

Research Council

November 4, 2013

- Please open all wrapped or sealed items in your lunch before the presentations begin.
- Please silence your cell phones & pagers. Thank you!

Tosteson & Fund for Medical Discovery (FMD) Postdoctoral Fellowship Awards

Deadline: Tuesday, November 19 - 9:00 PM

The awards are \$40,000 for one year & intended to support MD & PhD fellows/postdocs pursuing either basic or clinical research.

Applications now being accepted online:

<http://ecor.mgh.harvard.edu/GrantManager/Default.aspx?grantId=41>

Deliberative Interim Support Funding

Deadline: Monday, December 2, 2013 – 9:00 PM

Open to PIs during a **lapse** or **delay** in their research funding from the NIH or another Federal agency. Investigators must have applied for independent, long-term support (R01, R21, U01 & P01).

Applications now being accepted online:

<http://ecor.mgh.harvard.edu/GrantManager/Default.aspx?grantId=33>

Sequestration Relief Funding

Deadline: Monday, December 2, 2013 – 9:00 PM

Open to Investigators that have experienced a **funding shortfall** as a result of sequestration.

Applications now being accepted online:

<http://ecor.mgh.harvard.edu/GrantManager/Default.aspx?grantId=38>

MGH Research Scholars Program

Deadline: Tuesday, December 3, 2013 – 9:00 PM

The awards are for \$100,000 a year for 5 years.

Open to MGH research faculty who are pursuing either basic or clinical research at the level of Assistant, Associate or Full Professor.

Applications now being accepted online:

<http://ecor.mgh.harvard.edu/GrantManager/Default.aspx?grantId=44>

Accepting submission of abstracts for the 2014 SAC Poster Session

Deadline: Tuesday, December 10, 2013 – 9:00 PM

Twelve \$1,000 Awards of Excellence for Scientific Meeting
Travel.

For Submission Form and Instructions:

<https://ecor.mgh.harvard.edu/SAC/SubmitPoster.aspx>

UPCOMING PROGRAMS

- **MGPA ImageJ Workshop**
Tuesday, November 19, 2013, 3:00-5:00 pm
Presenter: Lai Ding, PhD, Harvard NeuroDiscovery Center
- **RCR Series: Peer Review of Journal Manuscripts**
Thursday, December 12, 2013, 10:30 am – 12:00 pm
Facilitators: Hensin Tsao, MD, PhD & Dennis Brown, PhD
- **Making the Most of your MGH/MGPO Benefits**
Thursday, November 14, 2013, noon – 1:00 pm
Presenter: Dee Dee Chen, MGH Professional Staff Benefits Office
- **Call for Mentors: OWC/MGPA Mentoring Program**
Sessions: February 13, May 19, October 22, 2014
Mentors needed to work with research fellows

To register for any program, email orcd@partners.org

Meet the Candidates for ECOR Representatives

Ballot deadline: Friday, November 22, 2013

Assistant Professor (Vote for 1)

Javier Irazoqui, PhD, Pediatrics

Anne Thorndike, MD, General Medicine Division

David Langenau, PhD, Pathology

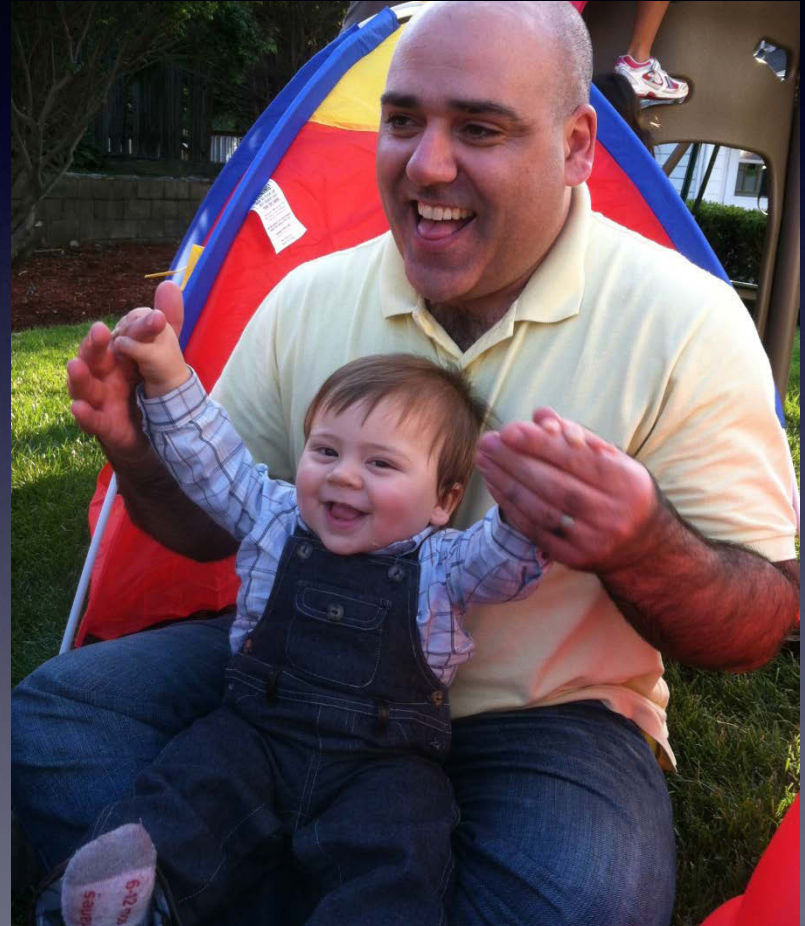
Submit your vote:

**[http://ecor.mgh.harvard.edu/elections/
votingform.aspx](http://ecor.mgh.harvard.edu/elections/votingform.aspx)**

Javier E. Irazoqui, PhD

To Preserve Research at MGH

- PhD: Duke 2003
- Postdoc: MGH (Molecular Biology)
- Over 10 years at MGH
- 4 years as PI – R01 funded
- Department: Pediatrics (no current ECOR representation)



Anne Thorndike, MD, MPH
General Medicine Division
Department of Medicine
Assistant Professor of Medicine



- 17 years research and clinical experience at MGH
- Clinical practice: Metabolic Syndrome Clinic, MGH Cardiac Prevention Center
- Research interests: prevention of obesity, DM, CVD
- Translational work in population-based and community settings; PI for the MGH “Be Fit” program
- Funding: NIH; Robert Wood Johnson Foundation; Harvard Catalyst; NORCH

David Langenau, Assistant Professor of Pathology



Joint appointed in Pathology and the Cancer Center since 2008.

Active in student development and training through BBS and the MGH Graduate Student Division.

Help to expand cores and equipment to facilitate new research directions.

Focus on securing funding and sustainability for research groups.

Meet the Candidates for ECOR Representatives

Ballot deadline: Friday, November 22, 2013

Associate Professor (Vote for 1)

Allan Goldstein, MD, Pediatric Surgery

Sekar Kathiresan, MD, Medicine/CHGR

Herminia Diana Rosas, MD, Neurology

Submit your vote:

**[http://ecor.mgh.harvard.edu/elections/
votingform.aspx](http://ecor.mgh.harvard.edu/elections/votingform.aspx)**




Allan Goldstein

Dept of Surgery



Biography

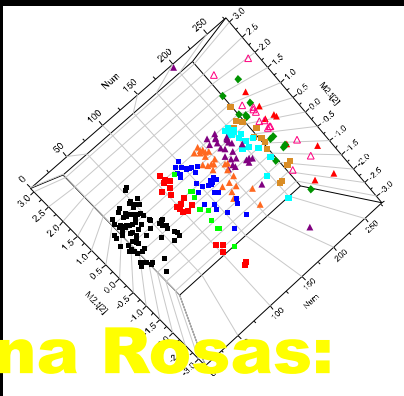
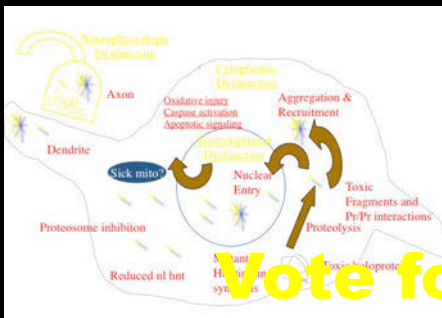
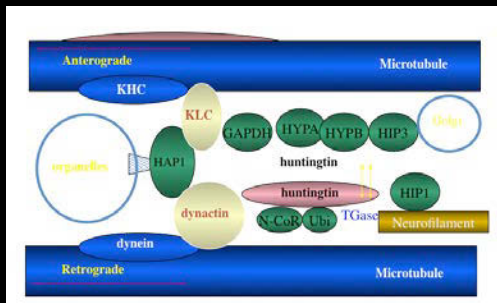
- HST graduate
- Clinical training at MGH
- Joined faculty in 2002
- Basic science research
 - R01-funded lab at Simches (developmental biology, enteric nervous system)
- Clinical research
 - IRB panel chair
 - Multiple active protocols
- Clinical care
 - Chief, Pediatric Surgery
 - Director, Pediatric Neurogastroenterology Program
- Actively engaged in the MGH research enterprise
 - Chair, Partners IRB (Panel A)
 - MGHfC Research Council
 - Harvard Catalyst Child Health Committee
 - Surgical Research Council
- Goals
 - Represent all investigators in any area of research
 - Serve as a liaison between ECOR and the pediatric research community and between ECOR and the depts. of surgery and anesthesia
 - Build closer ties between ECOR and the IRB to address challenges in human research



