

vantage point

Smart Charts Edition

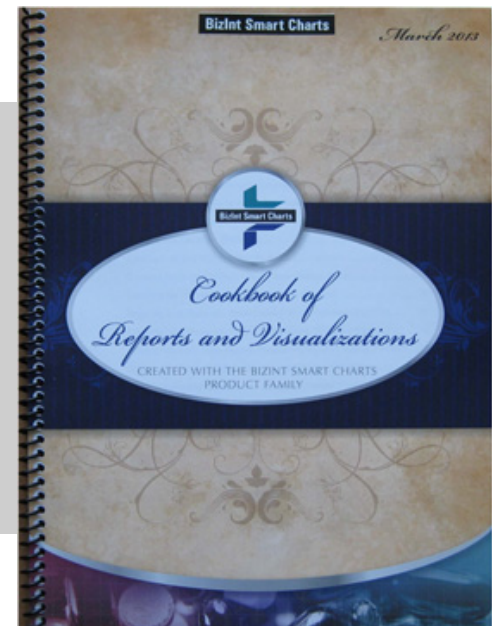
Developing a "Cookbook" of Reports & Visualizations for Drug Target CI

February 18, 2014

Pharma CI Europe, Barcelona

Diane Webb, President, BizInt Solutions

John Willmore, VP, BizInt Solutions



Commercial databases support drug target CI

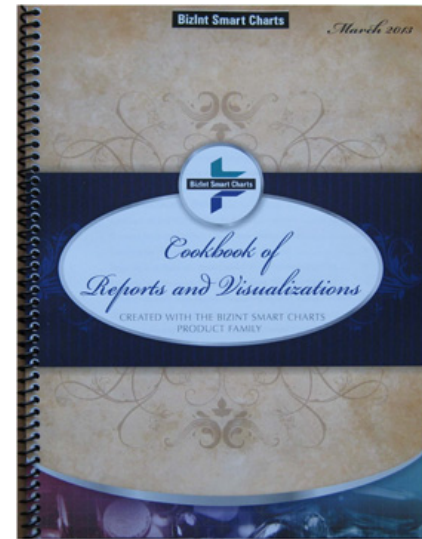
- Drug pipeline, clinical trial, and patent databases provide key ingredients for target analysis.
- Each has strengths and weaknesses in both coverage and content.

You must exploit multiple sources to create information-rich reports with depth of insight.

Final slides at: www.bizint.com/slides

Exploiting these sources presents challenges.

- The **Cookbook** contains a collection of tantalizing recipes to create accurate and appealing visuals from these raw ingredients.
- The recipes will serve you well, whether presenting to a group or for your own analysis.
- Substitute ingredients as needed to answer *your* business questions.



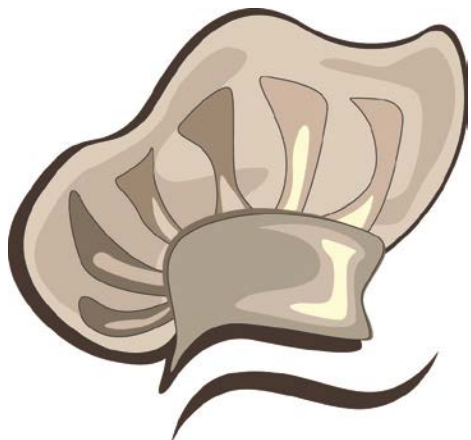
PARP– a target in three courses



Today, we will investigate **PARP inhibitors** (poly ADP-ribose polymerase) – an example of a target that seemed promising, failed in early trials, and is now undergoing a revival.

What are *your* current Top Targets?

PARP– a target in three courses



menu

February 18, 2014

Appetizer

visualizing the pipeline landscape

Entrée

a selection of clinical trial timelines

Dessert

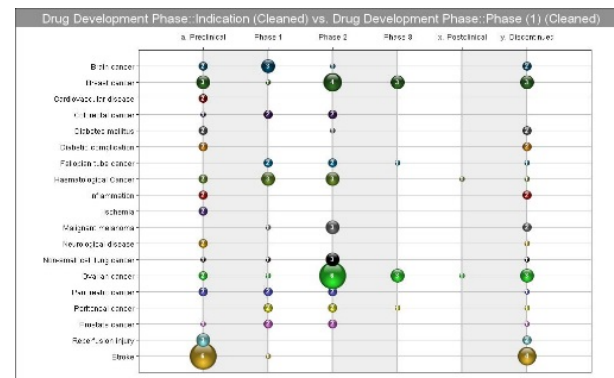
a foray into Chinese patents

Appetizer – Visualizing the Pipeline Landscape


The Challenge:

What does the PARP inhibitor development pipeline look like in 2014?


Background: Excitement around PARP inhibitors, past and present, stemmed from the prospect that inhibition of the enzyme would exploit a pre-existing weakness in cancer cells, triggering their self-destruction while avoiding collateral damage. A series of setbacks almost caused the demise of a very promising class of compounds called PARP Inhibitors (poly (ADP-ribose) polymerase). Today a few companies are beginning pivotal Phase III trials of these agents in breast and ovarian cancer.




Appetizer – The Recipe



Cookbook of Reports and Visualizations • www.bizint.com/Cookbook



PARP - A Target in 3 Courses
Appetizer - Visualizing the Pipeline Landscape




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Charting Indications by Phase with a Bubble Chart [Pipeline]

This is one example of a bubble chart created with VantagePoint - BizInt Smart Charts Edition (VP-SCE) using data exported from BizInt Smart Charts for Drug Pipelines. For another example with trial data, see Charting Trial Indications by Phase with a Bubble Chart. Here the chart shows pipeline indications by phase based on records from Thomson Reuters Corellis, Citeline Pipeline, and Adis R&D Insight. The subject of the search was the drug target poly ADP ribose polymerase (PARP). A single record for each drug was created with BizInt Smart Charts Reference Rows and then exported to VP-SCE where we normalized phases and used the list cleanup tool to clean indications by creating a custom thesaurus. Then we used VP-SCE to generate the chart.

Drug Pipeline Landscape: Indications Under Development for Poly ADP ribose polymerase (PARP)						
	Preclinical	Phase 1	Phase 2	Phase 3	Preclinical	Discontinued
Brain cancer	1	1				1
Breast cancer	1	1	1	1		1
Cardiovascular disease	1					1
Colorectal cancer	1	1	1			1
Diabetes mellitus	1					1
Diabetic complication	1					1
Fallopian tube cancer	1	1	1			1
Haematological Cancer	1	1	1			1
Inflammation	1	1	1			1
Ischemia	1					1
Malignant melanoma	1		1			1
Neurological disease	1					1
Non-small cell lung cancer	1					1
Ovarian cancer	1		1	1		1
Pancreatic cancer	1	1	1			1
Pediatric cancer	1	1	1			1
Prostate cancer	1	1	1			1
Reperfusion injury	1	1	1			1
Stroke	1	1	1			1



2

Charting Indications by Phase with a Bubble Chart [Pipeline]

How did we create this?

SEARCHES:

- We searched Thomson Reuters Corellis, Citeline Pipeline and Adis R&D Insight for drug records where Mechanism of Action = ADP ribose polymerase (PARP) inhibitor. Field names in this recipe are from Adis R&D Insight.

BIZINT SMART CHARTS FOR DRUG PIPELINES

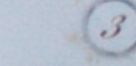
- Import each set of search results into BizInt Smart Charts and use File | Combine to create a combined chart.
- Run the Generate Common Drug Name tool and sort by the Common Drug Name field.
- Display the "Indications" and "Highest Phase" columns.
- Select File | Send to Reference Rows to open the chart in BizInt Smart Charts Reference Rows.

BIZINT SMART CHARTS REFERENCE ROWS

- Change the rule for "Indications" to "Summarize All Values" and for "Highest Phase" to "Most Recently Updated."
- Use File | Export to export the visible columns to VantagePoint - XML.

VANTAGEPOINT - BIZINT SMART CHARTS EDITION

- Import the .vpxi file into VantagePoint - BizInt Smart Charts Edition using File | Import and save your .vpt file.
- Right-click on Highest Phase field and select **Thesaurus...** and choose the "DrugDevelopment/Phases_ExcelSort.the" file. This will normalize the phases and allow the bubble chart to sort by phase.
- Select phases to include in your chart, then right click to select "Add Selection to Group..." in the "New Group" panel, type the word "map" and click OK.
- Cleanup Indications:** If there are Indications containing data in parentheses, apply Fields | Further Processing | Read until | first paren to remove qualifiers in parenthesis after indications.
- Bring up the Fields | List Cleanup... panel. Select "Drug Development Phase:Indication: Read Until - First/Paren" from the field list on left. Select the "General.fur" file, and click "Use".
- Use the Cleanup Confirm panel to clean up indications. Cleanup Confirm provides different tools, you can:
 - Enter keywords or partial keywords in the Find box, click the Add button, and switch the display to Custom Set of Items. To search more keywords you can Add to the list or use Remove All to clear the Custom Set.
 - Drag and drop drug terms onto other terms to group them.
 - Cut a drug name and Paste it onto another name to do the same thing.
 - Right-click on a term and select Rename Term.
- If you're working in this area often, consider saving the cleanup as a Thesaurus.
- Select the top indications, then right click to select "Add Selection to Group..." in the "New Group" panel, type the word "top" and click OK. You may also want to uncheck generic indications like "Cancer" or "Unspecified solid tumor."
- Create the Bubble Chart:** From the Scripts menu, select Bubble Chart.vpm and a Browser window will open with options for the script.
- For step 1, select the cleaned indications field-"Drug Development Phase:Indication: Read Until - First/Paren (Cleaned)" and change the radio button to Select a group. The field name will be different depending on the processing steps you used earlier.
- For step 2, change the radio button to Select Any, select Highest Phase (1) from the drop-down, and change the radio button to Select a group.
- For step 3, you can check the box to show record count in the bubbles and then scroll to the bottom of the window and click OK. A bubble chart showing conditions by phase will be created.



