



Software for  
Business Intelligence

# BizInt Smart Charts

Patents & IP Sequences | Clinical Trials | Drug Pipelines

## Get Up to Date with BizInt Smart Charts for Patents

*John Willmore, VP Product Development*

PIUG NE Regional Conference Workshop, Iselin, NJ, 25 September 2019

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

# Agenda

- What's New
- Updating Reports
- Summary Records and Hit structure reports
- Reference Rows
- Non-Patent Literature
- Future directions

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



# What's New

- Version 5.3 just released (almost)
- Update enhancements
- Additional STN content
- Coping with STNext exports
- PatBase enhancements
- Hit Structure options



# BizInt Smart Charts

VERSION

5

*for Patents*

## Patent Databases

*Provide data on patents filed worldwide*

- STN - Classic, STNext, & New STN
- Questel Orbit.com
- Minesoft PatBase
- Innovation, Cortellis IP, Integrity Patents
- LexisNexis TotalPatent
- GQ LifeSciences LifeQuest



# BizInt Smart Charts

VERSION

5

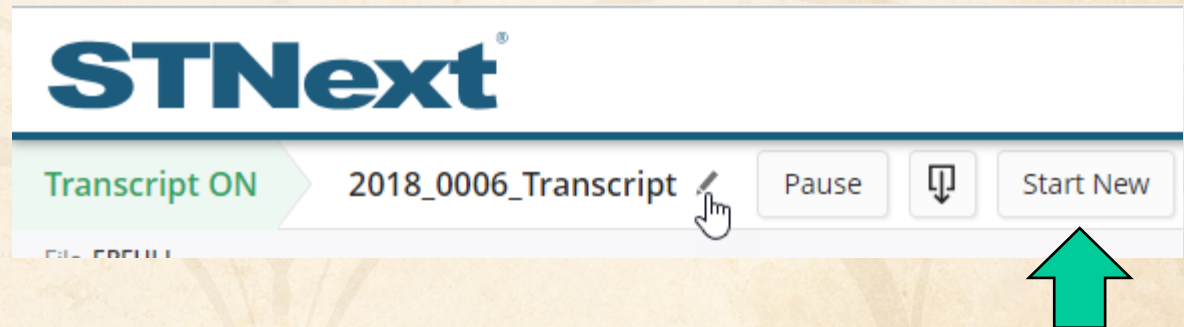
*for Patents*

## STN Content

- DWPI, IFI, Caplus, MARPAT, REGISTRY
- Fulltext: US PCT EP JP KR AU CA CN FR GB DE
- Literature: EMBASE, MEDLINE, BIOSIS, AGRICOLA, ANABSTR, AQUASCI, BIOENG, BIOTECHNO, CABA, CANCERLIT, COMPENDEX, COMPUAB, COMPUSCIENCE, DISSABS, ENCOMPLIT, FEDRIP, FSTA, FROSTI, INSPEC, IPA, KOSMET, LIFESCI, METADEX, PASCAL, RAPRA, SciSearch, TOXCENTER, TULSA, GEOREF, PQSciTech, DDF, PIRA, TEMA, NTIS, 1MOBILITY
- Sequence: DGENE, PCTGENE, USGENE

# Importing transcripts from STNext

- Make sure that Classic Display is on
- Start new transcript before displaying.



# Importing transcripts from STNext

- Version 5.2 can handle some cases of problem RTF exports from STNext.
- Version 5.2 is ready for the enhanced structure displays coming next week on STNext.

# PatBase: New fields for 5.0

Patent Family (Extended)						Legal Status Link	VLF ID
Patent	Kind	Date	Appl.	Appl. Date	State		
US 2014148428	A	2014-05-29	US20130090815	2013-11-26	DEAD	http://www.patbase.com/legal/public/index.php?id=56546002	
US 2016213689	A	2016-07-28	US20160008665	2016-01-28	DEAD		
US 2018064729	A	2018-03-08	US20170652777	2017-07-18	ALIVE		
AU 2013352288	AA	2014-06-05	AU20130352288	2013-11-26	ALIVE		
AU 2013352288	BB	2017-11-23	AU20130352288	2013-11-26	ALIVE		
WO 14085474	A1	2014-06-05	WO2013US72038	2013-11-26	DEAD		
TW 201434469	A	2014-09-16	TW20130143227	2013-11-27	ALIVE		
TW I636786	B	2018-10-01	TW20130143227	2013-11-27	ALIVE		
CA 2891348	AA	2015-05-12	CA20132891348	2013-11-26	ALIVE		
SG 11201503697T	A1	2015-06-29	SG20151103697	2013-11-26	ALIVE		
IL 239025	A0	2015-07-30	IL20130239025	2013-11-26	ALIVE		
KR 20150089052	A	2015-08-04	KR20157016809	2013-11-26	ALIVE		
PH 2015501108	B	2015-08-17	PH20150501108	2015-05-19	ALIVE		
PH 2015501108	A	2015-08-17	PH20150501108	2015-05-19	ALIVE		
CN 104853758	A	2015-08-19	CN201380061734	2013-11-26	ALIVE		
CL 2015001442	A1	2015-08-28	CL20150001442	2015-05-27	ALIVE		
EP 2925328	A1	2015-10-07	EP20130802822	2013-11-26	ALIVE		
IN 05091DN2015	A	2015-12-18	IN2015DN05091	2015-06-11	ALIVE		
JP 2016500111	T2	2016-01-07	JP20150544191T	2013-11-26	ALIVE		
JP 6270171	B2	2018-01-31	JP20150544191T	2013-11-26	ALIVE		
MX 2015006710	A1	2016-01-15	MX20150006710	2013-11-26	ALIVE		
HK 1211844	A1	2016-06-03	HK20150112720	2015-12-24	ALIVE		
ID 201604069	A	2016-06-17	ID2015P0003748	2013-11-26	ALIVE		

Extended Patent Family in a single row

Link to Legal Status

Support for Very Large Family IDs



# This feature brought to you by...

- **Let us know if there is content that you want to see, or that you want to see presented differently**
- **That's how the software evolves!**

## For example...

- We are working with a customer on a feature to extract legal status events (from a user-specified list) into a new field
- We are at the design stage for custom sort orders for patent families.

*Let us know what you want to see!*

# More examples driven by customer requests...

- Support for hit structures from STN.
- Enhanced change reporting in updates to flag new family members

**New in Version 5.3!**

# Best Practices

- Keep your chart files!
- Even though you may have delivered a report to your client, if they ask for changes (additional fields, different sort order) it is easier to start from a prepared chart than from scratch.

# Best Practices

- Keep your chart files!
- This month's report can be the baseline for an updated report.
- You can Update a report to see which families are new in your results and which have changed.

