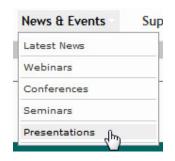


Goals for this presentation

- Conduct a case study of trials for two drugs using three clinical trials databases.
- Evaluate using tools in BizInt Smart Charts.
- Discuss how clinical trials databases are used for competitive intelligence.

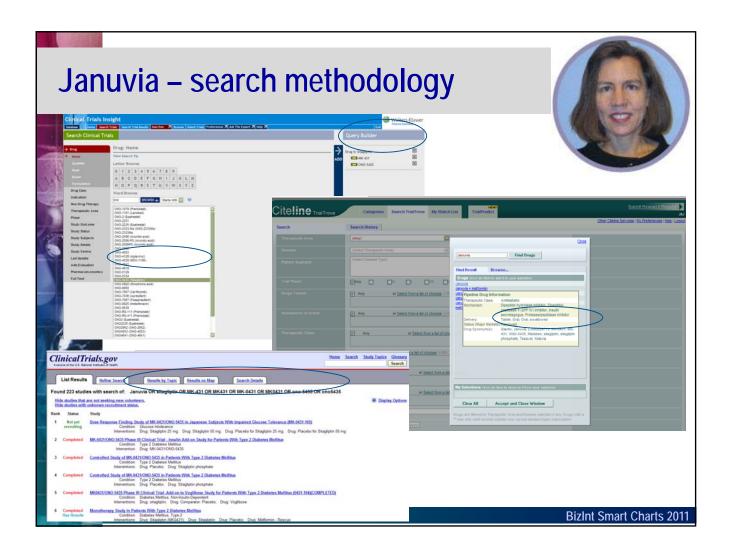
Slides will be at www.bizcharts.com News & Events – Presentations

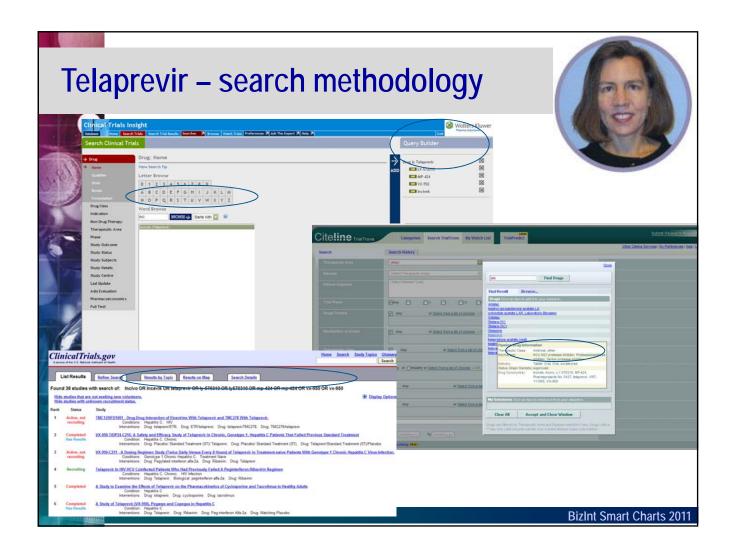


Case study - methodology



- Searched three clinical trials databases:
 ClinicalTrials.gov (CT.gov)
 Citeline TrialTrove (TT)
 Adis Clinical Trials Insight (CTI)
- Searches performed in April, July, Sept 2011
- Searched two compounds:
 Januvia (diabetes, launched,)
 Teleprevir (hepatitis-C, late phase 3/launched)