ECOR Elections 2013 Nominee for
Associate Professor: **Sekar Kathiresan, MD**
Department of Medicine, CHGR, CVRC

Research mission facing major challenges

- Require **innovative ideas** to solve these challenges & **creative ways to successfully execute** these ideas
- I am a **physician-scientist** driving a research program that includes human genetics, cellular and mouse models, and population-level phenotyping
- Strong **track record** of not only developing novel ideas but implementing them efficiently to arrive at **impactful scientific observations**
- Propose to leverage this experience **to further the interests of the MGH scientific research community**



Vote for Herminia Diana Rosas:

Someone who understands systems

Someone who understands connections

Someone who really wants to make a difference

Human Clinical Trials



Continuous Research Operations Improvement (CROI) Clinical Research Suggestion Box

Update

MGH Research Council
November 5, 2013

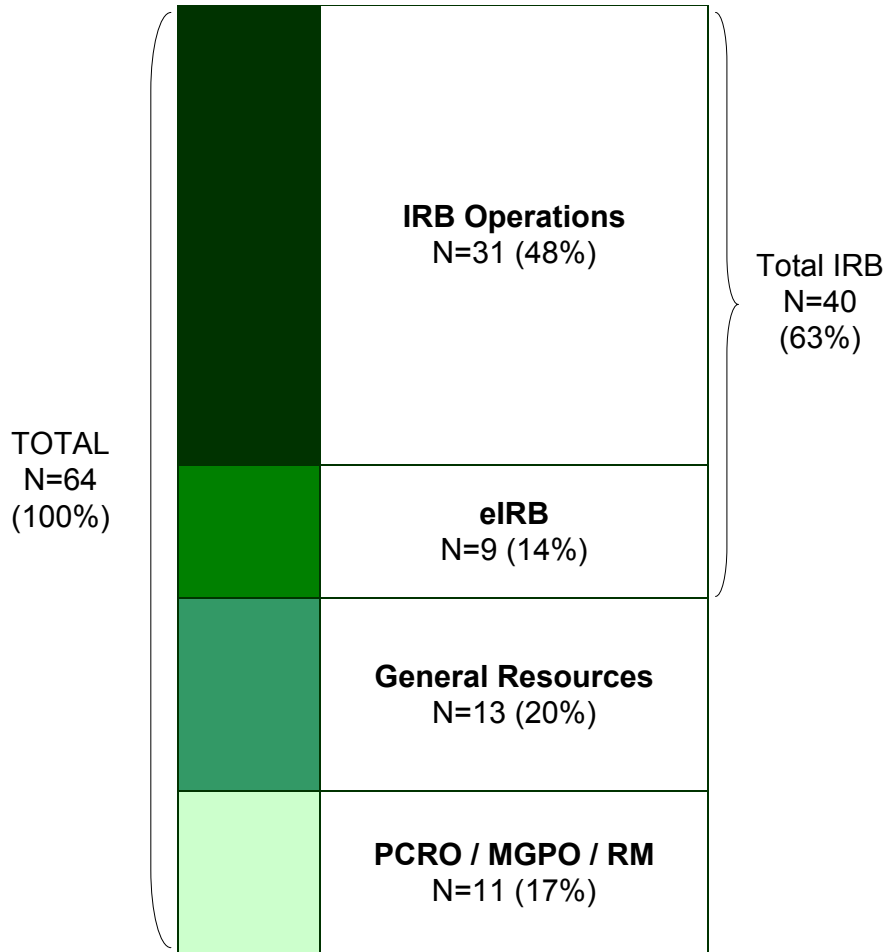
Maurizio Fava, M.D.
Tatiana Koretskaia, MBA

CROI Clinical Research: Working Group Members (Total N=43)

Chung, Raymond, M.D.
Cole, Andrew, M.D.
Dodson, Thomas, D.M.D., M.P.H.
Dougherty, Darin, M.D.
Duncan, Lyn, M.D.
Ecker, Jeffrey, M.D.
Eikermann, Matthias, M.D.
Eskandar, Emad, M.D.
Evins, Anne Eden, MD
Fava, Maurizio, M.D. (Co-Leader)
Feldman, Adam, M.D.
Gerszten, Robert, M.D.
Goldstein, Joshua, M.D., Ph.D.
Greenberg, Steven, M.D., Ph.D.
Grinspoon, Steven, M.D.
Jupiter, Jesse, M.D.
Kimball, Alexandra, M.D., M.P.H.
Koretskaia, Tatiana, MBA (Co-Leader)
Kuo, Braden, M.D.
Lawson, Elizabeth, M.D.
Li, Guoan, Ph.D.
Linton, Pat

Markmann, James, M.D.
Michaelson, James, M.D.
Nagurney, John, M.D.
Nathan, David, M.D.
Nierenberg, Andrew, M.D.
Ogilvy, Christopher, M.D.
Ring, David, M.D.
Rosen, Bruce, M.D.
Rosenberg, Eric, M.D.
Sharma, Nutan, M.D., Ph.D.
Sherry, Nicole, M.D.
Simon, Naomi, M.D.
Spencer, Thomas, M.D.
Stowell, Christopher, M.D.
Temel, Jennifer, M.D.
Velmahos, George, M.D.
Wang, Thomas, M.D.
Wilhelm, Sabine, PhD
Wills, Anne-Marie, M.D.
Winter, Harland, M.D.
Wozniak, Janet, M.D.

CROI Clinical Research: Suggestions



- Continues communication with key stakeholders:
 - Scott McNeal (Research IS)
 - Paula Hoffman (Research Analytics)
 - Shawn Murphy (RPDR)
 - Maureen Lawton (PCRO)
 - Rhonda Lowe (RM and MGPO)
 - Karen Walsh (AP) and
 - IRB Leadership
- Dr. Orf and PHS leadership addresses ongoing and systemic issues

CROI Clinical Research: Suggestions

TOTAL
N=64
(100%)

	IRB Operations N=31 (48%)
	eIRB N=9 (14%)
	General Resources N=13 (20%)
	PCRO / MGPO / RM N=11 (17%)

Some of the Issues

- Turn-Around Time
- Quality of Review
 - Inconsistencies in feedback from initial review and CR
- General Communication
 - Tone of the IRB feedback

Current Status

- PHS engaged MicroStrategy
- PHS and the IRB plan to publish quarterly metrics in FY14
- IRB had setup a Help Line
- Use of Central IRB (in progress)

CROI Clinical Research: Suggestions

TOTAL N=64 (100%)	IRB Operations N=31 (48%)
	eIRB N=9 (14%)
	General Resources N=13 (20%)
	PCRO / MGPO / RM N=11 (17%)

Some of the Issues

- A lot of suggestions have been incorporated in current eIRB release

Some of the issues slated for next release

- Timeframe and anticipated review date
- IRB should be able to make changes to protocol
- Every version of IRB submission should be available (Details Page)
- Manual data entry should be minimized by populating system data
- Ancillary board should be added on Study Staff Amendment
- Overall Site Navigation should be improved, etc.

CROI Clinical Research: Suggestions

TOTAL
N=64
(100%)

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	General Resources N=13 (20%)
	PCRO / MGPO / RM N=11 (17%)

Some of the Issues

- More Statistical help, especially for small projects with limited funding
- More Dept. Res. Admin Support
- CRC, though a valuable resource, is difficult to use (scheduling, space, personnel limitations, as well as cost-prohibitive).

Current Status

- MATLAB & Stata are available on the High Performance Computing (HPC) Clusters
- Admin support across departments is being reviewed by PHS
- MGH plans to establish a new Translational Research Center (TRC). The plan is to locate adjacent to the CRC to share resources.