PatBase: Natamycin_Update								
Title	Row Status	Patent Family			Priority Data		Applications	
		Patent	Kind	Date	Number	Date	Application	Date
SUBMICRON NATAMYCIN PARTICLE	Added	WO 15044465	A2	2015-04-02	EP20140167408	2014-05-07	WO2015EP50647	2015-01-15
		WO 15044465	A3	2015-05-21	EP20140192514	2014-11-10	WO2015EP50647	2015-01-15
COMPOSITION COMPRISING A PESTICIDAL TERPENE MIXTURE AND A FUNGICIDE	Updated	WO 14020109	A1	2014-02-06	EP20120179145	2012-08-03	WO2013EP66178	2013-08-01
		AU 2013298562	AA	2014-02-06	WO2013EP66178	2013-08-01	AU20130298562	2013-08-01
		CA 2880671	AA	2015-01-30			CA20132880671	2013-08-01
		AR 091953	AA	2015-03-11			AR2013P102729	2013-08-01
		KR 20150041638	A	2015-04-16			KR20157004997	2013-08-01

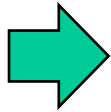
# Updating reports

- File | Update
- The “key” chart is your baseline - your existing report, against which new data is compared
- Rows from the baseline are copied in order to the new chart... new records added at bottom... changed records remain in position from baseline chart.
- All charts need to be open before updating.

# Updating reports

- Added charts in an update can be either a set of new records (as in an alert)
- This only reports Added and Updated rows.

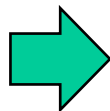
Select the operation you would like to perform:



- Update chart with partial results**  
Useful for alerts and other date limited searches.
- Update chart with a complete new set of results.**  
Flags any records from the key chart not found in updates.
- Update combined chart with new results from one database.**  
Changes update status for one database only.

# Updating reports

- Added charts can also be a complete set of data (as in exporting a workbook after new records added)
- In this case, you could use the “Update with complete set of results” option, which will report any rows which were no longer in the set.



Select the operation you would like to perform:

- Update chart with partial results**  
Useful for alerts and other date limited searches.
- Update chart with a complete new set of results.**  
Flags any records from the key chart not found in updates.
- Update combined chart with new results from one database.**  
Changes update status for one database only.



# Updating reports from multiple sources

- Combine all new charts into one and update key chart with this new chart
- -or-
- Update key chart by adding charts from all sources
- Change detection is for the last update, so you want to do the update in one step.

# Updating reports (family oriented)

- “Added” means this is a new family in this report
- “Updated” means the family was seen before but has new/changed information
- “Unchanged” means the family has not changed from the baseline
- Row Status reflects what happened to the record at that row.

# Updating reports (publication level)

- “Added” means this is a new publication in this report
- “Updated” means the publication has been changed (typically added indexing)
- “Unchanged” means the publication has not changed from the baseline

# Sorting updated reports

PatBase: Natamycin_Update						
	Title	Row Status	Patent Family			Priority Dat
			Patent	Kind	Date	Number
1	PROCESSED EDIBLE PRODUCT COMPRISING A POLYELECTROLYTE AND AN ANIONIC COMPOUND	Unchanged	WO 15034360	A1	2015-03-12	EP20130183018
2	SYNERGIC COMPOSITIONS OF LACTOPEROXIDASE					

Sort Rows

Columns:

- Abstract
- Application Date
- Application Number
- Citations
- Claims
- CPC
- Designated States
- ECLA Class
- Forward Citations
- Full Text Link
- International Patent Class
- Inventor(s)
- Inventor(s) (Non-standardized)
- Latest Legal Status
- Legal Status

Sort Order:

- Row Status

Ascending

Alternate row shading when primary sort key changes

Sort  
Cancel  
Help...

**Sort Row Status (descending) to bring new content to top, followed by changes**

# Sorted updated report

PatBase: Natamycin_Update									
	Title	Row Status	Patent Family			Priority Data		Applications	
			Patent	Kind	Date	Number	Date	Application	Date
2	SUBMICRON NATAMYCIN PARTICLE	Added	WO 15044465	A2	2015-04-02	EP20140167408	2014-05-07	WO2015EP50647	2015-01-15
			WO 15044465	A3	2015-05-21	EP20140192514	2014-11-10	WO2015EP50647	2015-01-15
3	COMPOSITION COMPRISING A PESTICIDAL TERPENE MIXTURE AND A FUNGICIDE	Updated	WO 14020109	A1	2014-02-06	EP20120179145	2012-08-03	WO2013EP66178	2013-08-01
			AU 2013298562	AA	2014-02-06	WO2013EP66178	2013-08-01	AU20130298562	2013-08-01
			CA 2880671	AA	2015-01-30			CA20132880671	2013-08-01
			AR 091953	AA	2015-03-11			AR2013P102729	2013-08-01
			KR 20150041638	A	2015-04-16			KR20157004997	2013-08-01

# New Publications column

- Automatically created during update if there is a Patent Family column present.
- Lists publications found in new records but not in the “key” chart.
- Reflects publications not in the key chart during the last update operation only.

# New Publications column

- New in version 5.3

PatBase: Updated Mousetraps						
	Title	Row Status	Patent Family			New Publications
			Patent	Kind	Date	
1	Mousetrap	Updated	US 2006185223 US 7231738 AU 2005200789	A B AA	2006-08-24 2007-06-19 2006-09-07	US 7231738 B
2	Source: CN1762213A The invention provides a mouse trap without bait comprising: main ...	Unchanged	CN 1762213	A	2006-04-26	

# New Publications column

- In Added rows, all publications are “New”

PatBase: Updated Mousetraps						
	Title	Row Status	Patent Family			New Publications
			Patent	Kind	Date	
37	Falle zum Fangen von Maeusen und aehnlichen Kleintieren; Trap to catch mice and other small rodents has two housing parts one open at the top and pivotably positioned on an other open a	Added	DE 102004053106	B3	2006-03-30	DE 102004053106 B3
38	Safety disposable mouse trap	Added	US 2006064922 US 2007151140 WO 06036767 WO 06036767	A A A2 A3	2006-03-30 2007-07-05 2006-04-06 2006-09-14	US 2006064922 A US 2007151140 A WO 2006036767 A2 WO 2006036767 A3



# Multiple records per family

- Reports combining results from several family-oriented databases  
e.g. Orbit and DWPI
- Reports built from publication level databases  
e.g. Derwent Innovation
- Reports with a mix of family and publication level databases  
e.g. CPlus, USFULL, EPFULL, PCTFULL

# Introducing Reference Rows

- One or more record in each family
- Records grouped based on “Common Family”
- Selection for each field is based on rules
- Special rules for the Row Status and New Publications columns

# Tools | Identify Common Patent Family

Database	Common Family	Patent Family		
		Patent	Kind	Date
Derwent World Patents Index	US 2014356956	US20140356959	A1	20141204
Derwent World Patents Index	US 2014356956	US20140356956	A1	20141204
		WO2014197568	A2	20141211
		WO2014197568	A3	20150312
		CA2914638	A1	20141211
FAMPAT	US 2014356956	US 2014356956	A1	2014-12-04
		US 2014356959	A1	2014-12-04
		US 9287133	B2	2016-02-23
GQPAT Gold+ Proteins	US 2014356956	US20140356959		20141204
GQPAT Gold+ Proteins	US 2014356956	US20140356956		20141204
PatBase	US 2014356956	US 2014356959	A	2014-12-04
		US 2014356956	A	2014-12-04
		AU 2014274939	AA	2014-12-11
		WO 14197568	A2	2014-12-11
		WO 14197568	A3	2015-03-12
		CA 2914638	AA	2015-12-04
		KR 20160014036	A	2016-02-05