Clinical Trial Databases - Strengths



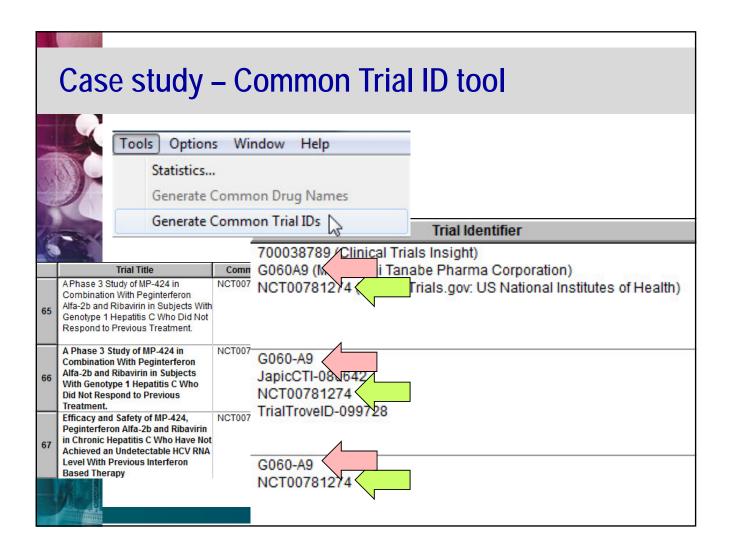
Strength	Adis CTI	TrialTrove	CT.gov
Additional research support	\checkmark	√	
Full indication coverage	\checkmark	limited	V
Mechanism of Action search	√	√	Only if in text
Results and Links to completed trial details	\checkmark	\checkmark	
Trial Alerts/Saved Searches	V	\checkmark	
Comprehensive advanced searching	√ (ROA, Endpoints, Dose, Formulation, etc)	√ (some)	
L.L.			BizInt Smart Cha

