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# *caBIG™ In Vivo Imaging Workspace*

## *Advanced Technology Consortium (ATC)*

*April 3, 2006*

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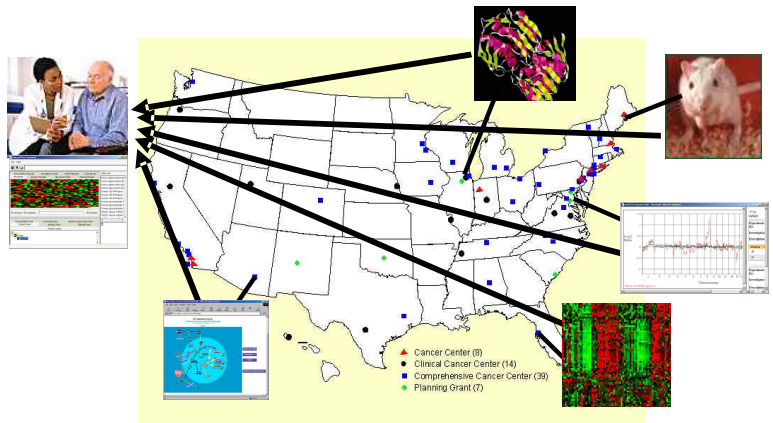
# Introduction to Cancer Biomedical Informatics Grid™ (caBIG™)

- Common, widely distributed infrastructure permits research community to focus on innovation




- Shared vocabulary, data elements, data models facilitate information exchange
- Collection of interoperable applications developed to common standards
- Raw published cancer research data is available for mining and integration
- Represents a “superhighway” for interchange of information among cancer centers

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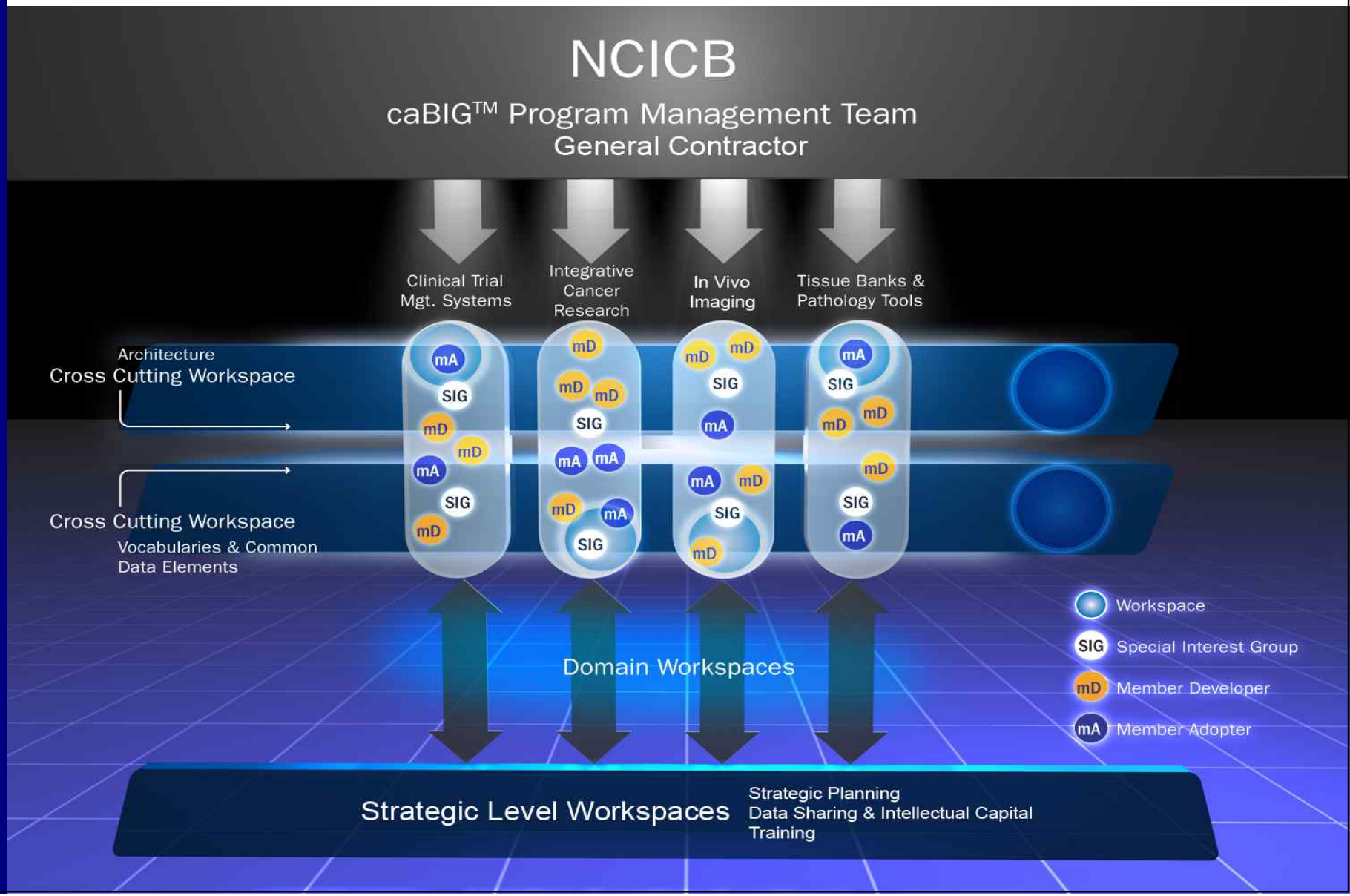
# The caBIG™ Structure