# Use Case: Orbit + PatBase

	Title	Database	Row Status	Patent Family			New Publications
				Patent	Kind	Date	
5 .1	Fermented fruit solutions for cleaning compositions ✓	FAMPAT	Unchanged ✓	WO 201540442	A1	2015-03-26	
				WO 201540506	A1	2015-03-26	
				WO 201540444	A1	2015-03-26	
5 .2	SOFTENING COMPOSITIONS INCLUDING FERMENTED FRUIT SOLUTIONS AND METHODS FOR MAKING AND USING THE SAME	PatBase	Added	WO 15040506	A1	2015-03-26 ✓	WO 2015040506 A1 ##
				WO 15040445	A1	2015-03-26	WO 2015040445 A1
				WO 15040444	A1	2015-03-26	WO 2015040444 A1
				WO 15040442	A1	2015-03-26	WO 2015040442 A1
6 .1	Processed edible product comprising a polyelectrolyte complex and an antimicrobial compound ✓	FAMPAT	Unchanged ✓	WO 201534360	A1	2015-03-12 ✓	
6 .2	PROCESSED EDIBLE PRODUCT COMPRISING A POLYELECTROLYTE COMPLEX AND AN ANTIMICROBIAL COMPOUND	PatBase	Added	WO 15034360	A1	2015-03-12	WO 2015034360 A1 ##

- Selection View in Reference Rows

# Use Case: Orbit + PatBase

	Title	Database	Row Status	Patent Family			New Publications
				Patent	Kind	Date	
5.	Fermented fruit solutions for cleaning compositions	5.1 FAMPAT   <a href="#">link</a>	Updated	WO 15040506	A1	2015-03-26	WO 2015040445 A1
		5.2 Patbase   <a href="#">link</a>		WO 15040445	A1	2015-03-26	
				WO 15040444	A1	2015-03-26	
				WO 15040442	A1	2015-03-26	
		5.1 FAMPAT				5.2 Patbase	
6.	Processed edible product comprising a polyelectrolyte complex and an antimicrobial compound	6.1 FAMPAT   <a href="#">link</a>	Updated	WO 201534360	A1	2015-03-12	
		6.2 Patbase   <a href="#">link</a>					
		6.1 FAMPAT				6.1 FAMPAT	6.1 FAMPAT

- Collaped View in Reference Rows

# Use Case: Derwent Innovation

- Each record represents a publication
- Publications might include related Derwent family data
- As new publications are published, your search results might include new publications from families you've already seen

# Use Case: Derwent Innovation

- Row status rolls up individual publication status to a family level

	Title	Common Family	Row Status	Database	Row Status Summary		
					Basic Patent Number	Row Status	
1.	Agricultural product used for e.g. controlling plant disease and treating fungal diseases caused by fungi such as <i>Fusarium semitectum</i> comprises polyene antifungal compound and antifungal compound from family of strobilurin fungicides	EP 2680698	Updated	1.1 DWPI   <a href="#">link</a>	WO 2012117049 A1	Unchanged	1.1
				1.2 Innov   <a href="#">link</a>	US 9034792 B2	Updated	1.2
				1.3 Innov   <a href="#">link</a>	EP 2680698 B1	Updated	1.3
				1.4 Innov   <a href="#">link</a>	EP 2680698 A1	Updated	1.4
				1.5 Innov   <a href="#">link</a>	WO 2012117049 A1	Updated	1.5
				1.1 DWPI			
2.	Treating/preventing occurrence/recurrence of <i>Clostridium difficile</i> infection by administering composition comprising two purified bacterial populations comprising bacteria having 16S ribosomal RNA sequence identical to reference bacterium	US 20140147425	Updated	2.1 DWPI   <a href="#">link</a>	US 20140199281 A1	Unchanged	2.1
				2.2 DWPI   <a href="#">link</a>	US 20140147425 A1	Updated	2.2
				2.3 DWPI   <a href="#">link</a>	US 20150190435 A1	Added	2.3
				2.4 Innov   <a href="#">link</a>	US 9028841 B2	Updated	2.4
				2.5 Innov   <a href="#">link</a>	US 8906668 B2	Updated	2.5
				2.6 Innov   <a href="#">link</a>	US 20140147425 A1	Updated	2.6
				2.7 Innov   <a href="#">link</a>	US 9533014 B2	Added	2.7
2.1 DWPI							

# Use Case: Derwent Innovation

- New Publications limited to publications not previously listed in a record for that family

	Title	Common Family	Row Status	Database	Patent Family			New Publications
					Patent	Kind	Date	
1.	Agricultural product used for e.g. controlling plant disease and treating fungal diseases caused by fungi such as <i>Fusarium semitectum</i> comprises polyene antifungal compound and antifungal compound from family of strobilurin fungicides	EP 2680698	Updated	1.1 DWPI   <a href="#">link</a>	WO 2012117049	A1	2012-09-07	
				1.2 Innov   <a href="#">link</a>	US 20130324402	A1	2013-12-05	
				1.3 Innov   <a href="#">link</a>	EP 2680698	A1	2014-01-08	
				1.4 Innov   <a href="#">link</a>	CN 103402360	A	2013-11-20	
				1.5 Innov   <a href="#">link</a>	EP 2680698	B1	2015-01-28	
				1.5 Innov   <a href="#">link</a>	US 9034792	B2	2015-05-19	
				1.1 DWPI	1.1 DWPI			
2.	Treating/preventing occurrence/recurrence of <i>Clostridium difficile</i> infection by administering composition comprising two purified bacterial populations comprising bacteria having 16S ribosomal RNA sequence identical to reference bacterium	US 20140147425	Updated	2.1 DWPI   <a href="#">link</a>	US 9028841	B2	2015-05-12	CA 2892297 A1 AU 2013347805 A1 SG 11201503966 A1 CN 104955466 A EP 2953472 A1 KR 2015108357 A JP 2015537042 A MX 2015006491 A IN 201503613 NZ 709392 A EP 2953472 A4 HK 1218836 A0 US 2015190435 A1 US 9533014 B2 HK 1218836 A1 IL 238973 RU 2015124366 A
				2.2 DWPI   <a href="#">link</a>	AU 2013347805	A1	2015-07-09	
				2.3 DWPI   <a href="#">link</a>	CA 2892297	A1	2014-05-30	
				2.4 Innov   <a href="#">link</a>	CN 104955466	A	2015-09-30	
				2.5 Innov   <a href="#">link</a>	EP 2953472	A1	2015-12-16	
				2.5 Innov   <a href="#">link</a>	EP 2953472	A4	2017-03-01	
				2.6 Innov   <a href="#">link</a>	HK 1218836	A1	2017-03-17	
				2.7 Innov   <a href="#">link</a>	IL 238973	D0	2015-07-30	
					JP 2015537042	A	2015-12-24	
					KR 2015108357	A	2015-09-25	
					MX 2015006491	A	2015-12-03	
					NZ 709392	A	2016-10-28	
					RU 2015124366	A	2017-01-10	
					SG 11201503966	A1	2015-06-29	
	US 20140147425	A1	2014-05-29					
	US 20140199281	A1	2014-07-17					
	US 20150190435	A1	2015-07-09					
	US 8906668	B2	2014-12-09					
	US 9533014	B2	2017-01-03					
	US 20140199281	A1	2014-05-29					



# Summary Record export in Word

3.	Basic Patent Number:	WO2012033858A2
	Title:	Boron-containing small molecules
	Inventor(s):	Hernandez, Vincent S.; Ding, Charles; Plattner, Jacob J.; Alley, Michael Richard Kevin; Rock, Fernando; Zhang, Suoming; Easom, Eric; Li, Xianfeng; Zhou, Ding
	Patent Assignee:	Anacor Pharmaceuticals, Inc., USA
	Hyperlinks:	<a href="#">Source</a>   WO2012033858A2



- Fields are the columns in chart
- Content, like hyperlinks, is included in the Summary Record

THE JOURNEY BEGINS...