3

Appetizer – Choose your ingredients



- Drug pipeline databases provide detailed information on drugs in development worldwide.
- For this recipe, we will use Thomson Cortellis, Citeline Pipeline, and Adis R&D Insight.
- These databases can be searched by targets (e.g. PARP) and each provide a variety of useful information about drug compounds.

Appetizer – Mise en Place/ Prep Work



- Searched 3 pipeline databases:
 - Thomson Reuters Cortellis – 45 records
 - Citeline Pipeline – 67 records
 - ADIS R&D Insight – 47 records
- Searched for inhibitors of poly ADP-ribose polymerase (PARP) for all phases of development including withdrawn, discontinued, suspended and no development reported.

Appetizer – Recipe at a glance

- **BizInt Smart Charts for Drug Pipelines**
Import results from each database and combine
- **BizInt Smart Charts Reference Rows**
Create a single row and summarize indications for each drug
- **VantagePoint – Smart Charts Edition**
 - Normalize phases
 - Clean up indications
 - Create a Bubble Chart



Appetizer – Combining the ingredients

	Drug	Common Drug Name	Database	Highest Phase	Indications	Originator	Last Update
1	Research programme: cancer therapeutics - NewGen/Kanion	NT 125	Adis R&D Insight	Preclinical	Brain metastases Cancer Glioblastoma	Kanion USA (Originator)	2013-11-27
2	NT-125	NT 125	Thomson Reuters Cortellis	Discovery	Cancer	Jiangsu Kanion Pharmaceutical Co Ltd	2014-01-22
	NT-125	NT 125	Citeline Pipeline	Preclinical	Cancer, solid, unspecified	NewGen Therapeutics	2013-07-11

Adis R&D Insight	Phase II	Chemoprotection Duchenne muscular dystrophy Insulin resistance Reperfusion injury Type 2 diabetes mellitus
Citeline Pipeline	Phase II	Diabetes, Type 2 Dystrophy, Duchenne's muscular Weight gain, antipsychotic-induced Radio/chemotherapy-induced injury, unspecified
Thomson Reuters Cortellis	Phase 2 Clinical	Duchenne dystrophy Diabetes mellitus

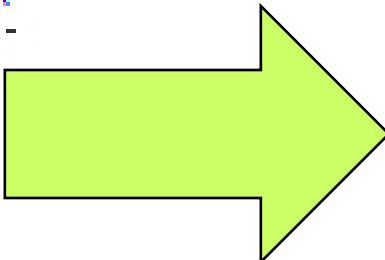
Appetizer – Recipe at a glance

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 - Clean up indications
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Appetizer – Summarizing indications

Drug	Database	Highest Phase	Indications	Originator	Last Update
1. NT-125	1.1 Adis link	Preclinical	Brain metastases Cancer Glioblastoma Cancer Cancer, solid, unspecified Cancer, breast Cancer, ovarian Cancer, haematological, unspecified	Kanion USA (Originator)	2014-01-22
	1.2 CORTL link				
	1.3 Pipeln link				
1.2 CORTL	1.1 Adis	1.1 Adis	1.2 CORTL		
2. BGP 15	2.1 Adis link	Phase II	Chemoprotection Duchenne muscular dystrophy Insulin resistance Reperfusion injury Type 2 diabetes mellitus Duchenne dystrophy Diabetes mellitus Diabetes, Type 2 Dystrophy, Duchenne's muscular Weight gain, antipsychotic-induced Radio/chemotherapy-induced injury, unspecified		
	2.2 CORTL link				
	2.3 Pipeln link				
2.1 Adis					



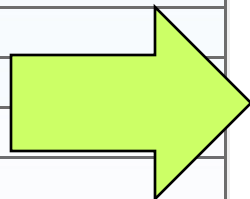
Appetizer – Recipe at a glance

- **BizInt Smart Charts for Drug Pipelines**
Import results from each database and combine
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Create a single row and summarize indications for each drug
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Appetizer – Use VP-SCE to normalize phases

63	63	No Development Reported
29	29	Preclinical
14	14	Discovery
9	9	Phase III
8	8	Discontinued
6	6	Phase II
5	5	Discontinued Preclinical
4	4	No development reported Preclinical
4	4	Phase I
3	3	Discontinued I
3	3	Research
2	2	Phase 1 Clinical
2	2	Phase 2 Clinical
2	2	Pre-registration
1	1	Discontinued VII
1	1	Discontinued II
1	1	Launched
1	1	No Development Reported Phase Unknow
1	1	No development reported Research
1	1	Phase VII
1	1	Preregistration
1	1	Suspended Phase Unknown



3	3	0 Biological Testing
43	43	0 Preclinical
7	7	1 Phase 1
8	8	2 Phase 2
9	9	3 Phase 3
3	3	5 Registration
1	1	6 Marketed
19	19	7 Discontinued
69	69	8 No Development Reported

Appetizer – Clean-up indications

Item Name	Num Records
Solid tumours	23
Advanced solid tumor	1
Cancer, solid, unspecified	12
Solid tumours	10
Stroke	24
Cerebral infarction	2
Cerebral ischaemia	1
Ischaemia, cerebral	13
Stroke	8
Breast cancer	18
Breast cancer	7
Breast tumor	1
Cancer, breast	10
Ovarian cancer	17
Cancer, ovarian	10
Metastatic ovary cancer	1
Ovarian cancer	5
Ovary tumor	1
Stage III melanoma	1
Stage IV melanoma	1
Brain Cancer	11
Brain metastases	2
Cancer, brain	7

Display

All Items
 Combined Items
 Custom Set of Items

Custom Set of Items

Add Close Matches (50%)

