

i2b2 Software

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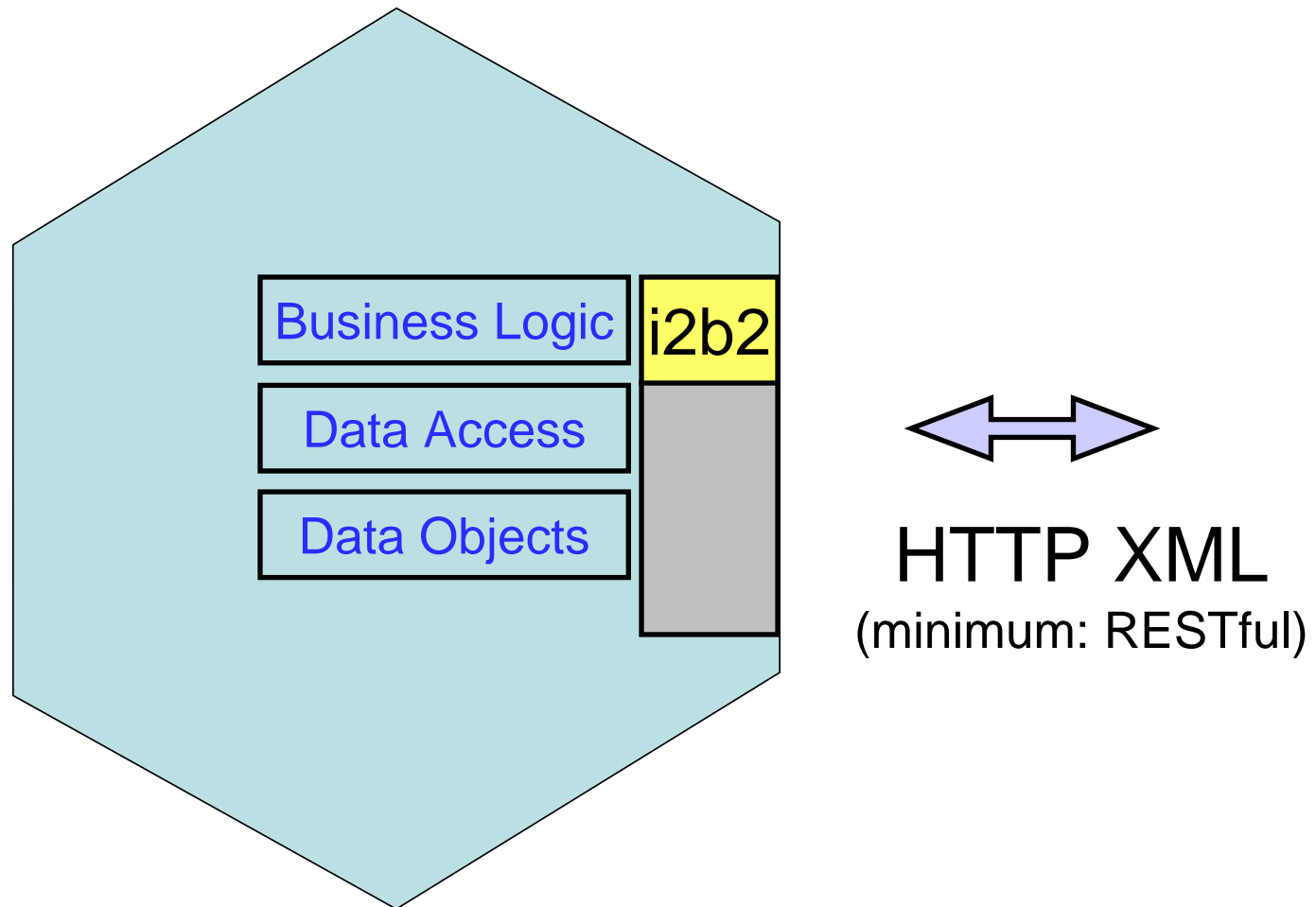
Isaac Kohane MD, Ph.D.



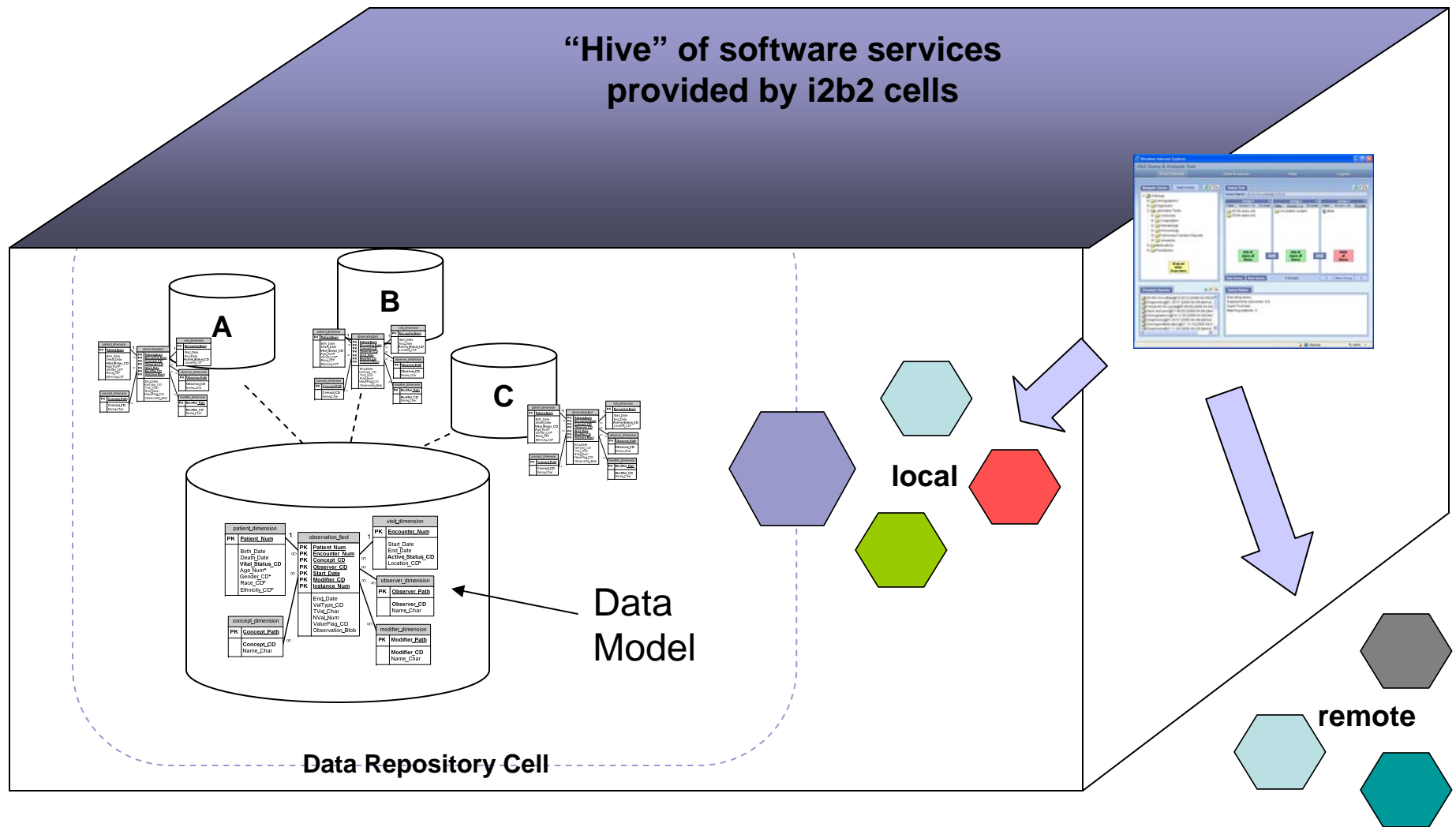
The National Center for Biomedical Computing entitled Informatics for Integrating Biology and the Bedside (i2b2), what is it?

- Software for explicitly organizing and transforming person-oriented clinical data to a way that is optimized for clinical genomics research
 - Allows integration of clinical data, trials data, and genotypic data
- A portable and extensible application framework
 - Software is built in a modular pattern that allows additions without disturbing core parts
 - Available as open source at <https://www.i2b2.org>

i2b2 Cell: The Canonical Software Module



An i2b2 Environment (the Hive) is built from i2b2 Cells



I2b2 Software components are distributed as open source

The screenshot displays the i2b2 website in a Windows Internet Explorer browser window. The address bar shows the URL <https://www.i2b2.org/software/index.html>. The page features a navigation menu on the left with links to Archived Source Code, Contributed, Tutorial, Guestbook, and Statistics. The main content area is titled "i2b2 Web Client" and includes a button to "Launch the AJAX web client in your web browser". Below this is a "Documentation" section with a key for the software components: i2b2 Core Cell (dark blue), i2b2 Optional Cell (light blue), Workbench (green), Web Client (grey), and CRC Plug-in (cyan). The components are arranged in a hexagonal grid, including Project Management, File Repository, Natural Language Processing, PFT Processing, Ontology Management, Identity Management, Data Repository (CRC), Workflow Framework, High Performance Computing Plug-in, Correlation Analysis Plug-in, Table View Plug-in, Text Analyzer Plug-in, Export Data Plug-in, Import Data Plug-in, and Annotator Plug-in. A tooltip for the "i2b2 Workbench" is visible, describing it as a collection of client-side components designed as Eclipse-based java plug-ins that communicate with i2b2 Cells and allow the investigator to query, analyze, and display the data of the hive, generally in greater depth than the web client. The tooltip also lists links for Installation Guide, Tutorial Document, Developer's Guide, Go to Download Client, and Go to Download Source.

i2b2: Informatics for Integrating Biology & the Bedside - Windows Internet Explorer

Address bar: <https://www.i2b2.org/software/index.html>

Navigation menu:

- Archived Source Code
- Contributed
- Tutorial
- Guestbook *
- Statistics *

i2b2 Web Client Launch the AJAX web client in your web browser

Documentation

Hover over the modules below for the latest documentation:

Key

- i2b2 Core Cell
- i2b2 Optional Cell
- Workbench
- Web Client
- CRC Plug-in

Modules:

- Project Management
- File Repository
- Natural Language Processing
- PFT Processing
- Ontology Management
- Identity Management
- Data Repository (CRC)
- Workflow Framework
- High Performance Computing Plug-in
- Correlation Analysis Plug-in
- Table View Plug-in
- Text Analyzer Plug-in
- Export Data Plug-in
- Import Data Plug-in
- Annotator Plug-in

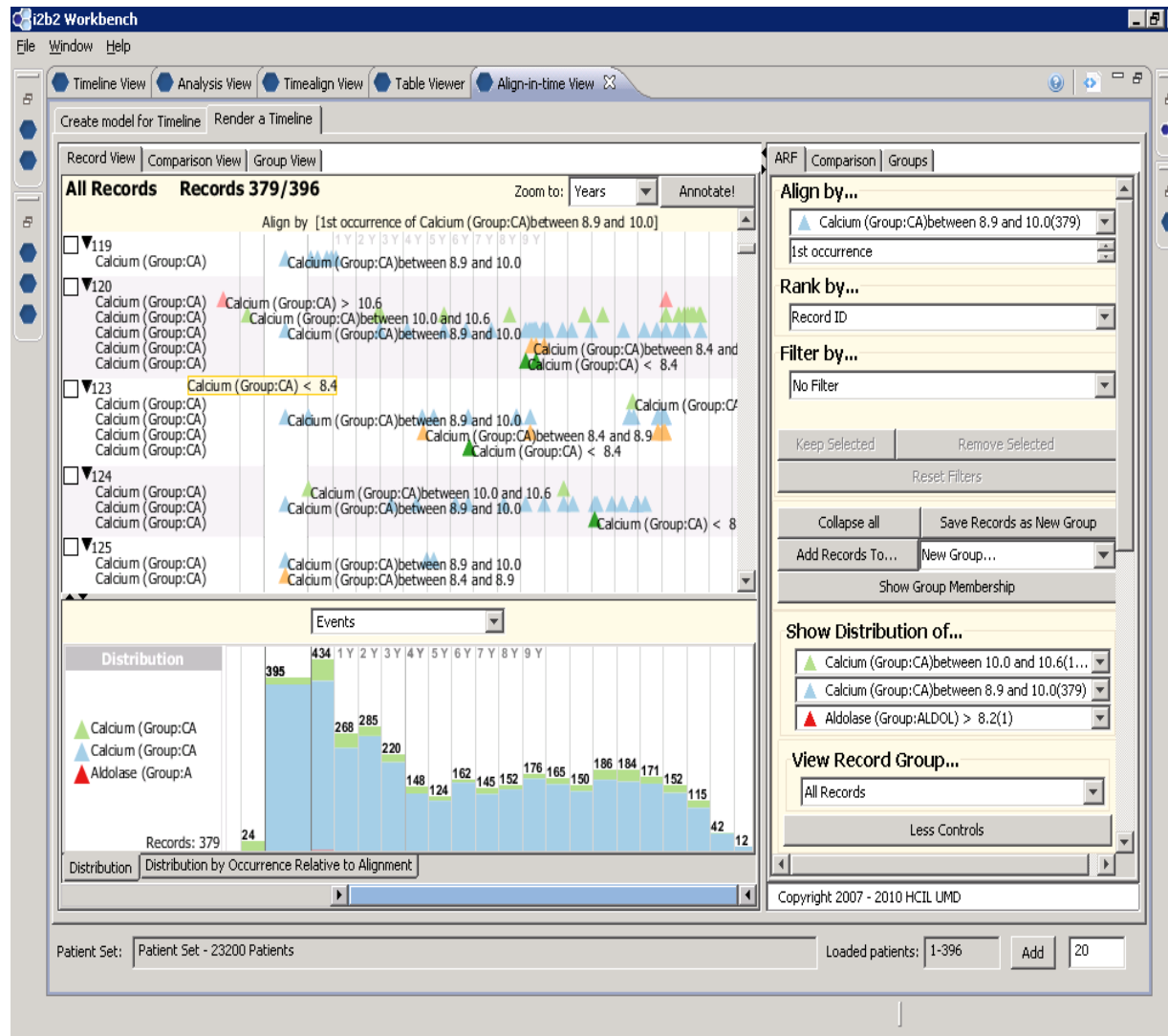
i2b2 Workbench

The i2b2 Workbench is a collection of client-side components designed as Eclipse-based java plug-ins that communicate with i2b2 Cells and allow the investigator to query, analyze, and display the data of the hive, generally in greater depth than the web client.