# Summary Record export with Hit Structures

## Updated Mousetraps

+

1. **Title:** Mousetrap

**Row Status:** Updated

**Patent Family:**

Patent	Kind	Date
<a href="#">US 2006185223</a>	A	2006-08-24
<a href="#">US 7231738</a>	B	2007-06-19
AU 2005200789	AA	2006-09-07

**New Publications:** US 7231738 B

**Patent Assignee:** RECKITT BENCKISER NV; RECKITT BENCKISER AU PTY LTD

**Inventor(s):** WATSON DUNCAN MCLEOD; WATSON DUNCAN M; RODGERS BRENDYN MURRAY; RODGERS BRENDYN M

**International Patent Class:** A01M23/00; A01M23/02; A01M23/16; A01M23/00

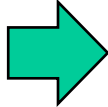
**Abstract:** Source: US2006185223AA; With reference to a preferred embodiment as depicted in Fig. 4 the present invention provides a mousetrap comprising a first part (5) and a second part (10) that together define an enclosure wherein the first part (5) and the second part (10) are operably connected to a first biasing means (60). [CONT.]

**Image:**

Parent Application Publication: App. 24,286; Sheet 1 of 7 15-2006-0185223 A1

**Fig. 1.**

**Fig. 2.**



# Summary Record export with Hit Structures

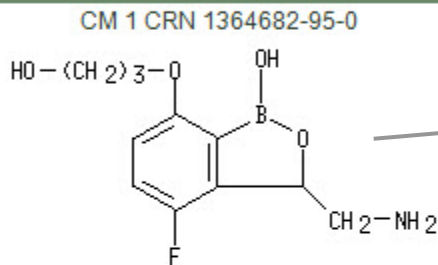
3. Basic Patent Number:	WO2012033858A2
Title:	Boron-containing small molecules
Inventor(s):	Hernandez, Vincent S.; Ding, Charles; Plattner, Jacob J.; Alley, Michael Richard Kevin; Rock, Fernando; Zhang, Suoming; Easom, Eric; Li, Xianfeng; Zhou, Ding
Patent Assignee:	Anacor Pharmaceuticals, Inc., USA
Hyperlinks:	<a href="#">Source</a>   WO2012033858A2

Text from CPlus record

## Hit Structures:

1364682-96-1 [\(Compd. 2\)](#)

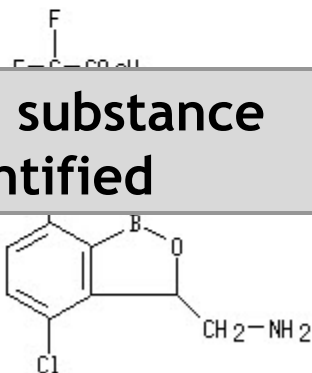
1-Propanol, 3-[[3-(aminomethyl)-4-fluoro-1,3-dihydro-1-hydroxy-2,1-benzoxaborol-7-yl]oxy]-, 2,2,2-trifluoroacetate (1:2) (CA INDEX NAME)



RL: PAC (Pharmacological activity); SPN (Synthetic preparation); TH (Therapeutic use); BIOL (Biological study); PREP (Preparation); U (Uses)

Structures with annotations including multi page images

CM 2 CRN 76-05-1



prepn. of benzoxaborole useful for treating bacterial infections

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); U (Uses)

Index Terms

Each hit substance identified

1364683-03-3 [\(Compd. 3\)](#)

1-Propanol, 3-[[3-(aminomethyl)-4-chloro-1,3-dihydro-1-hydroxy-2,1-benzoxaborol-7-yl]oxy]-, hydrochloride (1:1) (CA INDEX NAME)

# New Hit Structure Options

- New summary records option to skip empty fields in records
- Default: skip
- Great for mixed patent and non-patent results (e.g. Patent Family won't show up as a blank field in a journal reference)

## Summary Record Export Options

The Summary Record export shows the columns (fields) visible in your chart.

- Number the records
- Start each record on new page
- Skip empty fields in records
- Include Links section
- Include editable Notes section
- Include Index of Hit Structures



You may also include the following information for the record:

- Include Claims
- Include Alignment
- Include Hit Structures
- Include Index Terms

OK

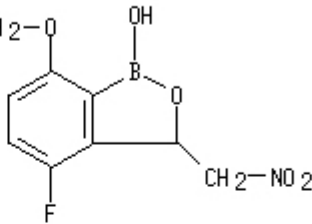
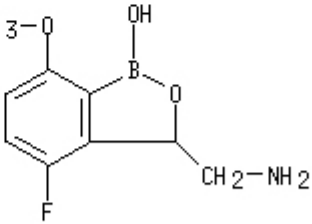
Cancel

Help

# New Hit Structure Options

- Options | Hit Structure Style
- Only one option at the moment: include the Chemical Name

## Index of Hit Structures

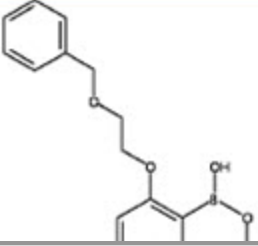
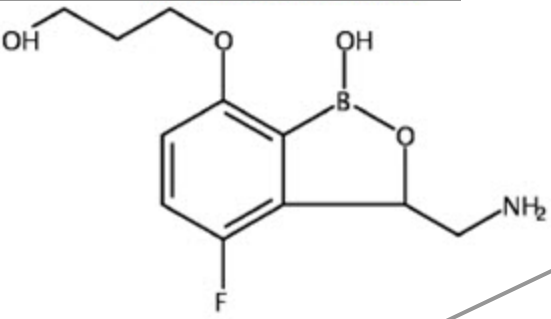
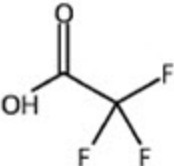
Substance	Structure	Reference
<p>1 1655492-02-6</p> <p>2,1-Benzoxaborole, 4-fluoro-1,3-dihydro-1-hydroxy-3-(nitromethyl)-7-[2-(phenylmethoxy)ethoxy]- (CA INDEX NAME)</p>	<p>Ph-CH<sub>2</sub>-O-CH<sub>2</sub>-CH<sub>2</sub>-O</p> 	<p>prepn. and anti-mycobacterial activity of benzoxaborole compds. <a href="#">Reference 1</a></p> <p>prepn. and biol. applications of tricyclic benzoxaborole compds. <a href="#">Reference 2</a></p>
<p>2 1364682-96-1</p> <p>1-Propanol, 3-[[3-(aminomethyl)-4-fluoro-1,3-dihydro-1-hydroxy-2,1-benzoxaborol-7-yl]oxy]-, 2,2,2-trifluoroacetate (1:2) (CA INDEX NAME)</p>	<p>CM 1 CRN 1364682-95-0</p> <p>HO-(CH<sub>2</sub>)<sub>3</sub>-O</p>  <p>CM 2 CRN 76-05-1</p>	<p>prepn. of benzoxaborole derivs. useful for treating bacterial infections <a href="#">Reference 3</a></p>