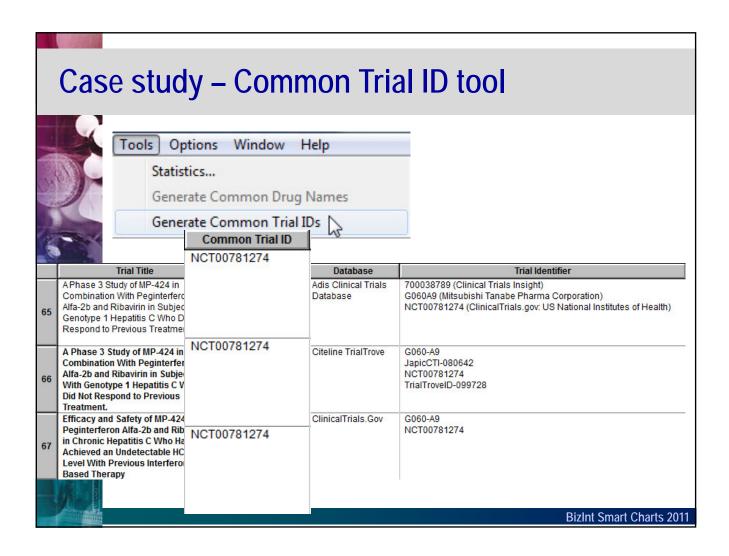
Case study – search results

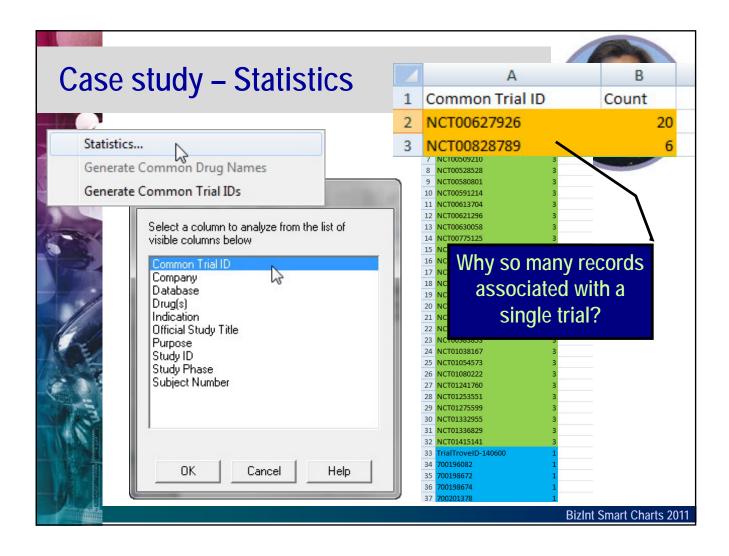


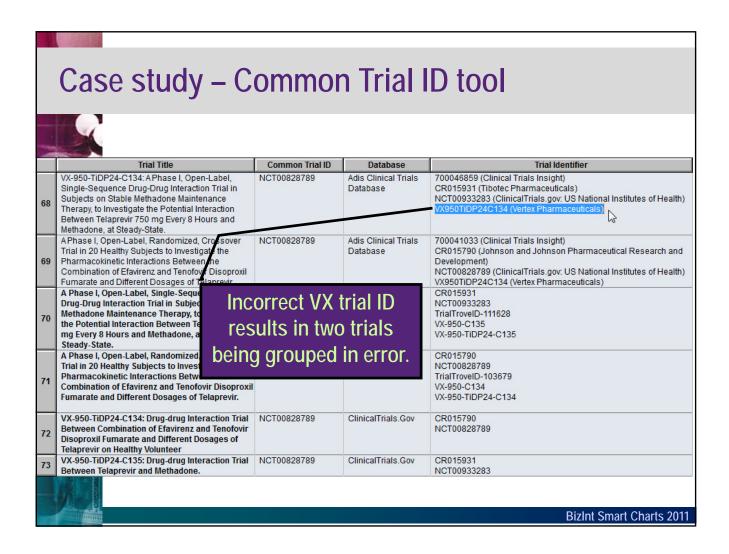
Januvia	April 2011	July 2011	Sept 2011
CT.gov	202 trials	221 trials	223 trials
Citeline TT	276 trials	303 trials	311 trials
Adis CTI	219 trials	257 trials	280 trials

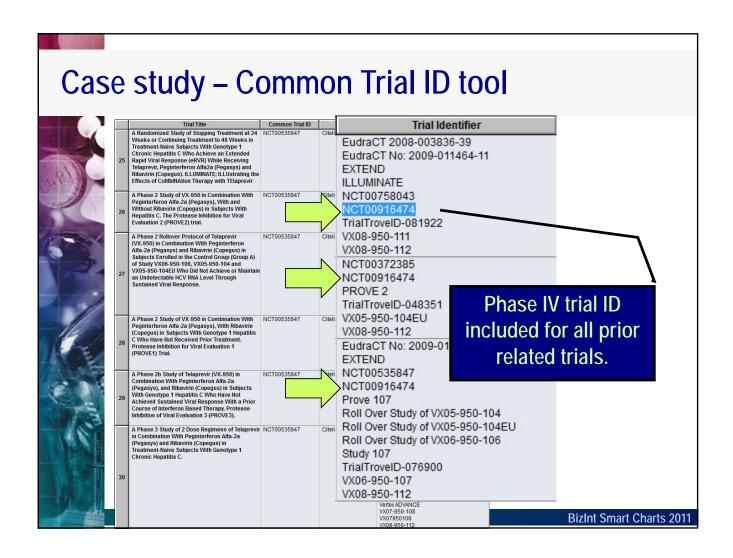
Teleprevir	April 2011	July 2011	Sept 2011
CT.gov	36 trials	37 trials	38 trials
Citeline TT	45 trials	48 trials	65 trials
Adis CTI	37 trials	42 trials	43 trials