CROI Clinical Research: Suggestions

TOTAL
N=64
(100%)

	IRB Operations N=31 (48%)
	eIRB N=9 (14%)
	General Resources N=13 (20%)
	PCRO / MGPO / RM N=11 (17%)

Some of the Issues

- Sponsor Billing: need for centralized, transparent industry sponsored clinical research billing system (CTMS)
- PCRO: turnaround time (TAT) and status of the agreement
- RM: Patient Care Correction Form

Current Status

- PHS has agreed to move forward with the purchase of a CTMS
- PCRO is constantly monitoring and working on reducing the TAT
- PCRO made the status available online
- RM: Patient Care Correction Form is available

Find more about CROI

<http://mghresearch.partners.org/ResearchMgmt/CROI.aspx>

Submit a suggestion

suggest@research.mgh.harvard.edu

617-724-IDEA

Thank you!



FOUNDED BY BRIGHAM AND WOMEN'S HOSPITAL
AND MASSACHUSETTS GENERAL HOSPITAL

Partners Enterprise Apple Support

Enterprise Research Infrastructure & Services

MGH Research Council

November 4th, 2013

Carla J. Spagnuolo

Agenda

- What is PEAS?
- PEAS Architecture
- What PEAS Provides for Partners
- What PEAS Provides for You
- PEAS Self Service
- Microsoft Office for Mac 2011
- What's Next for PEAS at Partners
- Program Metrics
- About Enterprise Research Infrastructure & Services
- Questions

What is PEAS?

- **Partners Enterprise Apple Support (PEAS)** is the program of services designed to manage & support Apple products at Partners HealthCare.
- **PEAS** was initiated in February 2013 by the Enterprise Research Infrastructure & Services (ERIS) team.
- Apple products have been in use at Partners for years, but were traditionally considered non-standard systems with limited software, support and services.
- The **PEAS** program provides an Enterprise solution for management & inventory of Apple products, and a greatly improved operating environment for our Mac community.

PEAS Architecture

- After researching and evaluating solutions for managing Apple products, vendor JAMF Software was selected, and the Casper Suite of tools was deployed.
- The infrastructure behind the Casper Suite consists of a central management server, file-sharing distribution points for software delivery, and a client installed on every Apple product.
- The Casper client provides an inventory of each enrolled device, downloads software from the distribution points, and enforces secure configuration settings (like disk encryption).

What PEAS Provides For Partners

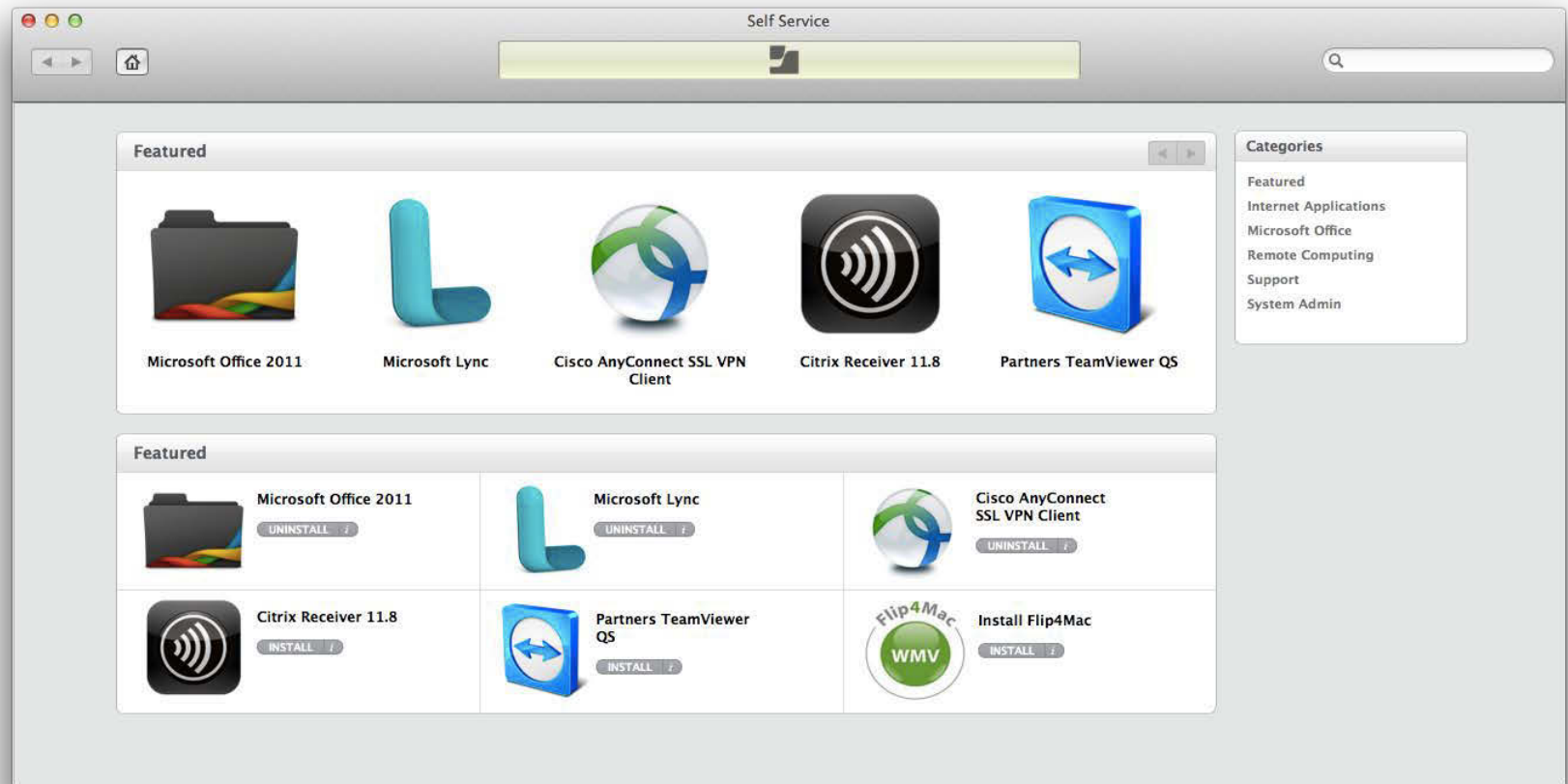
- Having an inventory of our Apple products ensures Partners is compliant with state and federal regulations.
- Security standards such as disk encryption help ensure all data including Protected Health Information (PHI) is kept safe & secure.
- Employing practices for data privacy qualifies our hospitals for certified international Safe Harbor status.
- **PEAS** provides a secure and private Apple environment for our community of researchers, teachers, clinicians patients, and... for you, your data, and your Mac.

What PEAS Provides For You

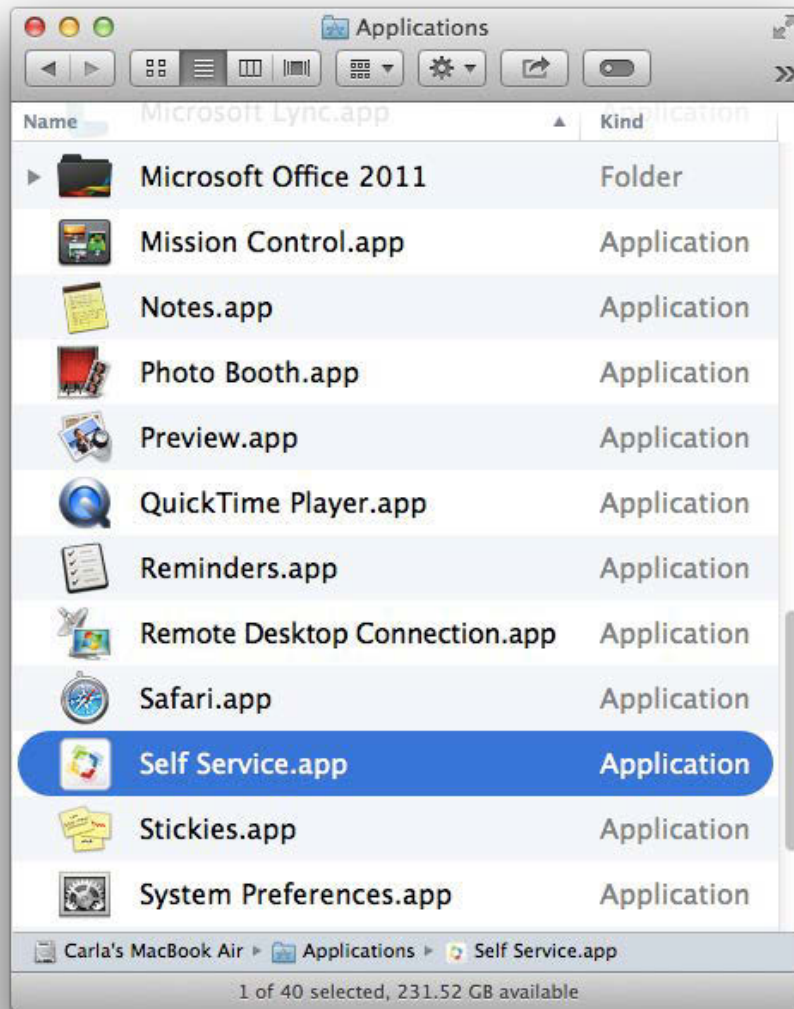
- **PEAS** is official support for Apple products at Partners, and includes new & improved Enterprise services!
- By partnering with Harvard University Information Technology (HUIT), we've established an improved & personalized purchasing process for Apple products.
- A dedicated **PEAS** customer service team is being developed to further support Apple hardware & software.
- Enterprise licensing agreements with our technology vendors provide opportunities to obtain Mac supported software...