# Hit Structures

- Visit [bizint.com/hitstr](http://bizint.com/hitstr)

# A structure oriented “Index of Hit Structures”

## Index of Hit Structures

Substance	Structure
<p>1 1655492-02-6</p> <p>2,1-Benzoxaborole, 4-fluoro-1,3-dihydro-1-hydroxy-3-(nitromethyl)-7-[2-(phenylmethoxy)ethoxy]-</p>	
<p>2 1364682-96-1</p> <p>1-Propanol, 3-[[[3-(aminomethyl)-4-fluoro-1,3-dihydro-1-hydroxy-2,1-benzoxaborol-7-yl]oxy]-, 2,2,2-trifluoroacetate (1:2)</p>	 <p>CM2 CRN 76-05-1</p> 

Structures with annotations

Each hit substance identified

Links to references for each structure

Multiple images (continuation) or mixtures

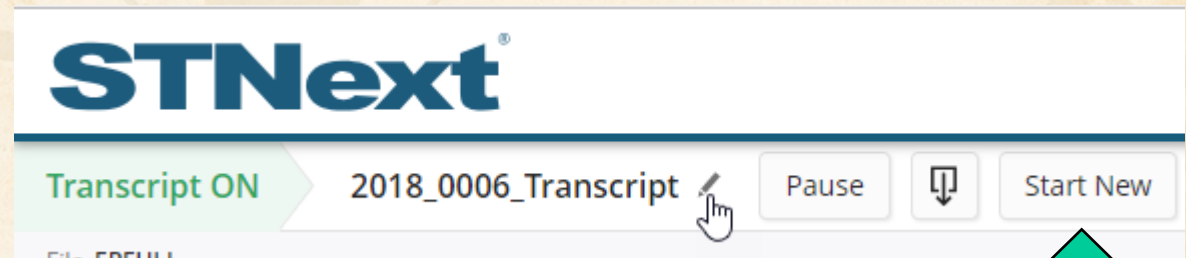
prepn. and biol. applications of tricyclic benzoxaborole compds. [Reference 1](#)

prepn. of benzoxaborole derivs. useful for treating bacterial infections [Reference 2](#)

[Reference 3](#)

# Importing transcripts with hit structures (STNext)

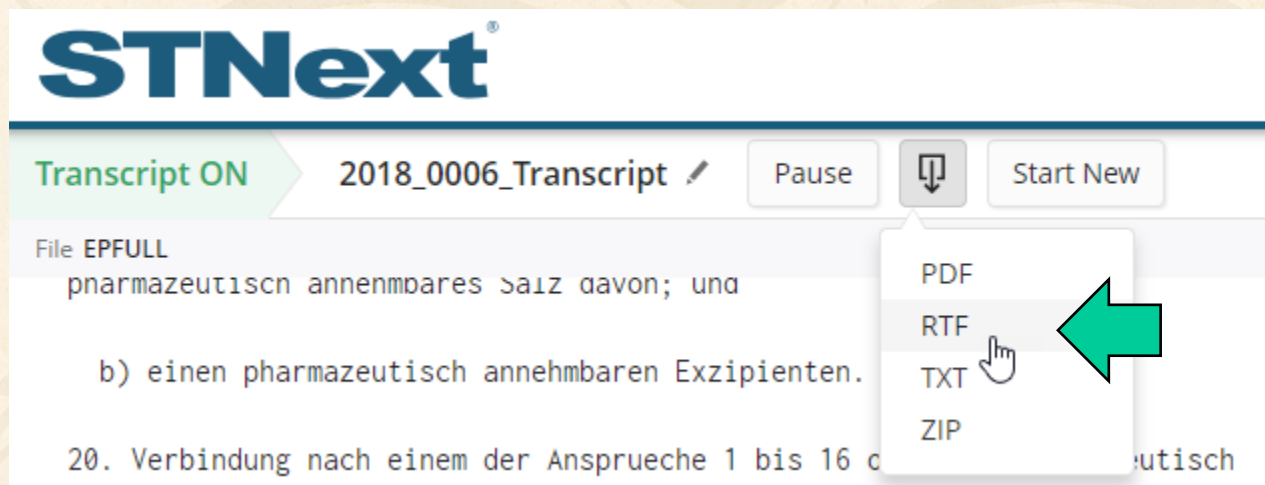
- Make sure that Classic Display is on
- Start new transcript before displaying.





# Importing transcripts with hit structures (STNext)

- Make sure that Classic Display is on
- Start new transcript before displaying.
- Display your results including HITSTR.
- Save as RTF.



The screenshot shows the STNext web interface. At the top left is the STNext logo. Below it, there's a header area with 'Transcript ON' in a green arrow, the transcript name '2018\_0006\_Transcript', and buttons for 'Pause', a download icon, and 'Start New'. The main content area shows a transcript snippet with the text 'pharmazeutisch annenmpares saiz davon; und' and 'b) einen pharmazeutisch annehmbaren Exzipienten.'. A context menu is open over the transcript, listing options: PDF, RTF (highlighted with a green arrow and a mouse cursor), TXT, and ZIP. The transcript text continues with '20. Verbindung nach einem der Ansprueche 1 bis 16 c' and 'utisch'.

# BIB vs. IBIB

- We recommend using tagged (BIB), rather than indented (IBIB), display formats
- Some field contents (table headings) appear before the label in IBIB
- Indent levels in RTF are more reliably detected in BIB
- **BizInt Smart Charts supports IBIB for family databases on STN, but not full text files**

# Integrating data from separate records

Reference Rows is a utility to combine multiple records from the same family into one “row”  
Records grouped by “Common Family”  
Matching publication numbers in the family

# Create reports integrating key IP data...

CAS-9 - GenomeQuest, PatBase, DWPI (new STN), FAMPAT

Title	Database	Patent Family			Family Status				Probable Assignee	Sequence Locations					
		Patent	Kind	Date	Pub No.	State	Status	Expiry		Seq. ID Number	% Identity	Length	Location		
<b>1.</b> Modulating expression of a target nucleic acid comprises providing to the cell a guide RNA including a transcriptional activator or repressor domain as a fusion protein, and providing to the cell a nuclease null Cas9 protein	1.1 DWPI	US 2014356959	A	2014-12-04	US	ALIVE	PENDING	2034-06-04	PRESIDENT AND FELLOWS OF HARVARD COLLEGE	US20140356959-0001	100.00	1368	probable disclosure (not found by automated parsing)	1.3	
	1.2 DWPI	US 2014356956	A	2014-12-04	20140356956 A1										
	1.3 GPATPRT   link	AU 2014274939	AA	2014-12-11	US 9267135 B2	ALIVE	GRANTED	2034-06-04			US20140356956-0001	100.00	1368	probable disclosure (not found by automated parsing)	1.4
	1.4 GPATPRT   link	WO 14197568	A2	2014-12-11											
	1.5 Patbase   link	WO 14197568	A3	2015-03-12											
	1.6 FAMPAT   link	CA 2914638	AA	2015-12-04											
	1.1 DWPI														
<b>2.</b> 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	2.1 DWPI	WO 15070193	A1	2015-05-14	WO 201570193 A1	ALIVE	PENDING	2034-11-11	RADIANT GENOMICS INC	US20150132263-0002	100.00	1368	claim: 19; 20	2.3	
	2.2 DWPI	US 2015132263	A	2015-05-14	US	ALIVE	PENDING	2034-11-11			US20150353901-0002	100.00	1368	claim: 19; 20	2.4
	2.3 GPATPRT   link	US 2015353901	A	2015-12-10	20150132263 A1										
	2.4 GPATPRT   link				US	ALIVE	PENDING	2034-11-11							
	2.5 Patbase   link				20150353901 A1										
	2.6 FAMPAT   link														
	2.1 DWPI														

