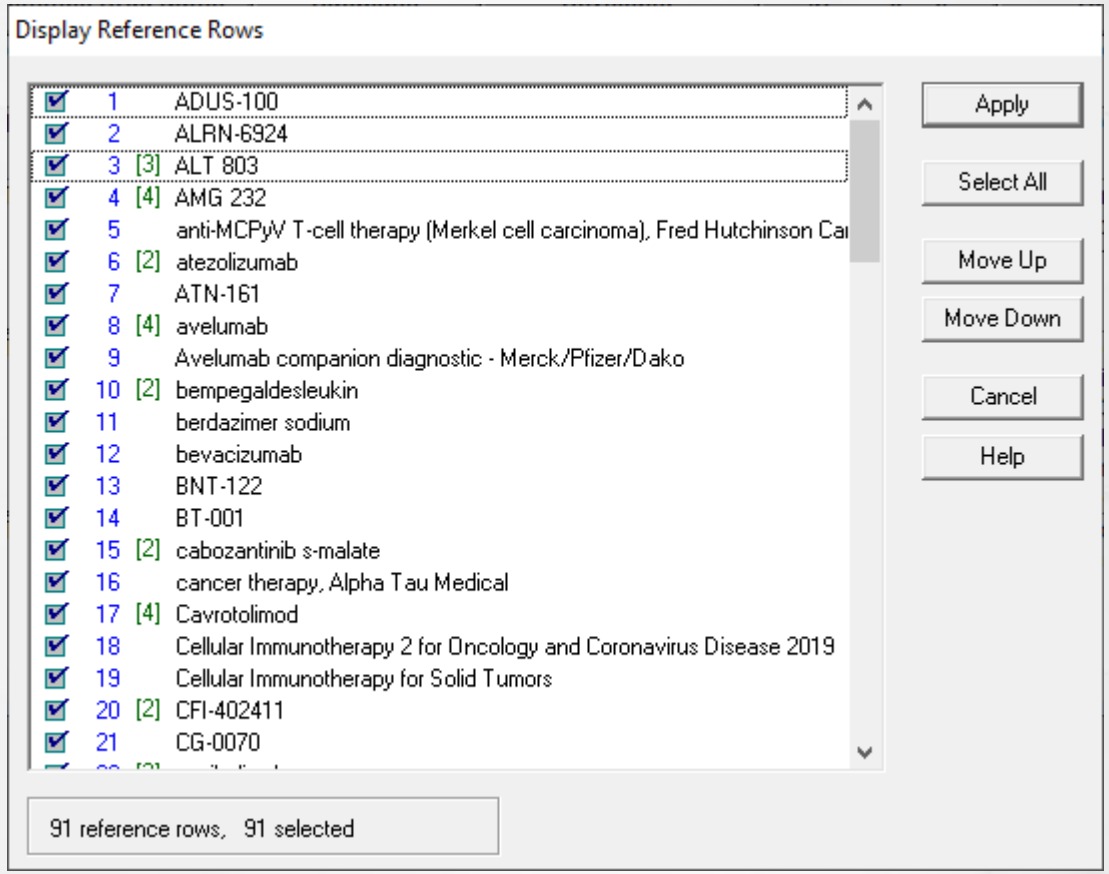
Hide Integrated Rows

- The #1 most requested feature in BizInt Smart Charts is now here! **Hide Integrated Row**
- Right click on any component row in an Integrated Row to hide the entire group.
- All rows are hidden when you return to Smart Charts