PEAS Self Service

- Similar to Apple's App Store, **PEAS** Self Service is an App Store internal to Partners.



PEAS Self Service



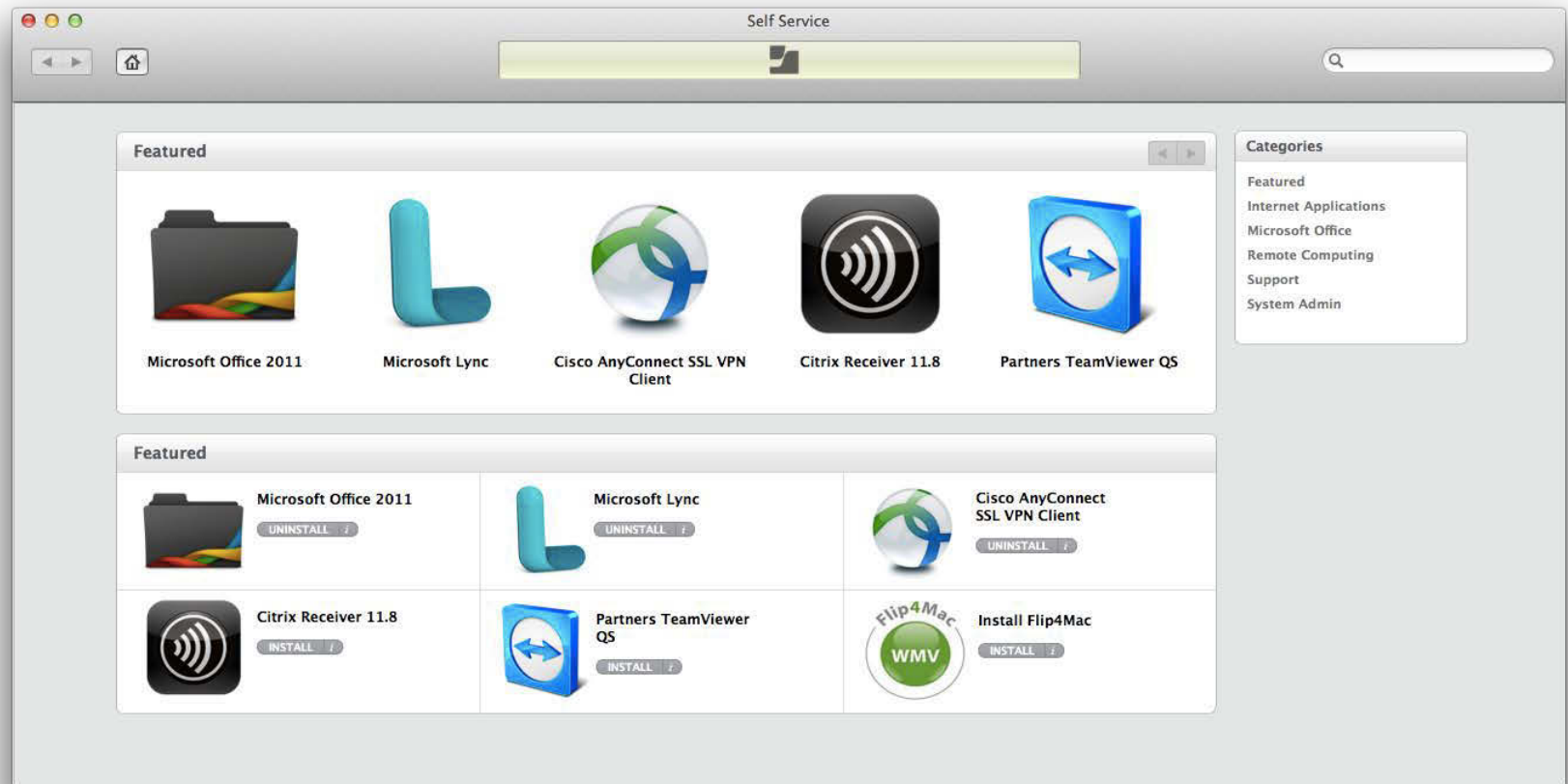
- **PEAS** Self Service is pre-installed by Harvard on all new Macs as of October 2013
- Self Service can be found in your Applications folder **⌘command-shift-A**
- Macs purchased prior to October can enroll for PEAS Self Service: <http://peas.partners.org/enroll>

MS Office for Mac 2011

- As of April 2013, Partners entered into an Enterprise agreement for Microsoft Office. The cost is now covered centrally and you no longer need to purchase a license.
- The Enterprise license allows for Office to be installed on up to 5 computers for business purposes.
- If you conduct business on your personal Mac, you can install Office on that computer. Note that Office for Mac is only available through **PEAS** Self Service, and Self Service is only available on the Partners network.

MS Office for Mac 2011

- Office is a large app. Downloads can take 30 minutes over Wi-Fi, but approximately 5 minutes if wired.



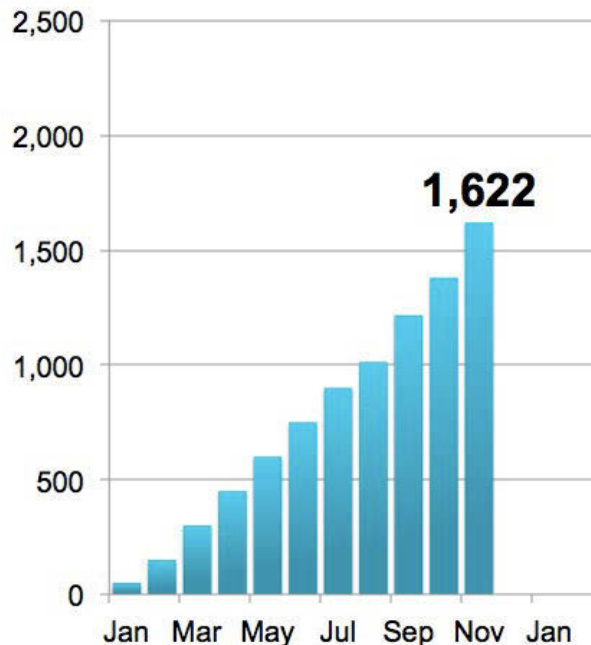
What's Next for PEAS at Partners

- All Apple purchases are required to be procured through Harvard via Partners eBuy. Assistance with purchasing is available at: <http://rc.partners.org/peas/purchase>
- **PEAS** currently enforces a full disk encryption policy using FileVault 2 on enrolled Macs. Upcoming **PEAS** policies include security for password strength, screen saver timeouts, disabling of the Guest Account, and disabling of automatic logins on startup.
- Enterprise licensing agreements with vendors will help us provide more Mac software in Self Service.

PEAS Metrics

- Apple released **OS X 10.9 Mavericks** on October 22nd
- One week later, our Apple Community had an adoption rate of **5.9%** (96 Mavericks Macs out of 1622 total).