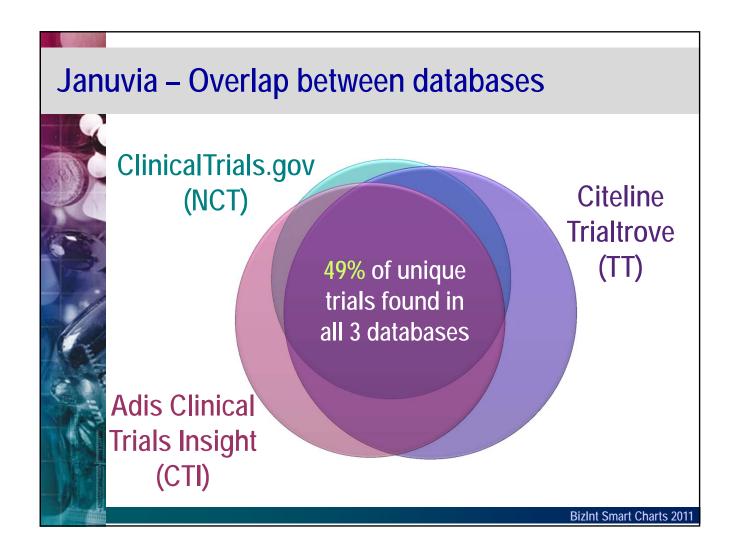


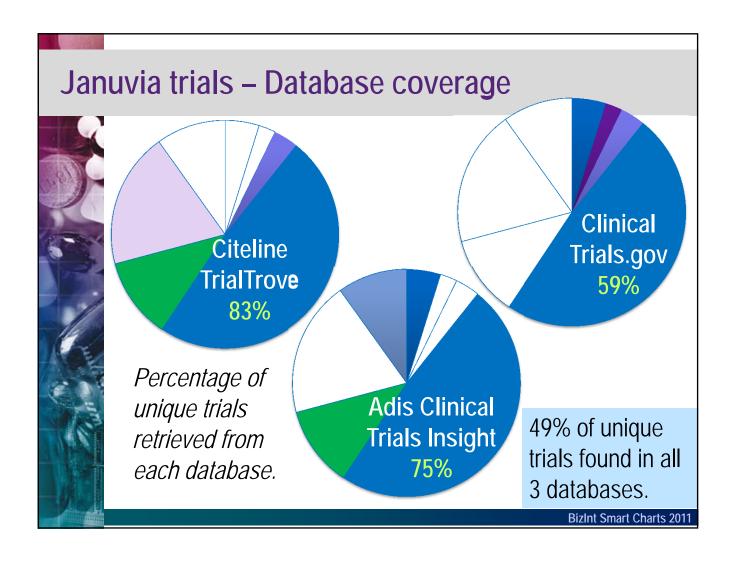






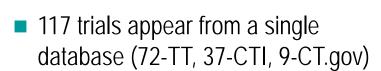






Januvia - evaluation



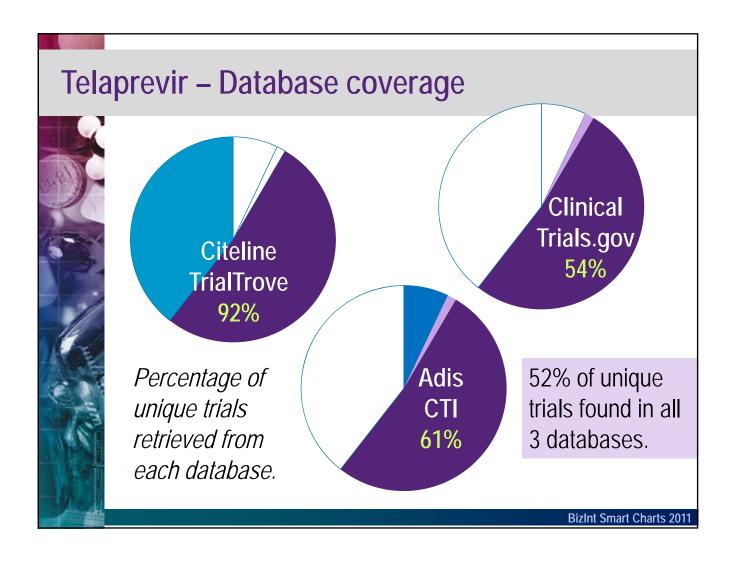




- Several trials from only TT or TT/CTI were sourced from UMIN-CTR Clinical Trials (Japanese clinical trial registry for non-profit trials (not industry sponsored). CT.gov does not appear to pick these up.
- Review of a single trial from Adis that included an NCT number showed no instance of sitagliptin in the CT.gov record that was reviewed.

Januvia - evaluation (cont.)

- Of the 9 trials found only CT.gov,
 2 did not have Januvia in the record.
 The 7 others are legitimate trials but were not retrieved from TT or CTI.
- One trial only in Adis was a new observational trial of 500 patients in Japan – source from University Hospital Medical Information Network - Japan.
- One trial only in TT contained a record from 2009 where it was sourced from the ADA conference.