- Installation Guide
- Tutorial Document
- Developer's Guide
- Go to Download Client
- Go to Download Source

https://www.i2b2.org/software/index.html#

Time align plug-in



Community

United States

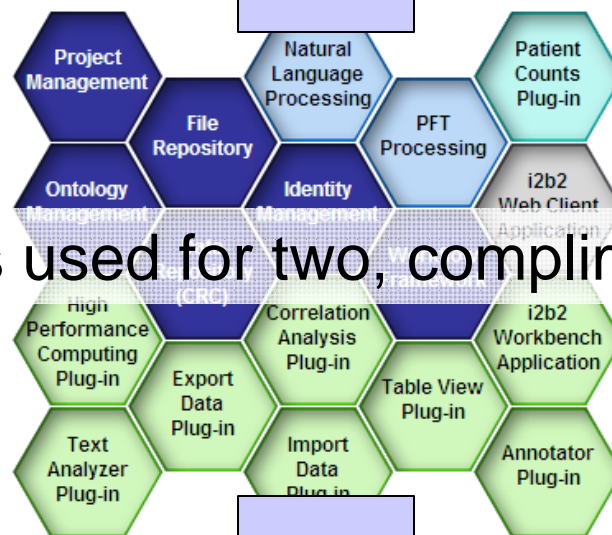
- Arizona State University
- Beth Israel Deaconess Hospital, Boston, MA
- Boston University School of Medicine, Boston, MA
- Brigham and Women's Hospital, Boston, MA
- Case Western Reserve Hospital
- Children's Hospital, Boston, MA
- (Denver) Children's Hospital, Denver, CO
- Children's Hospital of Philadelphia, PA
- Children's National Medical Center (GWU)
- Cincinnati Children's Hospital, Cincinnati, OH
- Cleveland Clinic, Cleveland, OH
- (Weil Medical College of) Cornell, NYC, NY
- Duke Medical College
- Group Health Cooperative
- Harvard Pilgrim Healthcare
- Harvard Medical School, Boston, MA
- Health Sciences South Carolina
- Kaiser Permanente Health
- Kimmel Cancer Center (Thomas Jefferson University)
- Massachusetts General Hospital, Boston, MA
- Maine Medical Center, Portland, ME
- Marshfield Clinic, Wisconsin
- Morehouse School of Medicine, Atlanta, GA
- Ohio State University Medical Center, Columbus, OH
- Oregon Health & Science University, Portland, OR
- Renaissance Computing Institute, Chapel Hill, NC
- South Carolina Clinical and Translational Research Institute
- Tufts Medical Center, Boston, MA
- University of Alabama
- University of Arkansas Medical School
- University of California Davis, Davis, CA
- University of California San Francisco, SF, CA
- University of Chicago
- University of Massachusetts Medical School, Worcester, MA
- University of Michigan Medical Center, Ann Arbor, MI
- University of Pennsylvania School of Medicine, Philadelphia, PA
- University of Rochester Medical Center, Rochester, NY
- University of Texas Health Sciences Center at Houston, Houston, TX
- University of Texas Health Sciences Center at San Antonio, SA, TX
- University of Texas Health Sciences Center Southwestern, Dallas, TX
- Utah Health Science Center, Salt Lake City, UT
- University of Washington, Seattle, WA
- University of Wisconsin Madison
- Veterans Administration Boston and Utah

International

- Georges Pompidou Hospital, Paris, France
- Institute for Data Technology and Informatics (IDI), NTNU, Norway
- Karolinska Institute, Sweden
- University of Erlangen-Nuremberg, Germany
- University of Goettingen, Goettingen, Germany
- University of Leicester and Hospitals, England (Biomed. Res. Informatics Ctr. for Clin. Sci)
- University of Pavia, Pavia, Italy
- University of Seoul, Seoul, Korea

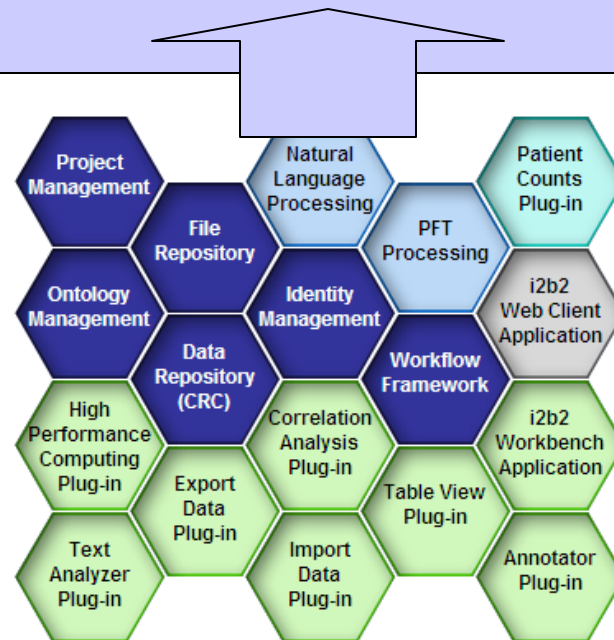
Enterprise-wide repurposing and distribution
of medical record data for research

An i2b2 Hive is used for two, complimentary purposes



Use of medical record data in clinical studies
focused upon genomics and pharmacology

Enterprise-wide repurposing and distribution of medical record data for research



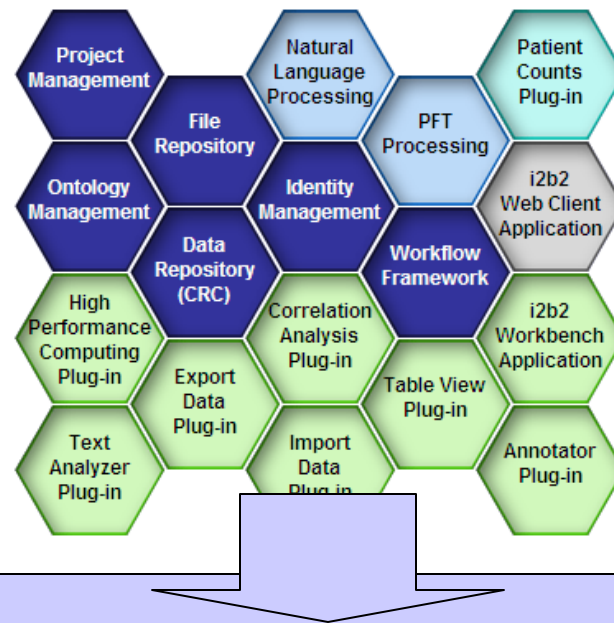
- Enable high performance collection of medical record data for querying and distribution
 - Enterprise web client

Enterprise web client

The screenshot shows the i2b2 Query & Analysis Tool web interface within a Windows Internet Explorer browser window. The interface is divided into several sections:

- Top Navigation:** Includes tabs for "Find Patients", "Data Analysis", "Help", and "Logout".
- Left Panel (Navigate Terms):** A tree view showing a hierarchy of medical terms under "Ontology":
 - Demographics
 - Diagnoses
 - Laboratory Tests
 - Chemistry
 - Coagulation
 - Hematology
 - Immunology
 - Pulmonary Function Reports
 - Urinalysis
 - Medications
 - ProceduresA yellow box with the text "drag an item from here" is positioned below the tree.
- Query Tool (Center):**
 - Query Name:** 45-54-Circu-Male@18:59:32
 - Groups:** Three groups are defined:
 - Group 1:** Contains "45-54 years old" and "55-64 years old".
 - Group 2:** Contains "Circulatory system".
 - Group 3:** Contains "Male".
 - Logic:** The groups are connected by logical operators: "one or more of these" (green box) for Group 1, "AND" (blue box) between Group 1 and Group 2, "one or more of these" (green box) for Group 2, "AND" (blue box) between Group 2 and Group 3, and "none of these" (red box) for Group 3.
 - Buttons:** "Run Query", "New Query", "New Group", and navigation arrows.
- Bottom Left (Previous Queries):** A list of recent queries with details like "45-54-Circu-Male@18:59:32 [2008-04-05] [demo]".
- Bottom Right (Query Status):** Shows the execution status: "Executing query...", "Elapsed time (seconds): 0.9", "Query Finished...", and "Matching patients: 5".

- Repurpose medical record information for research studies
 - I2b2 Workbench
 - Natural language processing



Use of medical record data in clinical studies
focused upon genomics and pharmacology

Investigator Review

The screenshot displays the i2b2 Workbench interface for a user named 'mike'. The main window is titled 'i2b2 Workbench for ra_mart_test'. The interface is divided into several panes:

- Navigate Terms:** A tree view on the left showing a hierarchy of medical terms. 'Erosion' is selected under the 'RA' category.
- Pharmacovigilance Analyzer:** The central pane shows a query named 'Bone density = @05:10:25'. It features two groups for analysis: 'Group 1' (Erosion) and 'Group 2' (Radiology Reports). The 'Analysis Types' section on the right includes checkboxes for 'Timeline', 'PATIENT_ENC...', 'XML', 'Patient count', 'Gender', 'PATIENT_MO...', 'Vital', 'Race', and 'Age'. The 'Run Query Above' button is visible, and it indicates 'Patient(s) returned: 1'.
- Workplace:** A pane on the right showing a list of medical terms, including 'Bone density = Abnormal_93Ym', 'Bone density = Abnormal_mdoa', 'Bone density = Abnormal_p0Bh', 'Bone density Is 2002,done_9UVn', 'Bone density Is 2002,done_VQZh', 'HDL (Group:HDL)', 'HDL (Group:HDL)', 'HDL (Group:HDL)', 'HDL (Group:HDL) = HIGH_MevY', 'HDL (Group:HDL) = HIGH_qmMf', 'HDL (Group:HDL) = HIGH_yJTJ', and 'HDL (Group:HDL) = LOW_68FW'.
- Text Analyzer:** A pane at the bottom right showing a search for 'erosive' and displaying a text snippet: 'There is circumferential joint space narrowing of the right hip with erosive changes and acetabular protrusion. Degenerative changes'.
- Previous Queries:** A pane at the bottom left showing a list of previous queries, including 'Acute Rheumatic@01:56:30 [04-2009]', 'Erosion-Radiolo@00:54:38 [04-2009]', 'Erosion@00:51:55 [04-22-2009]', 'Acute Rheumatic@00:50:09 [04-2009]', and 'Acute Rheumatic@00:29:34 [04-2009]'.

The main timeline view shows a single patient record: 'Person_#82828_Female_73yr old_Other'. Below this, the 'Erosion' and 'Radiology_Report...' terms are listed, indicating their occurrence over time. The timeline view includes a 'Create model for Timeline' and 'Render a Timeline' button. The patient set is 'Patient Set: 1 patients', with a start date of '1' and an increment of '1'.

Data mart request form

i2b2 Query & Analysis Tool Find Patients | Admin | Analysis Tools | Message Log | Help | Logout

Navigate Terms Find Terms

- RA
- RPDR
- test

Workplace

- lcp5
- SHARED

Project Request Specify Data View Results Plugin Help

Drop a Patient Set and a Concept (Ontology Term) into the input boxes below, enter in the approval message and select the users and then click the "Submit Request" tab to submit the request and get a confirmation number..

Select approval:

Pick users:

User	Data Role	Admin Role
Mike Mendis	<input type="text" value="None"/>	<input type="text" value="None"/>
Shawn Murphy	<input type="text" value="None"/>	<input type="text" value="None"/>
Vivian Gainer	<input type="text" value="None"/>	<input type="text" value="None"/>

Identify cases:

Click a Patient Set to remove it from the list.

Exclude these patients from the cases:

Identify controls:

Exclude these patients from the controls:

Identify Concepts to be Included:

Previous Queries

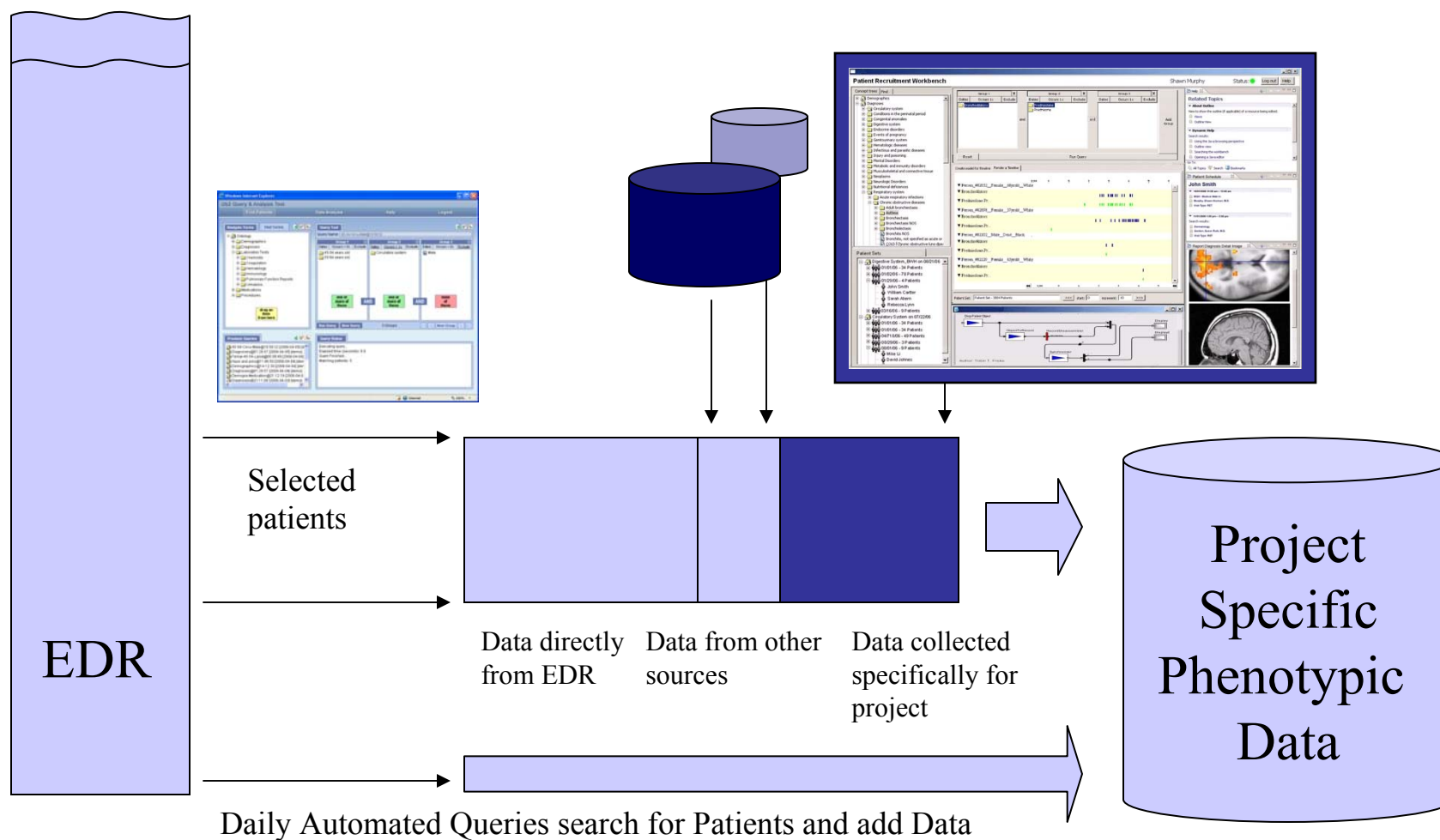
- Radiology Repor@09:35:09 [3-8-2010] [lcp5]
- Erosions@09:34:46 [3-8-2010] [lcp5]
- Digestive syste@00:02:28 [2-24-2010] [lcp5]
- Digestive syste@00:02:28 [2-24-2010] [lcp5]
- Circulatory sys@00:42:00 [2-24-2010] [lcp5]
- Digestive syste@00:02:28 [2-24-2010] [lcp5]

Plugins

Detailed List View Category: ALL

- Project Request**
This plugin is used to generate a request for a new project based on concepts, patients and sets..
- Demographics (1 Patient Set) - Simple Counts**
This plugin displays a demographic break-down of a Patient Set.

Support of Driving Biology Projects (DBP's)





Data Model: Data Requirements

- **Integration** of data from distributed and differently structured databases in order to perform comprehensive analyses.
- **Separation** of data used for research from daily operational or transactional data.
- **Standardization** of a model across systems.
- **Ease** of use by end-users.



Dimensional Modeling

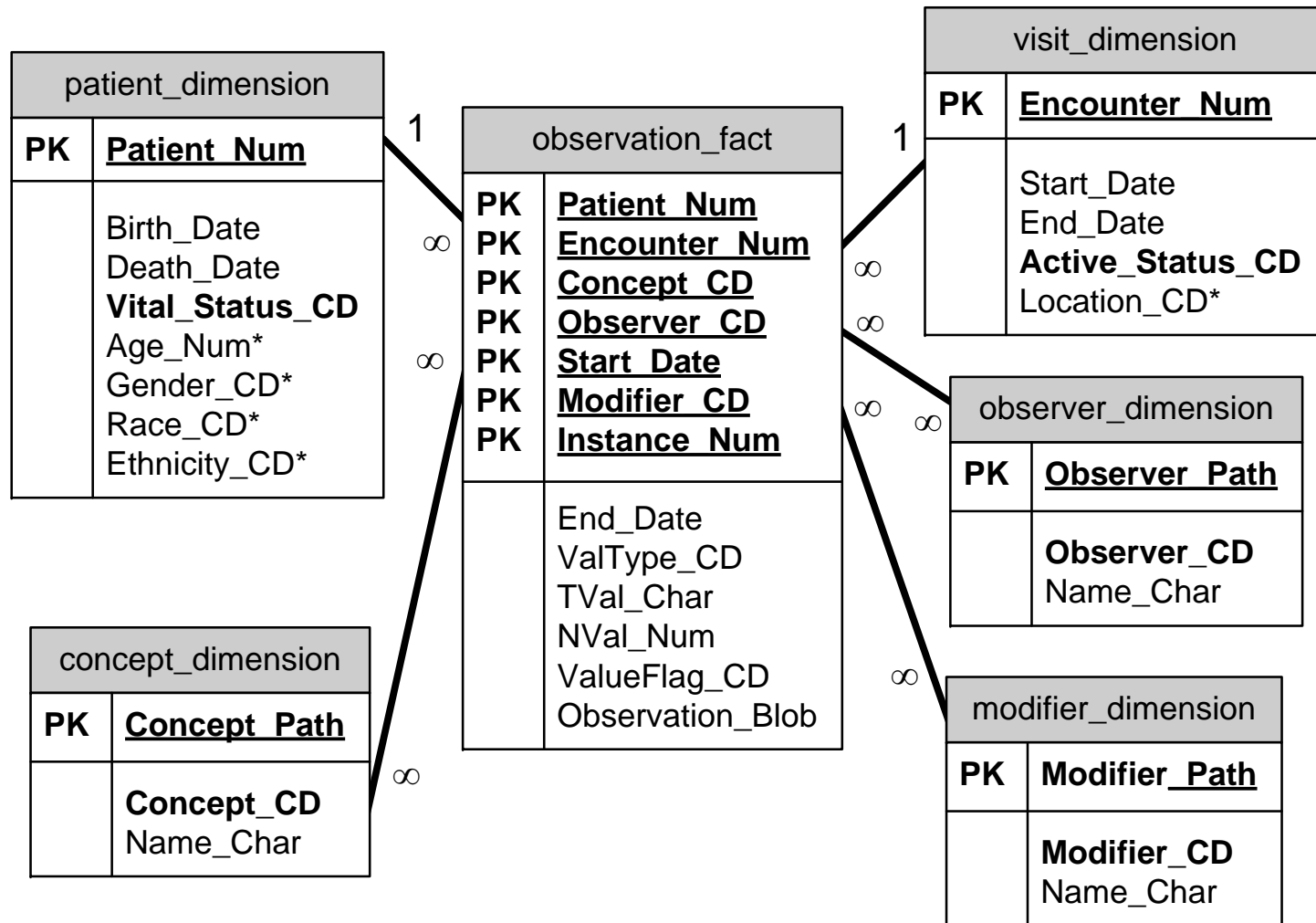
1. **FACTS** - the quantitative or factual data being queried.
2. **DIMENSIONS** – groups of hierarchies and descriptors that define the facts.