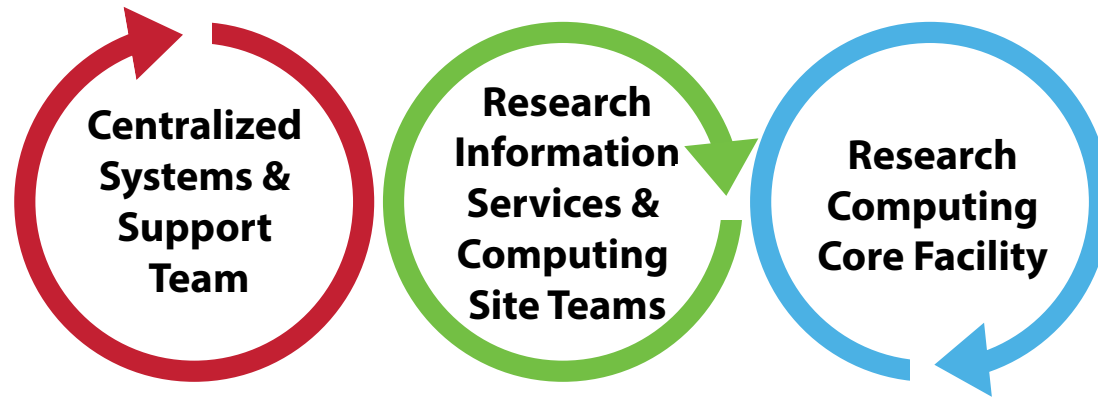
PEAS Members:



Partners Mac Purchases:

- June 2013: **164**
- July 2013: **126**
- August 2013: **68**
- September 2013: **95**

Enterprise Research Infrastructure & Services



Your Partner in Research Technology, Data & Scientific Computing

ERIS is composed of three service-oriented teams to directly support and collaborate with researchers across the academic medical centers of Partners HealthCare. These specialized applications, processes and resources enable and drive innovation in basic, biomedical and clinical research missions.

Questions?

Thanks for your time! 😊

Team PEAS:

- John Augliera ● Neil Coplan ● Robert Darche
 - William Downey ● Christopher Gachot ● Michael Lee
 - Christopher Lyons ● Paulo Pimenta ● Gary Quinton
 - Christopher Ragucci ● Robert Rogers ● Steven Rogers
 - Carla Spagnuolo ● John Weng ● Nicholas Yale
-
- Contact us at PEAS@partners.org
 - Subscribe for our **PEAS** Newsletter at:
<http://rc.partners.org/peas/news>



FOUNDED BY BRIGHAM AND WOMEN'S HOSPITAL
AND MASSACHUSETTS GENERAL HOSPITAL

**Research IS and Computing
Directions with Epic and Big Data
Shawn Murphy MD, Ph.D.
Research Council 11-5-2013**

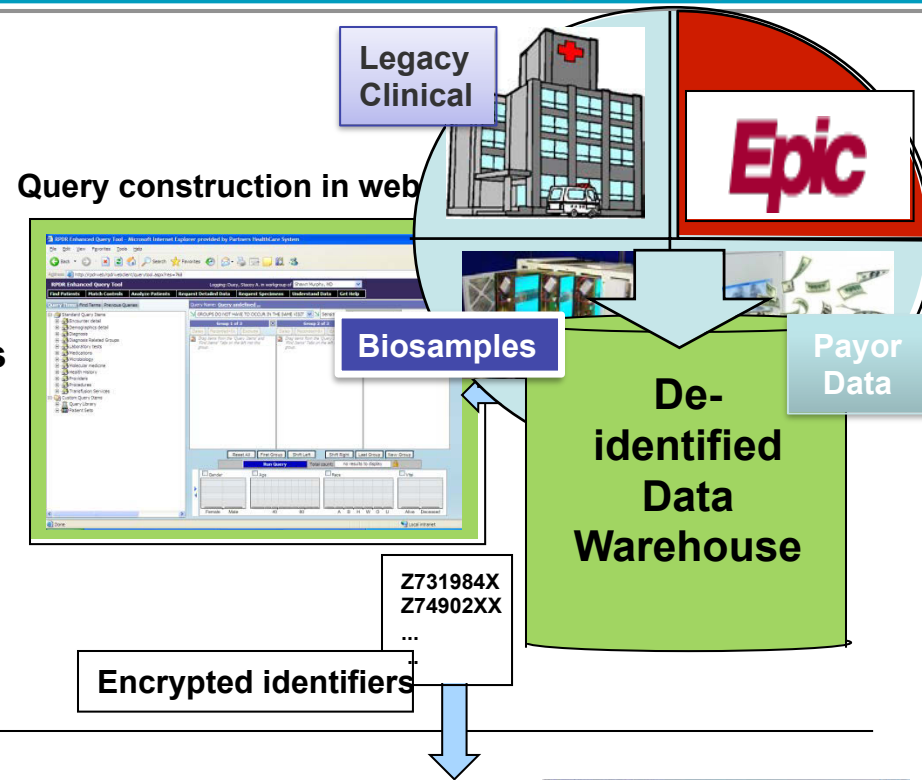
Introduction

- RISC
 - Has Research Patient Data Registry for discovery of patients for research and clinical trials
 - Has i2b2 which allows new scientific discoveries from healthcare data
 - Partners with Harvard Catalyst for SHRINE studies across Harvard hospitals and REDCap data capture for clinical trials
 - Provides High Performance Computing power across Partners AMC's
 - Provides > 100,000 Biosamples for research
 - Provides services such as Next-generation Sequence analysis in Genomics Core

Epic will fuel Research Patient Data Registry

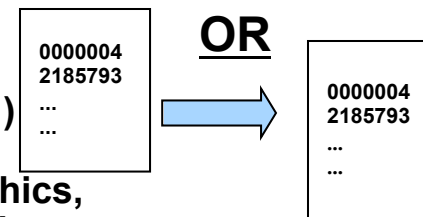
1) Queries for aggregate patient numbers

- Warehouse of in & outpatient clinical data
- 6.0 million Partners Healthcare patients
- 1.8 billion diagnoses, medications, procedures, laboratories, & physical findings coupled to demographic & visit data
- Authorized use by faculty status
- Clinicians can construct complex queries
- Queries cannot identify individuals, internally can produce identifiers for (2)



2) Returns identified patient data

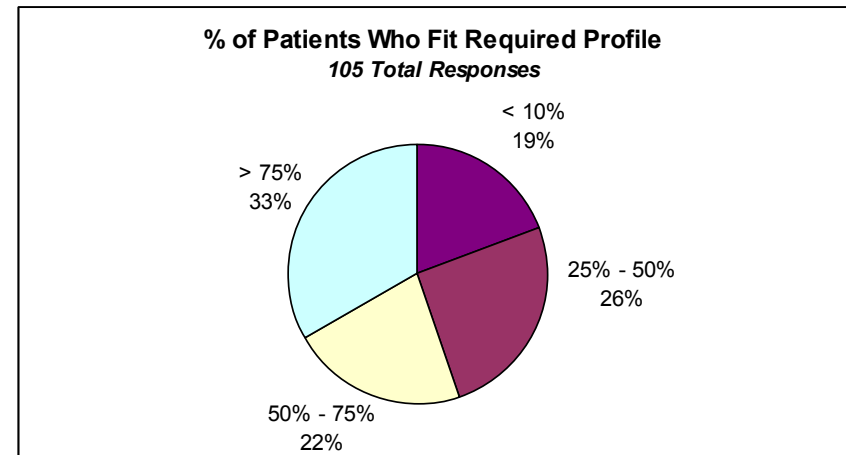
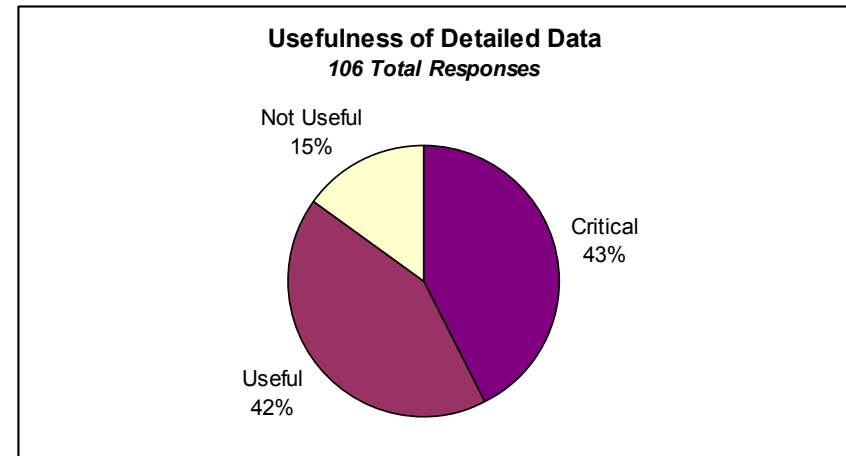
- Start with list of specific patients, usually from (1)
- Authorized use by separate IRB Protocols
- Returns contact and PCP information, demographics, providers, visits, diagnoses, medications, procedures, laboratories, microbiology, reports (discharge, LMR, operative, radiology, pathology, cardiology, pulmonary, endoscopy) into a Microsoft Access database and/or plain text files.