Remove All Invert Set

Find

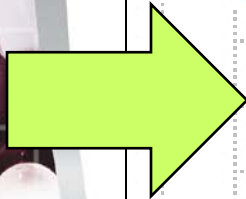
Regular Expression

Add Remove

Save as Thesaurus

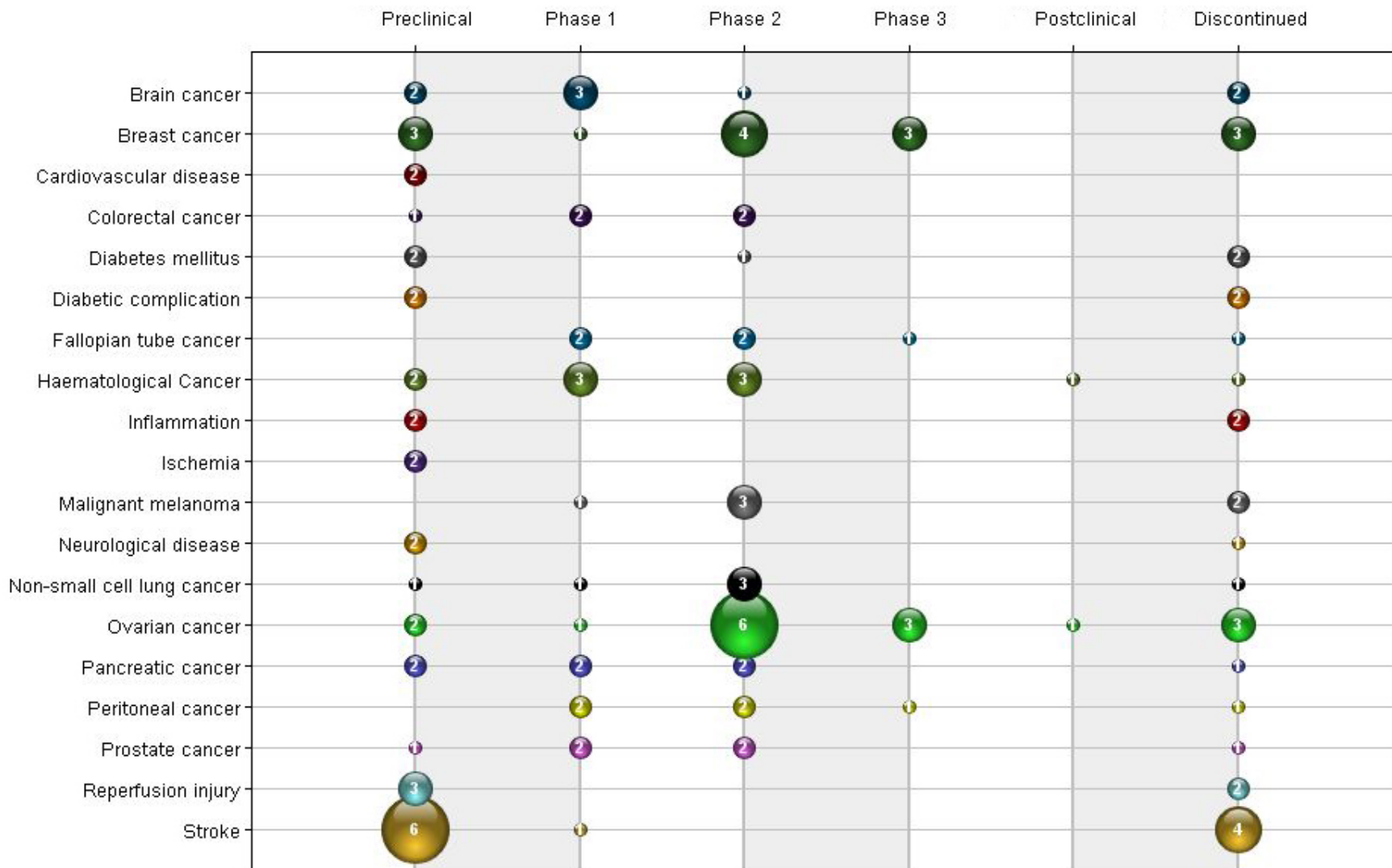
Accept

Cancel



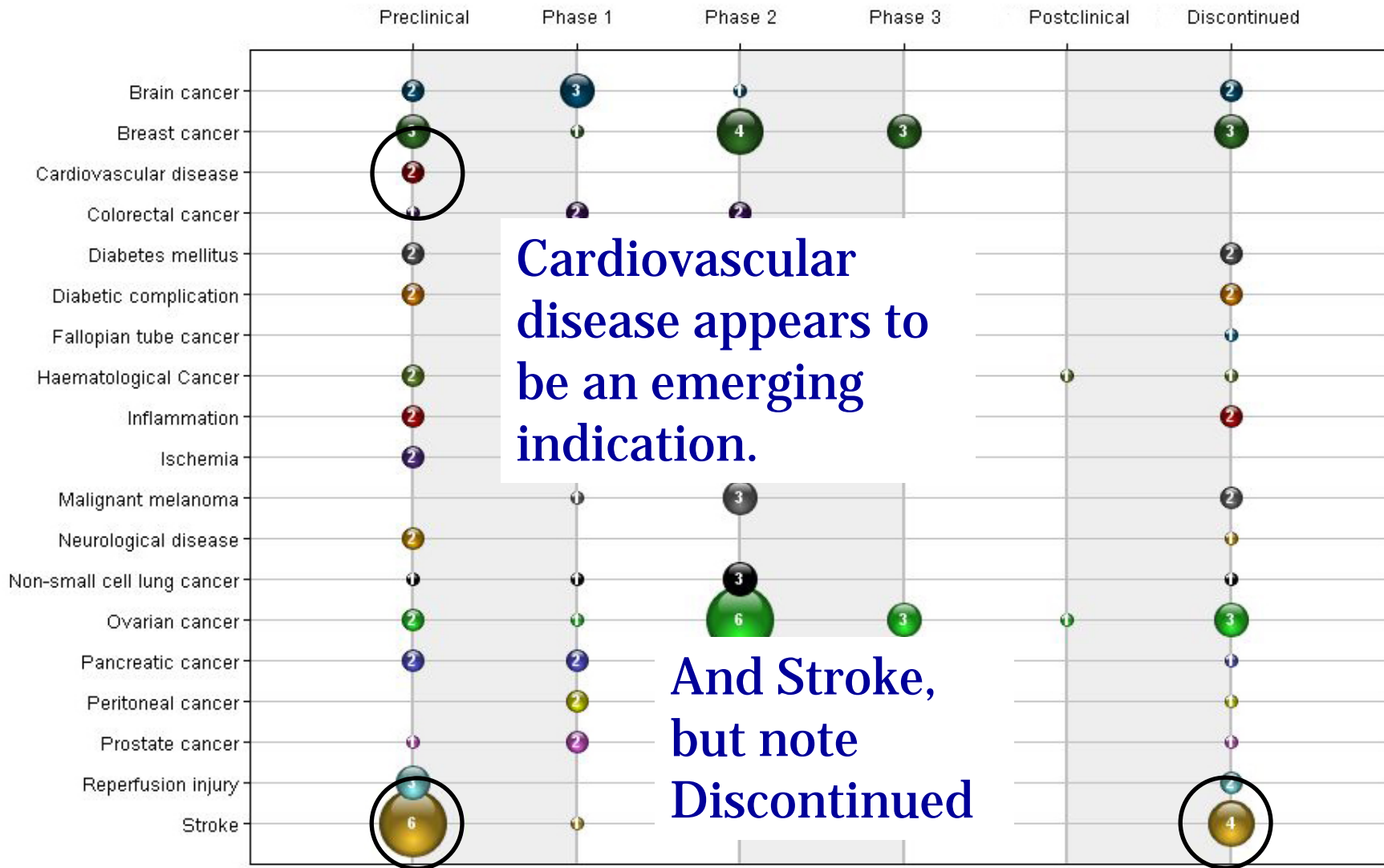
Appetizer - A sparkling pipeline landscape

Drug Pipeline Landscape: Indications Under Development for Poly ADP ribose polymerase (PARP)



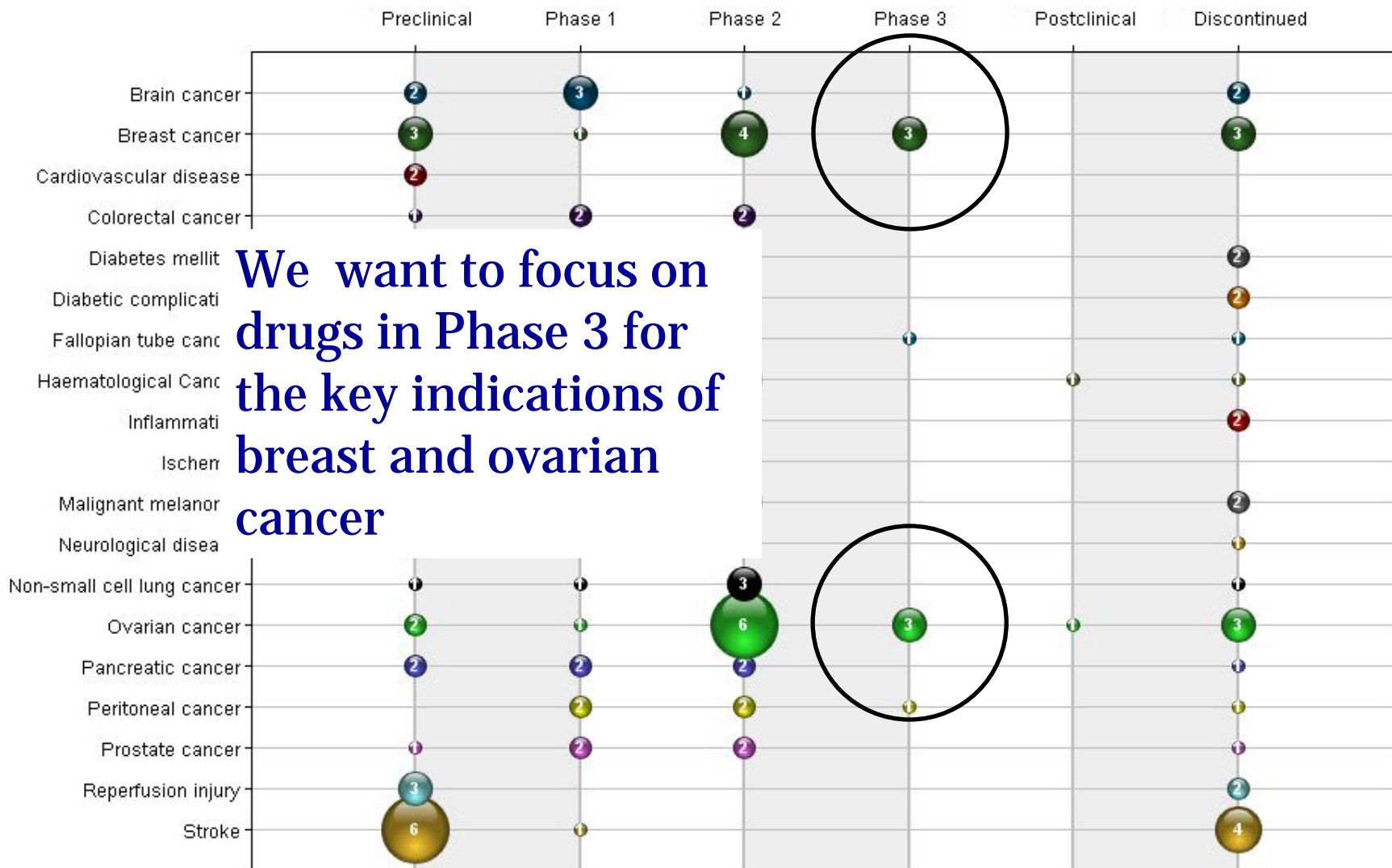
Appetizer: Identify drugs for further study