Star Schema

One fact table surrounded radially by numerous dimension tables.

i2b2 Star Schema



i2b2 Fact Table

- In i2b2, a fact is an **observation** on a patient.
- Examples of FACTS:
 - Diagnoses
 - Procedures
 - Health History
 - Genetic Data
 - Lab Data
 - Provider Data
 - Demographics Data
- An observation is not necessarily the same thing as an event



i2b2 Dimension Tables

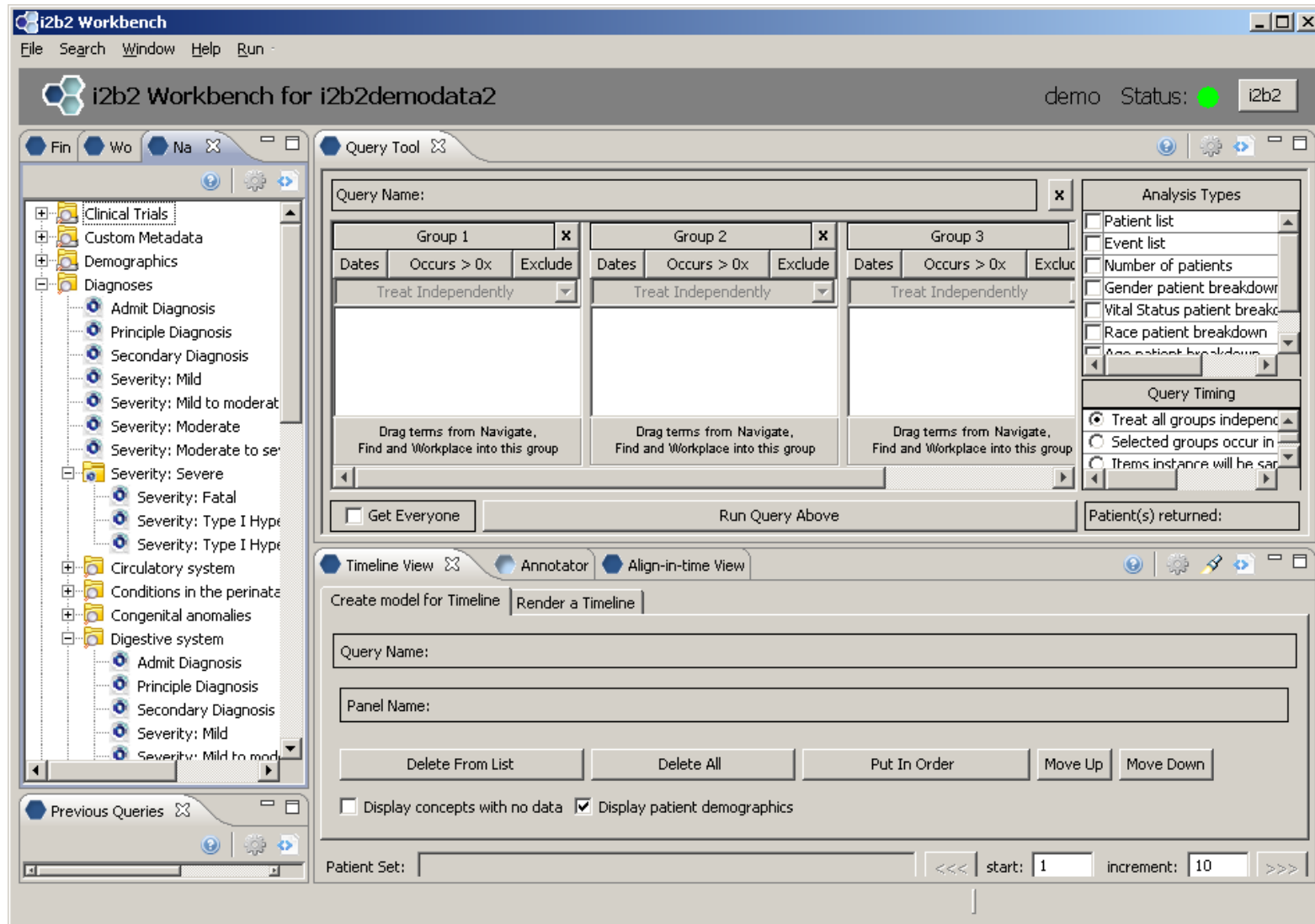
- Dimension tables contain descriptive information about facts.
- In i2b2 there are five dimension tables

concept_dimension
provider_dimension
visit_dimension
patient_dimension
modifier_dimension

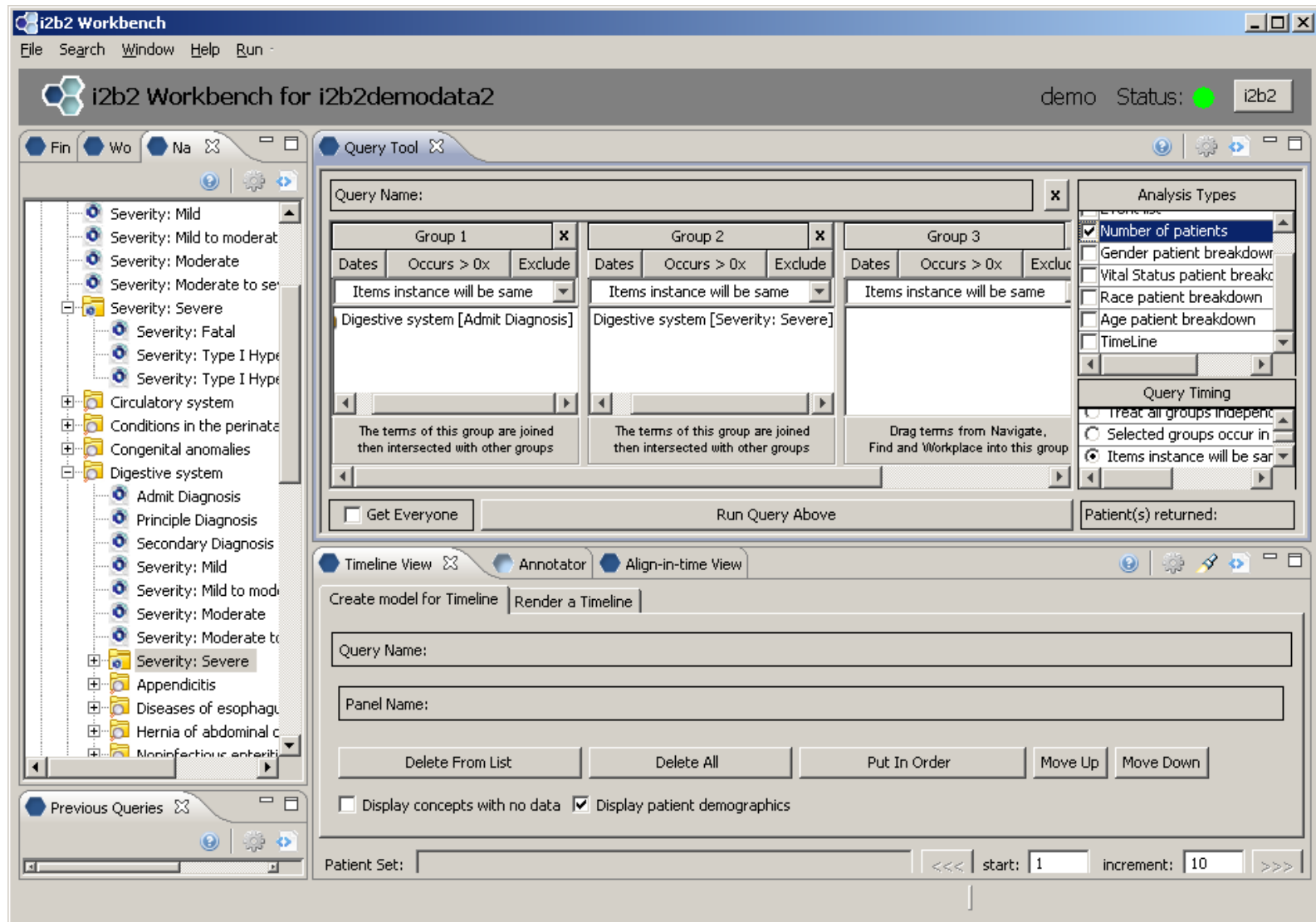
Expression of Modifiers in i2b2 data model

P_num	E_num	Instance_num	C_CD	S_d	Modifier_CD	ValType_CD	TVal	NVal
123	107	1	cpt:59622	20060304	@	<null>	<null>	<null>
123	107	1	cpt:59622	20060304	cptmod:62	<null>	<null>	<null>
123	107	1	cpt:59622	20060304	cptmod:AA	<null>	<null>	<null>
123	107	1	cpt:59622	20060304	cptmod:TH	<null>	<null>	<null>
123	567	1	med:aspirin	20100404	@	<null>	<null>	<null>
123	567	1	med:aspirin	20100404	MED:DOSE	N E	325	
123	567	1	med:aspirin	20100404	MED:FREQ	T QD	<null>	
123	567	1	med:aspirin	20100404	MED:ROUTE	T PO	<null>	
123	567	2	med:aspirin	20100404	@	<null>	<null>	<null>
123	567	2	med:aspirin	20100404	MED:DOSE	N E	83	
123	567	2	med:aspirin	20100404	MED:FREQ	T BID	<null>	
123	567	2	med:aspirin	20100404	MED:ROUTE	T PO	<null>	

Modifiers in UI



Modifiers in UI



Modifiers in UI

The screenshot displays the i2b2 Workbench interface for the i2b2demodata2 database. The main window is titled "i2b2 Workbench for i2b2demodata2" and includes a menu bar (File, Search, Window, Help, Run) and a status bar (demo, Status: green, i2b2).

The interface is divided into several panes:

- Find Terms:** Contains search filters for "Search by Names" and "Search by Codes". The "Containing" dropdown is set to "digestive", and the "Diagnoses" dropdown is selected. A list of medical terms is shown, including "Aftercare following surgery of the teeth", "Attention to other artificial opening of digestive system", "Benign neoplasm of digestive system NOS", "Benign neoplasm of other and unspecified parts of digestive system", "Benign neoplasm of other parts of digestive system", "Carcinoma in situ of digestive organs", "Carcinoma in situ of other and unspecified parts of digestive system", "Congenital anomaly of digestive system", "Congenital deformity of digestive system", "Congenital duplication of digestive organ", "Congenital malposition of digestive organ", "Digestive organs and peritoneum", "Digestive system", "Digestive system, female", "Disorder of digestive system", "Family history of digestive disorders", "Female digestive-genital tract fistula NOS", and "Foreign body in digestive system NOS".
- Query Tool:** Displays the query name "Digesti-Digesti@05:46:49". It shows two groups of terms: Group 1 (Digestive system [Admit Diagnosis]) and Group 2 (Digestive system [Severity: Severe]). The "Analysis Types" panel on the right includes options for "Number of patients", "Gender patient breakdown", "Vital Status patient breakdown", "Race patient breakdown", "Age patient breakdown", and "TimeLine". The "Query Timing" panel includes options for "Treat all groups independent", "Selected groups occur in", and "Items instance will be same".
- Timeline View:** Includes a "Create model for Timeline" button and a "Render a Timeline" button. It shows the query name "Digesti-Digesti@05:46:49" and the panel name "Digesti-Digesti@05:46:49". The "Patient Set" is displayed as "Digesti-Digesti@05:46:49 [06-28-2011] [demo]".

The interface also includes a "Previous Queries" pane at the bottom left, showing a list of queries with their names and dates.

Modifiers in UI

The screenshot displays the i2b2 Workbench interface for i2b2demodata2. The main window is titled "i2b2 Workbench for i2b2demodata2" and includes a menu bar (File, Search, Window, Help, Run) and a status bar (demo, Status: green, i2b2).

The interface is divided into several panels:

- Find Tool:** Contains search options by Name or Code. The "Containing" dropdown is set to "digestive". The "Find" button is visible. Below the search results, a list of concepts is shown, including "Congenital duplication of digestive organ", "Congenital malposition of digestive organ", "Digestive organs and peritoneum", "Digestive system", and "Digestive-genital tract fistula, female".
- Modifier Search:** A panel for finding associated modifiers for a selected concept. It shows "Find associated modifiers for: Digestive system". The "Containing" dropdown is set to "severity". The "Find Name", "Find Code", and "Get All" buttons are visible. Below the search results, a list of modifiers is shown, including "Severity: Mild to moderate", "Severity: Moderate", "Severity: Moderate to severe", "Severity: Severe", and "Severity: Fatal".
- Query Tool:** The central panel for building queries. It shows a query named "Digesti-Digesti@05:46:49". The query is structured into three groups: Group 1, Group 2, and Group 3. Group 1 contains "Digestive system [Admit Diagnosis]". Group 2 contains "Digestive system [Severity: Severe]". Group 3 is empty. The "Items instance will be same" option is selected for all groups. The "Run Query Above" button is visible. Below the query, the "Get Everyone" button is visible.
- Analysis Types:** A panel on the right side of the Query Tool. It lists various analysis types, including "Number of patients", "Gender patient breakdown", "Vital Status patient breakdown", "Race patient breakdown", "Age patient breakdown", and "TimeLine". The "Number of patients" option is selected.
- Query Timing:** A panel on the right side of the Query Tool. It lists various timing options, including "Treat all groups independent", "Selected groups occur in", and "Items instance will be same". The "Items instance will be same" option is selected.
- Timeline View:** A panel at the bottom of the interface. It contains fields for "Query Name" and "Panel Name". Below these fields are buttons for "Delete From List", "Delete All", "Put In Order", "Move Up", and "Move Down". There are also checkboxes for "Display concepts with no data" and "Display patient demographics". At the bottom, there is a "Patient Set" field and a "start" field set to 1, with an "increment" field set to 10.