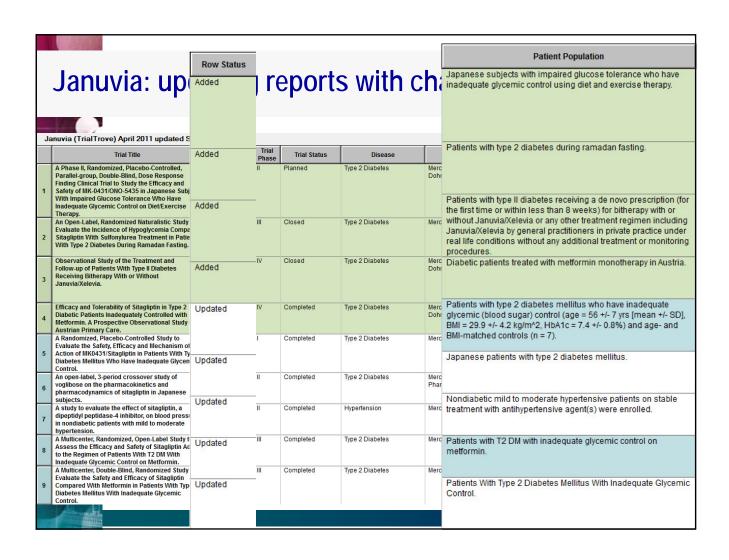


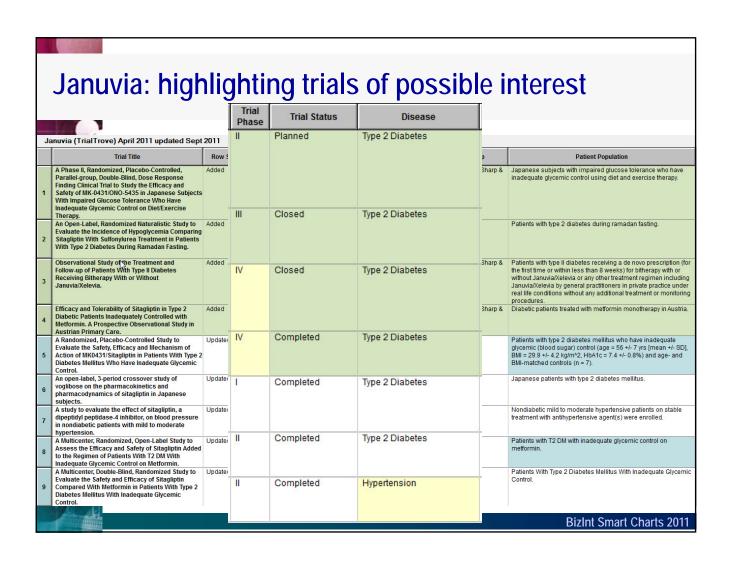
Telaprevir – some evaluation

- 33 trials appear from a single database (28-TT, 5-CTI, 0-CT.gov)
- Two single trials were matched as same trials from TT and Adis CTI by reviewing title, phase, subject number and drugs
- One of these trials was picked up by a conference abstract and not found in CT.gov
- Another trial was new in Adis CTI and updated in TT, but not in CT.gov

Januvia: Competitive intelligence insights

- The second secon
- Review newly added trials –
 What is the company currently working on?
- For Example review all company sponsored trials to look for new indications, post marketing trials, new patient populations.
- Review competitors that are doing head to head trials with drug.
- Of the 87 new trial records added in the July Update, 22 are sponsored by Merck.





Januvia: Competitive intelligence insights

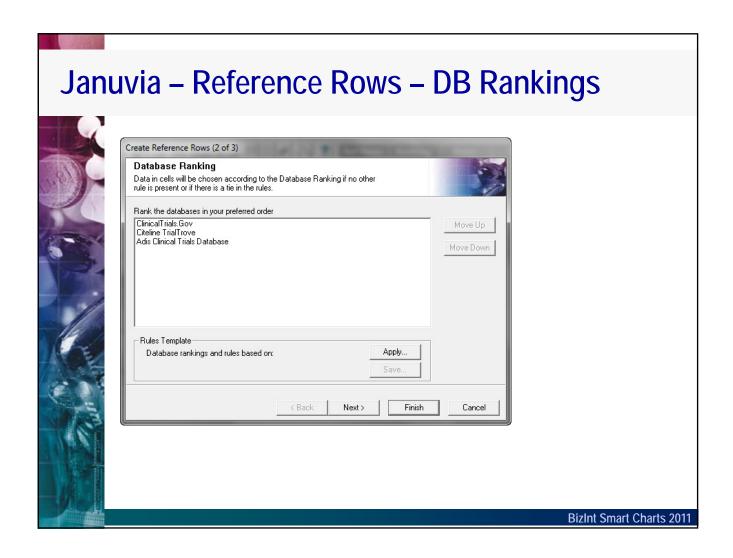
- Trial I
- Trial NCT01260246 is for a different patient population & indication -- NASH (Non-alcoholic Steatohepatitis) in Patients With Type 2 Diabetes.
- Trial started in December 2010 to be completed in 2013
- Primary endpoint to improve liver disease by liver biopsy
- Small trial in Canada see if other trials with same patient population on larger scale.
- Not sponsored by Merck, so perhaps not looking at add-on indication

