# Project IMPACT: IT support for translational research as seen in a web-enabled clearinghouse and repository of clinical trials

JOHNS HOPKINS UNIVERSITY, BALTIMORE, MARYLAND

Research information Technology Systems

Group, 8 years of team work
- Michael Fox, DBA and project leader
- Alla Guseynova, Database Architect/Project Leader
- Allan Grimm, Sr. Programmer/Analyst

https://www.rig.onc.jhmi.edu

project ImpACT

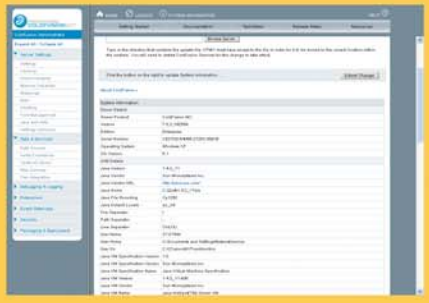
The aim of Project ImpACT (Important Achievements of Clinical Trials) is to identify and develop a comprehensive description of the most important randomized controlled trials performed in the fields of medicine and public health since 1948.

Project Investigators:
Steven N. Goodman, Harry M. Marks, Karen A. Robinson

The current portal exists as a database enabled dynamic web site: http://www.projectimpact.info

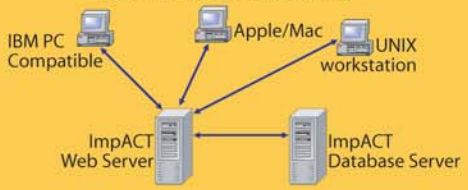
**RITS Support for Project ImpACT**
- Background and Expertise
- Methodologies
- Tools
- Implementation

**Background and Expertise**
- Project management
  - requirements analysis, functional specifications
- Database management
  - Oracle, Sybase, SQL Server
- Web Development
  - ColdFusion, SAS, JavaScript, HTML
- Systems administration
  - Windows 2000 ,XP, UNIX



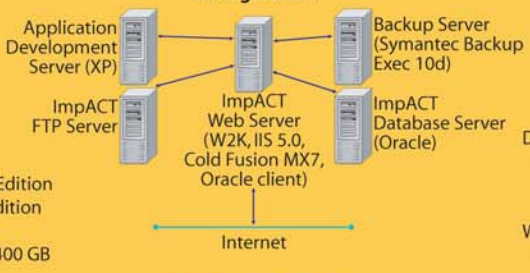
**Methodologies**
- Scalable, easy to use, multi-user application
- All web based, using any browser
- Full user control of all data

**Universal 3-Tier Architecture**




**Tools**
- Intel platform
- W2K, XP, Server 2003
- Oracle version 9i
- ColdFusion MX
- MS IIS 5.0, 6.0
- Adobe Flash, PDF

**Configuration**




**Server Configuration**

Database Server
- Xeon processor, 4GB RAM
- Windows Server 2003 Web Edition
- Oracle 9i DBMS, Standard Edition
- Symantec Backup
- RAID setup with hot spare, 400 GB
- Tape backup server

**Server Configuration**

Web Server
- Windows 2000 Server
- Pentium 4, 2GB RAM
- 160 GB disk space
- Cold Fusion Enterprise MX version 7
  - Native Oracle connection
- Oracle client software

**Backup Configuration**

Database
- Batch scheduling of Oracle exports followed by FTP to another system
- Symantec automated backups to tape server

Web Server
- Batch scheduled backups to second disk
- Backup to secondary web server
- Symantec automated backups to tape server

**Security**
- Servers in access controlled enterprise computer room
- Part of web site and data open to anyone worldwide
- Part of web site and data restricted by location and id/password
- Secured backups to disk and tape

**Implementation**
- Documents in PDF format
- Dynamic database-driven front end built with Cold Fusion and Flash
- Data in back end Oracle database
- Communication between front and back end via Cold Fusion
- Via the web site:
  - Nominations for trials are solicited
  - Authorized individuals annotate studies and communicate with one another
  - Publication of study design and results
  - Publication of study meta data