Drug Pipeline Landscape: Indications Under Development for Poly ADP ribose polymerase (PARP)



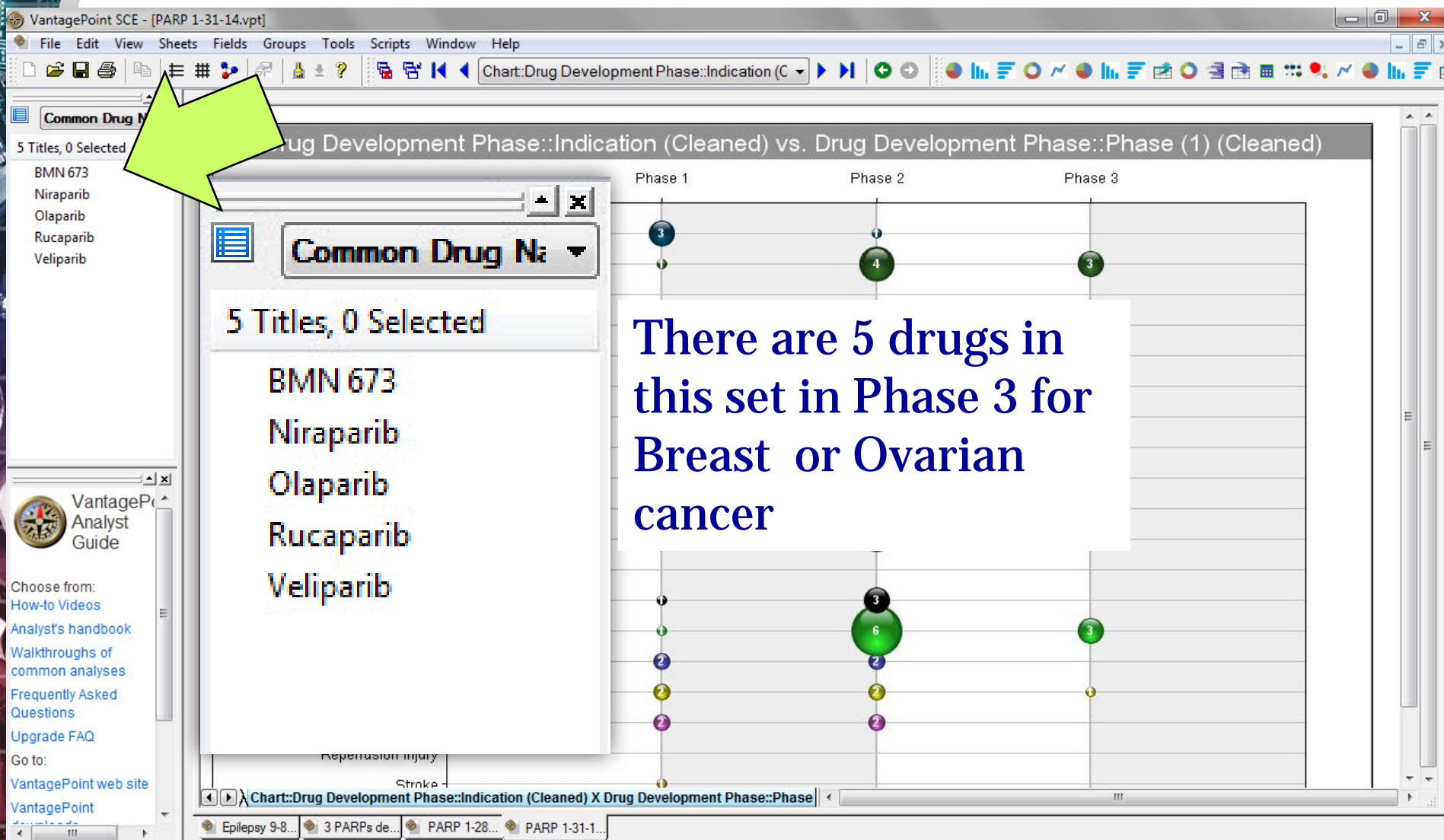
Appetizer: Identify drugs for further study

Drug Pipeline Landscape: Indications Under Development for Poly ADP ribose polymerase (PARP)



We want to focus on drugs in Phase 3 for the key indications of breast and ovarian cancer

Appetizer: Identify drugs for further study



Continuing to explore our key ingredient



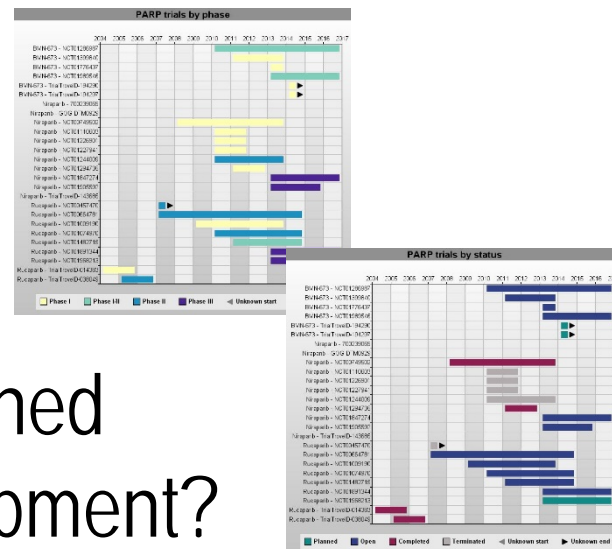
- Analysis of **pipeline** data shows which indications are being developed for a target and broadly what stage each is at.
- **Clinical trial** databases help you to see the details.

Entrée – Selection of Clinical Trial Timelines

The Challenge:

What trials are completed or planned for the key PARP drugs in development?

Background: A series of setbacks occurred in the early development of PARP inhibitors because the drugs were highly toxic when used in combination with chemotherapy, specifically in patients expressing the BCRA1 & BCRA2 genes. The toxicity caused myelosuppression. A retrospective analysis of genotyping of patients indicated the drug must be used in the right group. In 2014 the main determinant of trial success may be the Phase III trial design, where the drugs have the potential to help the BCRA population.



Entrée – Mise en Place/ Prep Work



- Searched for PARP inhibitors identified from the pipeline search (BMN-673, Niraparib, Rucaparib).
- Searched 3 clinical trials databases:
 - ClinicalTrials.gov – 19 records
 - Citeline TrialTrove – 25 records
 - Adis Clinical Trials Insight – 21 records

Entrée – Design your Dish



Clinical trial databases help you evaluate the details of trials:

- **Timing:** has the trial just started or nearing completion?
- **Status:** is the trial still in planning, still enrolling, or active?
- **Location:** where is the trial being held and what is the targeted patient population?

Entrée – Recipe at a glance

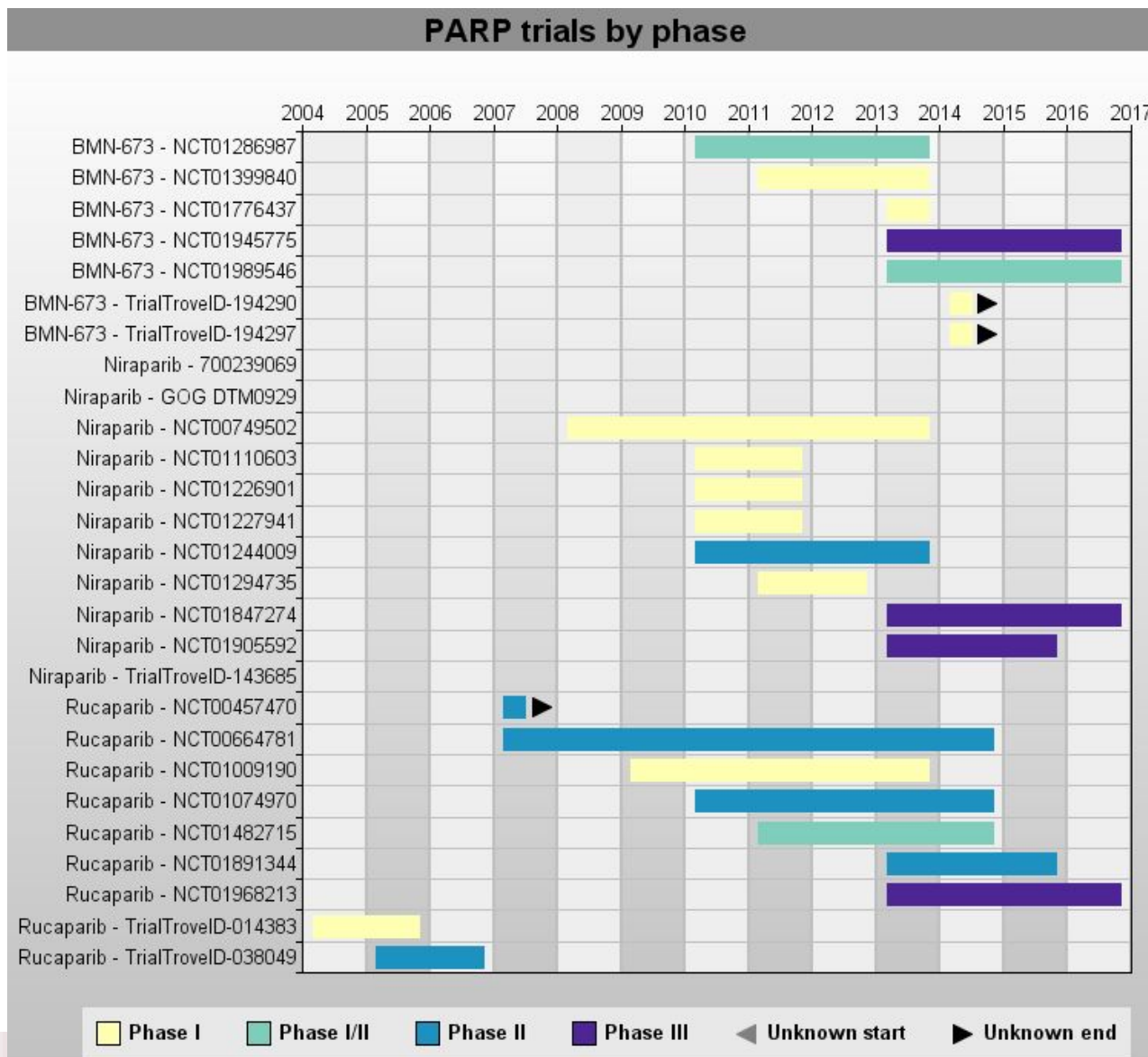
- Import results from each database and combine
- Send to Reference Rows to create a single row for each trial and export to VP-SCE.
- Using VantagePoint – Smart Charts Edition:
 - Normalize phase and status fields
 - Normalize drug names
 - Create Timelines by phase and by status
 - Create map of trial locations