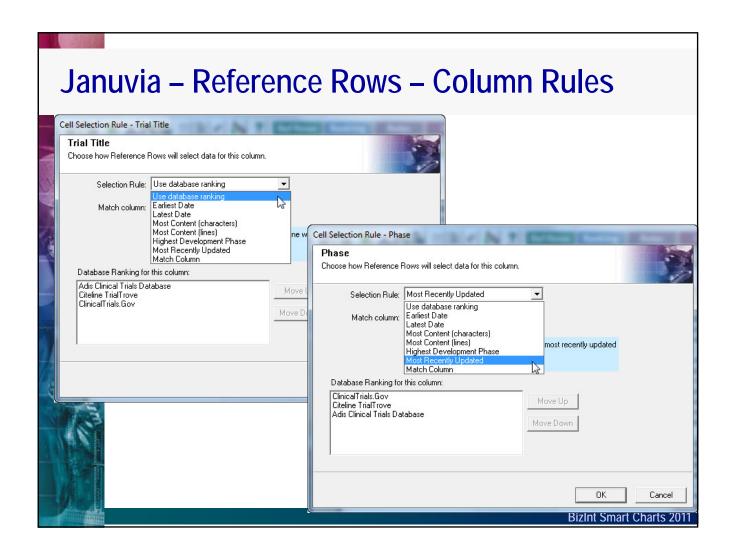
	Trial Title	Database	Condition	Start Date	Completion Date	Countries	Sponsor(s)	Brief Summary	Enrollment
654	Sitagliptin for the Treatment of Non-alcoholic Steatohepatitis in Patients With Type 2 Diabetes	ClinicalTrials.Gov	Type 2 Diabetes Nonalcoholic Steatohepatitis	December 2010	November 2013 (Anticipated)	Canada	Lawson Health Research Institute PSI Foundation inc	This is a randomized, double-blind, double-blind, placebo-controlled trial evaluating the impact of sitagliptin therapy in patients with concomitant type 2 diabetes and non-alcoholic steatohepatitis (NASH) on improving liver disease based on biopsy results. [CONT.]	20 (Anticipated)

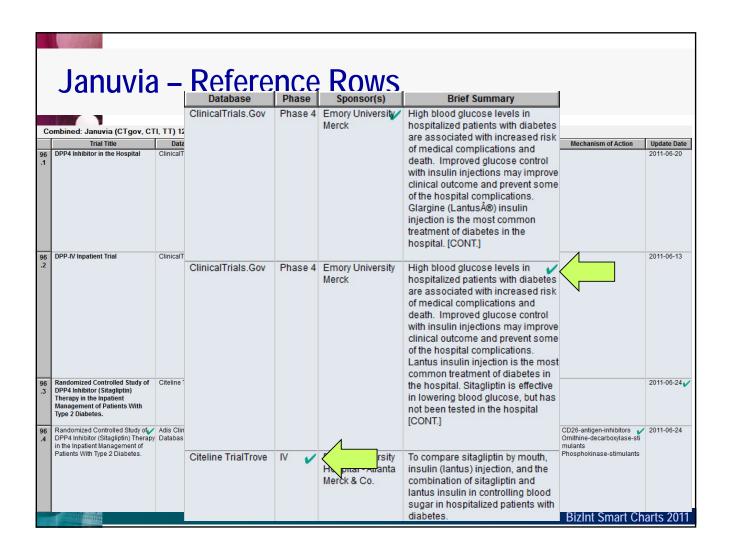
Januvia – how to deal with duplicate records?

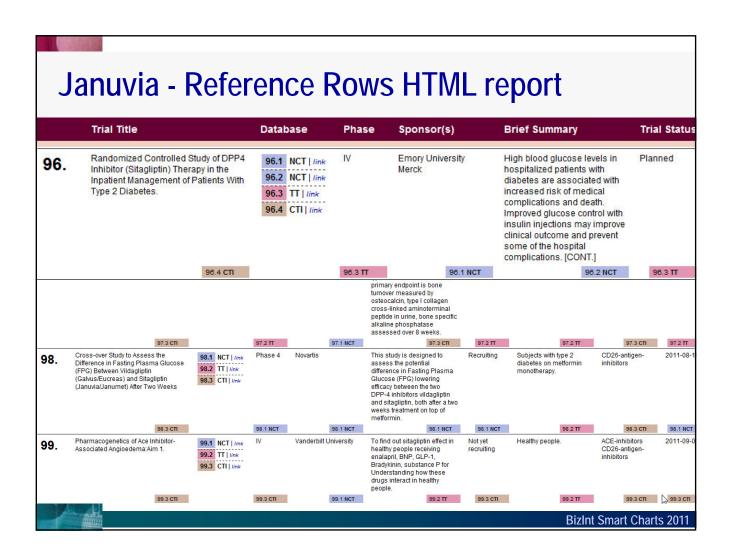
Combined: Januvia (CTgov, CTI, TT) 12 Sept 2011