# choosing content by rules...

	Title	Database	Patent Family		
			Patent	Kind	Date
1.	Modulating expression of a target nucleic acid comprises providing to the cell a guide RNA including a transcriptional activator or repressor domain as a fusion protein, and providing to the cell a nuclease null Cas9 protein	1.1 DWPI	US 2014356959	A	2014-12-04
		1.2 DWPI	US 2014356956	A	2014-12-04
		1.3 GPATPRT   <a href="#">link</a>	AU 2014274939	AA	2014-12-11
		1.4 GPATPRT   <a href="#">link</a>	WO 14197568	A2	2014-12-11
		1.5 Patbase   <a href="#">link</a>	WO 14197568	A3	2015-03-12
		1.6 FAMPAT   <a href="#">link</a>	CA 2914638	AA	2015-12-04
			KR 20160014036	A	2016-02-05
		1.1 DWPI			1.5 Patbase
2.	New bacteriophage comprising a 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	2.1 DWPI	WO 15070193	A1	2015-05-14
		2.2 DWPI	US 2015132263	A	2015-05-14
		2.3 GPATPRT   <a href="#">link</a>	US 2015353901	A	2015-12-10
		2.4 GPATPRT   <a href="#">link</a>			
		2.5 Patbase   <a href="#">link</a>			
		2.6 FAMPAT   <a href="#">link</a>			
		2.1 DWPI			2.5 Patbase

# linking unique content...

Family Status				Probable Assignee
Pub No.	State	Status	Expiry	
US 20140356956 A1	ALIVE	PENDING	2034-06-04	PRESIDENT AND FELLOWS OF HARVARD COLLEGE
US 9267135 B2	ALIVE	GRANTED	2034-06-04	
1.6 FAMPAT				1.5 Patbase
WO 201570193 A1	ALIVE	PENDING	2034-11-11	RADIANT ECONOMICS INC
US 20150132263 A1	ALIVE	PENDING	2034-11-11	
US 20150353901 A1	ALIVE	PENDING	2034-11-11	
2.6 FAMPAT				2.5 Patbase

# ...and summarizing data elements.

Sequence Locations				
Seq. ID Number	% Identity	Length	Location	
US20140356959-0001	100.00	1368	probable disclosure (not found by automated parsing)	1.3
US20140356956-0001	100.00	1368	probable disclosure (not found by automated parsing)	1.4
US20150132263-0002	100.00	1368	claim: 19; 20	2.3
US20150353901-0002	100.00	1368	claim: 19; 20	2.4



# Hit structures in Reference Rows

Reference Rows is a utility to combine multiple records from the same family into one “row”  
Records grouped by “Common Family”  
Matching publication numbers in the family

Uses:

- Add claims from other sources



# Add claims from other sources

Combine results from two or more databases

The screenshot displays a software interface with a 'Create Combined Chart Wizard' dialog box. The wizard is titled 'Step 1 - Select the Key Chart' and lists two charts: 'patbase\_hitstr\_matches' and 'stnext\_hitstr'. The background shows a table with columns 'Title' and 'Title' and rows containing chemical-related text like 'Ben use', 'Tric con', and 'Bor mol'. The wizard includes instructions for each step and buttons for 'Next >', 'Cancel', and 'Help'. A 'Chart file information:' field is also present at the bottom of the wizard.

Unsaved1  
Chemical Abstracts: stnext\_hitstr

Unsaved2  
PatBase: patba

1  
Title  
Ben use

2  
Title  
Tric con  
TRICYCLIC BENZO  
COMPOUNDS AN

3  
Title  
Bor mol

Create Combined Chart Wizard

Step 1 - Select the Key Chart

- patbase\_hitstr\_matches
- stnext\_hitstr

This wizard helps you create a chart combining data from different charts. Use File | Update if you wish to update a chart with new information.

In Step 1, you select the "Key Chart". The Key Chart is used to define the initial presentation of the combined chart.

In Step 2, you select the remaining charts that you wish to combine with the Key Chart.

In Step 3, you enter the title of the new combined chart and select options for the combine chart behavior.

Next >

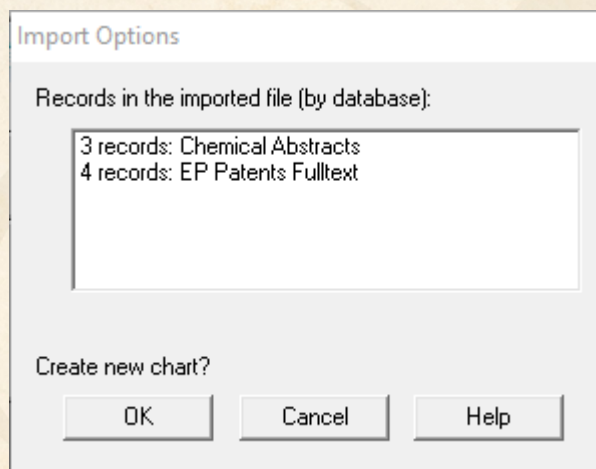
Cancel

Help

Chart file information:

# Add claims from other sources

Or import a multi-file transcript  
file efull  
transfer pn l2 1-...



Save your chart...

# Add claims from other sources

## Send to Reference Rows

Create Reference Rows (1 of 3)

**Welcome to the Create Reference Rows Wizard**

BizInt Smart Charts Reference Rows offers the ability to create a "Reference Row" which combines information from a set of related records into a single row. The Create Reference Rows Wizard will help you create and set up rules for Reference Rows.

NOTE: Reference Rows are based on the Common Patent Family column in your report. You can generate this column now.

Click Next to continue.



# Option: Claims + Hit Structures

Summary Record Export Options

The Summary Record export shows the columns (fields) visible in your chart.

Number the records  
 Start each record on new page  
 Include Links section  
 Include editable Notes section  
 Include Index of Hit Structures

You may also include the following information for the record:

Include Claims  
 Include Alignment  
 Include Hit Structures  
 Include Index Terms

You may also include the following information for the record:

Include Claims

Include Hit Structures

10. An in vitro method of:

(A) inhibiting an enzyme, comprising: contacting the enzyme with the compound of any of claims 1 to 5, thereby inhibiting the enzyme;

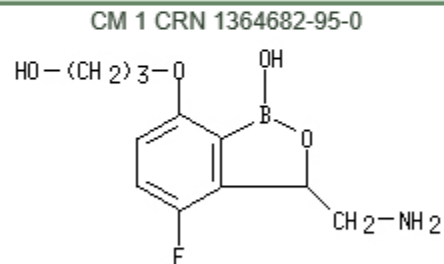
(B) killing and/or preventing the growth of a microorganism, comprising: contacting the microorganism with an effective amount of the compound of any of claims 1 to 5, thereby killing and/or preventing the growth of the microorganism; or

(C) inhibiting the editing domain of a t-RNA synthetase, comprising: contacting the synthetase with an effective amount of a compound of any of claims 1 to 5, or a pharmaceutically-acceptable salt thereof, thereby inhibiting the synthetase.