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# The caBIG™ Principles

- **Open source**
- **Open access**
- **Open development**
- **Federated**

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# caBIG™: a new way of doing business…

- **Coordinated development**
- **Active management**
- **Community directed**
- **Common services**

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# Introduction to caBIG™ In Vivo Imaging Workspace

- **In Vivo Imaging Workspace Goals**
  - **Advance imaging informatics on multiple fronts**
  - **Create, optimize, and validate software tools**
  - **Model methods to extract meaning from in vivo imaging data.**

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# In Vivo Imaging Workspace – Dates

- **Formal announcement:** **April 2005**
- **Begin Conference calls:** **October 2005**
- **First Face-to-Face Meeting:** **December, 2005**
- **Testbed Initial Planning** **January 2006**
- **SIGs Bi-weekly Telecons:** **February 2006**
- **Second Face-to-Face Meeting:** **July 2006**
- **RSNA – Testbed & Presentations** **November 2006**

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# The caBIG™ In Vivo Imaging Structure

- **Lead by Eliot Siegel, MD, (University of Maryland, VA Hospital of Baltimore, MD, NCI CIP).**
- **Four Special Interest Groups (SIG):**
  - **Vocabularies and Common Data Elements.**
  - **Standards and Interoperability**
  - **Software**
  - **Testbed**
- **Fifteen Funded Subject Matter Experts (SME)**
- **More than Seventy Volunteer Participants including participants from industry**

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# Special Interest Groups

- Vocabularies and Common Data Elements SIG
  Curt Langlotz, MD, PhD and Daniel Rubin, MD
- Standards and Interoperability SIG
  David Channin, MD and Paul Nagy, PhD
- Software SIG
  Bradley Erickson, MD, PhD and Fred Prior, PhD
- Testbed Special Interest Group
  Joel Saltz, MD, PhD

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# Imaging Workspace Projects

- **Project 1: Middleware**
- **Project 2: Annotations**
- **Project 3: Research Workstation**
- **Project 4: Vocabulary**

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# *NCIA*

## *National Cancer Imaging Archive*

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# NCIA-National Cancer Imaging Archive

- **NCIA Rel. 1.0 – End September 2005**
- **NCIA Rel. 1.1 – Mid November 2005**
- **NCIA & Imaging WS Gap Analysis – Mid March 2006**
- **NCIA Rel. 1.2 – Mid April 2006**
- **NCIA Rel. 1.3 – Mid June 2006**
- **NCIA Rel. 2.0 – Mid October 2006**

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# NCIA-National Cancer Imaging Archive

- **Release 1.2 goes live on April 12, 2006**
- **New Features and Enhancements**
  - **Annotations**
  - **Role Based Authorization**
  - **Saved Queries and Query History**
  - **Reporting**
  - **UI Enhancements**
  - **Central ID mapping**
- **NCIA Release 1.2 will be available for download on both the NCIA portal and NCICB web site**