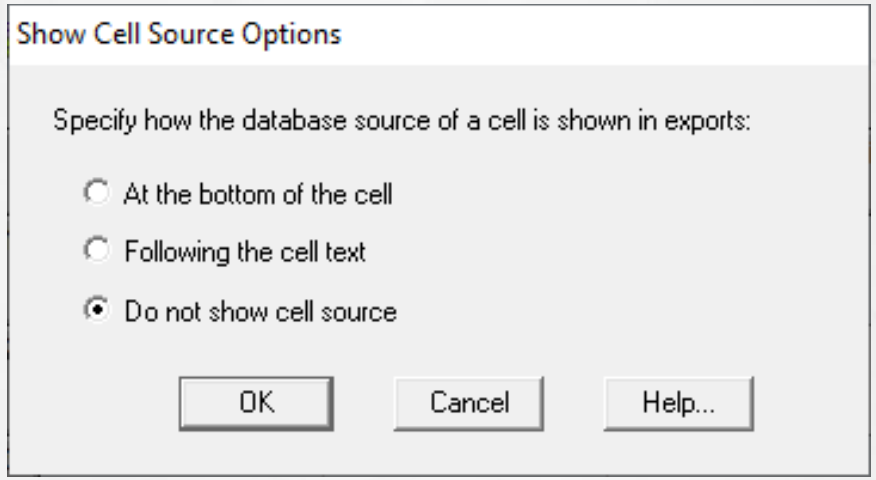
View | Integrated Rows

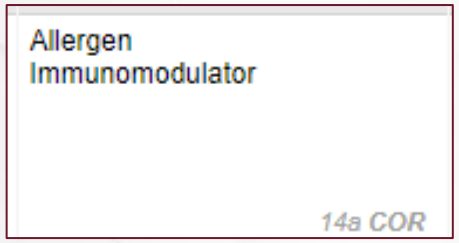
- With View | Integrated Rows you can **hide**, **show**, and **rearrange** the Integrated Rows in your chart
- The green number on some rows is the number of visible source rows in the group.

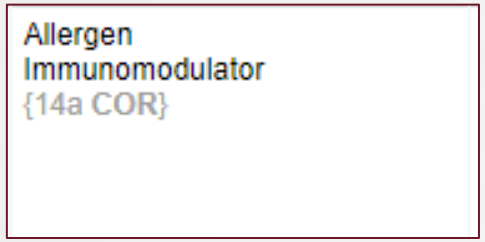


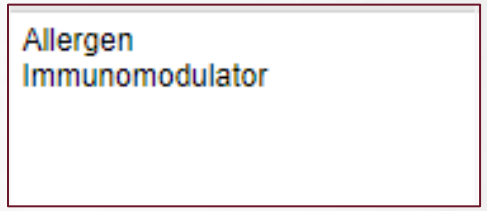
Integrated Rows Cell Attribution

- Show Cell Sources… on the Integrated Rows menu controls how the source of a cell is shown
- Attributions are in grey (not color)









BizInt Smart Charts

for Patents

Database Updates

Clinical Trials

CITELINE

TrialTrove

ClinicalTrials.gov

New JSON export

Adis

Cortellis™
A Clarivate Analytics solution

Trials Intelligence

GlobalData.

Clinical Trials

 | www.bizint.com

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

Patents

CAS

minesoft

Questel

Derwent™
A Clarivate Analytics company

Cortellis™
A Clarivate Analytics solution

patsnap

STNext

PatBase

Orbit

Innovation

Patents

Analytics

 | www.bizint.com

Patent Sources

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

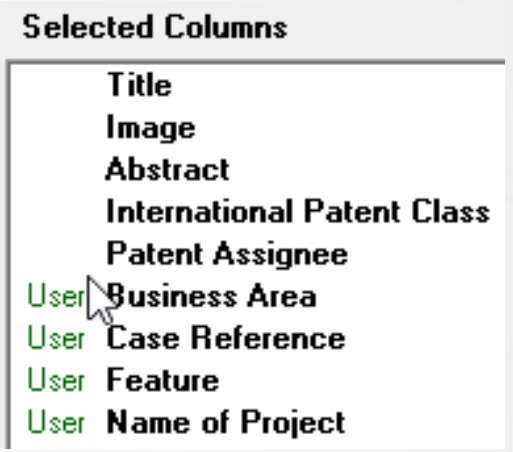
Patent Sources

- 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

PatBase User Fields

- If you have custom fields defined in PatBase, the contents appear in “User” columns with the same field name
- Works for both User Fields and PatKM
- New export requires version 5.8.1,
  Legacy export unchanged since version 4.5.1