## Hit Structures:

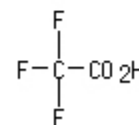
1364682-96-1 ([Cmpd. 2](#))

1-Propanol, 3-[[3-(aminomethyl)-4-fluoro-1,3-dihydro-1-hydroxy-2,1-benzoxaborol-7-yl]oxy]-, 2,2,2-trifluoroacetate (1:2) (CA INDEX NAME)



RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

CM 2 CRN 76-05-1



prepn. of [benzoxaborole derivs.](#) useful for treating bacterial infections

1364683-03-3 ([Cmpd. 3](#))



RL: PAC

# Hit structures in Reference Rows

Reference Rows is a utility to combine multiple records from the same family into one “row”  
Records grouped by “Common Family”  
Matching publication numbers in the family

Uses:

- Add claims from other sources
- Link sequence results with hit structures
- Merge hit structures spread across multiple CPlus records (“mega-TAN” records)

# Group Mega-TAN records

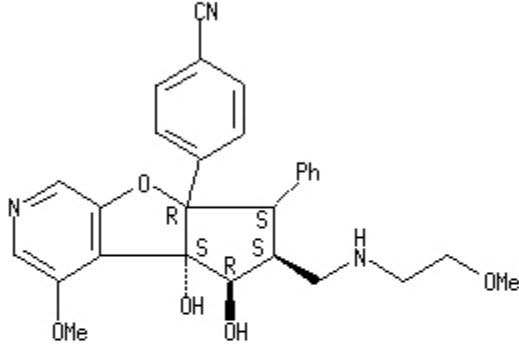
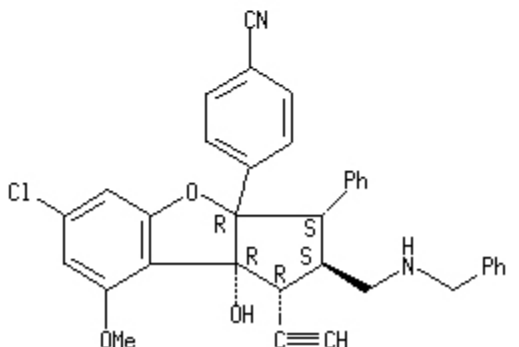
Multiple CA records for a single family...

1.	<b>Title:</b> Heterocyclic derivatives as eIF4A inhibitors and their preparation
	<b>Accession Number:</b> 2017:1085458
<b>Hit Structures:</b>	
2098192-11-9 <a href="#">(Cmpd. 1)</a>  INDEX NAME NOT YET ASSIGNED	<p>Absolute stereochemistry. Rotation (-).</p> <p>RL: PAC (Pharmacological activity); PRPH (Prophetic); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)</p> <p>prepn. of heterocyclic derivs. as eIF4A inhibitors</p>

2.	<b>Title:</b> Heterocyclic derivatives as eIF4A inhibitors and their preparation
	<b>Accession Number:</b> 2017:1085457
<b>Hit Structures:</b>	
2099275-30-4 <a href="#">(Cmpd. 2)</a>  INDEX NAME NOT YET ASSIGNED	<p>Absolute stereochemistry.</p> <p>RL: PAC (Pharmacological activity); PRPH (Prophetic); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)</p> <p>prepn. of heterocyclic derivs. as eIF4A inhibitors</p>

# Group Mega-TAN records

Simply send to Reference Rows and export!

1. Title: Heterocyclic derivatives as eIF4A inhibitors and their preparation		
Accession Number: 2017:1085458; 2017:1085457		
Hit Structures:		
2098192-11-9 <a href="#">(Cmpd. 1)</a>  INDEX NAME NOT YET ASSIGNED	Absolute stereochemistry. Rotation (-).  	RL: PAC (Pharmacological activity); PRPH (Prophetic); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  prepn. of heterocyclic derivs. as eIF4A inhibitors
2099275-30-4 <a href="#">(Cmpd. 2)</a>  INDEX NAME NOT YET ASSIGNED	Absolute stereochemistry.  	RL: PAC (Pharmacological activity); PRPH (Prophetic); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  prepn. of heterocyclic derivs. as eIF4A inhibitors

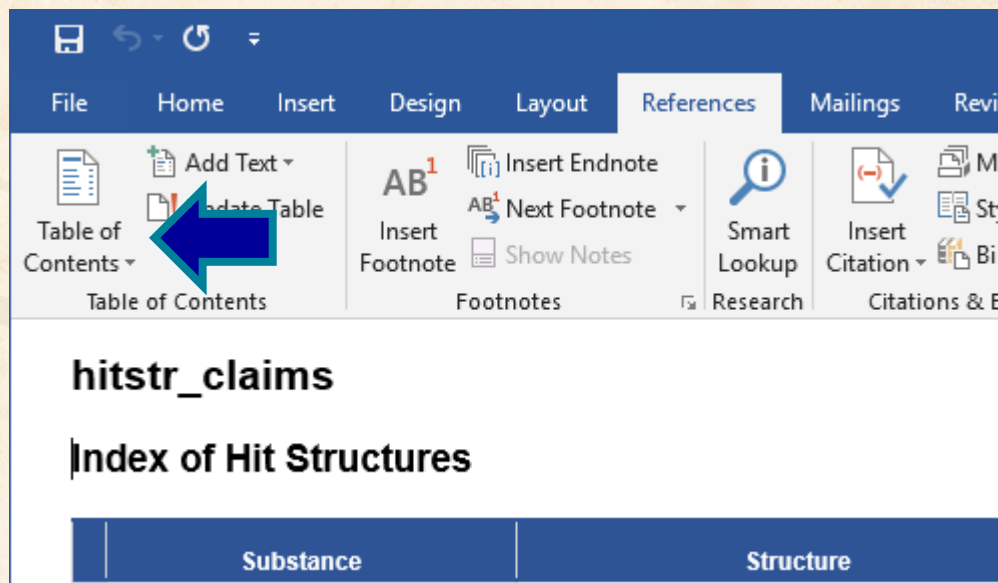
# Future Directions with Hit Structures

- Options to control display
- Mark new structures in updated reports
- More sources (e.g. MARPAT, DWPIIM)
- Handling of complex structures in REGISTRY
- More export formats
- Hit structures in the table



# Summary Records - Table of Contents

- Add a table of contents in Word



# Summary Records - Table of Contents

- Sections are marked up for headings
- First column in chart is used as TOC entry

## hitstr claims

Contents

[Index of Hit Structures](#)

[References](#)

[Tricyclic benzoxaborole compounds and uses thereof](#)

[Boron-containing small molecules](#)

[Benzoxaborole compounds and uses thereof](#)