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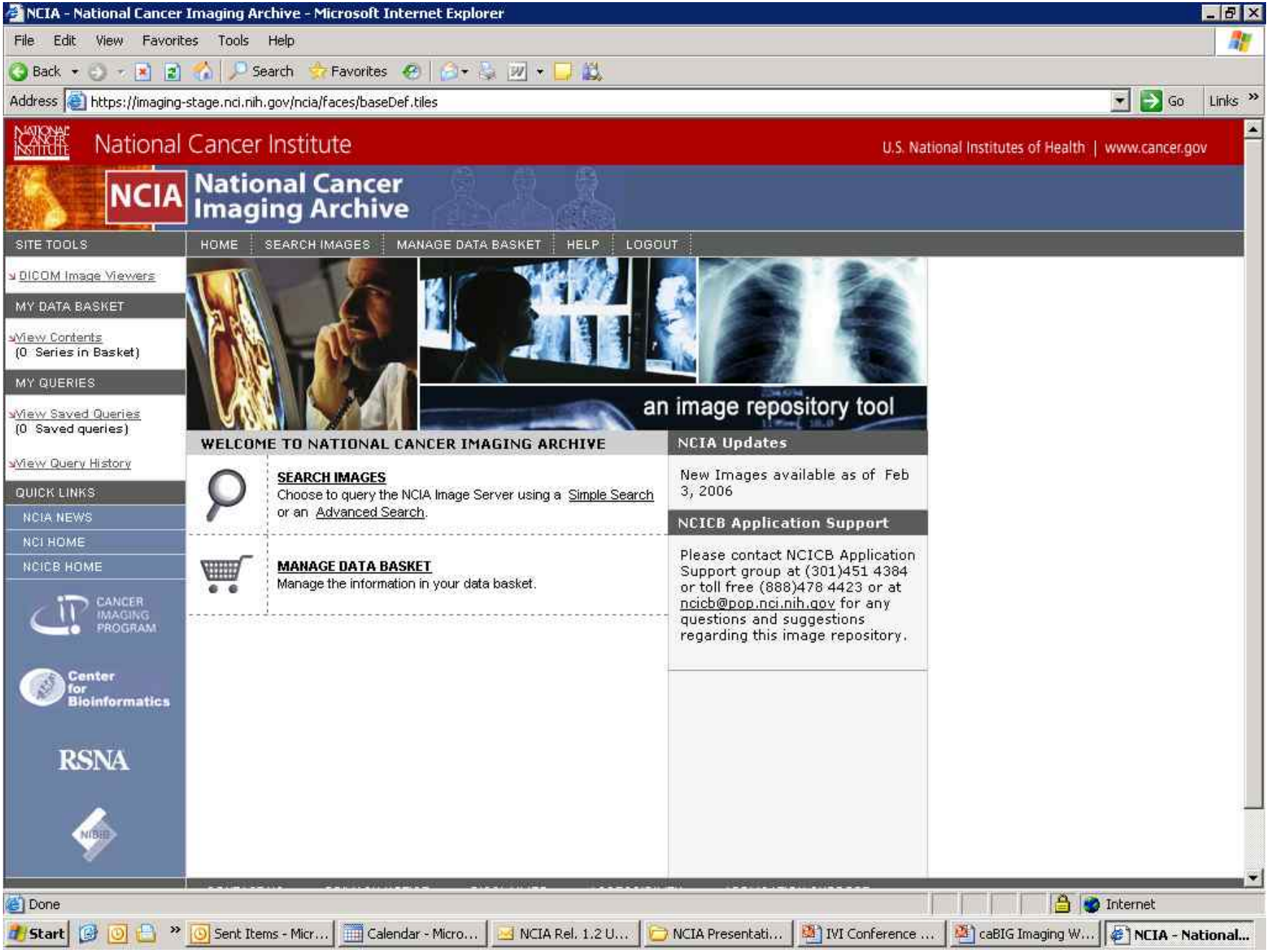

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# Compliance with Standards

- **NCIA provides compliance with standards:**
  - **Certified as caBIG silver compliant**
  - **Uses caCORE SDK**
  - **caGrid ready**
  - **caBIG compliant API**
  - **CDE driven object model**
  - **CDEs and object model are registered in caDSR**

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# NCIA as a Repository

- **Several Imaging Workspace projects need an image repository**
  - **Image Acquisition and Redistribution Software**
  - **Viewing and Annotation Software**
  - **Reference Research Workstation**
- **NCIA can be the repository**

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## Summary

- SIGs will engage in projects that further the strategic goals of the Imaging Workspace and caBIG™ program.
- SIGs will identify synergies with the other caBIG™ workspaces and current related and synergistic NCI projects (ex. NCIA).
- Will seek partnerships with external organizations within the caBIG™ community, to further Imaging Workspace and caBIG™ program goals (ex. ACRIN).

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# Internet Sites

- NCIA Portal - http://ncia.nci.nih.gov
- NCIA Web Application - http://imaging.nci.nih.gov
- NCICB - http://ncicb.nci.nih.gov
- caBIG - http://cabig.nci.nih.gov
- caBIG Imaging Workspace http://cabig.nci.nih.gov/workspaces/imaging

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# Questions & Comments

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