caBIG Program Update

In This Issue >

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Thank you from the NCI and NCICB >

On behalf of the National Cancer Institute (NCI) and the Center for Bioinformatics (NCICB), I would like to thank all the caBIG Cancer Center participants and other attendees for the outstanding success of the recent caBIG Workspace and Working Group Kickoff Meeting that took place in Washington, D.C. on February 19 and 20.

Representatives from all of the Cancer Centers participating in the caBIG pilot and interested staff of the NCI and other federal agencies, private industry, and the patient advocacy community met together for the first time to launch the caBIG project activities. This event was the culmination of many months of planning and the development of the caBIG vision, approach and structure in partnership with the cancer research community.

The Kickoff Meeting included both plenary sessions on the structure, coordination and approach of the caBIG initiative, as well as intensive, working breakout sessions for the various Workspaces and Working Groups. Dr. Andrew C. von Eschenbach (Director, NCI) and Dr. Anna Barker (Deputy Director, NCI) addressed the caBIG participants and emphasized the pivotal importance of caBIG to achieving the NCI 2015 challenge goal to eliminate the death and suffering due to cancer, and they expressed their great appreciation for the dedication of the cancer research community in embracing the caBIG initiative.

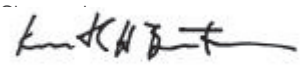
Within the breakout sessions, Workspace and Working Group participants reviewed proposed projects and needs, defined draft action plans, identified coordination and communication tactics, and prioritized activities going forward. Each group made exceptional progress in defining key goals and outcomes, and in mapping next steps. The success of these activities is testimony to the commitment and enthusiasm of the caBIG participants.

A high level overview of the activities of the Workspaces and Working Groups at the Kickoff Meeting is provided in this caBIG Program Update. Further details are available on the caBIG website at http://caBIG.nci.nih.gov including key notes and outcomes of meeting activities, lists of possible products or deliverables, and copies of plenary session presentations. I encourage you to access these materials and to watch the caBIG website for new information as it becomes available.

It is my pleasure to announce that, since the Kickoff Meeting, the Master Contractor (now called the General Contractor) has been secured to provide operational support for caBIG activities. Booz Allen Hamilton was awarded the General Contractor role and it is

anticipated that they will be up to full speed by late March 2004. Soon after this time, General Contractor representatives will start working with caBIG participants to negotiate contracts for caBIG activities.

Finally, I would like to again express my gratitude and deep appreciation for all the hard work and commitment of the caBIG participants that has enabled us to reach this point. I am very excited about the next steps of the caBIG community and look forward to working with you all to make the caBIG network a success.



Kenneth H. Buetow, Ph.D.
Director
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caBIG Kickoff Meeting Overview

The caBIG Workspace and Working Group Kickoff Meeting began with a half day session comprised of four plenary presentations that reinforced a common vision and understanding of caBIG for the participants. The next day and a half was spent in facilitated Workspace and Working Group breakout sessions. The participating Cancer Centers, organized into five collaborative Workspaces, were invited to give short presentations based on their roles as Developers or Adopters. These Workspaces include Clinical Trial Management Systems, Integrative Cancer Research, Tissue Banks and Pathology Tools, Vocabularies and Common Data Elements, and Architecture. In addition, three Strategic Level Working Groups met in working sessions to help address longer term issues related to Data Sharing and Intellectual Capital, Strategic Planning, and Training.

An overview of the Workspace and Strategic Level Working Group activities is given in the remainder of this caBIG Program Update. Further information on next steps, contractual activities for caBIG projects, and current caBIG resources is also provided.

Please see the caBIG website (http://caBIG.nci.nih.gov) for additional information on caBIG Kickoff Meeting activities including:

- Plenary presentations
- Session summaries (including information on key agreements in principle, and identified priority action areas and possible deliverables)
- Draft action plans
- Communication/coordination summaries
- Presentations given during breakout sessions
- Binder Materials (these materials are from the Handbook provided to participants at the Kickoff Meeting)

Kickoff Meeting Workspace and Working Group Update

An overview of the key activities and discussions for each caBIG Workspace breakout session is provided in the following sections. Workspace participants included funded Developers, Adopters and Working Group members.

caBIG Kickoff Meeting Additional Information.