Item ID	Item Description	Result	Result Text	Abnormal Flag	Reference Unit	Reference Range
SOPTT	Supplement APPT	21.8			sec	22-136.1
SOPTT	APTT	32.8			sec	22-38.1
SOPTT	APTT	31.8			sec	22-38.1
SOPTT	APTT	46.4			sec	22-38.1
SOPTT	APTT	43.1	MODERATELY H		sec	22-38.1
SOPTT	APTT	26.7			sec	22-38.1
SOPTT	APTT	23.7			sec	22-38.1
SOPTT	APTT	24.7			sec	22-38.1
SOPTT	APTT	24.8			sec	22-38.1
SOPTT	APTT	24.7			sec	22-38.1
SOPTT	Supplement APPT	17.1			sec	22-136.1
SOPTT	APTT	34.5			sec	22-38.1
SOPTT	APTT	40.3			sec	22-38.1
SOPTT	APTT	40.3			sec	22-38.1
SOPTT	Supplement APPT	33.8			sec	22-136.1
SOPTT	Supplement APPT	34.3			sec	22-136.1
SOPTT	APTT	37.8			sec	22-38.1
SOPTT	APTT	22.8			sec	22-38.1
SOPTT	APTT	37.4			sec	22-38.1
SOPTT	APTT	37.2	SLT HEMOLYSIS H		sec	22-38.1
SOPTT	APTT	36.4			sec	22-38.1
SOPTT	APTT	36.4	MODERATE HE H		sec	22-38.1

2012's usage of RPDR

- 3,164 registered users, 664 new in 2011
- 554 teams gathering data for research studies
- 1912 identified patient data sets returned to these teams, containing data of 7.8 million patient records.
- From a survey of 153 teams
 - Importance of the data received from the RPDR was evaluated in relation to the study it was supporting.
 - The adequacy of the match of a patient profile that could be obtained through the RPDR query tool was estimated.
- \$94-136 million total research support critically dependent on RPDR from patient data received throughout life of funding.
- ~300 data marts were created to support hospital operations, representing about 80 million patient records



RPDR Enhanced Query Tool - Microsoft Internet Explorer provided by Partners HealthCare System

File Edit View Favorites Tools Help

Address <http://rpdweb/rpdwebclient/querytool.aspx?res=768>

RPDR Enhanced Query Tool Logging: Duey, Stacey A. in workgroup of Shawn Murphy, MD

Find Patients Match Controls Analyze Patients Request Detailed Data Request Specimens Understand Data Get Help

Query Items Find Terms Previous Queries

Query Name: **Acute myocardia..., CK-MB Index (Gr... on 01/24/2011 #2**

GROUPS DO NOT HAVE TO OCCUR IN THE SAME VISIT Sensitivity < Reset all groups to >0 >Specificity

Search For: Containing All Categories Search Items CK-MB Index (Group:CKMBRI) CK-MB INDEX (Test:sc400.4452)

Group 1 of 3

Dates Recorded>0x Exclude

One or more items recorded

- Acute myocardial infarction

Group 2 of 3

Dates Recorded>0x Exclude

One or more items recorded

- CK-MB Index (Group:CKMBRI) > 3,5

Group 3 of 3

Dates Recorded>0x Exclude

Drag items from the 'Query Items' and 'Find Items' Tabs on the left into this group.

Reset All First Group Shift Left Shift Right Last Group New Group

Run Query Total count: 21647±3 patient(s)

Gender

Gender	Count
Female	13,900±3
Male	
Other	

Age

Age	Count
6±3	
4±3	
36±3	
115±3	
678±3	
2,240±3	
6,057±3	
6,241±3	
1,917±3	

Race

Race	Count
I	14±3
A	240±3
B	200±3
H	494±3
W	16,720±3
O	190±3
U	1,534±3

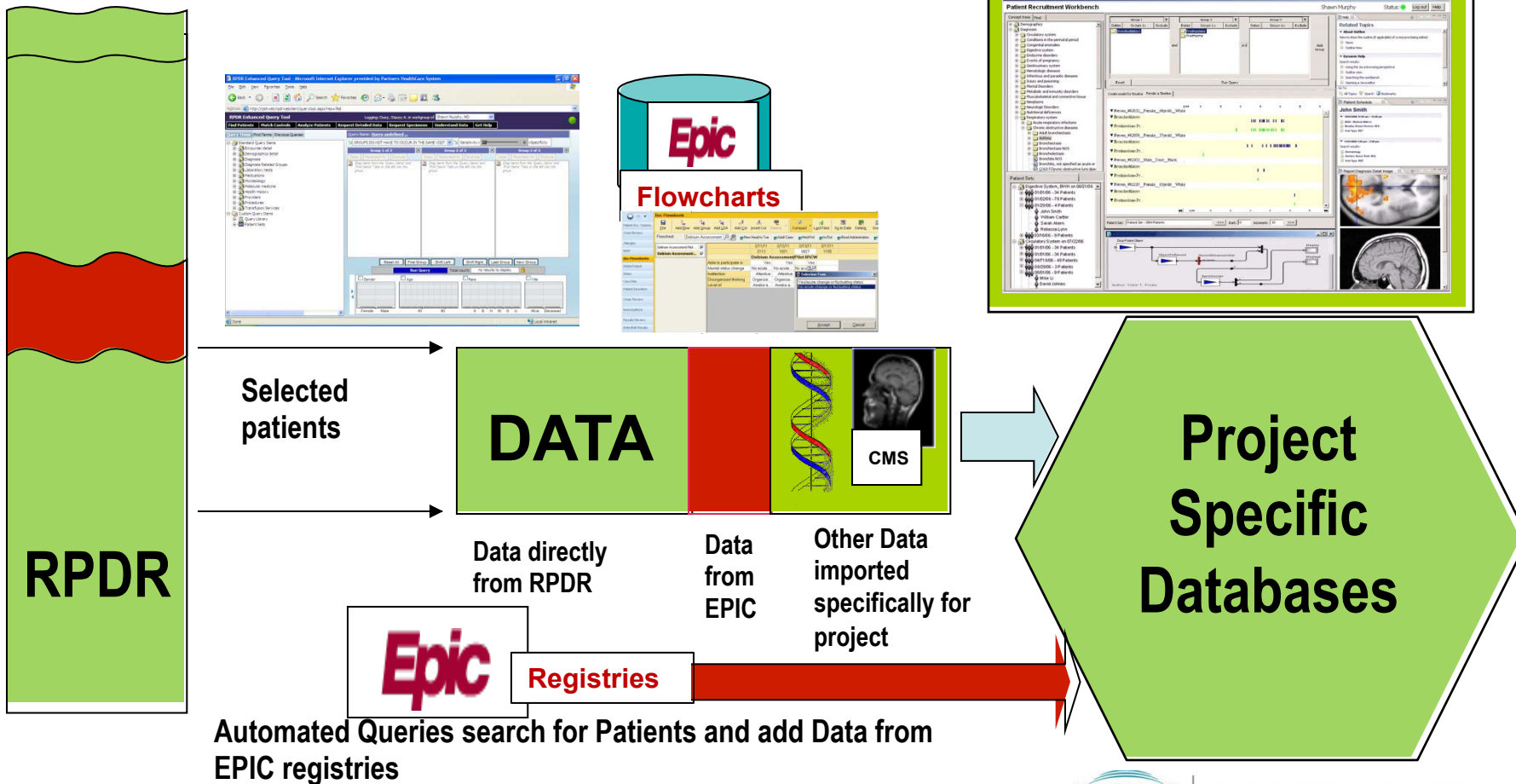
Vital

Vital	Count
Alive	
Deceased	

AspTreeView/MetaItemFind_Sub.aspx?SearchString=ck-mb index&SearchCategory=category_union&SearchOperator=3 Local intranet

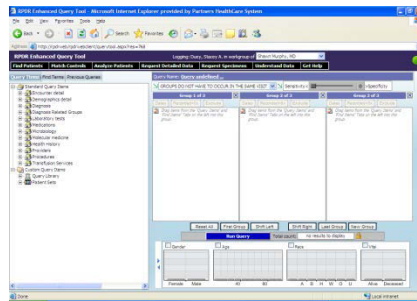
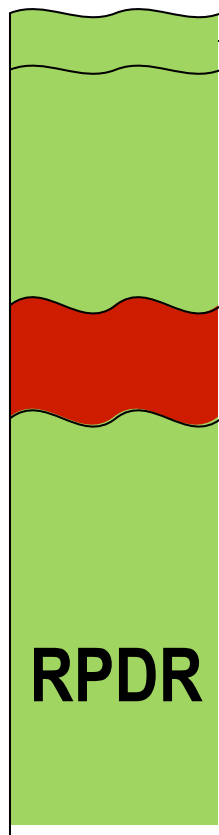
Plan for Partners Center

Epic provides data from several important clinical touchpoints but technology is legally independent of Epic