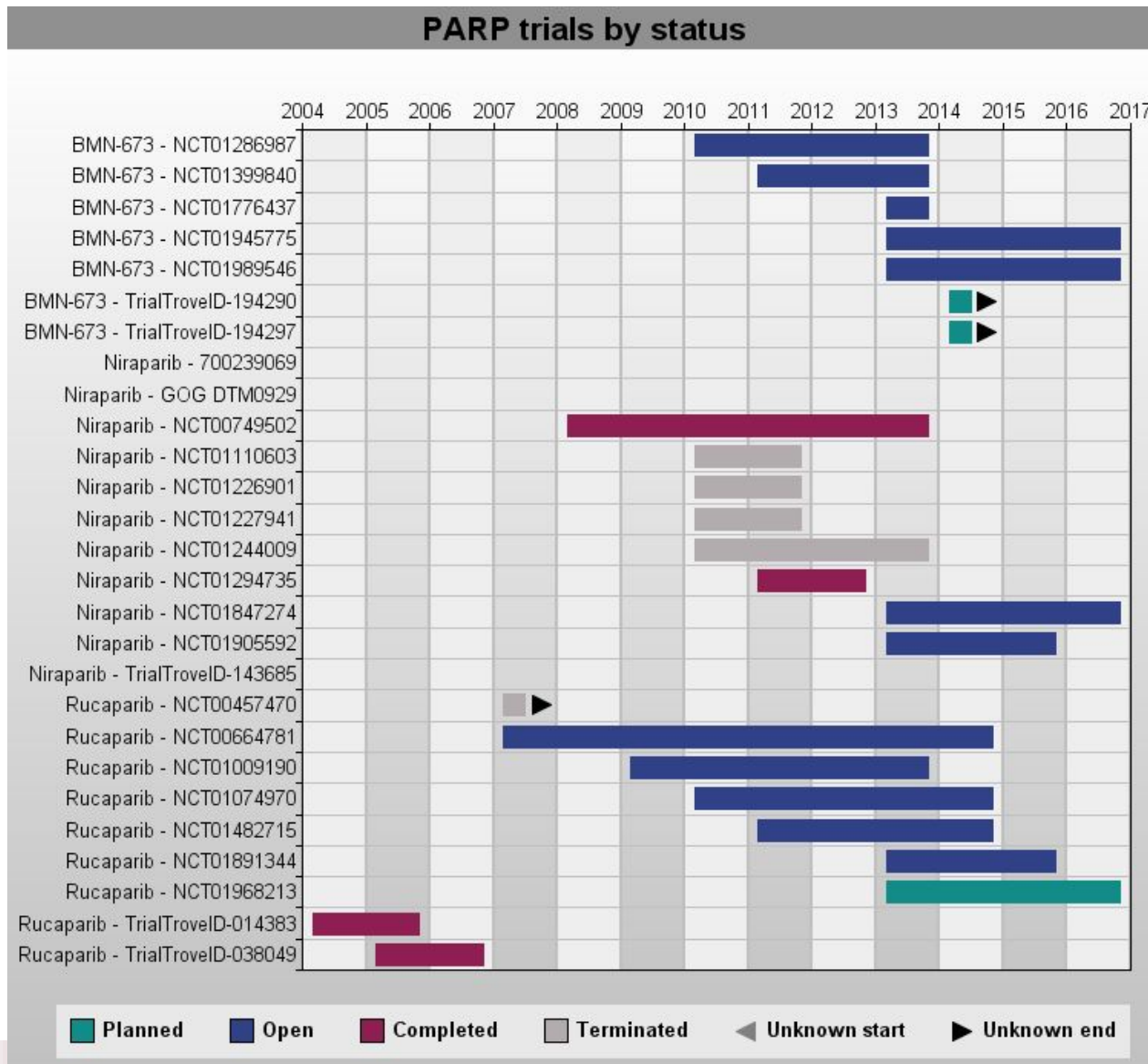
Entrée – Trial start and completion dates

	Trial Title	Comm	Database	Start Date	Completion Date
1 .1	A Parallel Arms Phase I Safety, Pharmacokinetic And Pharmacodynamic Study Of The Intravenous Poly (ADP-Ribose) Polymerase (PARP) Inhibitor PF-01367338 (AG-014699) In Combination With Several Chemotherapeutic Regimens In Adult Patients With Advanced Solid Tumor	NCT01	Citeline TrialTrove	2009-01-01	
1 .2	A Parallel Arms Phase 1 Safety, Pharmacokinetic And Pharmacodynamic Study Of The Intravenous Poly (ADP-Ribose) Polymerase (PARP) Inhibitor PF-01367338 (AG-014699) In Combination With Several Chemotherapeutic Regimens In Adult Patients With Advanced Solid Tumor.	NCT01			
1 .3	A Study Of Poly (ADP-Ribose) Polymerase Inhibitor PF-01367338 In Combination With Several Chemotherapeutic Regimens	NCT01	Adis Clinical Trials Database	01 Feb 2010 (actual)	01 Dec 2013 (planned)
2 .1	A Cancer Research UK Phase II Proof of Principle Trial of the Activity of the PARP-1 Inhibitor, AG-014699, in Known Carriers of a BRCA 1 or BRCA 2 Mutation With Locally Advanced or Metastatic Breast or Advanced Ovarian Cancer	NCT01			
2 .2	A Cancer Research UK Phase II Proof of Principle Trial of the Activity of the Intravenous PARP-1 Inhibitor, AG-014699, in Known Carriers of a BRCA 1 or BRCA 2 Mutation With Locally Advanced or Metastatic Breast or Advanced Ovarian Cancer.	NCT01			
2 .3	Rucaparib(CO-338;Formally Called AG-014699 or PF-0136738) in Treating Patients With Locally Advanced or Metastatic Breast Cancer or Advanced Ovarian Cancer	NCT01	ClinicalTrials.Gov	February 2010	November 2013 (Anticipated)