Modifiers in UI

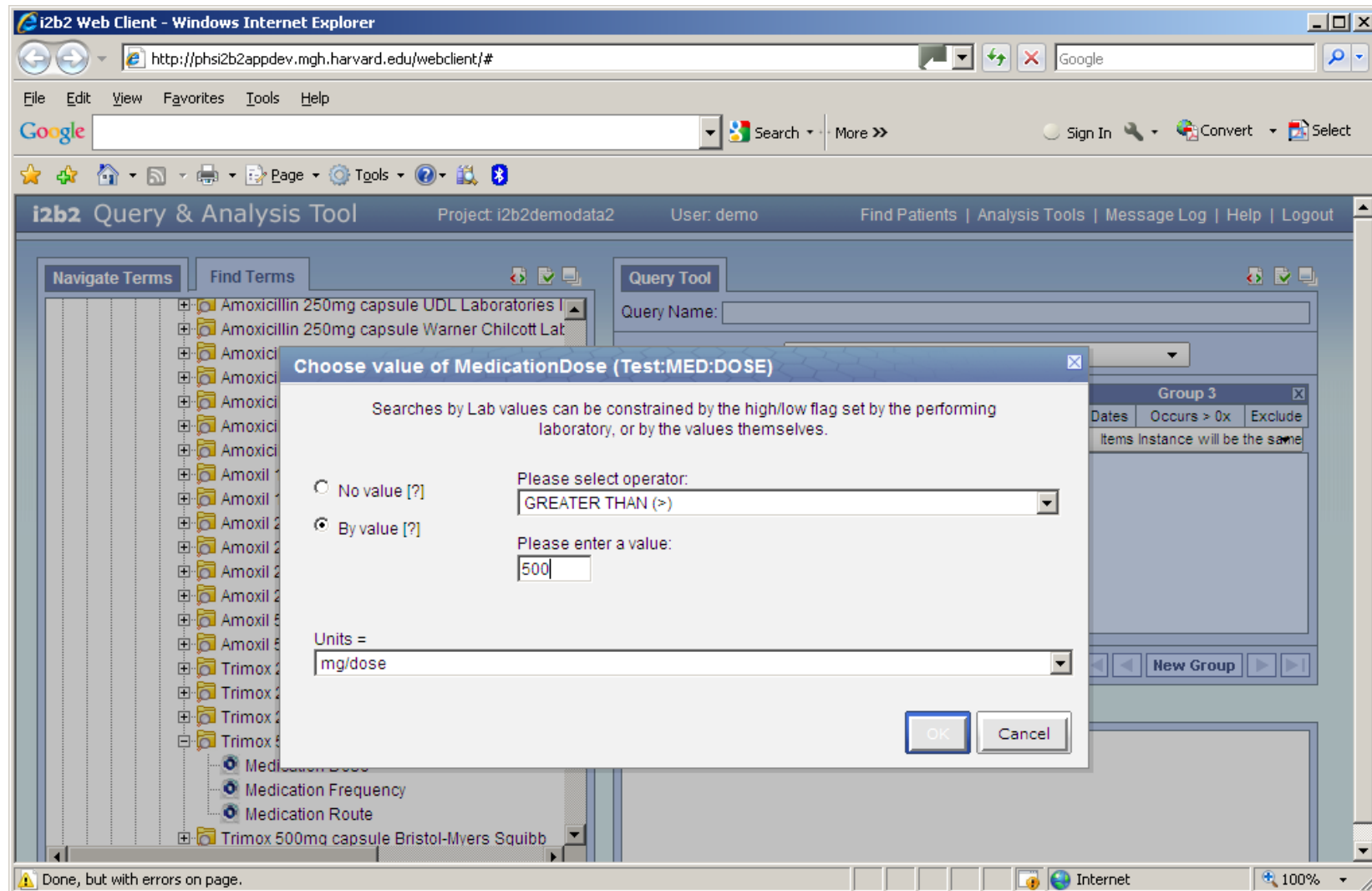
The screenshot displays the i2b2 Query & Analysis Tool interface within a Windows Internet Explorer browser window. The browser's address bar shows the URL <http://phsi2b2appdev.mgh.harvard.edu/webclient/#>. The page title is "i2b2 Query & Analysis Tool". The navigation bar includes "Project: i2b2demodata2", "User: demo", and links for "Find Patients", "Analysis Tools", "Message Log", "Help", and "Logout".

The interface is divided into two main sections:

- Navigate Terms / Find Terms:** A list of medical terms is displayed, including various Amoxicillin and Amoxil formulations (e.g., "Amoxicillin 250mg capsule UDL Laboratories", "Amoxil 125 mg/5ml powder for reconstitution"). A context menu is open over the term "Amoxil 500mg capsule Bristol-Myers Squibb", showing options: "Delete", "Set Modifier Value", and "drop a term on here".
- Query Tool:** This section allows for building a query. It includes a "Query Name:" field, a "Temporal Constraint:" dropdown set to "Items Instance will be the same", and three groups (Group 1, Group 2, Group 3) for adding terms and modifiers. Each group has columns for "Dates", "Occurs > 0x", and "Exclude". Below the groups are buttons for "Run Query", "Clear", "Print Query", and "New Group".

The bottom status bar shows the URL <http://phsi2b2appdev.mgh.harvard.edu/webclient/#> and the page is zoomed to 100%.

Modifiers in UI



Modifiers in UI

i2b2 Web Client - Windows Internet Explorer

http://phsi2b2appdev.mgh.harvard.edu/webclient/#

File Edit View Favorites Tools Help

Google Search Sign In Convert Select

i2b2 Query & Analysis Tool Project: i2b2demodata2 User: demo Find Patients | Analysis Tools | Message Log | Help | Logout

Navigate Terms Find Terms

- Amoxicillin 250mg capsule UDL Laboratories
- Amoxicillin 250mg capsule Warner Chilcott Lat
- Amoxicillin 250mg tablet chewable Zenith Gold
- Amoxicillin 500mg capsule Novopharm USA In
- Amoxicillin 500mg capsule Teva Pharmaceutic
- Amoxicillin 500mg capsule Watson/Rugby Lab
- Amoxicillin 500mg capsule Zenith Goldline Phz
- Amoxil 125 mg/5ml powder for reconstitution S
- Amoxil 125 mg/5ml powder for reconstitution S
- Amoxil 250 mg/5ml powder for reconstitution S
- Amoxil 250 mg/5ml powder for reconstitution S
- Amoxil 250mg capsule SmithKline Beecham
- Amoxil 250mg tablet chewable SmithKline Bee
- Amoxil 500mg capsule SmithKline Beecham
- Amoxil 500mg capsule SmithKline Beecham
- Trimox 250 mg/5ml powder for reconstitution B
- Trimox 250mg capsule Bristol-Myers Squibb
- Trimox 250mg capsule Bristol-Myers Squibb
- Trimox 500mg capsule Bristol-Myers Squibb
 - Medication Dose
 - Medication Frequency
 - Medication Route
- Trimox 500mg capsule Bristol-Myers Squibb

Query Tool

Query Name:

Temporal Constraint: Items Instance will be the same

Group 1			Group 2			Group 3		
Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude
Items Instance will be the same			Items Instance will be the same			Items Instance will be the same		
quibb [Medication Dose > 500]								
one or more of these			AND			drop a term on here		

Run Query Clear Print Query 1 Group New Group

Query Status

Done, but with errors on page.

Internet 100%

Modifiers in UI

Project: i2b2demodata2

User: demo

Find Patients | Analysis Tools | Message Log | Help | Logout

Navigate Terms

Find Terms

Search by Names

Search by Codes

Containing

trimox

Find

Any Category

Trimox 250 mg/5ml powder for reconstitution Bristol-Myers Squibb

Trimox 250mg capsule Bristol-Myers Squibb

Trimox 250mg capsule Bristol-Myers Squibb

Trimox 500mg capsule Bristol-Myers Squibb

Trimox 500mg capsule Bristol-Myers Squibb

Find Modifiers for Trimox 500mg capsule Bristol-Myers Squibb

Containing

Find Name

Find Code

Get All

Medication Dose

Medication Frequency

Medication Route

Query Tool

Query Name:

Temporal Constraint: Items Instance will be the same

Group 1

Group 2

Group 3

Dates

Occurs > 0x

Exclude

Dates

Occurs > 0x

Exclude

Dates

Occurs > 0x

Exclude

Items Instance will be the same

Items Instance will be the same

Items Instance will be the same

Squibb [Medication Dose > 500]

Medication Route = ("By Mouth")

one or more of these

AND

one or more of these

AND

drop a term on here

Run Query

Clear

Print Query

2 Groups

New Group

Query Status

Finished Query: "Medicat-Medicat@19:32:26" [6.8 secs]

Compute Time: 3.9 secs

Number of patients for "Medicat-Medicat@19:32:26"

patient_count: 6

Modifiers in UI

i2b2 Query & Analysis Tool Project: i2b2demodata2 User: demo Find Patients | Analysis Tools | Message Log | Help | Logout

Navigate Terms **Find Terms**

- Amoxil 250 mg/5ml powder for reconstitution SmithKline Beecham
- Amoxil 250 mg/5ml powder for reconstitution SmithKline Beecham
- Amoxil 250mg capsule SmithKline Beecham
- Amoxil 250mg tablet chewable SmithKline Beecham
- Amoxil 500mg capsule SmithKline Beecham
- Amoxil 500mg capsule SmithKline Beecham
- Trimox 250 mg/5ml powder for reconstitution Bristol-Myers Squibb
- Trimox 250mg capsule Bristol-Myers Squibb
- Trimox 250mg capsule Bristol-Myers Squibb
- Trimox 500mg capsule Bristol-Myers Squibb
- Trimox 500mg capsule Bristol-Myers Squibb
 - Medication Dose
 - Medication Frequency
 - Medication Route
- Medication Dose
- Medication Frequency
- Medication Route
- Ampicillin
 - Medication Dose
 - Medication Frequency
 - Medication Route
- Ampicillin-probenecid
 - Medication Dose
 - Medication Frequency
 - Medication Route
- Antipseudomonal penicillins
- Beta-lactamase inhibitors
- Natural penicillins
- Penicillinase resistant penicillins
 - Medication Dose
 - Medication Frequency
 - Medication Route
- Quinolones
- Sulfonamides
- Tetracyclines

Query Tool

Query Name:

Temporal Constraint:

Group 1			Group 2			Group 3								
Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude						
Treat Independently			Treat Independently			Treat Independently								
Bristol-Myers Squibb [Medication Dose > 500]			Medication Route = ("By Mouth")											
one or more of these			AND			one or more of these			AND			drop a term on here		

Run Query **Clear** **Print Query** 2 Groups **New Group**

Query Status

Finished Query: "Medicat-Medicat@19:20:44" [5.4 secs]
Compute Time: 3.4 secs

Number of patients for "Medicat-Medicat@19:20:44"
patient_count: 8

Modifiers in UI

i2b2 Query & Analysis Tool Project: i2b2demodata2 User: demo Find Patients | Analysis Tools | Message Log | Help | Logout

Navigate Terms **Find Terms**

Search by Names Search by Codes

Containing trimox

Find Any Category

- Trimox 250 mg/5ml powder for reconstitution Bristol-Myers Squibb
- Trimox 250mg capsule Bristol-Myers Squibb
- Trimox 250mg capsule Bristol-Myers Squibb
- Trimox 500mg capsule Bristol-Myers Squibb
- Trimox 500mg capsule Bristol-Myers Squibb

Find Modifiers for Trimox 500mg capsule Bristol-Myers Squibb

Containing

Find Name Find Code Get All

- Medication Dose
- Medication Frequency
- Medication Route

Query Tool

Query Name:

Temporal Constraint: Items Instance will be the same

Group 1			Group 2			Group 3		
Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude
Items Instance will be the same			Items Instance will be the same			Treat Independently		
Squibb [Medication Dose > 500]			Medication Route = ("By Mouth")			Male		

one or more of these AND one or more of these AND drop a term on here

Run Query Clear Print Query 2 Groups New Group

Query Status

Finished Query: "Medicat-Medicat@19:32:26" [6.8 secs]
Compute Time: 3.9 secs

Number of patients for "Medicat-Medicat@19:32:26"
patient_count: 3

Constrain observations into the same encounter

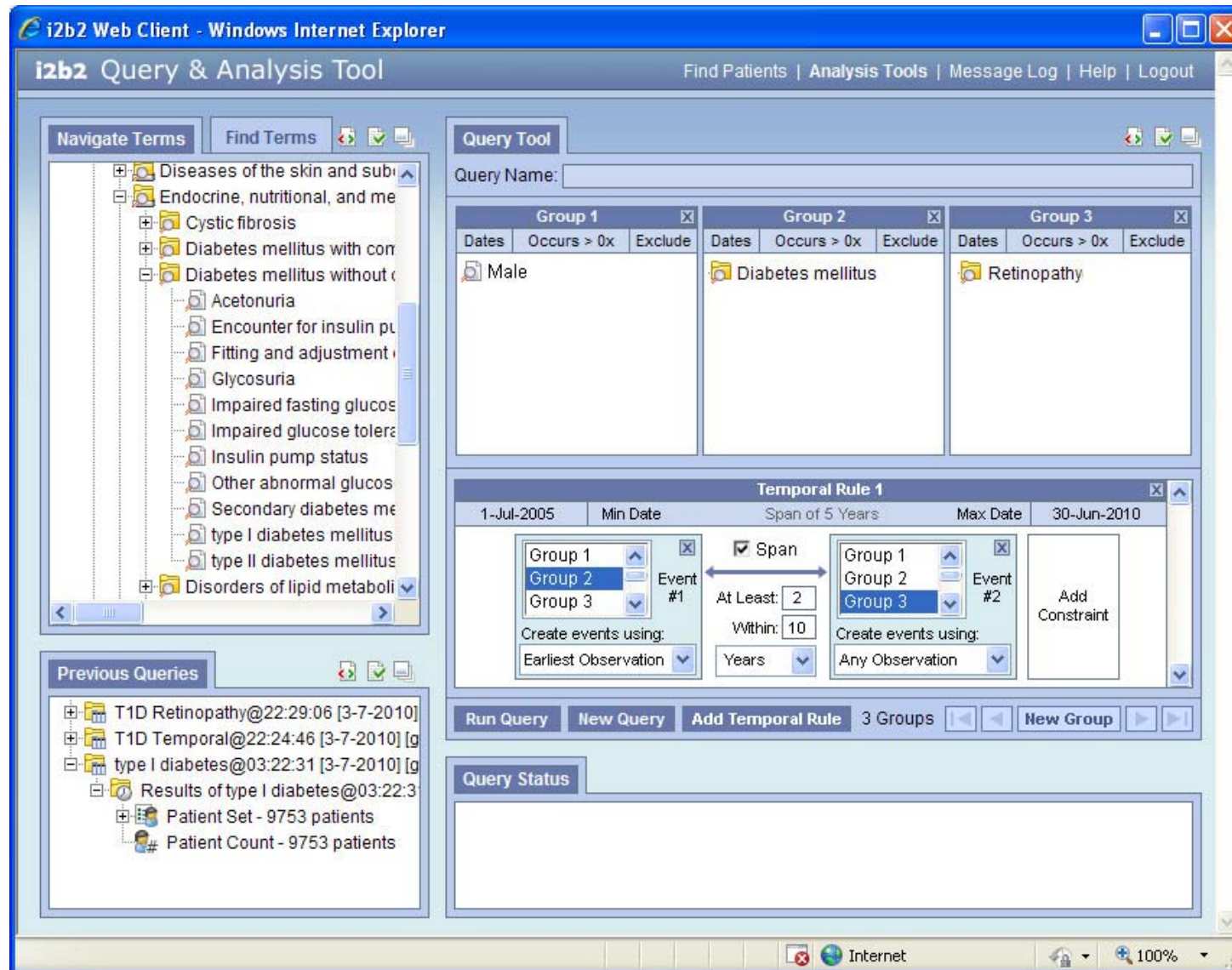
The screenshot displays the i2b2 Web Client interface within a Windows Internet Explorer browser. The browser's address bar shows the URL `http://phsi2b2appdev.mgh.harvard.edu/webclient/#`. The page title is "i2b2 Query & Analysis Tool". The interface includes a navigation pane on the left with a tree view showing a hierarchy: Visit > Clinic > Hospital > Brigham and Womens > Faulkner > Massachusetts General > Newton Welleslev. Below this is a "Workplace" section with a list of folders: Icp5 and SHARED. At the bottom left is a "Previous Queries" section listing several queries related to "Arterial vascul@02:17:06 [3-4-2011] [Icp5]".

The main content area is titled "Query Tool" and contains a "Query Name:" field. Below it is a "Temporal Constraint:" dropdown menu set to "Selected groups occur in the same financial encounter". The query is configured with three groups:

Group 1	Group 2	Group 3																											
<table border="1"><thead><tr><th>Dates</th><th>Occurs > 0x</th><th>Exclude</th></tr></thead><tbody><tr><td>Occurs in Same Encounter</td><td></td><td></td></tr><tr><td colspan="3">Brigham and Womens</td></tr></tbody></table>	Dates	Occurs > 0x	Exclude	Occurs in Same Encounter			Brigham and Womens			<table border="1"><thead><tr><th>Dates</th><th>Occurs > 0x</th><th>Exclude</th></tr></thead><tbody><tr><td>Occurs in Same Encounter</td><td></td><td></td></tr><tr><td colspan="3">Malignant melanoma of sk</td></tr></tbody></table>	Dates	Occurs > 0x	Exclude	Occurs in Same Encounter			Malignant melanoma of sk			<table border="1"><thead><tr><th>Dates</th><th>Occurs > 0x</th><th>Exclude</th></tr></thead><tbody><tr><td>Treat Independently</td><td></td><td></td></tr><tr><td colspan="3">Female</td></tr></tbody></table>	Dates	Occurs > 0x	Exclude	Treat Independently			Female		
Dates	Occurs > 0x	Exclude																											
Occurs in Same Encounter																													
Brigham and Womens																													
Dates	Occurs > 0x	Exclude																											
Occurs in Same Encounter																													
Malignant melanoma of sk																													
Dates	Occurs > 0x	Exclude																											
Treat Independently																													
Female																													

Below the groups, the query is visualized as a logical expression: "one or more of these" AND "one or more of these" AND "one or more of these". At the bottom of the query tool are buttons for "Run Query", "Clear", "Print Query", and "New Group". The "Query Status" section at the bottom right is empty. The browser's status bar at the bottom indicates "Done, but with errors on page." and "Internet" connection.

