Quality Improvement Project (QIP)

- Analyze, revise, and monitor processes
- Create performance standards and measurement tools
- Monitor outcomes

Initial QIP Focus Areas

- C&G Subcontracts
- Committee on Human Research (CHR)
- Conflict of Interest Committee
- Immune Tolerance Network (ITN)
- Institutional Animal Care and Use (IACUC)

Progress-to-Date

- Documentation and redesign of key systems
- Activity, Performance, and Satisfaction Reports
- Still paper-intensive: IT infrastructure is deficient
- New requirement: Grants.Gov
QIP Phase II

Focus on Information Systems

IT Strategic Planning Construct
Developed by UCSF CIO Group - October 2005

Medical Center
Campus Administration
Research and Education

Academic Information Systems (AIS) Board

Ronald Arenson Thomas Ferrin Neil Risch
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UCSF Information Systems
The Academic Information Systems Board provides strategic guidance and advocacy to optimize UCSF’s education and research information systems.

AIS Board Very High Priorities
- AIS Administrative Structure
- Research Data Infrastructure and Services
- Videoconferencing

Gaps in Current Research Environment
- “One-off” feeds of clinical data
- No exploratory analysis of clinical data
- Data risks
  - Security and privacy
  - Integrity and reliability
- High barrier to data sharing
  - Among UCSF faculty and sites
  - With other entities (e.g., Kaiser)
- No ability to mine across databases
- Poor economics
Overview of RDIS

- Research data collection, storage, and sharing capabilities
- Industrial strength, HIPAA appropriate
- Central source of clinical data
  - Research
  - Quality assurance, utilization review
- Featured in the CTSA Application

RDIS Services

- Mediated access to clinical data with appropriate safeguards
- Data storage and management
- Vocabulary services and knowledge management
- Web interface for data extraction and exploration
- Consultation on database construction and analysis

Peer Institutions: Partners

- Core repository for clinical data
- Integrated, graded access controls in collaboration with IRB
- Very sophisticated graphical user interface for exploratory data analysis and retrieval

Peer Institutions: Stanford

- Core repository for clinical data
- NLP analysis of unstructured textual data
- Research data hosting as a core resource
- IRB-approved standard security and privacy
- Applications programming interface (API) for research data applications
Other Peer Institutions

Mayo Rochester
- Clinical and research data repository project in partnership with IBM

University of Pittsburgh
- Home-grown clinical data repository core

RDIS: Next Steps
- Commitment to strategic planning and architecture development
- Due Diligence
  - Identifying needs and functionalities
  - Buy vs. Build
- Early deliverables
  - Basic clinical data access
  - Research data hosting services
Academic Administration and Compliance Information Systems

- Office of Research
  - Compliance Systems
- Office of Sponsored Research
  - Pre-Award Systems

Pre-Award Systems Needs

- Grants.Gov: Electronic submission of federal contracts and grants
- Customer and user-friendly
  - Ideal: Fully-integrated system, “one-stop shop”
  - Eliminate duplicative data entry
- Flexibility to adapt to changing needs
  - Ability to capture new fields of information quickly
- Robust reporting capabilities
  - Routine and ad hoc reporting must be supported

Pre-Award Systems Assessment

Huron Consulting Group

- Identify needed pre-award functionality missing from current OR systems
- Assess gaps in current systems
- Recommend enhancement of current systems and/or purchase of commercial system(s)

Huron Recommendations

- Pre-Award: UCSF should consider purchasing a commercial system
  - Options: Coeus, InfoEd, Peoplesoft 8.9/9.0
- Compliance: UCSF should consider purchasing a commercial system
  - Options: Click Commerce, InfoEd
  - Limit RIO development to areas not available in commercial systems (e.g., LARC, EH&S)
- Grants.Gov: Choose short-term solution
  - Pure Edge has very limited functionality
Office of Academic Affairs
- Online faculty review and promotion system

Student Academic Affairs
- To be determined

Office of Academic and Administrative Information Systems

Conceptual Framework *

* Co-CIO Showstack and Co-CIO Lopez will jointly direct the new organization and specific organizational reporting relationships will be defined and developed over time.