Entrée – Trial timeline by trial phase



Entrée – Trial timeline by trial status



Entrée - Select trials for further review

Trial Title	Common Trial ID	Database	Brief Summary	Phase	Countries	Overall Status	Enrollment	
19. A Study of Rucaparib in Patients With Platinum-Sensitive, Relapsed, High-Grade Epithelial Ovarian, Fallopian Tube, or Primary Peritoneal Cancer (ARIEL2)	18.1 NCT			18.2 ACT3	18.1 NCT	18.1 NCT	18.3 TROVE	18.2 ACT3
			19.1 NCT link	This biomarker study is investigating the efficacy and tolerability of rucaparib phosphate [Clovis Oncology] in patients with platinum-sensitive high-grade ovarian cancer, fallopian tube cancer, or primary peritoneal cancer. The primary endpoint is the best overall response assessed within 7 days of every odd numbered treatment course.	Phase 2	United States Australia Canada Spain United Kingdom	Open	540
			19.2 ACT3 link					
			19.3 ACT3 link					
			19.4 TROVE link					
20. A Study of Rucaparib as Switch Maintenance Following Platinum-Based Chemotherapy in Patients With Platinum-Sensitive, High-Grade Serous or Endometrioid Epithelial Ovarian, Primary Peritoneal or Fallopian Tube Cancer	19.1 NCT	NCT01968213	20.1 NCT link	19.2 ACT3	19.1 NCT	19.1 NCT	19.4 TROVE	19.3 ACT3
			20.2 TROVE link	Patients enrolled into this study will be stratified into 3 groups based on gene mutations identified in their tumor tissue. The purpose of this study is to identify which of these groups of patients will most likely benefit from treatment with rucaparib.	Phase 3	United States Australia Belgium Canada France Germany Israel Italy New Zealand Spain United Kingdom	Planned	540 (Anticipated)
21. Rucaparib(CO-338;Formally Called AG-014699 or PF-0136738) in Treating Patients With Locally Advanced or Metastatic Breast Cancer or Advanced Ovarian Cancer	20.1 NCT	NCT00664781	21.1 NCT link	20.1 NCT	20.1 NCT	20.1 NCT	20.2 TROVE	20.1 NCT
			21.2 ACT3 link	This trial will investigate the efficacy and tolerability of rucaparib phosphate [AG014699, PF-1367338] in known carriers of a BRCA 1 or BRCA 2 mutation patients with locally advanced or metastatic breast or advanced ovarian cancer. [CONT.]	Phase 2	United Kingdom	Closed	114
			21.3 TROVE link					
22. PARP Inhibition for Triple Negative Breast Cancer (ER-/PR-/HER2-)With BRCA1/2 Mutations	21.1 NCT	NCT01074970	22.1 NCT link	21.2 ACT3	21.1 NCT	21.1 NCT	21.3 TROVE	21.2 ACT3
			22.2 ACT3 link	This trial will investigate the efficacy and tolerability of cisplatin, with or without PF 1367338, as second-line therapy in patients with triple	Phase 2	United States	Closed	135 (Anticipated)
			22.3 TROVE link					

Entrée - Select trials for further review

ClinicalTrials.gov

A service of the U.S. National Institutes of Health

Example: "Heart attack" AND "Los Angeles"

Search for studies:

Search

[Advanced Search](#) | [Help](#) | [Studies by Topic](#) | [Glossary](#)

[Find Studies](#) ▾

[About Clinical Studies](#) ▾

[Submit Studies](#) ▾

[Resources](#) ▾

[About This Site](#) ▾

[Home](#) > [Find Studies](#) > [Study Record Detail](#)

[Text Size](#) ▾

A Study of Rucaparib in Patients With Platinum-Sensitive, Relapsed, High-Grade Epithelial Ovarian, Fallopian Tube, or Primary Peritoneal Cancer (ARIEL2)

This study is currently recruiting participants.

Verified January 2014 by Clovis Oncology, Inc.

Sponsor:

Clovis Oncology, Inc.

Information provided by (Responsible Party):

Clovis Oncology, Inc.

ClinicalTrials.gov Identifier:

NCT01891344

First received: June 20, 2013

Last updated: January 30, 2014

Last verified: January 2014

[History of Changes](#)

Full Text View

Tabular View

No Study Results Posted

[Disclaimer](#)

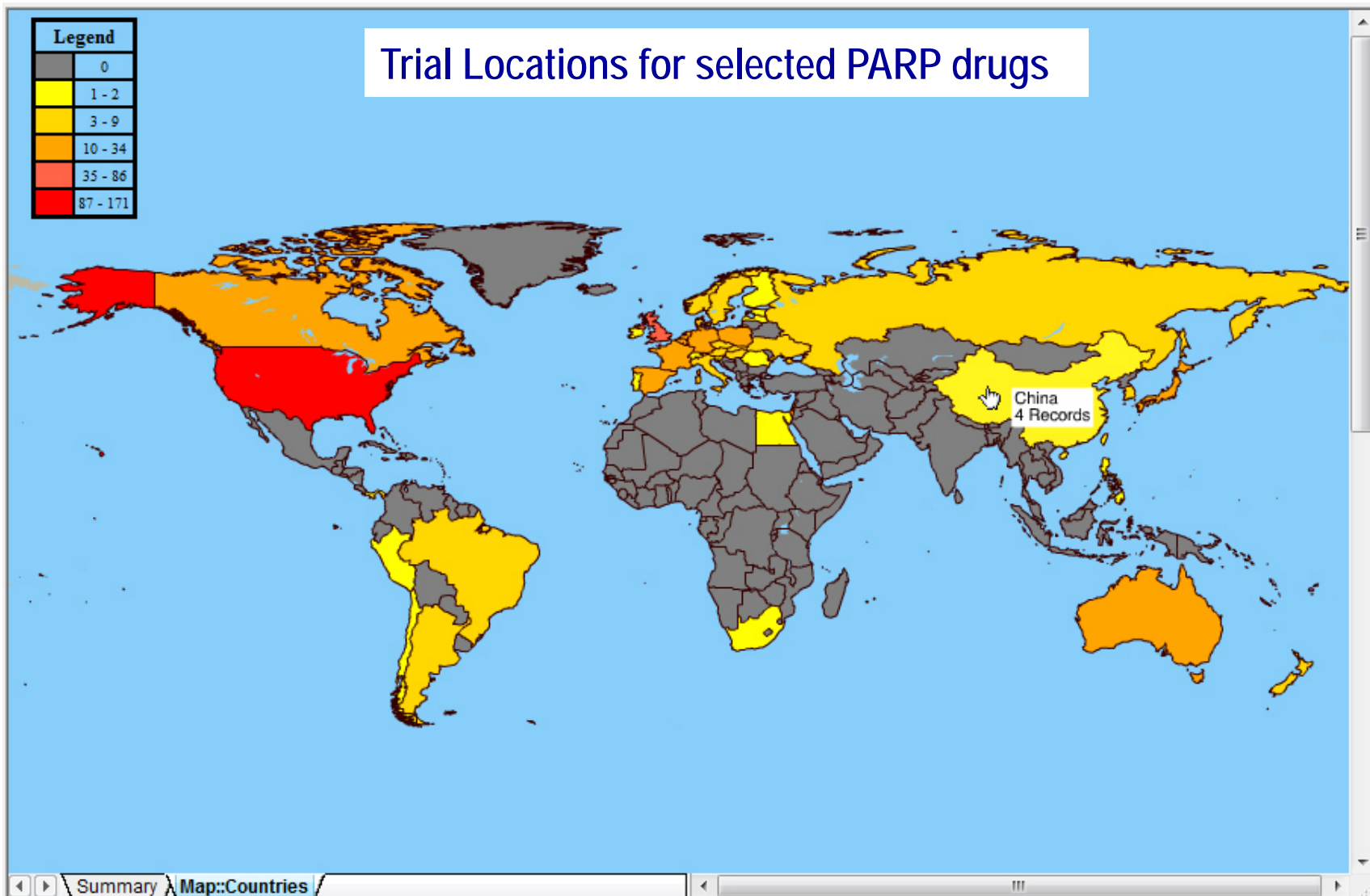
[How to Read a Study Record](#)

▶ Purpose

The purpose of this study is to determine which patients with ovarian, fallopian tube, and primary peritoneal cancer will best respond to treatment with rucaparib.