PatBase Folder Notes

- Version 5.8 includes an update to how we handle Folder Notes
- Applies to both Legacy and New exports
- Attribution is cleaner, only shows publication number when it changes
- Only show language if MT
- Clean up HTML markup within notes
- No truncation

Notes	Notes (Old)
US2002017181A1 - Claims 1. A woodworking machine having a cutting region for cutting workpieces, comprising: a movable cutting tool for cutting workpieces in the cutting region; a detection system adapted to detect one or more dangerous conditions between a person and the cutting tool; and a reaction system associated with the detection system and the cutting tool, where the reaction system is configured to retract the cutting tool at least partially away from the cutting region upon detection of at least one of the dangerous conditions by the detection system. 8. The machine of claim 7, where engagement of the braking component with the cutting tool causes the cutting tool to move out of the cutting region. Abstract The machines include a detection system adapted to detect one or more dangerous conditions between a person and the cutting tools, and a reaction system associated with the detection system.	From US2002017181AA - Claims: [EN] 1. A woodworking machine having a cutting region for cutting workpieces, comprising: a movable cutting tool for cutting workpieces in the cutting region; a detection system adapted to detect one or more dangerous conditions between a person and the cutting tool; and a reaction system associated with the detection system and the cutting tool, where the reaction system is configured to retract the cutting tool at least partially away from the cutting region upon detection of at least one of the dangerous conditions by the detection system. [CONT.]

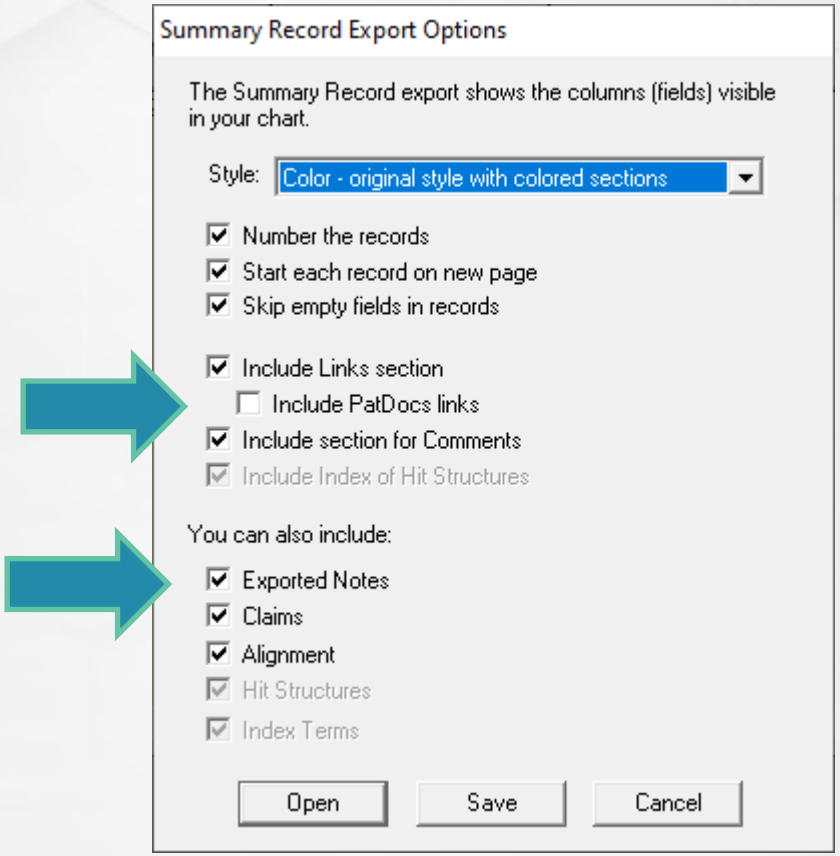
PatBase Folder Notes

- Publication level – only shows notes clipped from the current publication
- Type `From US2002017181AA:` at the start of your written notes to associate them with a single publication