Flow back to Epic Clarity for Dashboards

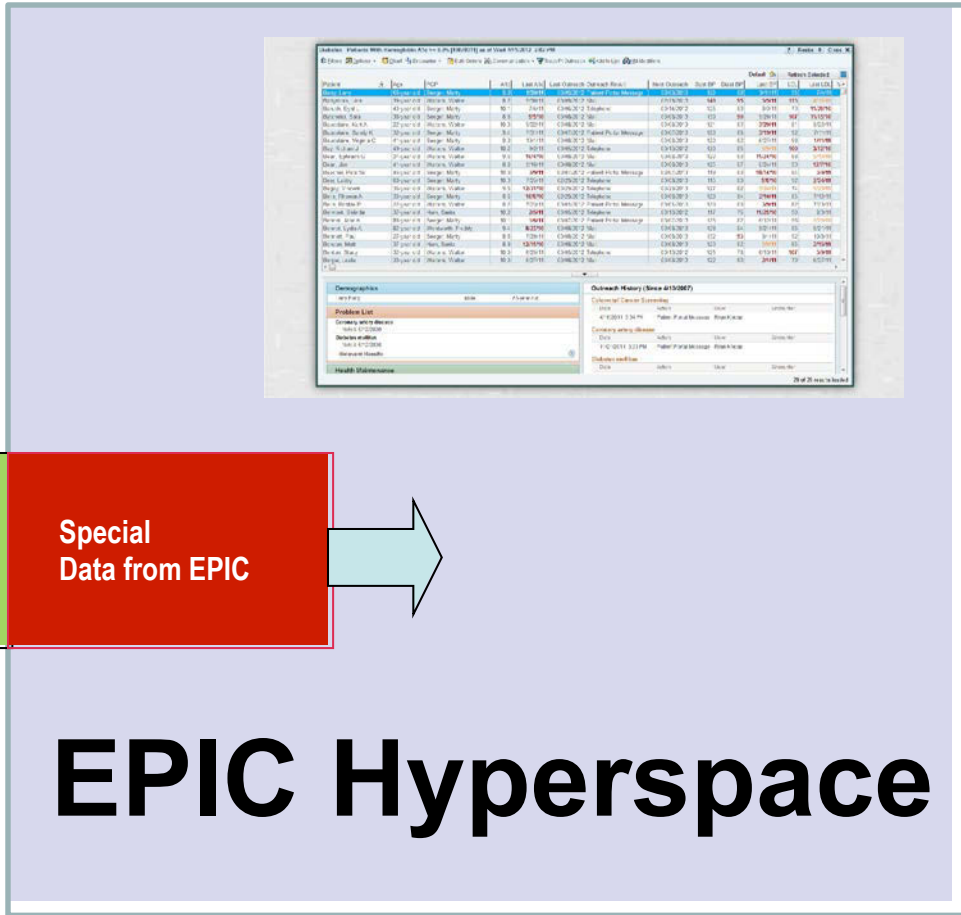
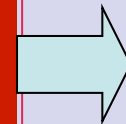
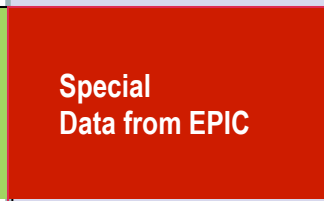
- Epic can provide way to display sets of patients that are exported from RPDR when data extracts are not needed



Selected patient MRN's



MRNs from RPDR



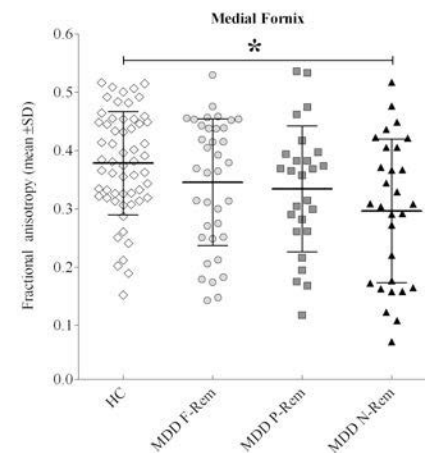
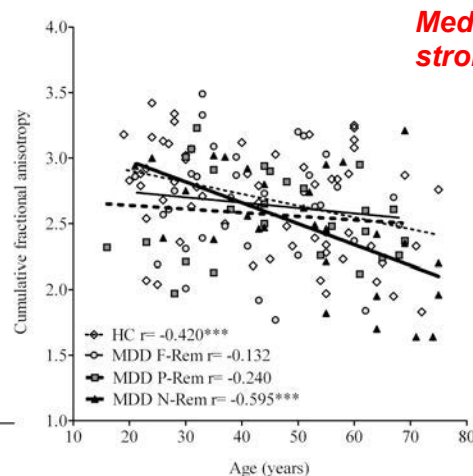
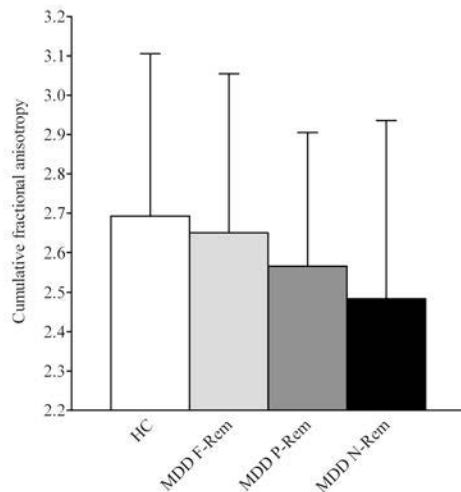
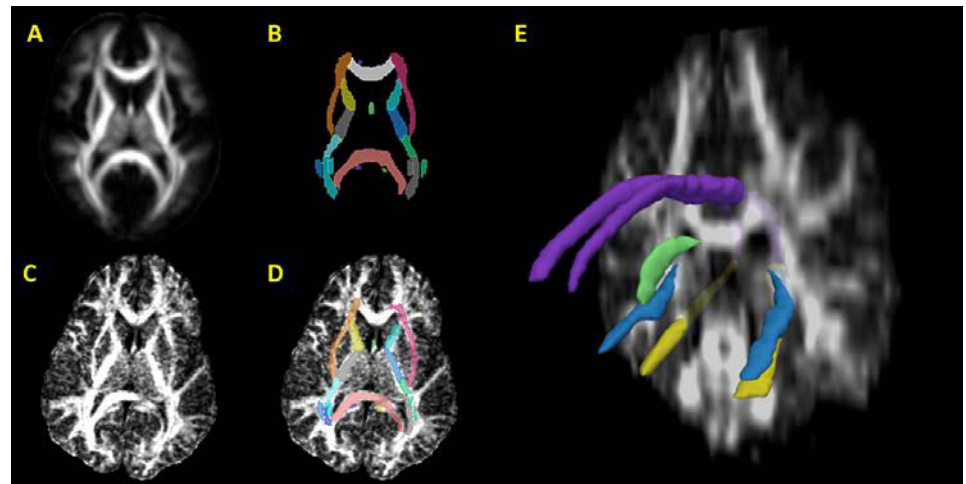
Opportunities for Big Data Environment

- Creation of Phenotyping Center to work with Big Data from many places in Academic Medical Center Environment
- Allow free innovation platform for research
- Bring together research community with new opportunities

Provide Big Data sets

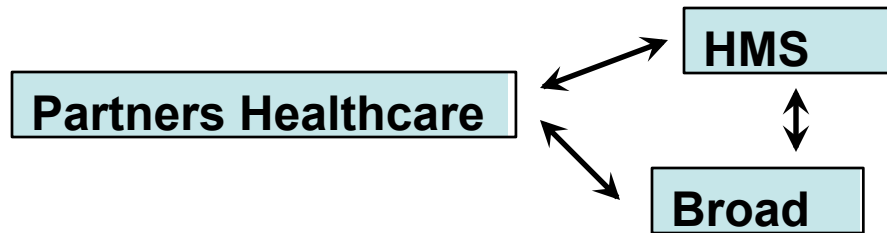
White matter abnormalities associated with treatment-resistant depression

- Scans collected as part of routine clinical care
- Diffusion tensor imaging in 150 pts
- Age-related decline in white matter integrity increases with treatment resistant depression



Feedback from Epic Research Council

- Develop communication among broader base of researchers
- Collaborative data ownership and high speed connectivity