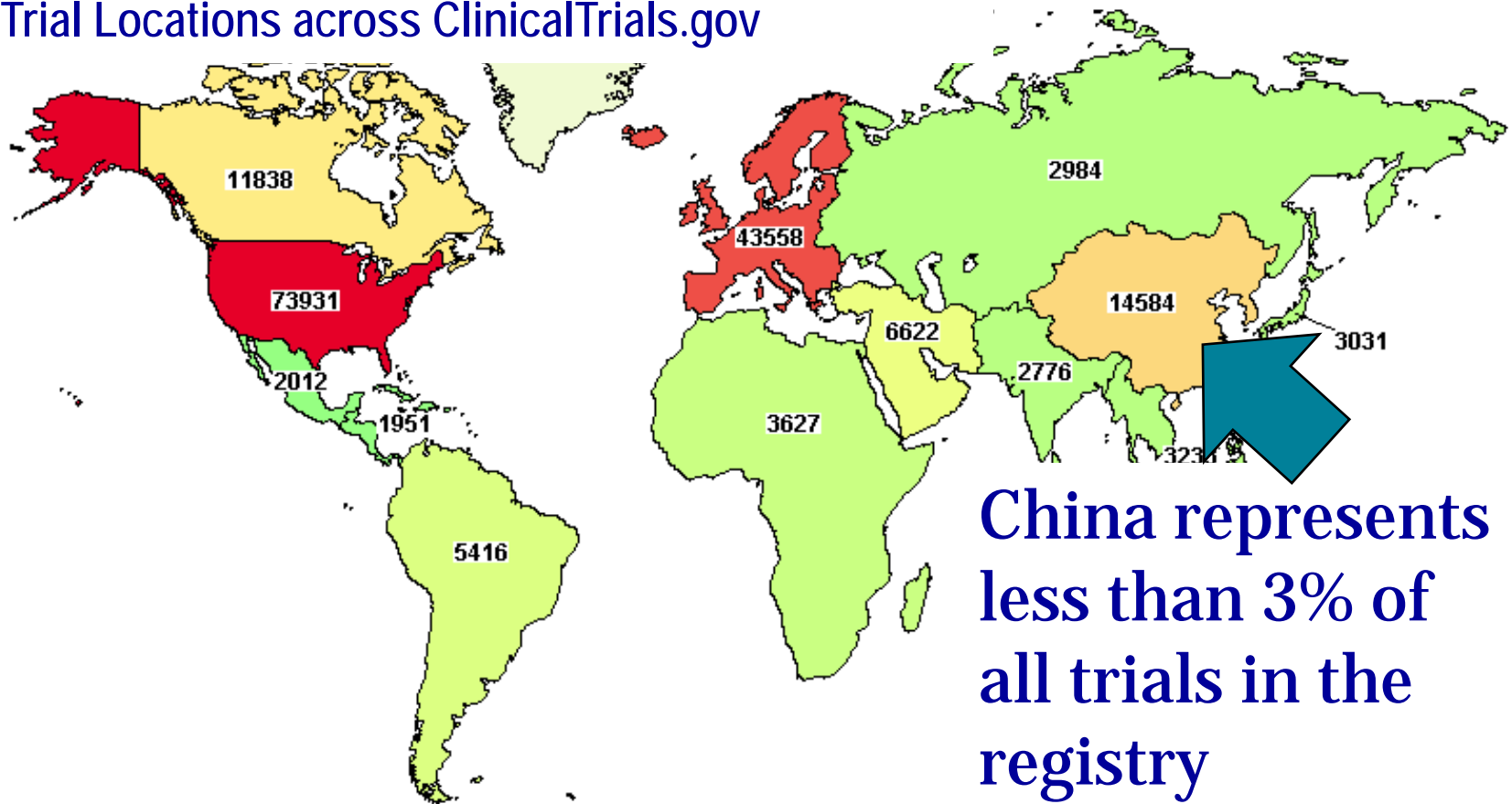
<u>Condition</u>	<u>Intervention</u>	<u>Phase</u>
Ovarian Cancer	Drug: Oral rucaparib	Phase 2

Entrée Side – The World According to PARP



What about China?...

Trial Locations across ClinicalTrials.gov



China represents less than 3% of all trials in the registry

Colors indicate number of studies with locations in that region

Least  Most

Labels give exact study count

Dessert – Foray into Chinese Patent Data

The Challenge:

Who are the potential competitors or partners in China?

Background: Clinical trials can help us gauge the progress of competitors in a market. In order to identify other organizations which may become players within a market, we can look at patents filed in that market. Increased (or emergent) filing activity is a leading indicator for market entry.

Title	Patent Family			Patent Assignee	Inventor(s)	Year																	
	Patent No.	Class	Date			1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
26. PHthalazine DERIVATIVE AND PREPARATION METHOD THEREOF AND PHARMACEUTICAL USE THEREOF	WO/2012/19426	A1	20120216	JANGZHU HENGGRU MEDICINE	YANG PENGCHAO																		
	CN 102372705	A	20120314	SHANGHAI HENGGRU MEDICAL	LI XIN																		
	WO/2012/19426	AB	20120510	SHANGHAI HENGGRU PHARMACEUTICAL	WANG BIN																		
	CN 102066539	A	20120912		LI WANGQIN																		
27. PHthalazine RETONE DERIVATIVE, PREPARATION METHOD THEREOF AND PHARMACEUTICAL USE THEREOF	WO/2012/19427	A1	20120216	HANSEN	LI XIN																		
	CA 2806324	A1	20120216	JANGZHU HANSON PHARMACEUTICAL	LI XIN																		
	CN 102372716	A	20120314	JANGZHU HENGGRU MEDICINE	LI WANGQIN																		
	WO/2012/19427	AB	20120510	SHANGHAI HANSON PHARMACEUTICAL	CHEN YING																		
	CN 102688891	A	20120919	SHANGHAI HENGGRU MEDICAL	WANG BIN																		
	AU 2012088916	A1	20120919	SHANGHAI HENGGRU PHARMACEUTICAL	ZHANG JIE																		
	TW 201305181	A	20130201		SONG BIN																		
	AU 2012088765	A2	20130201		LI XIN																		
	US 20130131968	A1	20130523		LI XIN																		
	EP 2048418	A1	20130819		LI XIN																		
USE OF PHthalazine DERIVATIVES FOR THE TREATMENT OF NEURODEGENERATIVE DISEASES	WO 200507954	A2	20051116	ABBOTT	ABBOTT																		
	DE 19921667	A1	20001116	ABBOTT DEUTSCHLAND																			
	CA 2372704	A1	20001116	BASF																			
	AU 200056640	A	20001121																				
	NO 200105482	D0	20011108																				
	NO 200105482	A	20011108																				
	KR 200209105	A	200209105																				

Dessert – Choose your ingredients



- Many patent databases now provide coverage for Chinese publications, searchable in English.
- Terminology in machine translations may not be useful for keyword searching.
- *Family based patent databases* allow you to search equivalent documents in the original language (e.g. English)
- We use the Thomson Innovation with Derwent indexing for this example

Dessert – Mise en Place/ Prep Work



- Database: Thomson Innovation
- Query: 'PARP' or 'poly (adp-ribose) polymerase' in claims
- Limited to families containing 'CN' publication
- Total Result: 1203 publications representing 986 distinct families

Dessert – Recipe at a glance

- Create chart from search result
- Export earliest priority date, patent assignee to VP-SCE
- Normalize assignees using VP-SCE cleanup
- Extract priority year
- Create matrix graph to analyze competitors
- Review “interesting” records in BizInt Smart Charts for Patents



Dessert – Technique

Item Name	Num Records
BAYER AG	183
BAYER AG	1
BAYER BIOCHEMICAL SCI SA	1
BAYER BIOSCIENCE	2
BAYER BIOSCIENCE NV	13
BAYER CROPSCIENCE AG	152
BAYER CROPSCIENCE INC	6
BAYER CROPSCIENCE NV	7
BAYER CROPSCIENCE SA	12
BAYER GMBH	2
BAYER HEALTHCARE LLC	1
BAYER INTELLECTUAL PROPERTY GMBH	47
BAYER MATERIALSCIENCE AG	1
BAYER SCHERING PHARMA AG	2
BAYER TECHNOLOGY SERVICES GMBH	1
SCHERING AG	1
SCHERING CORP	13
ABBOTT LAB	77
ABBOTT GMBH & CO	1
ABBOTT GMBH & CO KG	19
ABBOTT GMBH&CO KG	39
ABBOTT LAB	65
ABBOTT LAB INC	2
ABBOTT LAB TRADING SHANGHAI CO LTD	2
ABBVIE INC	44
ABBVIE BAHAMAS LTD	2
ABBVIE DEUT GMBH & CO KG	1
ABBVIE INC	41

Display

All Items

Combined Items

Custom Set of Items

Custom Set of Items

Add Close Matches (50%)

Remove All Invert Set

Find

Regular Expression

Add Remove

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Dessert - Identify the Potential Competitors

Reset		Patent Assignee (Cleaned)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		# Records	5	20	27	31	27	39	54	93	96	12	10	10	12	16	14	26	12
Dates/	# Recor	▼	▲	▼	▲														
		▼	▲	1994	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
1	167	BAYER AG			2	1				2	2	4	7	19	37	37	54	2	
2	77	ABBOTT LAB			5	4						3	9	5	9	21	18	3	
3	44	ABBVIE INC			1							1	4	1	4	12	18	3	
4	28	NOVARTIS AG					2			10	5	6	3	1		1			
5	24	GENENTECH INC									5	9	2	1	3	2	2		
6	23	BASF AG		1	5	5	1		3			2		2	1	3			
7	21	KUDOS PHARM LTD					2			6	3	1	6	3					

32	6	JIANGSU HENGRUI MEDICINE CO LTD																	6	
33	6	JIANGSU SIMCERE PHARM CO LTD																		6
34	6	SHANGHAI HENGRUI PHARM CO LTD																	6	

12	16	PFIZER INC				1		1	2	2	2		2	4	1		1		
13	14	SCHERING AG							1		3		6	3		1			
14	12	AGOURON PHARMA				3	2	2		2	2				1				
15	11	CEPHALON INC		1			4				2		3			1			
16	11	CHIRON CORP								7	3	1							
17	10	INOTEK PHARM CORP						2		4	2	1		1					
18	9	NEREUS PHARM INC							2	1	5	1							
19	8	ASTRAZENECA AB											2	3	2		1		
20	8	CYCLACEL LTD							1	1		1	1	2	2				
21	8	IST RICERCHE BIOL MOLECOLARE ANGEL											4	4					
22	8	XOMA TECHNOLOGY LTD								6		1		1					
23	7	ACUCELA INC												5	2				
24	7	AEGERA THERAPEUTICS INC							2	1		1	3						
25	7	PFIZER PROD INC				1		1					1	4					
26	7	XENCOR INC									4			2			1		
27	6	AGENSYS INC									4	2							
28	6	ALLERGAN INC														6			