FUTURE - UI for temporal query model





I2b2 Version 1.6

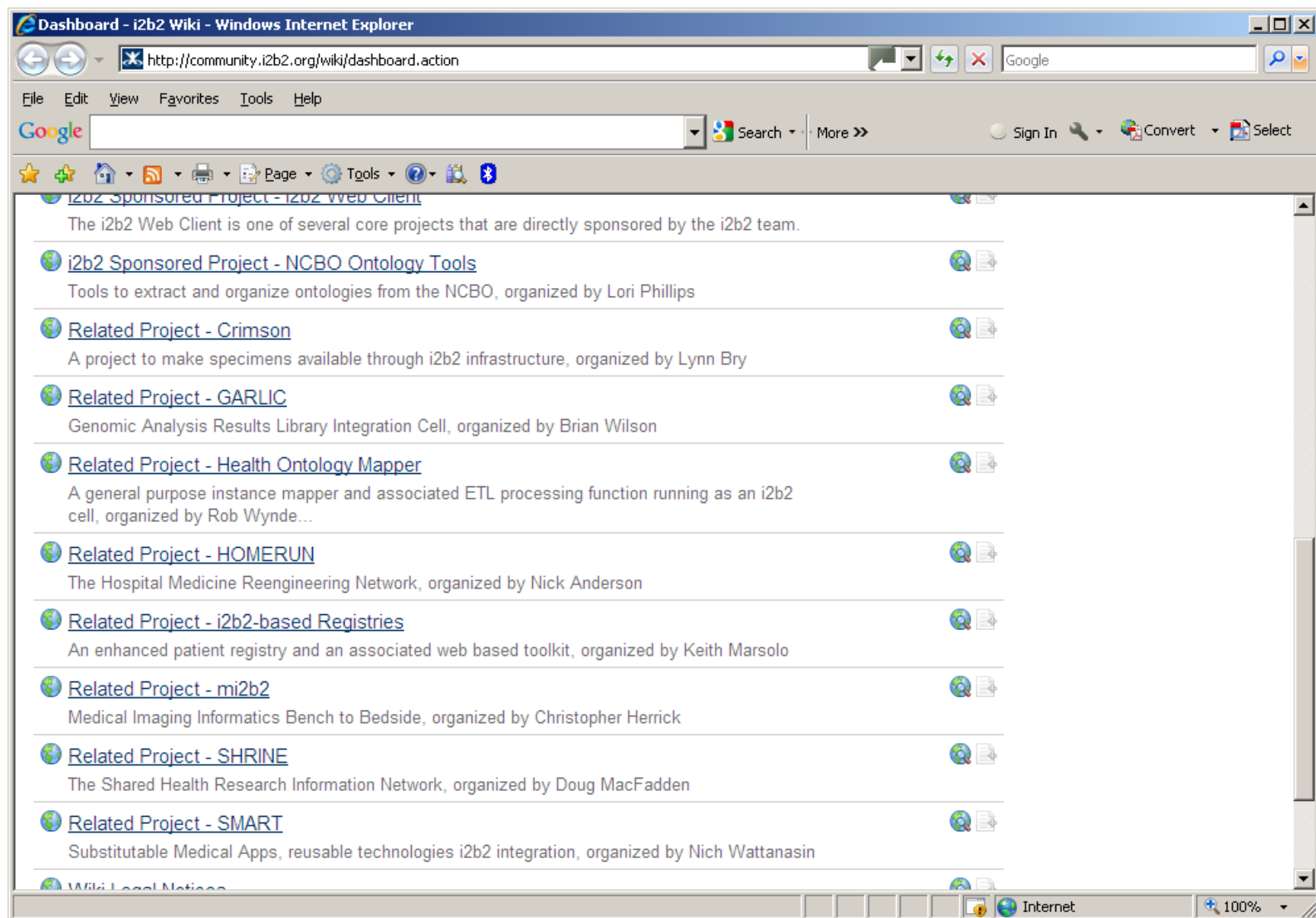
- Terms can be Modified and Linked in i2b2 data model
- Ontology editor
- All dimensions can be used in queries as well as Patient Sets and Previous Queries
- Queries find patients that have concepts that occur in the Same Visit and the Same Instance
- Performance enhancements and monitoring

Version 1.7 IM Cell – Needed to get identified data

■ Main functions

- Converts MRNs to eMRNs which are mapped in CRC cell
- Holds demographics in tables which do not contain clinical data
- Links to enterprise services and converts custom enterprise output to i2b2 PDO
- Lists of patients with real identifiers are managed and linked to a project

Future of i2b2 is through Related and Sponsored Projects ...



Crimson Home - Related Project - Crimson - i2b2 Wiki - Windows Internet Explorer

https://community.i2b2.org/wiki/display/crimson/Crimson+Home

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Dashboard > Related Project - Crimson > Crimson Home

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Search

Downloads

Index

Regulatory (REG)

Road Map

Sample Cohort Cell (COH)

Sample Registry (SAM)

i2b2

WIKI

Crimson Home

4 Last modified on Dec 22, 2010 (view change)

Crimson

Enabling Sample Management Within i2b2

PI: Dr. Lynn Bry (LBRY@partners.org)

Synopsis

The i2b2 - Crimson project is designed to provide enhanced sample handling capabilities within the i2b2 framework. Its primary focus is to support both prospective and retrospective sample collection. These modes of collection are dictated by the external systems that are employed to satisfy an i2b2 users enquiry; for prospective sample accural, requests are typically routed to an external laboratory information management system, for retrospective enquiries, these are usually directed towards an existing sample repository or registry.

The sample collection process has three distinct phases:

- Sample Request:** A patient set is broadcast to either a LIMS or existing sample repository. Typically the medical record number (encrypted) will be broadcast the external system. However, alternative patient identifiers can also be supported.

Contents

- Synopsis
- i2b2 - Crimson Cell Farm
- i2b2 Apiary Hub
- External Systems Adapters

Crimson Cells

- Regulatory (REG)
- Sample Registry (SAM)

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HOM Home - Related Project - Health Ontology Mapper - i2b2 Wiki - Windows Internet Explorer

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- ☐ attachments
- ☐ Publications Page
- ☒ Released Builds and Documentation
- ☐ Weekly Meeting Minutes

i2b2 WIKI HOM Home

247 Last modified on Feb 04, 2011 (view change)

Health Ontology Mapper (HOM)

(The Health Ontology Mapper is an open source general purpose instance mapper for academic research, public hospitals and non-profits.)

Principal Investigators: Rob Wynden (UCSF), Russ Cucina (UCSF) and Nick Anderson (UW)

Ontology Mapper Original Design: Rob Wynden (UCSF), Davera Gabriel (UCD), Marco Casale (Rochester) and Maggie Massary (UPenn)

Lead Terminologist: Ketty Mobed (UCSF)

HOM Interpreter Programming Lead: Prakash Lakshminarayanan (UCSF)

UETL Programming Lead: Vijay Rayanker (UCSF)

(the original grant application technical proposal can be viewed here:
<https://community.i2b2.org/wiki/download/attachments/2195462/Ontomapper+Grant+v.7+4.14.08+FINAL.pdf>)

License: Open Source BSD License [HOM BSD ...](#) (For an optional commercial license contact: Ellen Kats at UCSF Tech Transfer.) If you would like to purchase a Support License for Ontology Mapper please contact Peter Emerson at pemerson@recomdata.com.

☒ HOM call weekly status: 11AM Pacific every Tuesday at: 800 794 6702 Passcode: 5071491#
ConferencePlus <http://web.meetme.net/r.aspx?p=2&a=70541783633875> (passcode 5071491#)

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Genomic Controlled Vocabularies - Related Project - GARLIC - i2b2 Wiki - Windows Internet Explorer

https://community.i2b2.org/wiki/display/GARLIC/Genomic+Controlled+Vocabularies


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Search

☐ GARLIC - AUG FeedBack
☐ Genomic Controlled Vocabularies

 **Genomic Controlled Vocabularies**
6 Last modified on Jun 23, 2011 (view change)

Genomic Controlled Vocabularies

i2B2 Ontologies

The following controlled vocabularies are provided as i2b2 ontologies.

Ontology	Description	Sources
Hugo [Ontology Concept Dimension]	Genes categorized by locus.	Hugo
GO	Genes categorized by function	Hugo,GO
Pharmacogenomics [Ontology Concept Dimension]	Genes categorized by associated Drugs and	Hugo,PharmGKB,Mesh,ATC

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Last modified on Nov 23, 2010 (view change)

Edit Add Tools

HOMERUN

The [Hospital Medicine Reengineering Network](#) HOMERUN is a network of institutions with hospitalists and patients with the primary aim of developing research and implementation studies to reengineer and optimize care delivery. The network includes organizational governance, data sharing infrastructure, and a variety of tools that support clinical research, including therapeutic trials and comparative effectiveness research. HOMERuN currently includes 14 university and community based institutions - where the majority of hospital care is delivered in America. It draws on the experience of the Vermont-Oxford Neonatal Network and National Surgical Quality Improvement Projects (among others). Its infrastructure is built with open-source technologies created by the National Institutes of Health and others that enable secure cross-institutional data sharing that protects the privacy of patient data, tracks patient consent, and enables patient control of their health information.

Each of the current sites uses i2b2 and SHRINE to develop Comparative Effectiveness Research data discovery resources. The project evolved out of the i2b2 Cross-Institutional Clinical Translational Research project (CICTR) - a SHRINE-based federation of UC Davis, UC San Francisco and the University of Washington. The HOMERUN technical collaboration focusses on the policy, data aquisition and mapping processes, and is moving towards harmonizing necessary version-level implementation for local sites. HOMERUN uses the [HOM](#) mapper for concept translation.

Current partners (* indicate live data sites)

- UCSF * (Rob Wynden)
- UC Davis *
- UW * (Nick Anderson)
- U Michigan *
- UC Irvine

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Done

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https://community.i2b2.org/wiki/display/CCHMC/Home

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Dashboard > Related Project - i2b2-based Registries > Home

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Last modified on Jan 03, 2011 (view change)

i2b2-based Registries




This is the home of the Related Project - i2b2-based Registries space.

The Cincinnati Children's Hospital Medical Center (CCHMC) i2b2 team has extended i2b2 to create an enhanced patient registry and an associated web-based toolkit. It provides the necessary functionality in a modular fashion, allowing users to choose the capabilities that are appropriate for their project. The enhanced registry architecture includes linkage to the EHR and an application layer that allows the development of functionality to support quality improvement and comparative effectiveness research. There are capabilities for data collection to capture information that is not collected in an EHR, as well as mechanisms for reporting and visualization.

More information can be found on the CCHMC i2b2 project site: <http://i2b2.cchmc.org>.

To help you on your way, we've inserted some of our favourite macros on this home page. As you start creating pages, blogging and commenting you'll see the macros below fill up with all the activity in your space.

Recently Updated

 Home	updated by Keith (view change)	Jan 03
 Related Project - i2b2-based Registries	updated by Nich (view change)	Nov 24
 Home	updated by Nich (view change)	Oct 22

Navigate space

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SHRINE Home - Related Project - SHRINE - i2b2 Wiki

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 **WIKI SHRINE Home**

Last modified on Dec 17, 2010 (view change)

[Edit](#) [Add](#) [Tools](#)

Shared Health Research Information Network (SHRINE)

The [Shared Health Research Information Network \(SHRINE\)](#) helps researchers overcome one of the greatest problems in population-based research: Compiling large groups of well-characterized patients. Qualified investigators may use the SHRINE web-based query tool to determine the aggregate total number of patients at participating hospitals who meet a given set of inclusion and exclusion criteria (currently demographics, diagnoses, medications, and selected laboratory values). Because counts are aggregate, patient privacy is protected.

These data will be most useful for investigators interested in:

- Generating new research hypotheses
- Planning research requiring large sample sizes not easily available at any single institution
- Preparing grant applications that would benefit from pre-identification and/or characterization of a potential research cohort
- Identifying potential cohorts for clinical trials
- Conducting research in the areas of population health and health services

Participating Institutions

- Beth Israel Deaconess Medical Center
- Brigham and Women's Hospital
- Children's Hospital Boston
- Dana-Farber Cancer Institute
- Massachusetts General Hospital

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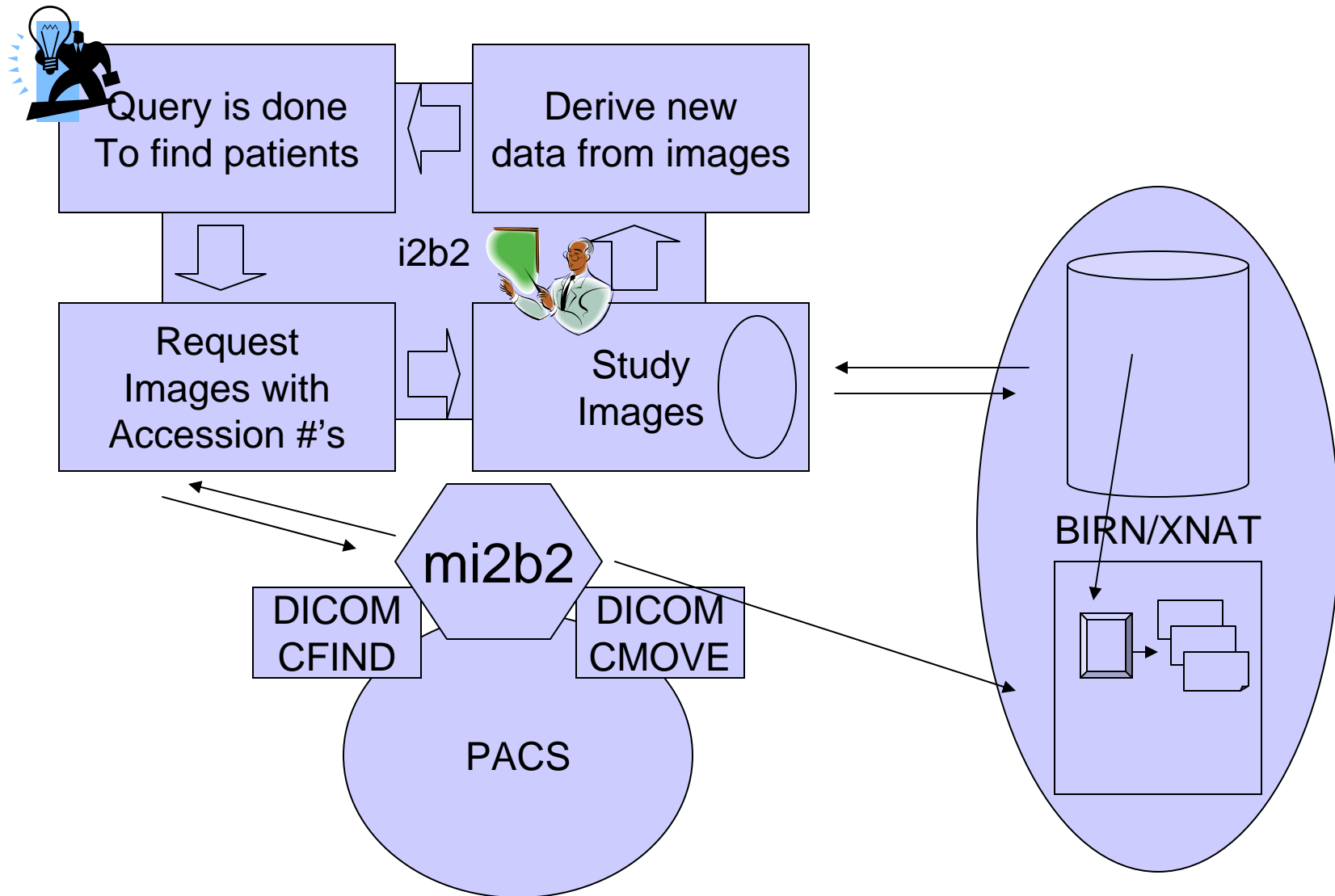
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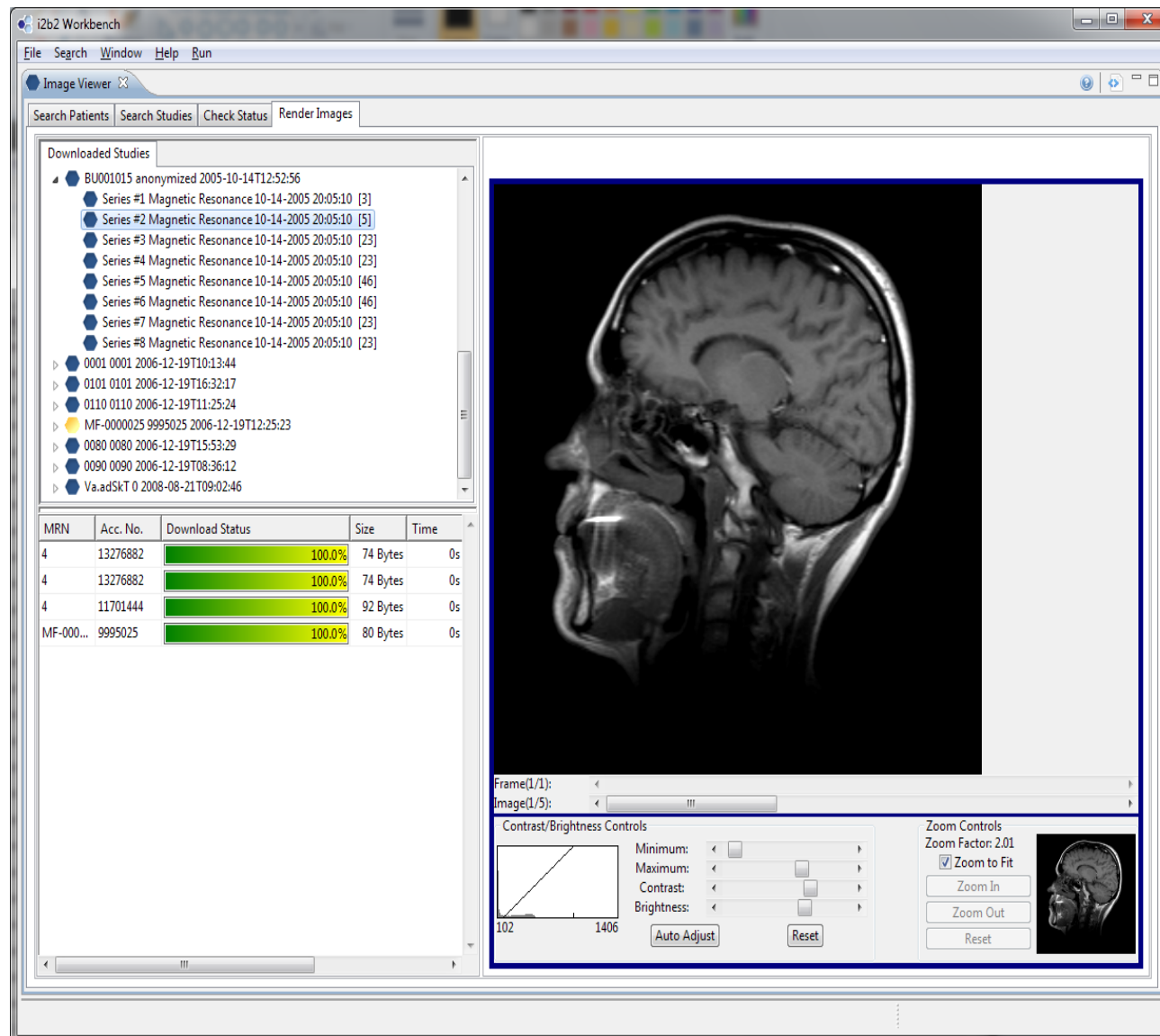
Done