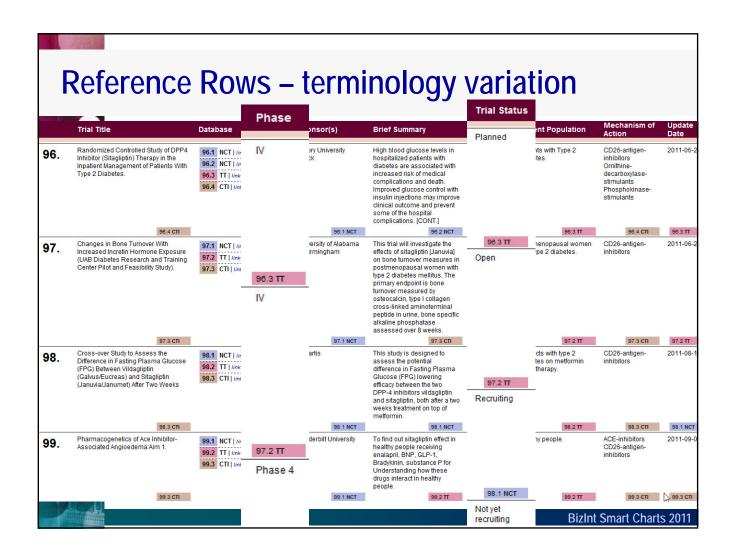
	Trial Title	Database	Phase	Sponsor(s)	Brief Summary	Trial Status
701	Randomized Controlled Study of DPP4 Inhibitor (Sitagliptin) Therapy in the Inpatient Management of Patients With Type 2 Diabetes.	Adis Clinical Trials Database	IV	Merck & Co	This trial will compare the efficacy of sitagliptin [Januvia; Merck and Co] alone or in combination with insulin gargline [Lantus] in hospitalised patients with type 2 diabetes mellitus. Patients will also receive correction doses of rapid-acting insulin-lispro [Humalog] if needed (blood glucose greater than 140 mg/dL). [CONT.]	Active, no longer recruiting
702	Randomized Controlled Study of DPP4 Inhibitor (Sitagliptin) Therapy in the Inpatient Management of Patients With Type 2 Diabetes.	Citeline TrialTrove	IV	Emory University Hospital - Atlanta Merck & Co.	To compare sitagliptin by mouth, insulin (lantus) injection, and the combination of sitagliptin and lantus insulin in controlling blood sugar in hospitalized patients with diabetes.	Planned
703	DPP4 Inhibitor in the Hospital	ClinicalTrials.Gov	Phase 4	Emory University Merck	High blood glucose levels in hospitalized patients with diabetes are associated with increased risk of medical complications and death. Improved glucose control with insulin injections may improve clinical outcome and prevent some of the hospital complications. Glargine (Lantus®) insulin injection is the most common treatment of diabetes in the hospital. [CONT.]	Not yet recruiting
704	DPP-IV Inpatient Trial	ClinicalTrials.Gov	Phase 4	Emory University Merck	High blood glucose levels in hospitalized patients with diabetes are associated with increased risk of medical complications and death. Improved glucose control with insulin injections may improve clinical outcome and prevent some of the hospital complications. Lantus insulin injection is the most common treatment of diabetes in the hospital. Sitagliptin is effective in lowering blood glucose, but has not been tested in the hospital [CONT.]	Active, not recruiting