Notes	Notes (Old)
US2002017181A1 - Claims 1. A woodworking machine having a cutting region for cutting workpieces, comprising: a movable cutting tool for cutting workpieces in the cutting region; a detection system adapted to detect one or more dangerous conditions between a person and the cutting tool; and a reaction system associated with the detection system and the cutting tool, where the reaction system is configured to retract the cutting tool at least partially away from the cutting region upon detection of at least one of the dangerous conditions by the detection system. 8. The machine of claim 7, where engagement of the braking component with the cutting tool causes the cutting tool to move out of the cutting region. Abstract The machines include a detection system adapted to detect one or more dangerous conditions between a person and the cutting tools, and a reaction system associated with the detection system.	From US2002017181AA - Claims: [EN] 1. A woodworking machine having a cutting region for cutting workpieces, comprising: a movable cutting tool for cutting workpieces in the cutting region; a detection system adapted to detect one or more dangerous conditions between a person and the cutting tool; and a reaction system associated with the detection system and the cutting tool, where the reaction system is configured to retract the cutting tool at least partially away from the cutting region upon detection of at least one of the dangerous conditions by the detection system. [CONT.]

Summary Records

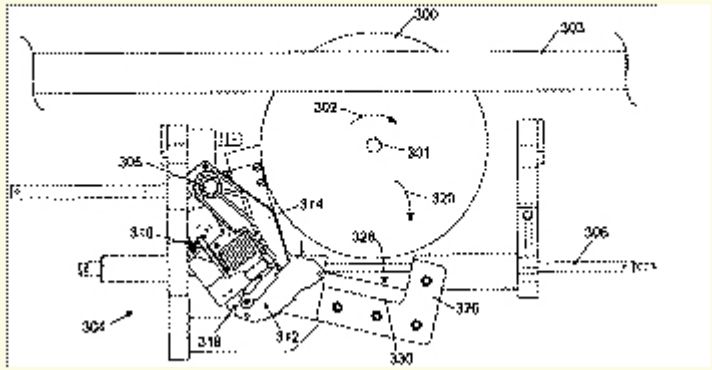
- Summary Records include the option to link to the PatDocs family
- Folder Notes are available in a separate block (nicely formatted) using the “Exported Notes” option



Summary Records with Exported Notes

Abstract: Source: US2002017181; Woodworking machines are disclosed having movable cutting tools for cutting workpieces in a cutting region. The machines include a detection system adapted to detect one or more dangerous conditions between a person and the cutting tools, and a reaction system associated with the detection system. [CONT.]

Image:



Hyperlinks: Source | US 2002017181 A1 | PatDocs Family Tree

Comments:

Exported Notes:

US2002017181A1 - Claims

1. A woodworking machine having a cutting region for cutting workpieces, comprising: a movable cutting tool for cutting workpieces in the cutting region; a detection system adapted to detect one or more dangerous conditions between a person and the cutting tool; and a reaction system associated with the detection system and the cutting tool, where the reaction system is configured to retract the cutting tool at least partially away from the cutting region upon detection of at least one of the dangerous conditions by the detection system.

8. The machine of claim 7, where engagement of the braking component with the cutting tool causes the cutting tool to move out of the cutting region.

Abstract

The machines include a detection system adapted to detect one or more dangerous conditions between a person and the cutting tools, and a reaction system associated with the detection system.