Internet 100%

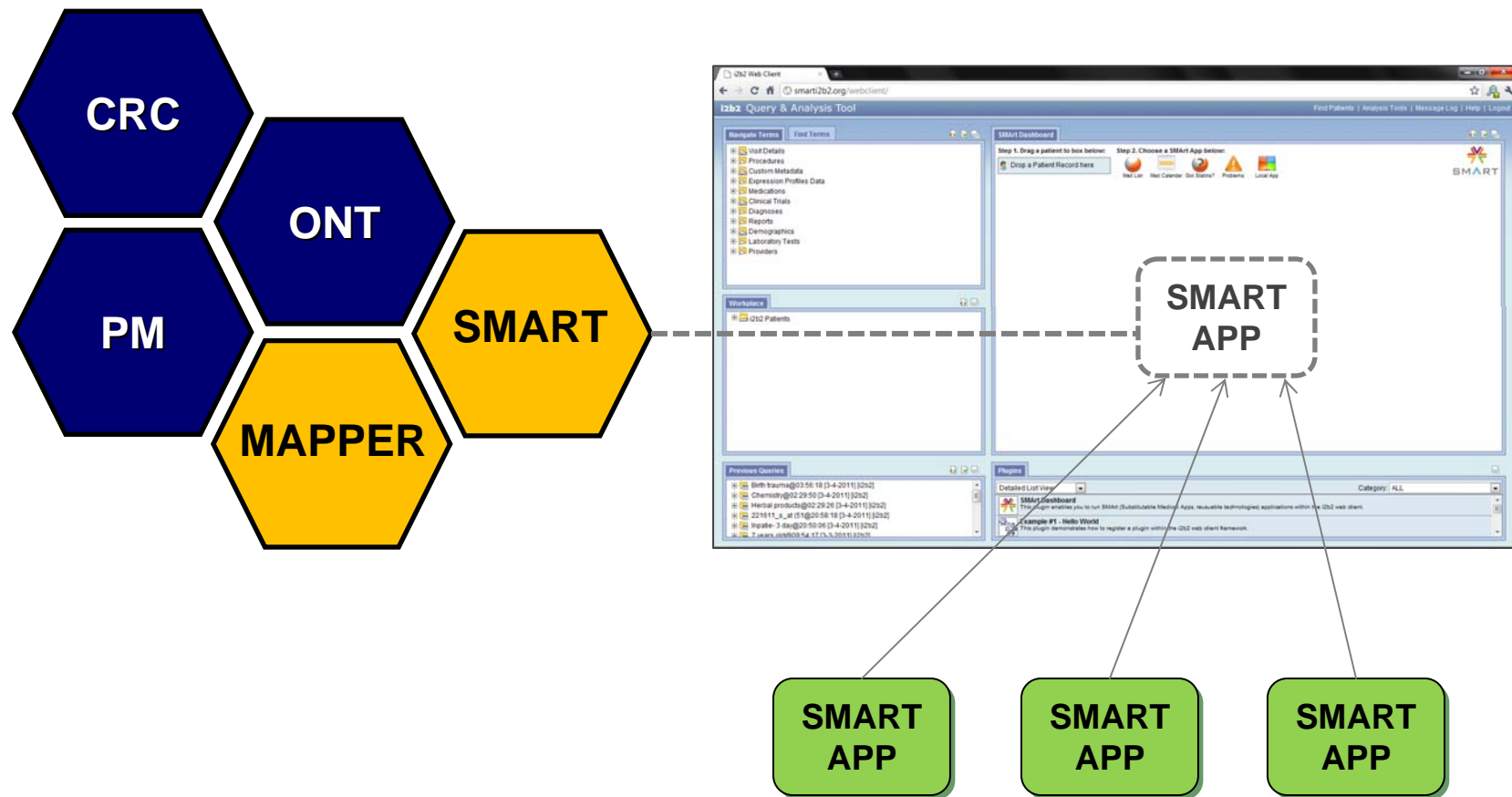


Research Investigator Workflow enabled by mi2b2





“SMART Enabling” i2b2



SMART Container in i2b2

The screenshot displays the i2b2 Web Client interface, which is a web-based tool for querying and analyzing medical data. The interface is divided into several sections:

- Header:** The top bar includes the text "i2b2 Query & Analysis Tool" and navigation links: "Find Patients | Analysis Tools | Message Log | Help | Logout".
- Navigate Terms:** A sidebar on the left lists various data categories: Visit Details, Procedures, Custom Metadata, Expression Profiles Data, Medications, Clinical Trials, Diagnoses, Reports, Demographics, Laboratory Tests, and Providers.
- Workplace:** A section below the sidebar lists "i2b2 Patients" with a list of patient IDs (e.g., PATIENT:1000000001, PATIENT:1000000002, etc.).
- Previous Queries:** A section at the bottom left shows a list of recent queries, including "Birth trauma@03:56:18 [3-4-2011] [i2b2]", "Chemistry@02:29:50 [3-4-2011] [i2b2]", "Herbal products@02:29:26 [3-4-2011] [i2b2]", "221611_s_at (51@20:58:18 [3-4-2011] [i2b2]", "Inpatie- 3 day@20:50:06 [3-4-2011] [i2b2]", and "7 years old@09:54:17 [3-3-2011] [i2b2]".
- SMART Dashboard:** The main area on the right is titled "SMART Dashboard". It contains a "Step 1. Drag a patient to box below:" section with a text input field containing "PATIENT:1000000008". To the right of this is a "Step 2. Choose a SMART App below:" section with icons for "Med List", "Med Calendar", "Got Stats?", "Problems", and "Local App". Below these steps is a "Prescriptions" section with a table of medication data.
- Plugins:** A section at the bottom right lists available plugins, including "SMART Dashboard" and "Example #1 - Hello World".



The "Prescriptions" table displays the following data:

Name	Start Date	Est. End Date	Instructions
100 ACTUAT Beclomethasone Dipropionate 0.08 MG/ACTUAT Metered Dose Inhaler [Qvar]	Thu Apr 04 2002	Sun Apr 04 2004	
200 ACTUAT Ipratropium Bromide 0.018 MG/ACTUAT Metered Dose Inhaler [Atrovent]	Thu Apr 04 2002	Sun Apr 04 2004	
200 ACTUAT Ipratropium Bromide 0.018 MG/ACTUAT Metered Dose Inhaler [Atrovent]	Wed Jul 17 2002	Sat Jul 17 2004	
Acetaminophen 24 MG/ML / Codeine Phosphate 2.4 MG/ML Oral Solution	Thu Aug 27 2009	Sat Aug 27 2011	
Cyclobenzaprine hydrochloride 10 MG	Thu Aug 27 2009	Sat Aug 27 2011	



RS number

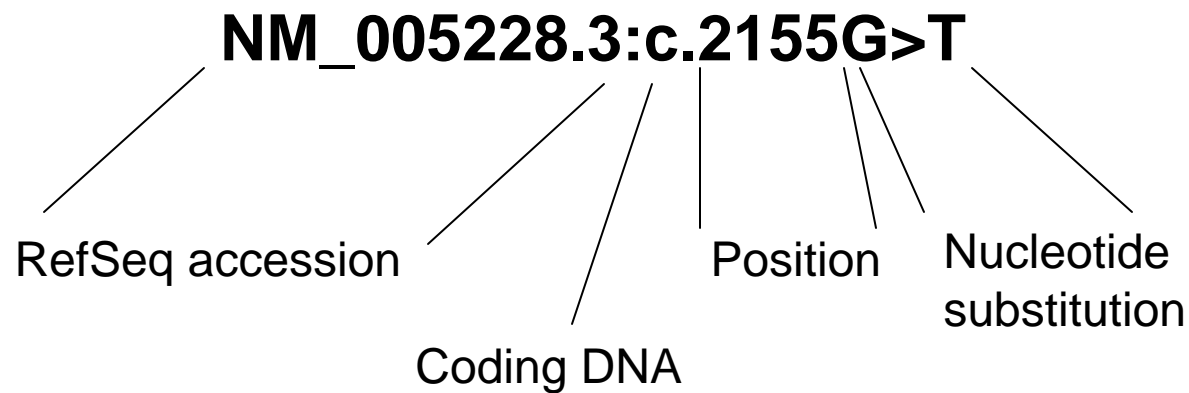
- Uniquely identifies a variant over timebut....

Reference SNP(refSNP) Cluster Report: rs28929495 ^{**} clinically associated ^{**}		
RefSNP	Allele	HGVS Names
Organism: human (Homo sapiens)	Variation Class : SNP:	NC_000007.12:g.55209201G>T
Molecule Type: cDNA	single nucleotide polymorphism	NG_007726.1:g.159983G>A
Created/Updated in build: 125/132	RefSNP Alleles: A/G/T	NG_007726.1:g.159983G>T
Map to Genome Build: 37.1	Ancestral Allele: G	NM_005228.3:c.2155G>A
Citation: PubMed	Clinical Association:  	NM_005228.3:c.2155G>T
		NP_005219.2:p.Gly719Cys
		NP_005219.2:p.Gly719Ser
		NT_033968.6:g.4831076G>A
		NT_033968.6:g.4831076G>T

- Novel variants may not have rs number
 - User may not want to submit to dbSNP

HGVS Name

- Uniquely identifies variant within a referenced and versioned accession and details the nucleotide substitution.



Common Representation

- All ultimately describe variant location on a chromosome.
- Nucleotide substitution defines the physical manifestation of the variant.

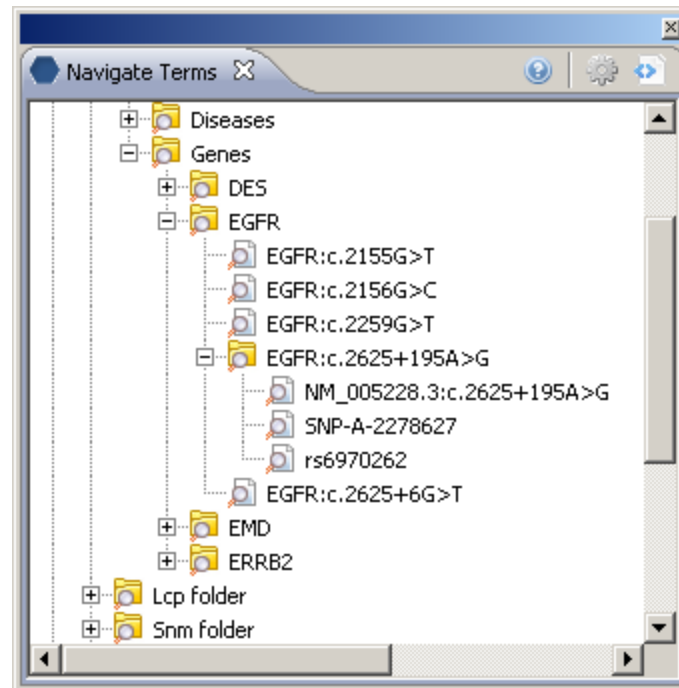
WE PROPOSE:

- HGVS name (n/t subst, positional info)
- Flanking sequences (a way to verify positional info)

AS A WAY TO UNEQUIVOCALLY EQUATE TWO VARIANTS

- ACROSS DOMAINS
- ACROSS VERSIONS

Combining equivalent terms



SMART Container in i2b2

The screenshot displays the i2b2 Web Client interface, which is a web-based tool for querying and analyzing medical data. The interface is divided into several sections:

- Header:** The top bar includes the text "i2b2 Query & Analysis Tool" and navigation links: "Find Patients | Analysis Tools | Message Log | Help | Logout".
- Left Sidebar:** Contains a "Navigate Terms" section with a list of medical categories (Visit Details, Procedures, Custom Metadata, Expression Profiles Data, Medications, Clinical Trials, Diagnoses, Reports, Demographics, Laboratory Tests, Providers) and a "Workplace" section listing "i2b2 Patients" with individual patient IDs.
- Top Right:** A "SMART Dashboard" section with a search bar for "PATIENT:1000000008" and a "Choose a SMART App below:" section with icons for "Med List", "Med Calendar", "Got Stats?", "Problems", and "Local App".
- Main Content Area:** The "Prescriptions" section is active, showing a table of prescriptions for the selected patient. The table has columns for "Name", "Start Date", "Est. End Date", and "Instructions".
- Bottom Left:** A "Previous Queries" section listing recent queries with their timestamps and patient IDs.
- Bottom Right:** A "Plugins" section showing a "Detailed List View" of installed plugins, including "SMART Dashboard" and "Example #1 - Hello World".