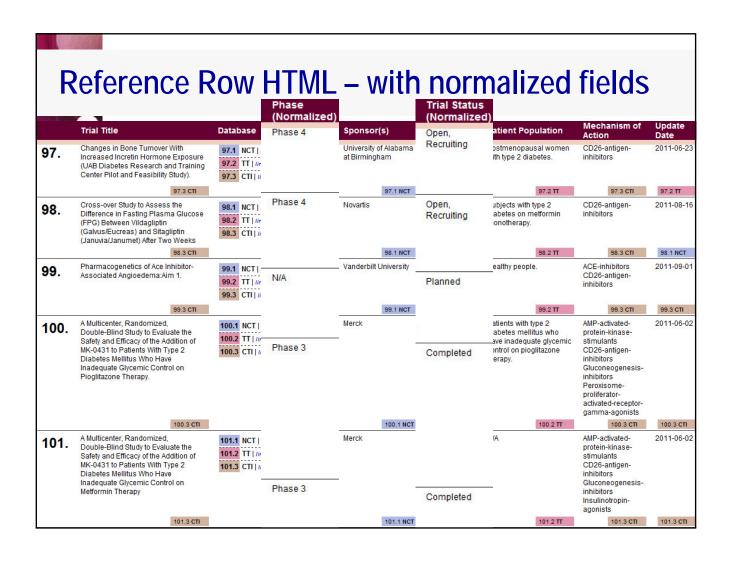


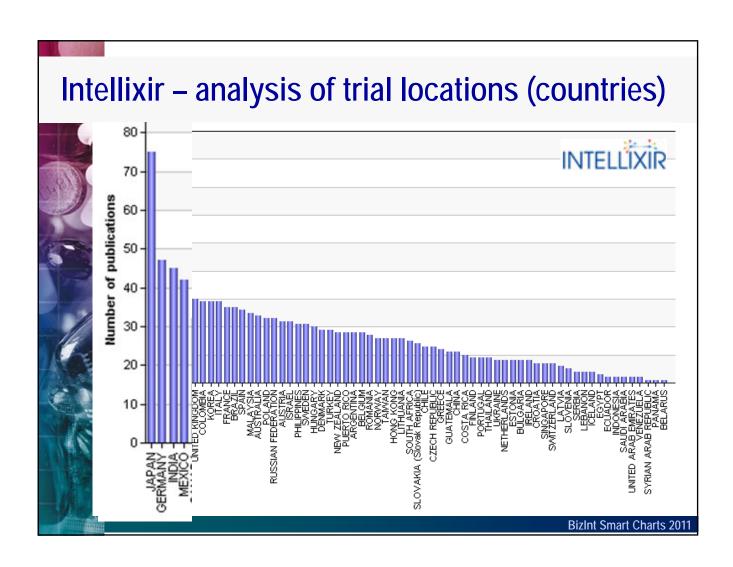






Search Technology XML Smart Data Exchange -Phase **Trial Status Trial Title** Database Phase (Normalize Sponsor(s) **Trial Status** (Normalized) d) DPP4 Inhibitor in the Hospital ClinicalTrials.Gov Phase 4 Phase 4 🗸 Emory University/ Not yet Planned Merck recruiting .1 **DPP-IV Inpatient Trial** ClinicalTrials.Gov Phase 4 **Emory University** Phase 4 Active, not Active. Not Merck recruiting Recruiting .2 Citeline TrialTrove Randomized Controlled Study of Phase 4 **Emory University** Planned Planned DPP4 Inhibitor (Sitagliptin) Therapy in Hospital - Atlanta .3 the Inpatient Management of Patients Merck & Co. With Type 2 Diabetes. Randomized Controlled Study of DPP4 Adis Clinical Trials Phase 4 Merck & Co Active, no Active, Not Inhibitor (Sitagliptin) Therapy in the Database longer Recruiting Inpatient Management of Patients With recruiting Type 2 Diabetes. Changes in Bone Turnover With ClinicalTrials.Gov Phase 4 University of Recruiting Open, 97 Recruiting Increased Incretin Hormone Alabama at Exposure Birmingham **Changes in Bone Turnover With** Citeline TrialTrove Phase 4 University of Open Open, 97 Increased Incretin Hormone Recruiting Alabama. **Exposure (UAB Diabetes Research** Birmingham and Training Center Pilot and Feasibility Study) Changes in Bone Turnover With Adis Clinical Trials IV Phase 4 Recruiting Open, 97 Increased Incretin Hormone Exposure Database Recruiting (UAB Diabetes Research and Training Center Pilot and Feasibility Study).





Competitive Intelligence Must be Actionable!



Clinical Trial intelligence adds an added level of focus to Pipeline Intelligence.

- Determine key competitor drug trial endpoints.
- Determine when trials may be ending to predict potential product launches.
- Monitor additional indications being sought.
- Determine in which countries trials are being run and for which indications.
- Evaluate dosing and delivery options.