Claims:

US2002017181AA

1. A woodworking machine having a cutting region for cutting workpieces, comprising:
a movable cutting tool for cutting workpieces in the cutting region;
a detection system adapted to detect one or more dangerous conditions between a person and the cutting tool; and
a reaction system associated with the detection system and the cutting tool, where the reaction system is

PatBase Independent Claims

- All independent claims now extracted into a column “Claims – Independent”
- Existing claims column now named “Claims – First”
- Available in version 5.8.5

Claims - First	Claims - Independent
US2023000954A1 1. A composition comprising fibronectin (FN), wherein the FN is mesenchymal stem cell (MSC)-derived FN.	US2023000954A1 1. A composition comprising fibronectin (FN), wherein the FN is mesenchymal stem cell (MSC)-derived FN. 23. The composition according to claim 22, wherein the composition does not comprise NaCl and/or MgCl2.
WO23278807A1 1. A system for treating glaucoma, comprising: an intraocu lar shunt made of a cross-linked gelatin, the intraocular shunt having a shunt outer diameter of between about 170 micro m to about 260 micro m, and the in traocular shunt defining at least one interior flow path having a shunt inner diameter of be tween about 50 micro m and about 70 micro m; [CONT.]	WO23278807A1 1. A system for treating glaucoma, comprising: an intraocu lar shunt made of a cross-linked gelatin, the intraocular shunt having a shunt outer diameter of between about 170 micro m to about 260 micro m, and the in traocular shunt defining at least one interior flow path having a shunt inner diameter of be tween about 50 micro m and about 70 micro m; and a needle having a lumen to cam- the intraocular shunt, the lumen having a lumen inner diameter of between about 220 to about 280 micro m. 13. A method to treat glaucoma, the method comprising: advancing a needle through the sclera of the patient to create an opening, wherein the needle has a needle diameter of between about 400 micro m to about 420

Hit Term Highlights

- Added support for hit term highlights in version 5.6.1
- Only available in the BizInt exports from STNext and PatBase, XML exports from Orbit.com
- Appear in the **backing records**
- Appear in record exports
  (including claims in summary records exports)
- bizint.com/support/use/hit_highlight.php

BizInt Smart Charts

for Patents

Chemistry Support

Version 5.9 – 2024

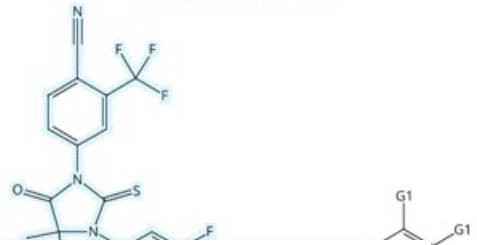
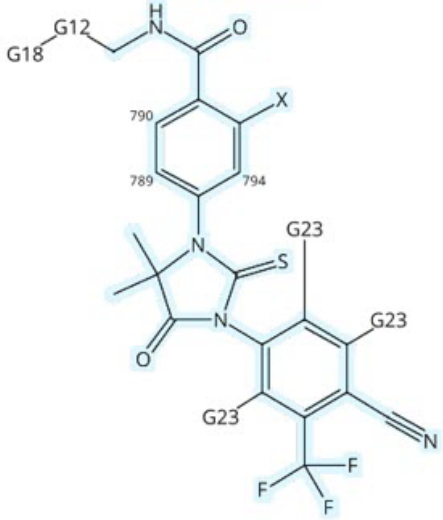
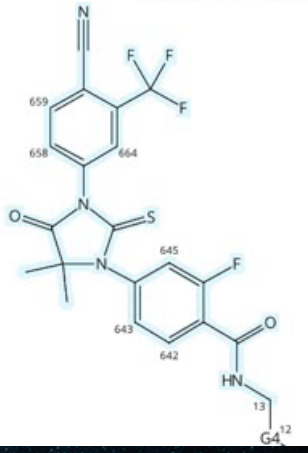
Chemistry in BizInt Smart Charts for Patents

- Patent and non-patent chemistry supported on STN
- CAplus hit structures added in Version 4.8
- Support for PatentPAK locations added in Version 5.7
- Version 5.9 adds support for MARPAT assembled structures
  MSTR support only works with BizInt exports from STNext