Prescriptions Table:

Name	Start Date	Est. End Date	Instructions
100 ACTUAT Beclomethasone Dipropionate 0.08 MG/ACTUAT Metered Dose Inhaler [Qvar]	Thu Apr 04 2002	Sun Apr 04 2004	
200 ACTUAT Ipratropium Bromide 0.018 MG/ACTUAT Metered Dose Inhaler [Atrovent]	Thu Apr 04 2002	Sun Apr 04 2004	
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Acetaminophen 24 MG/ML / Codeine Phosphate 2.4 MG/ML Oral Solution	Thu Aug 27 2009	Sat Aug 27 2011	
Cyclobenzaprine hydrochloride 10 MG	Thu Jan 23 2003	Sat Jan 23 2011	

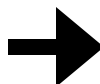


1) make i2b2 formatted ontologies with NCBO Services

- Pull data from NCBO via REST services.
- Reorganize information into format used by i2b2 Ontology cell

bioportal/virtual/ontology/2018/all

```
<data>
  <pageNum>1</pageNum>
  <numPages>1934</numPages>
  <pageSize>50</pageSize>
  <numResultsPage>50</numResultsPage>
  <numResultsTotal>96677</numResultsTotal>
  <contents
class="org.ncbo.stanford.bean.concept.
ClassBeanResultListBean">
  <classBeanResultList>
    <classBean>
      <id>http://ihtsdo.org/snomedct/clinicalFinding#10000006</id>
      <fullId>http://ihtsdo.org/snomedct/clinicalFinding#10000006</fullId>
      <label>Radiating chest pain</label>
      <type>class</type>
      <relations>.....
      <entry>
        <string>CONCEPTSTATUS</string>
        <list>
          <string>0</string>
        </list>
      </entry>
      <entry>
        <string>SubClass</string>
        <list>
        </list>
      </entry>
    </classBean>
  </classBeanResultList>
</contents> .....
```



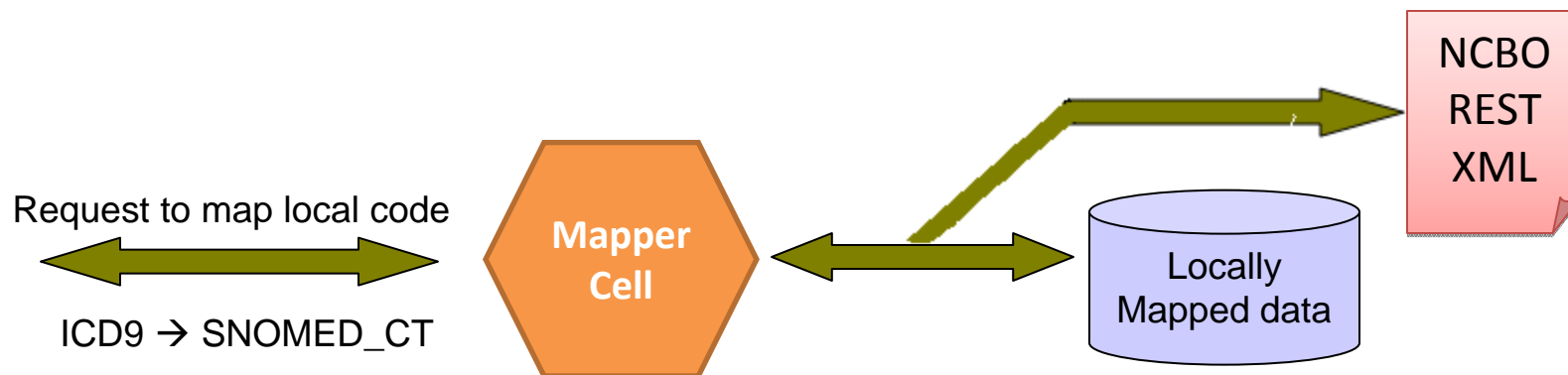
METADATA COLUMN	DATA TYPE (ORACLE)	DATA TYPE (SQL)
C_HLEVEL	INT	INT
C_FULLNAME	VARCHAR2(700)	VARCHAR(700)
C_NAME	VARCHAR2(2000)	VARCHAR(2000)
C_SYNONYM_CD	CHAR(1)	CHAR(1)
C_VISUALATTRIBUTES	CHAR(3)	CHAR(3)
C_BASECODE	VARCHAR2(50)	VARCHAR(50)
C_METADATAXML	CLOB	TEXT
C_FACTTABLECOLUMN	VARCHAR2(50)	VARCHAR(50)
C_TABLENAME	VARCHAR2(50)	VARCHAR(50)
C_COLUMNNAME	VARCHAR2(50)	VARCHAR(50)
C_COLUMNDATATYPE	VARCHAR2(50)	VARCHAR(50)
C_OPERATOR	VARCHAR2(10)	VARCHAR(10)
C_DIMCODE	VARCHAR2(700)	VARCHAR(700)
C_TOOLTIP	VARCHAR2(900)	VARCHAR(900)
UPDATE_DATE	DATE	DATETIME
DOWNLOAD_DATE	DATE	DATETIME
IMPORT_DATE	DATE	DATETIME
SOURCESYSTEM_CD	VARCHAR2(50)	VARCHAR(50)
VALUETYPE_CD	VARCHAR2(50)	VARCHAR(50)

2) Providing mappings using NCBO services

■ Mapping cell

- Need for mapping different site-specific ontologies in cross-institutional settings. (SNOMED_CT ↔ ICD-9, RxNORM ↔ NDC)
- First look for locally mapped data
- Then seek mappings through NCBO services.

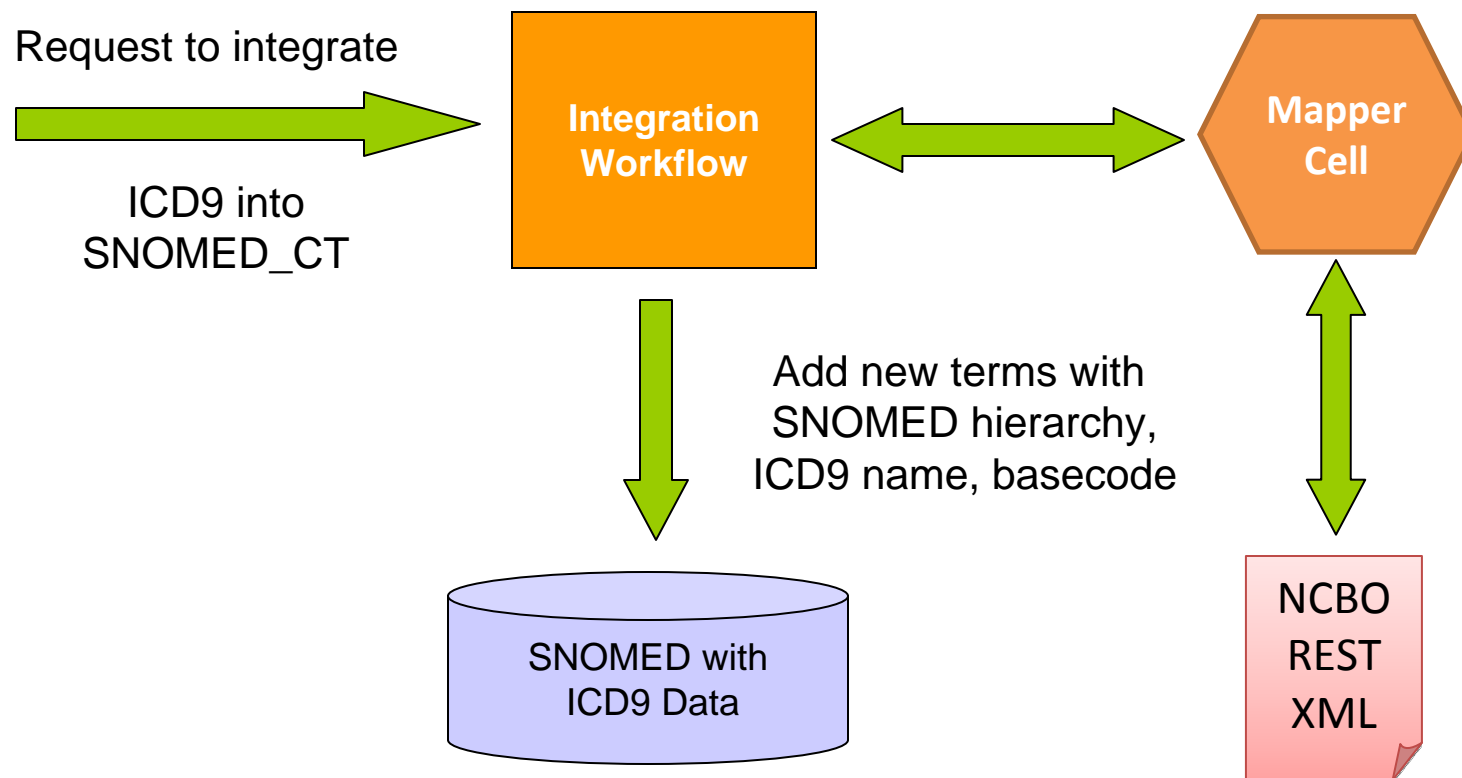
<http://bioportal.bioontology.org/mappings/service/1101/>

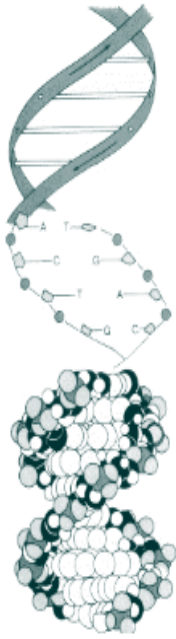


3) Integrating two i2b2 ontologies with NCBO services

- Integrate ICD-9 into SNOMED

- For each SNOMED term, find a mapped ICD9 term:





Sponsored Project Development Process

Tools for Community

Shared Wiki Documentation

<http://community.i2b2.org/wiki>

JIRA Bug Tracking

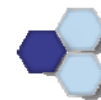
<http://community.i2b2.org/jira>

Source Code Subversion Repository

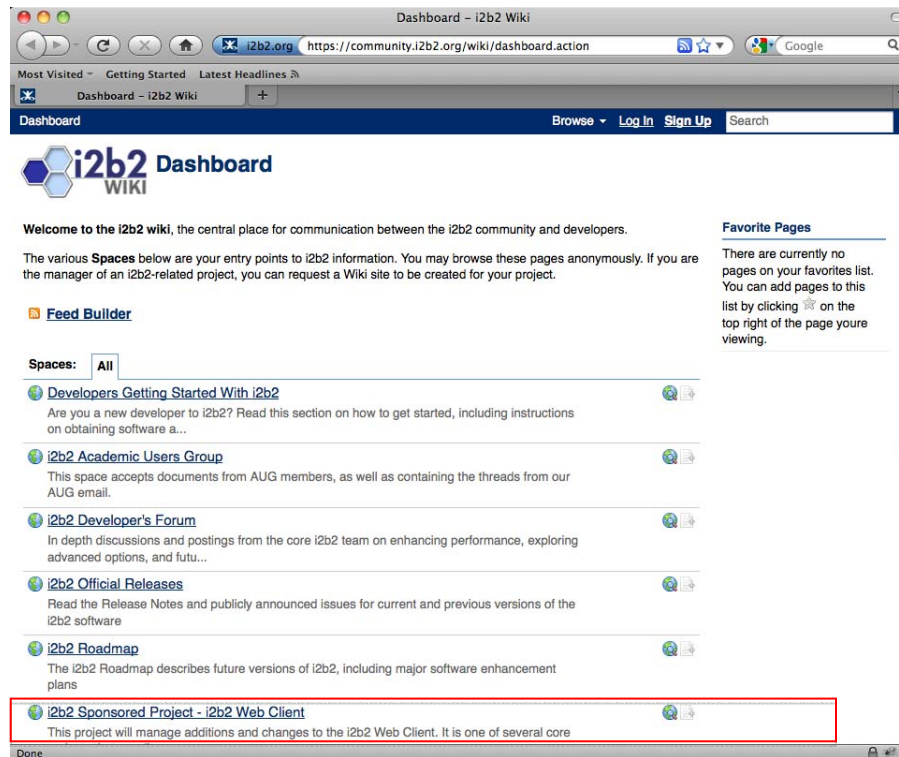
<http://svn.i2b2.org/svn/i2b2/trunk>

Web site for i2b2 distribution and documentation

<https://www.i2b2.org/software>



Wiki



Community News

Sponsored Projects

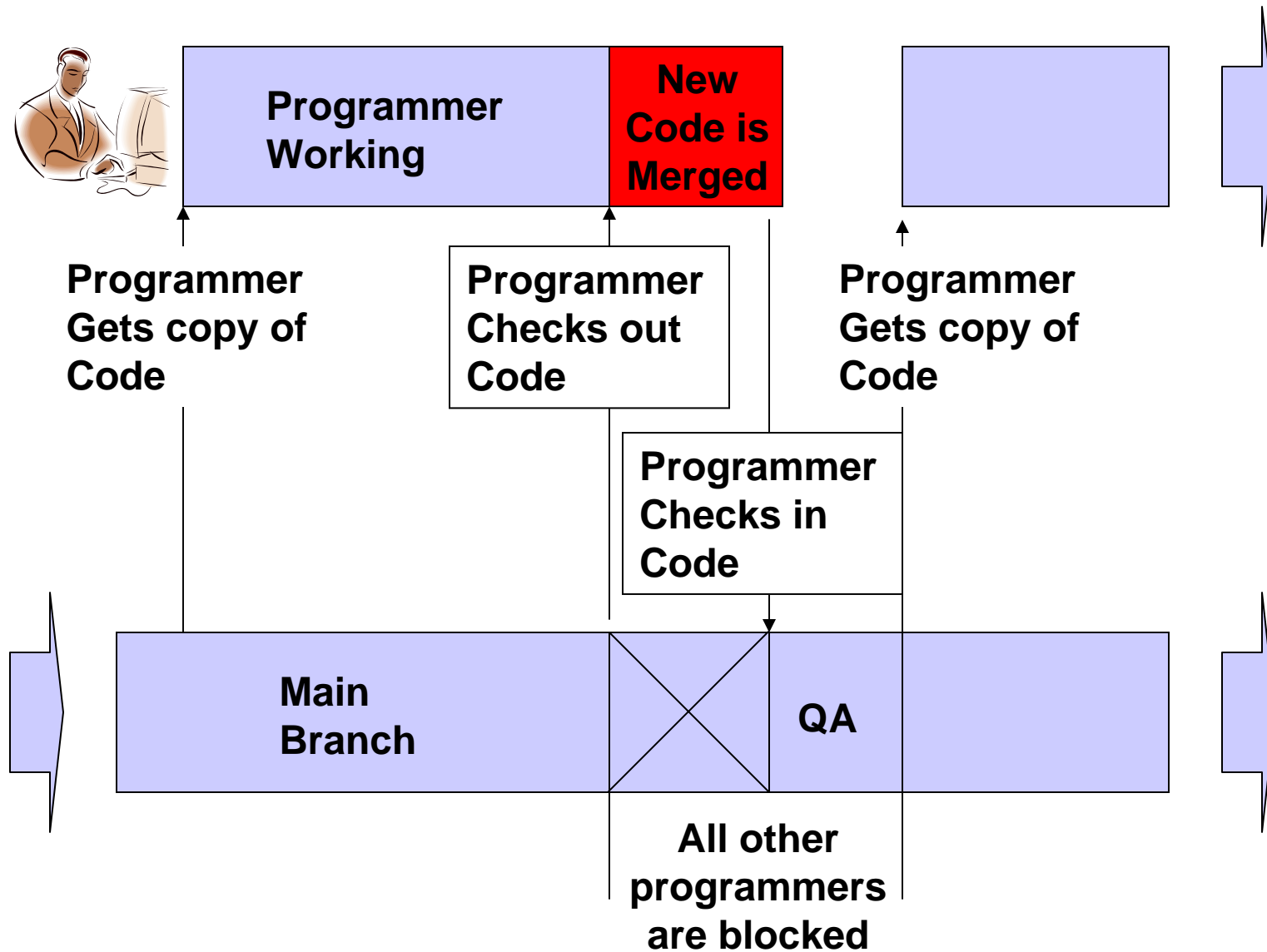
Related Projects

Upcoming Releases

Development Status



Participating in i2b2 sponsored projects



Working on a sponsored project



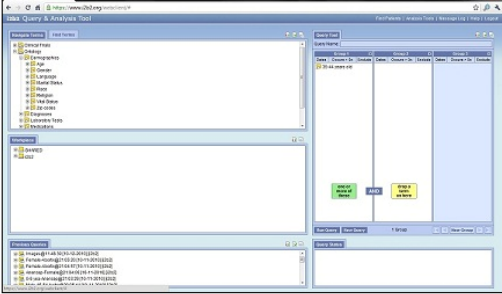
1. Review the current spreadsheet
2. Select an item you want to work on.
3. Log into JIRA which is <http://community.i2b2.org/jira>
4. Enter an issue for the bug you are going to fix.
5. Assign the issue to yourself.
6. Keep JIRA updated throughout the development process.
7. Once you are finished the final step is to update the issue in JIRA.

Webclient Sponsored Project

Dashboard > i2b2 Sponsored Project - i2b2 Web Client > Web Client Home Browse Log In Search

i2b2 Sponsored Project - i2b2 Web Client

The i2b2 Web Client is a collection of client-side components designed as an YUI AJAX-based plug-ins that communicate with i2b2 Cells and allow the investigator to query and display the data of the hive.