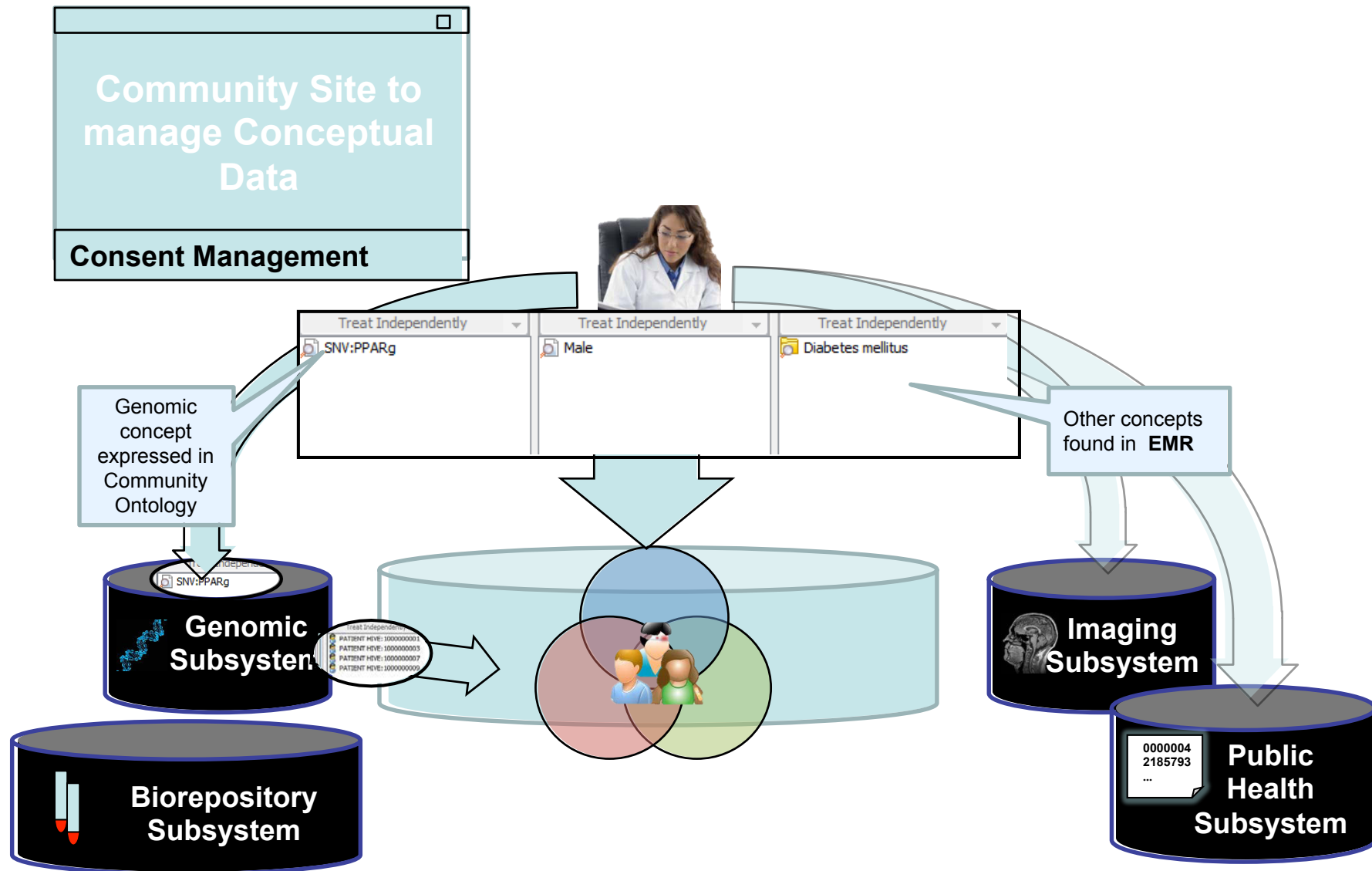


- Multiuse and reuse of data repositories
- Visualization tools (available with training)
- Mobile computing friendly

AMC Research and Big Data Committee

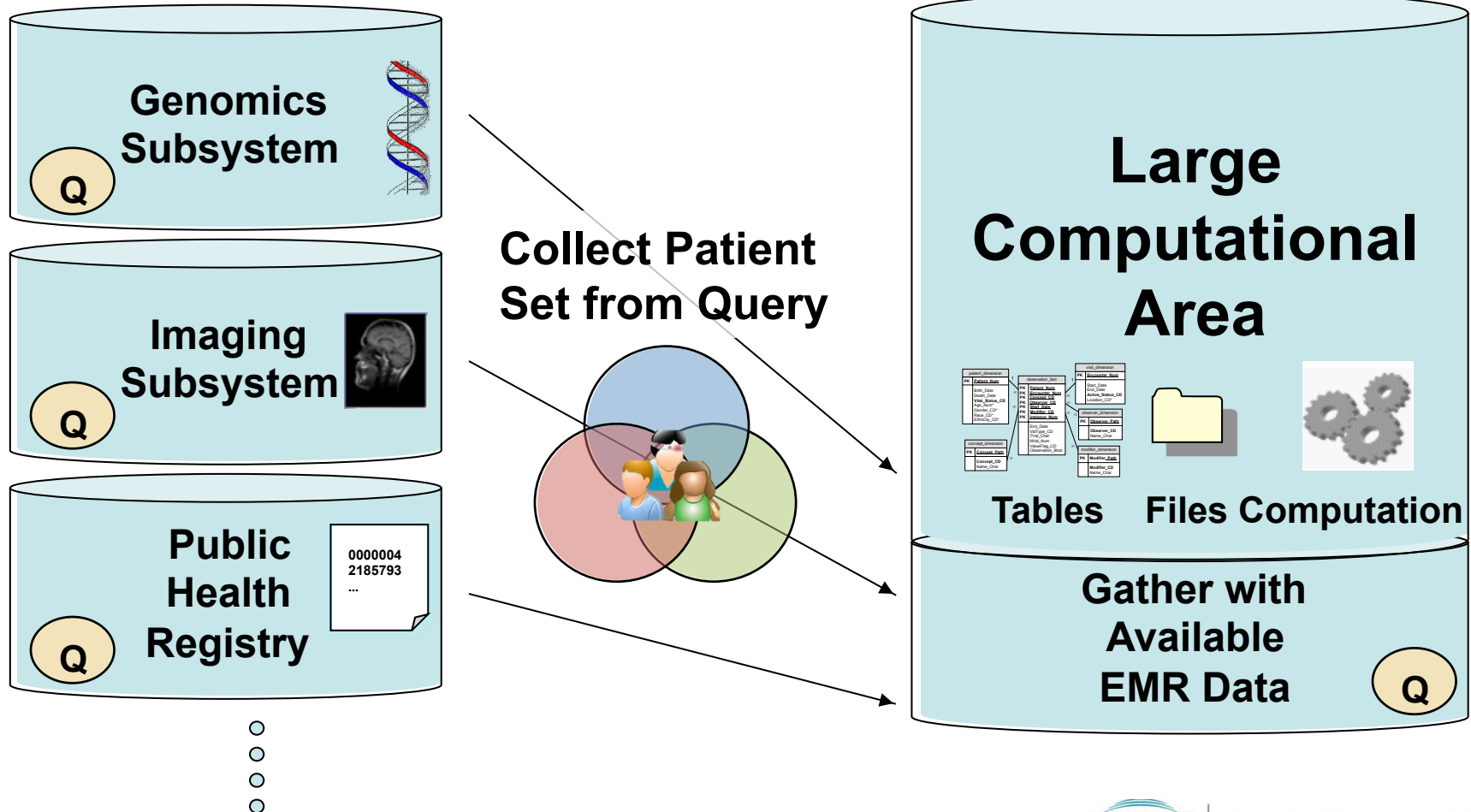
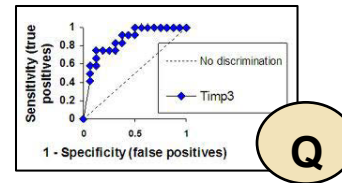
- Need Blueprint for Partners Development in Big Data Environment.
 - 5 year plan
 - Additions to current strategies
 - Collaborative
- Unification Project
 - Develop and unify community of Big Data researchers
 - Provide forum to address Big Data issues and create Big Data Environment
 - Able to find and query patient-oriented disparate data repositories without moving data.
 - Move data when necessary with more facile infrastructure.

Find Patients and Formulate Questions



Data Extracted for Analysis

- Quantitative measurements of Human data quality imbedded



Projected Big Data Services

- Partners Phenotyping Center
 - Provides enterprise level healthcare data
 - Oversees security and data use policy across Partners
 - Bridges biorepository and core-level services to hospitals
 - Natural Language Processing
 - Integration of Biorepository with phenotype data
 - Maintenance and reporting of data quality
 - Provides Partners level data-insight services
- MGH / BWH
 - Consume healthcare data for analysis
 - Implement novel methods for analysis of phenotypic, imaging, and genomic data
 - Contribute special data sets to enterprise level healthcare data