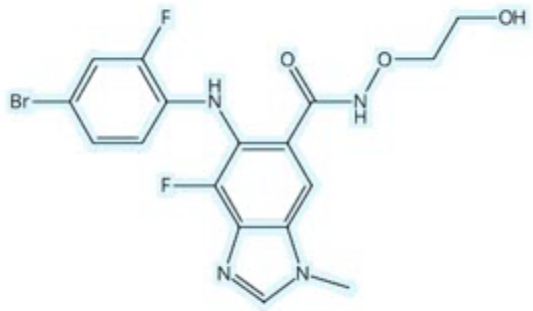
Index of Hit Structures / Markush Structures

Integrating PatentPak

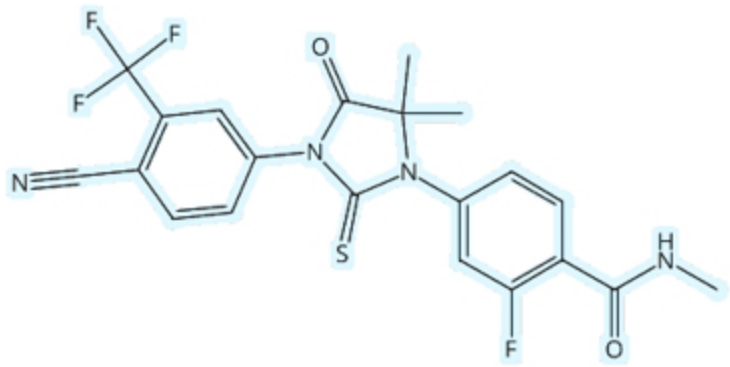
Index of Markush Structures

Structure	Structure
MSTR 1B Assembled	MSTR 1 Assembled
	
	Reference 2
	MSTR 1 Assembled
	

Index of Hit Structures

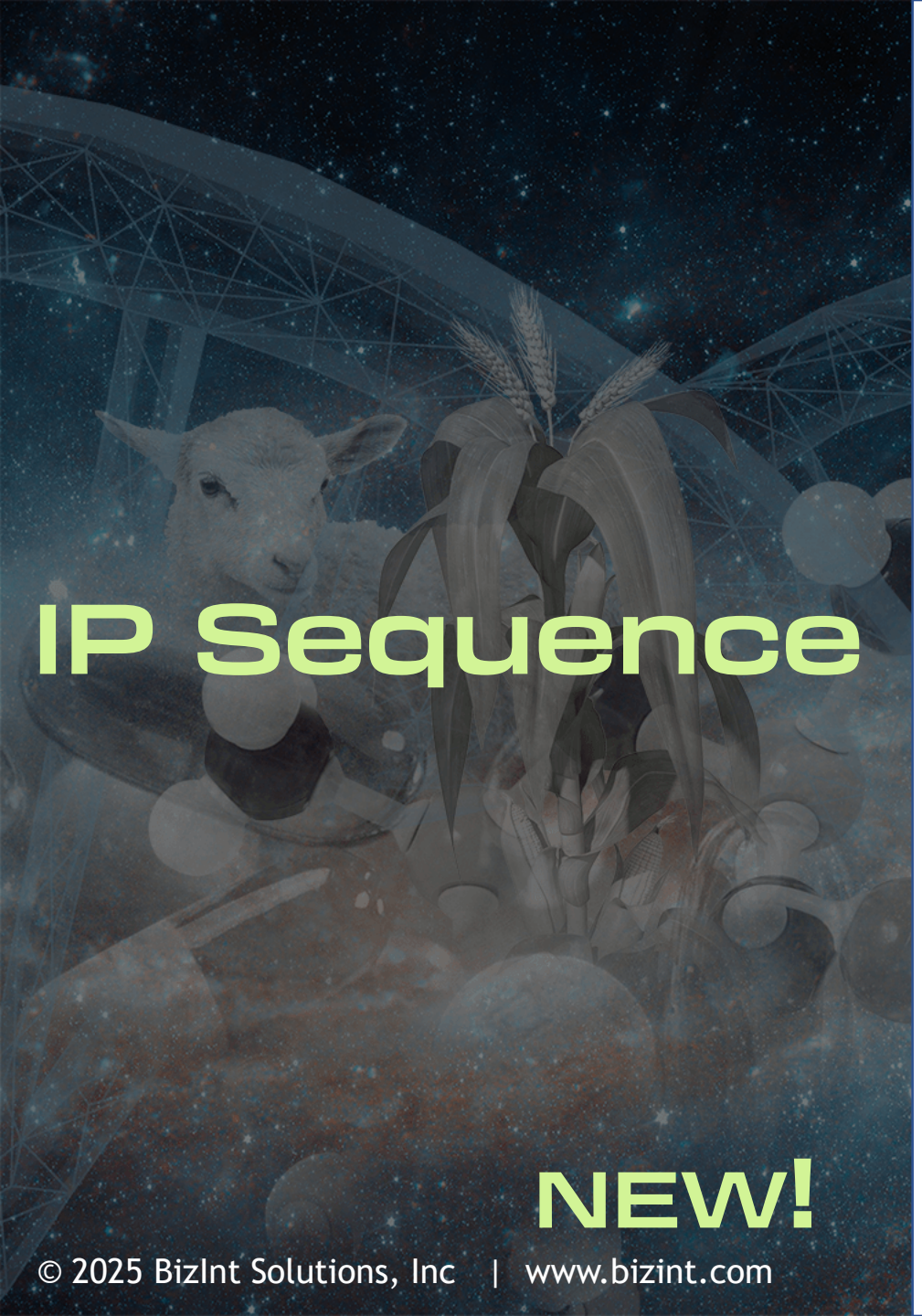
	Substance	Structure	Reference
1	606143-89-9 1H-Benzimidazole-6-carboxamide, 5-[(4-bromo-2-fluorophenyl)amino]-4-fluoro-N-(2-hydroxyethoxy)-1-methyl-(CA INDEX NAME)		agent or probe for identifying RAS codon Q6l and/or G13R mutation for diagnosing solid tumor Reference 1 prepn. of pharmaceutical compns. comprises antibody, polypeptide and nucleic acid mol. for treatment of connective tissue disorders in human Reference 2 (Pg 80 Claim) methods and compns. for generating human midbrain neural progenitor cells Reference 3 (Pg 31)

Color structure images

	Substance	Structure	Reference
1	915087-33-1 Benzamide, 4-[3-[4-cyano-3-(trifluoromethyl)phenyl]-5,5-dimethyl-4-oxo-2-thioxo-1-imidazolidinyl]-2-fluoro-N-methyl- (CA INDEX NAME)		compn. contg. beauverin in medicine for inhibiting proliferation of human prostate cancer cell *Reference 1* treating metastatic castration-resistant prostate cancer with engineered bispecific PSMA x CD28 antibodies with anti-PD-1 antibodies *Reference 2* engineering of ERBB2/ERBB3 bispecific antibodies for treating castration-resistant prostate cancer *Reference 3*

Additional Columns in MARPAT

First Hit Structure	Num Hit Structures	Node Annotations	Additional G-groups	Structure Notes	Patent Location
147:427336+1 Assembled	1	316: carbon chain <containing 1-12 C> (opt. substd. by (1-4) G4) 398: carbon chain <containing 1-12 C> (opt. substd. by (1-4) G4)		Note: additional heteroatom interruptions also claimed	claim 1
145:505452+1 Assembled	1		G15 = Me G18 = F / CONHMe	Note: substitution is restricted Note: also incorporates other claims Note: also incorporates claim 38 Note: substitution is restricted	claim 45



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

Coming Soon

- Much simpler interface for Combine and Update
  (As fast as one click in many cases)
- Automatic handling of sequence results when combining
- Multi-byte character support
- And more

- Version 6.0 coming this summer

Questions?

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