## **Index of Hit Structures**

Substance	Structure
-----------	-----------

# Summary Records - Table of Contents

- Can collapse the Index of Hit Structures (in recent versions of Word)

▷ **Index of Hit Structures**

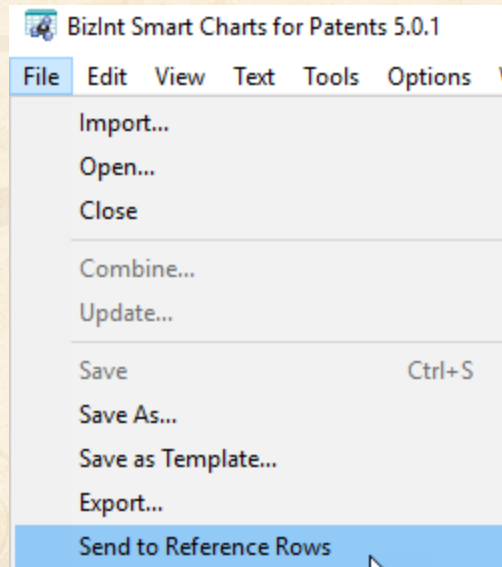
**References**

1.	Title:	Tricyclic benzoxaborole compounds and uses thereof		
	Common Family:	EP 3030519		
	Database:	<a href="#">Chemical Abstracts</a> <a href="#">EP Patents Fulltext</a>		
	Patent Family:	Patent	Kind	Date
		<a href="#">WO 2015021396</a>	A2	20150212
		<a href="#">WO 2015021396</a>	A3	20151029

F

# Minimum effort with Reference Rows

- Save chart in BizInt Smart Charts for Patents
- Send to Reference Rows



# Minimum effort with Reference Rows

- Generate Common Patent Family (if needed)

Create Reference Rows (1 of 3)

**Welcome to the Create Reference Rows Wizard**

BizInt Smart Charts Reference Rows offers the ability to create a "Reference Row" which combines information from a set of related records into a single row. The Create Reference Rows Wizard will help you create and set up rules for Reference Rows.

NOTE: Reference Rows are based on the Common Patent Family column in your report. You can generate this column now.

Click Next to continue.



# Minimum effort with Reference Rows

- Simply “Finish” on step two

Create Reference Rows (2 of 3)

### Database Ranking


Data in cells will be chosen according to the Database Ranking if no other rule is present or if there is a tie in the rules.

Rank the databases in your preferred order

CAS REGISTRY Chemical Abstracts	Move Up
	Move Down
	Properties

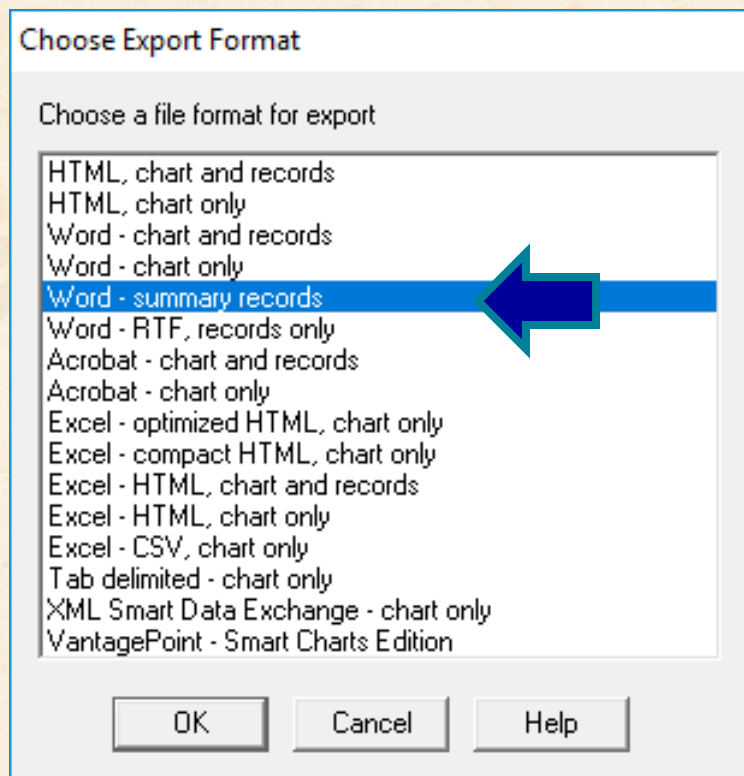
Rules Template

Database rankings and rules based on:



# Minimum effort with Reference Rows

- File | Export ... Word - summary records



# Non-Patent Literature

- For a long time, Literature has been a second class citizen in BizInt Smart Charts
- New project to improve Literature support
- Identify citations to the same document
- “Deduplicate” and integrate unique content



# Non-Patent Literature

- Identify Common Document tool

	Title	Common Document ID	Database	Document Type	Source
1	Sample size requirements for one-year treatment effects using deep gray matter volume from 3T MRI in progressive forms of multiple sclerosis	PMID: 28100092	MEDLINE	Journal Article	The International journal of Neuroscience (Nov 2017), vol. 127, no. 11, p. 971-980.
2	Sample size requirements for one-year treatment effects using deep gray matter volume from 3T MRI in progressive forms of multiple sclerosis	PMID: 28100092	EMBASE	Article	International Journal of Neuroscience (Nov 2, 2017), vol. 127, no. 11, p. 971-980.
3	Patient selection for trials	BDOI:WOLINSKY-JERRY S 10.1177/1352458517729458 1636	MEDLINE	Journal Article	Multiple sclerosis (Houndmills, Basingstoke, England) (Oct 2017), vol. 23, no. 12, p. 1636-1641.
4	Patient selection for trials	BDOI:WOLINSKY-JERRY S 10.1177/1352458517729458 1636	EMBASE	Article	Multiple Sclerosis Journal (2017), vol. 23, no. 12, p. 1636-1641.
5	Patient selection for trials	BDOI:WOLINSKY-JERRY S 10.1177/1352458517729458 1636	EMBASE	Article	Multiple Sclerosis (Oct 1, 2017), vol. 23, no. 12, p. 1636-1641.
6	Patient selection for trials	BDOI:WOLINSKY-JERRY S 10.1177/1352458517729458 1636	BIOSIS Previews	Literature Review	Multiple Sclerosis Journal (Oct 2017), vol. 23, no. 12, Sp. Iss. SI, p. 1636-1641.

# Non-Patent Literature

- Identify Common Document tool
- Additional fields for analysis (year, first author, author/affiliation linkage)
- Additional databases on STN
- Additional databases on ~~ProQuest~~ Dialog
- Starting discussions for Web of Science, Scopus
- Literature support in all products

# Identify Common Document ID

- Definitive identifiers (when available)
- DOI with qualifiers
- Blend of First Author, ISSN, Page, etc. when no common identifiers are available
- Currently working through issues identified during first tests

# Best Practices

- Keep your transcripts!
- As we improve displays, some features may require re-importing transcripts.
- Common Document ID is a case where improved matching may depend on re-importing your transcript.

## Ahead later this year...

- Revised exports (Excel, Word, etc)
- Reference Rows usability improvements
- Performance improvements
  
- CAS Biosequences (GQ & STN)
- Custom sort orders for patent families
- Update for legal status events



**Thank you...**  
**Questions???**