Dessert - Select companies for further review

Key Chinese patent assignees for PARP (selected via co-occurrence matrix)

	Title	Patent Family			Patent Assignee	Inventor(s)	Database	CPC
		Patent	Kind	Date				
1.	New phthalazinone compound useful in pharmaceutical composition for treating cancer e.g. breast cancer, ovarian cancer, pancreatic cancer, prostate cancer and rectal cancer	WO 2012019430	A1	2012-02-16	JIANGSU HENGRUI MEDICINE CO LTD SHANGHAI HENGRUI MEDICINE CO LTD SHANGHAI HENGRUI PHARM CO LTD	YANG, Bin-bin ZHU, Yao-ping ZHANG, Xue-jun LI, Xiao-tao DENG, Bing-chu	1.1 Innov link	C07D040506 C07D040514 C07D047104 C07D048704 C07D049804
		CN 102372698	A	2012-03-14				
		WO 2012019430	A8	2012-05-10				
		CN 102762549	A	2012-10-31				
		TW 201307349	A	2013-02-16				
1.1 Innov		1.1 Innov		1.1 Innov		1.1 Innov		
2.	New phthalazinone derivative useful in pharmaceutical composition for treating cancer e.g. breast cancer, ovarian cancer, pancreatic cancer, prostate cancer and rectal cancer	WO 2012019426	A1	2012-02-16	JIANGSU HENGRUI MEDICINE CO LTD SHANGHAI HENGRUI MEDICINE CO LTD SHANGHAI HENGRUI PHARM CO LTD	CHEN, Xue-jiang CHEN, Yang DENG, Bing-chu LI, Xiang-qin LI, Xin SONG, Min WANG, Bin ZHANG, lei	2.1 Innov link	C07D049814 C07D040310 C07D047104 C07D048704 C07D0491048 C07D049504 C07D049804
		CN 102372706	A	2012-03-14				
		WO 2012019426	A8	2012-05-10				
		CN 102666539	A	2012-09-12				
		TW 201305181	A	2013-02-01				
2.1 Innov		2.1 Innov		2.1 Innov		2.1 Innov		
3.	New phthalazinone ketone derivative useful in pharmaceutical composition for treating cancer e.g. breast cancer, ovarian cancer, pancreatic cancer, prostate cancer and rectal cancer	WO 2012019427	A1	2012-02-16	JIANGSU HANSOH PHARM CO LTD JIANGSU HENGRUI MEDICINE CO LTD SHANGHAI HANSOH PHARM CO LTD SHANGHAI HENGRUI MEDICINE CO LTD SHANGHAI HENGRUI PHARM CO LTD	CHEN, Yang DENG, Bing-chu LI, Xiang-qin LI, Xin WANG, Bin ZHU, Zhe	3.1 Innov link	C07D048704 A61K00314188 A61K0031502 A61K004500
		CN 102372716	A	2012-03-14				
		WO 2012019427	A8	2012-05-10				
		CN 102686591	A	2012-09-19				
		AU 2011288876	A1	2013-01-31				
		AU 2011288876	A2	2013-02-21				
		CA 2806324	A1	2012-02-16				
		TW 201305171	A	2013-02-01				
		US 20130131068	A1	2013-05-23				
		EP 2604610	A1	2013-06-19				
		HK 1174030	A0	2013-05-31				
		JP 2013535491	A	2013-09-12				
KR 2013110149	A	2013-10-08						
3.1 Innov		3.1 Innov		3.1 Innov		3.1 Innov		

Dessert – Drill down to company details



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1. (WO2012019430) PHTHALAZINONE DERIVATIVE, AND PREPARATION METHOD AND PHARMACEUTICAL USE THEREOF

PCT Biblio. Data | Description | Claims | National Phase | Notices | Drawings | Documents

Latest bibliographic data on file with the International Bureau

PermaLink

Pub. No.: WO/2012/019430 International Application No.: PCT/CN2011/001268

Publication Date: 16.02.2012 International Filing Date: 02.08.2011

IPC: C07D 405/06 (2006.01), A61K 31/502 (2006.01), A61K 31/5377 (2006.01), A61K 31/5383 (2006.01), A61K 31/551 (2006.01), A61P 35/00 (2006.01), C07D 405/14 (2006.01), C07D 471/04 (2006.01), C07D 487/04 (2006.01), C07D 498/04 (2006.01)

Applicants: SHANGHAI HENGRUI PHARMACEUTICAL CO., LTD. [CN/CN]; No.279 Wenjing Road Minhang District Shanghai 200245 (CN) (For All Designated States Except US).

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YANG, Binbin [CN/CN]; (CN) (For US Only)

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ZHU, Yaoping; (CN).

YANG, Binbin; (CN)

Agent: GE CHENG & CO., LTD.; Level 19, Tower E3, The Towers Oriental Plaza, No. 1, East Chang An Avenue Dongcheng District Beijing 100738 (CN)

In Conclusion...



- 
- A collage of images including a blue cursive word 'Check', a table with 'ts' and 'Se' in the header and 'FREE-' in a cell, and a close-up of a circuit board.
- Understanding a drug's competitive landscape and competitors' development strategies is critical to the success in designing the marketing & reimbursement of that drug.
 - BizInt Smart Charts and VantagePoint – Smart Charts Edition tools support the creation of visualizations & reports from drug pipeline, clinical trials and intellectual property databases – to facilitate those insights.

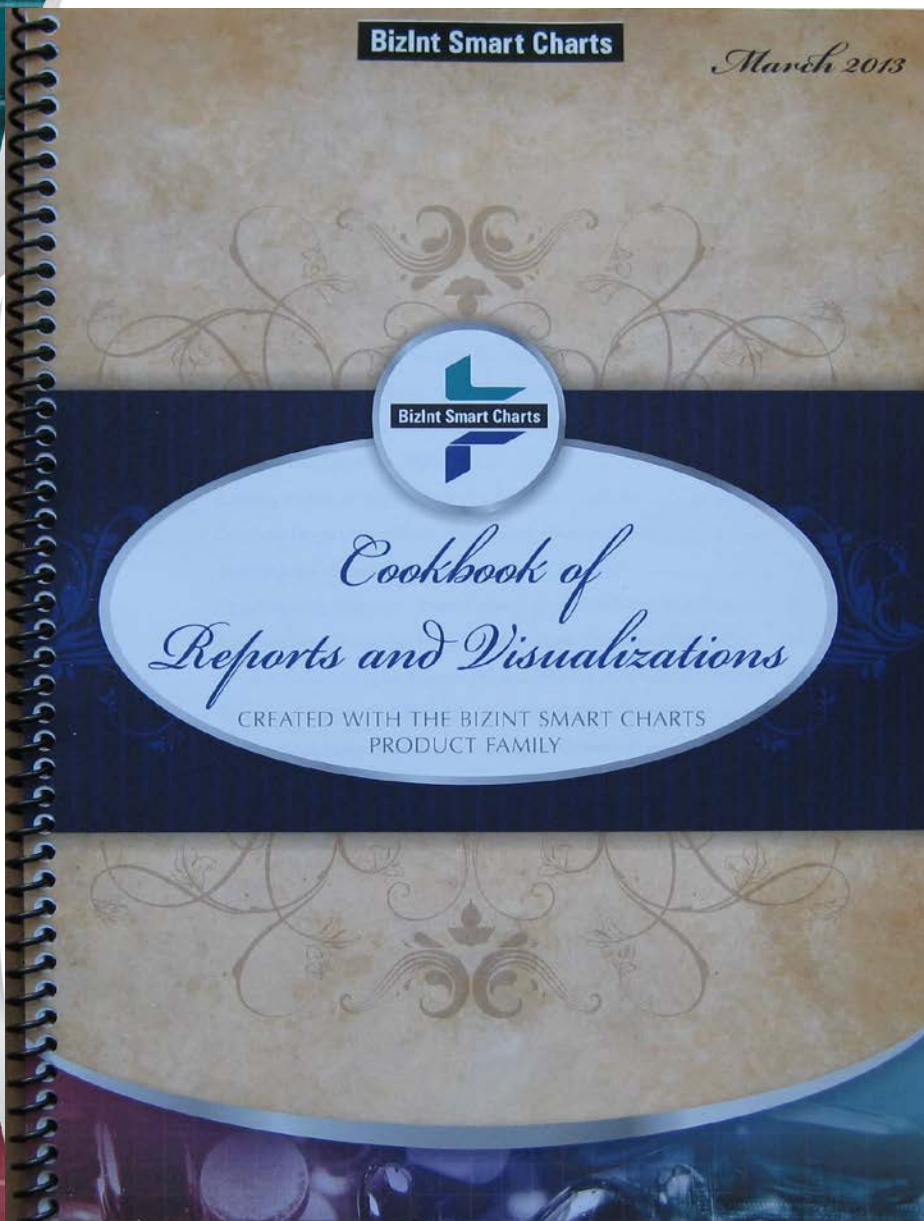
Thank you to our team of talented chefs!



Matt Eberle
Product Specialist
*Formerly at Wyeth, Pfizer,
Sunovion*



Barbara Gilmore
Application Consultant
Formerly Genentech, Kai



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