Actual Screenshot of i2b2 Web Client

Developer Notes

The bugs and enhancements for the i2b2 Web Client can be found in spreadsheet attached to the bottom of this page. We welcome you to take a look and see if there is anything that you would like to work on fixing or developing. In order to prevent confusion and duplication of efforts across institutions we would like to outline the following procedure.

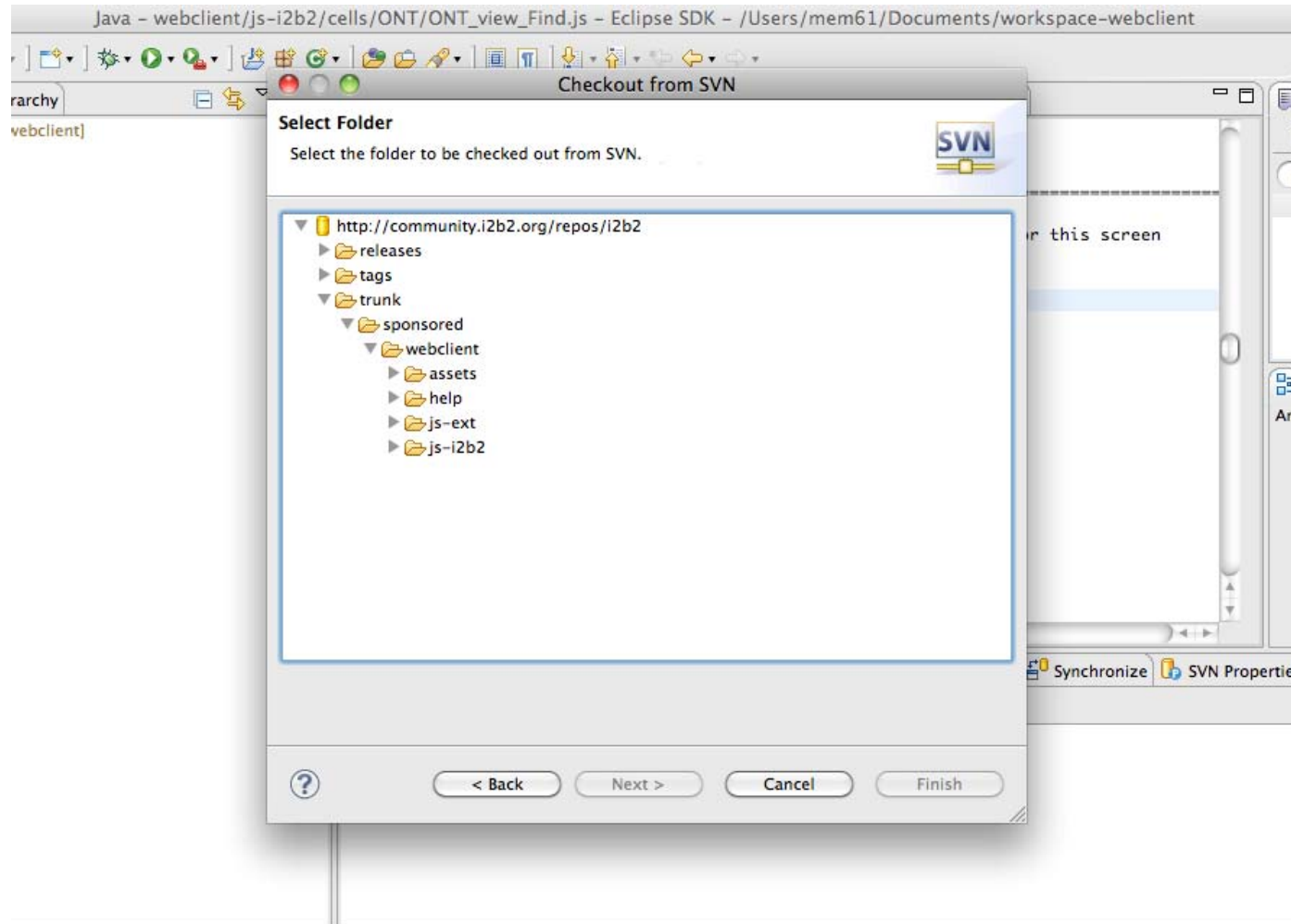
1. Review the current spreadsheet (attached below).

Powered by a free **Atlassian Confluence Open Source Project License** granted to i2b2. Evaluate Confluence today.

Powered by Atlassian Confluence, the Enterprise Wiki. (Version: <http://www.atlassian.com/software/confluence/BUILD#3.3.1> <http://www.atlassian.com/software/confluence/tour/enterprise-wiki.jsp>) | Copyright Info

The i2b2 Web Client is a collection of client-side components designed as an YUI AJAX-based plug-ins that communicate with i2b2 Cells and allow the investigator to query and display the data of the hive.

Access sponsored code via SVN



Jira Bug Tracker

i2b2 Issue & Bug Tracker
Informatics for Integrating Biology & the Bedside

Mike Mendis | Quick Search

Dashboards | Projects | Issues | Administration |

Create Issue

Add Gadget Edit Layout Tools

Introduction

Welcome to the i2b2 Issue & Bug Tracker!

Issues and bugs found in the i2b2 software and related projects are posted and tracked on this web site. You can report a bug or feature request by using the **Create Issue** link found at the top-right of the header bar.

Developers:
If you are the developer of an i2b2-related project and would like to have a new Project created here to track your issues, please contact [Mike Mendis](#)

Projects

CTRgrid (Clinical Translational Research GRID) (CTRGRID)
Lead [Rob Wynden](#)

i2b2 (LEOPARD)
Lead [Mike Mendis](#)

i2b2 Crimson (CRIMSON)
Lead [Brian Wilson](#)

Ontology Mapper (ONTMAP)
Lead [Rob Wynden](#)

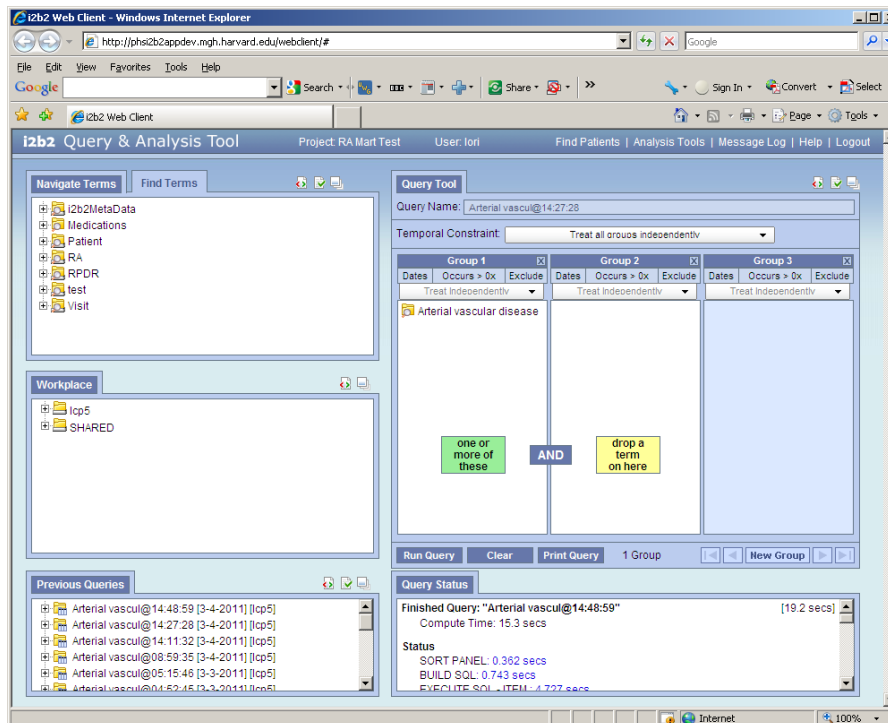
Favorite Filters

You have no favorite filters at the moment.
[Create Filter](#) [Manage Filters](#)

Assigned to Me

T	Key	Summary	Pr	
	LEOPARD-85	New VM install fails to connect under Solaris		
	LEOPARD-10	Suggestions for improvements to installation documents		
	LEOPARD-14	ontology.terminal.delimiter has unpredictable affects		
	LEOPARD-17	query by query definition: "total_item_occurrences" must always equal 1?		
	LEOPARD-19	query_timing of SAME causes error in sql query generation.		
	LEOPARD-20	Implementation of Query Result Type PATIENT_ENCOUNTER_SET		
	LEOPARD-21	i2b2 thin client "Set value" search using >= returns incorrect values		
	LEOPARD-22	webclient cannot handle & character in c_name column		
	LEOPARD-23	Cannot use the same concept in both group 1 and group 2 with a set value on both		
	LEOPARD-24	Set Value functionality does not reset itself until you force it by specifying "No Value" and pressing OK (even though "No Value" is already selected)		

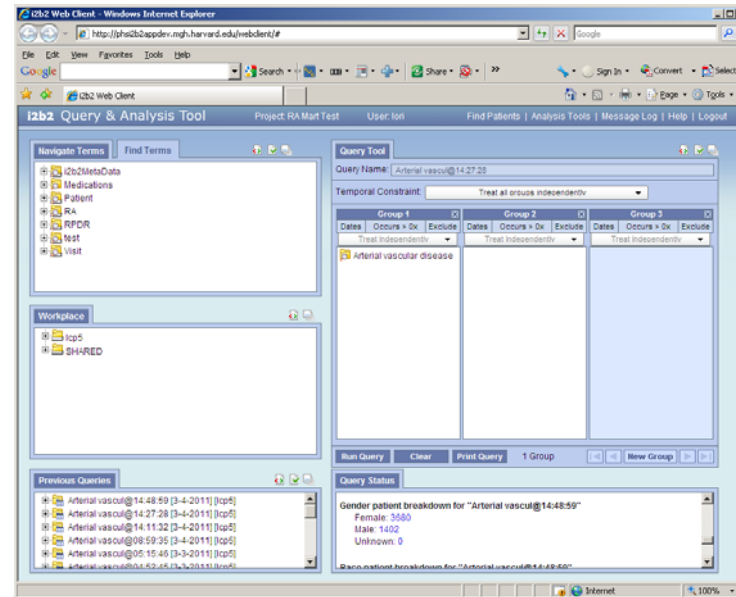
Webclient Sponsored Project



New features:

- Performance Report
- Online Help
- Patient Breakdown
- Printing
- Cancel Query
- Query Status
- Patient Count

Patient Breakdown



Previous Queries

- Results of Endocrine disorder@14:17:31 [3-3-2011] [obfsc]
- Patient Set - 36 patients
- Encounter Set - 3375 encounters
- Patient Count - 36 patients
- Gender patient breakdown - 36 patients
- Race patient breakdown - 36 patients

Query Status

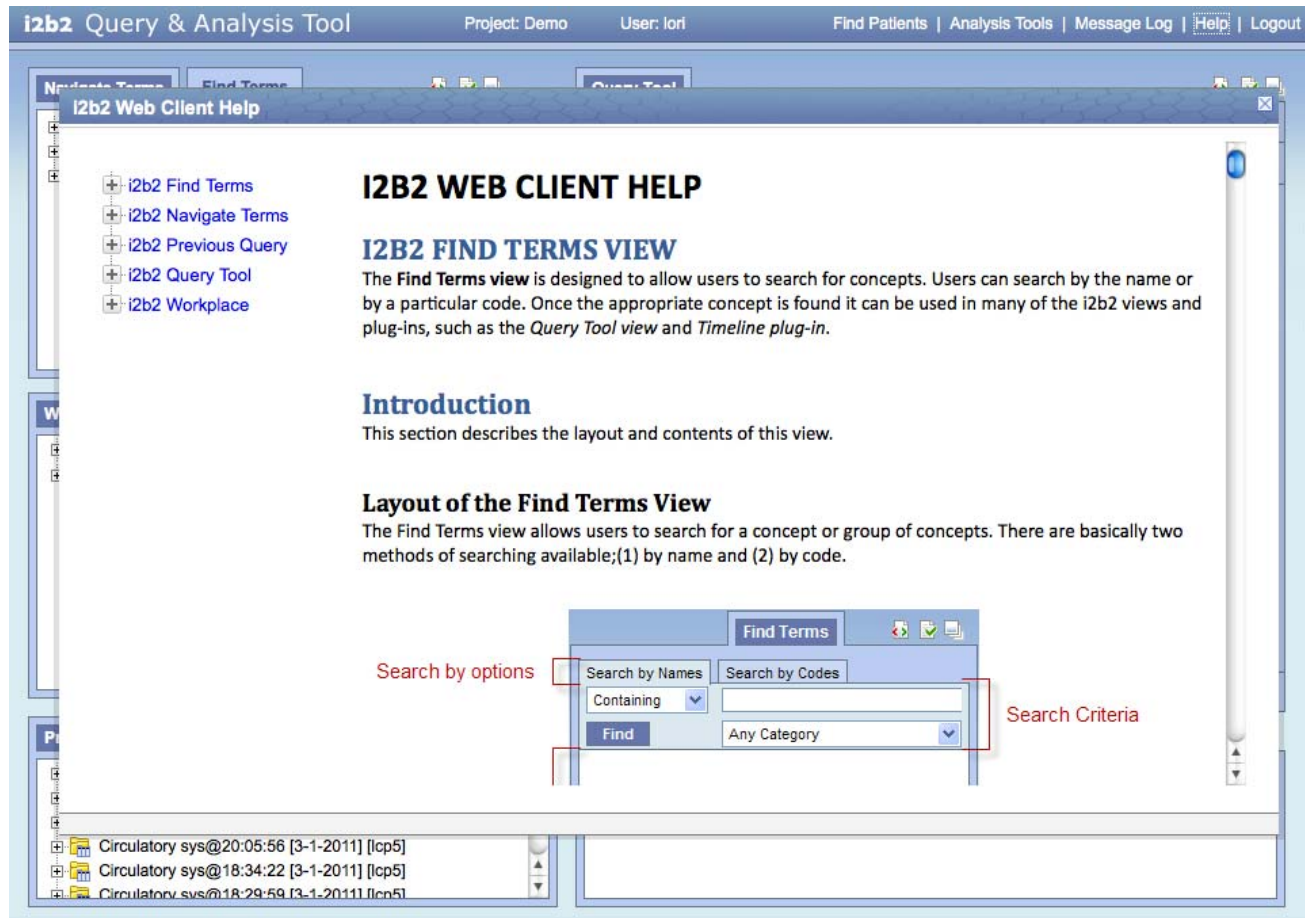
Number of patients for "Endocrine disorder@14:17:31"

patient_count: 34

Race patient breakdown for "Endocrine disorder@14:17:31"

Aleutian: 0
American Indian: 0
Asian: 9

Online Help



Other Changes

i2b2 Query & Analysis Tool Project: Demo User: lori Find Patients | Analysis Tools | Message Log | Help | Logout

Navigate Terms Find Terms

- Clinical Trials
- Custom Metadata
- Ontology
 - Demographics - 133
 - Diagnoses - 133
 - [Expression Profiles Data - 0]
 - Laboratory Tests - 133

Workplace

- lcp5
- SHARED

Previous Queries

- Circulatory sys@14:28:19 [3-4-2011] [lcp5]
- Circulatory sys@13:50:10 [3-4-2011] [lcp5]
- Circulatory sys@20:11:11 [3-1-2011] [lcp5]
- Circulatory sys@20:05:56 [3-1-2011] [lcp5]
- Circulatory sys@18:34:22 [3-1-2011] [lcp5]
- Circulatory sys@18:29:59 [3-1-2011] [lcp5]

Query Tool

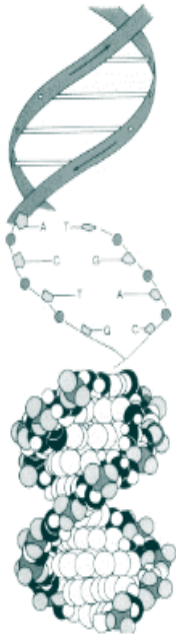
Query Name:

Temporal Constraint:

Group 1			Group 2			Group 3		
Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude	Dates	Occurs > 0x	Exclude
Treat Independently			Treat Independently			Treat Independently		
drop a term on here								

Run Query Clear **Print Query** 0 Groups

Query Status



<https://www.i2b2.org/software>

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Michael Mendis

Nich Wattanasin MS

Lori Phillips MS

Vivian Gainer MS

Rajesh Kuttan

Wensong Pan MS

Janice Donahue

Griffin Weber MD, Ph.D.

Susanne Churchill Ph.D.

Isaac Kohane MD, Ph.D.