Please see caBIG website for:

- Plenary presentations
- Session summaries
- Draft action plans
- Communication/coordination summaries
- Presentations given during breakout sessions
- Binder Materials

caBIG Clinical Trial Management Systems Workspace

The Clinical Trial Management Systems Workspace provided participants with current information about possible Developer projects and Adopter needs for testing and integration. NCICB's clinical trial tools and resources (e.g., CSAERS, C3D) were also discussed with the Workspace participants. Clinical Trial Management Systems participants defined Workspace tools and capabilities at a high level, drafted a short list of prioritized action items, and crafted an approach for Workspace communication and coordination. Almost 50 participants representing 28 organizations attended the Clinical Trial Management Systems sessions during the two-day meeting.

Clinical Trial Management Systems Workspace Developer presentations were given by the University of Pittsburgh and City of Hope. The University of Pittsburgh presentation focused on the four critical areas of the clinical trials life cycle, how their current applications address the life cycle, and what is needed to deploy at Adopter sites. The City of Hope noted that the variety of systems used over the past 15 years to support the research protocol life cycle has resulted in the need for an architecture to support in-trial and cross-protocol analyses using a unified data model.

Workspace Adopter presentations were given by Duke University, Wake Forest University, University of California Irvine—Chao Family, University of Pennsylvania—Abramson, and Case Western Reserve University—Ireland. These informative discussions highlighted many issues and needs for the Clinical Trial Management Systems Workspace to consider as part of their project activities including access to diverse types of clinical trial data, system integration, user-centered functionality, protocol- and patient-specific tools.

A representative from the Food and Drug Administration (FDA) also presented at the meeting and suggested the development of a central electronic repository for Investigators with primary benefits to reduce paper and labor intensive processing among researchers, sponsors, and the FDA.

Clinical Trial Management Systems Workspace participants discussed their communication and coordination needs and decided on meeting styles and frequency that combine face-to-face meetings and teleconferencing for formal discussions/actions and for ad hoc issues and "pulse checks." The meetings will be arranged around Clinical Trial Management Systems action items to provide a focused agenda.

The action planning and prioritization discussion resulted in a lengthy list of action items to be further defined, assigned leadership, and scheduled for implementation. The four top priority items that were identified by the Workspace participants follow:

- Adverse Event Reporting
- Interfaces to Lab Systems
- CDUS/Theradex/CTEP Reporting
- Financial/Billing Systems.

For additional information on the Clinical Trial Management Systems Workspace breakout session presentations, activities, discussions, agreements and possible deliverables, please see the caBIG website – http://caBIG.nci.nih.gov

caBIG Clinical Trial Management Systems Workspace

- Case Western Reserve University—Ireland
- City of Hope
- Duke University
- Northwestern University—Robert H. Lurie
- University of California Irvine—Chao Family
- University of California, San Francisco
- University of Iowa—Holden
- University of Minnesota
- University of Nebraska—Eppley
- University of Pennsylvania—Abramson
- University of Pittsburgh
- University of Wisconsin
- Vanderbilt University—Ingram
- Wake Forest University
- Yale University

caBIG Integrative Cancer Research Workspace

The Integrative Cancer Research Workspace participants met as a group during the Kickoff Meeting and discussed a wide range of topics, featuring presentations on many areas of informatics and information integration. Developer presentations from Burnham Institute, University of California San Francisco, Georgetown University—Lombardi, University of Chicago, Washington University—Siteman, University of North Carolina—Lineberger, Duke University, Dartmouth—Norris Cotton, Cold Spring Harbor, Memorial Sloan Kettering, University of Iowa – Holden, Fox Chase, and Thomas Jefferson University—Kimmel ranged from tools for genome, microarray and proteomics informatics, to a system for interactive, video-based remote group collaboration. Adopter presentations from University of South Florida—H. Lee Moffitt, New York University, Memorial Sloan-Kettering, Oregon Health and Science University, Wistar, and University of Pennsylvania—Abramson provided important insights on the related needs and concerns of the cancer research community. The Workspace also benefited from presentations on relevant NCICB activities and the participation of several Cancer Centers who were not funded participants of Integrative Cancer Research, but who had interests or capabilities in that area, and were willing to participate on their own.

All the participating Cancer Centers expressed an interest in receiving more detailed information about the specific software and databases presented, as well as, additional information about the platform, implementation, and data from each of the Developers, in order to be able to make informed decisions for prioritizing specific tools in which they were interested. It was agreed that the Workspace would maintain a database of tools available within the Workspace, providing the basis for a growing set of caBIG-enabled systems.

An intensive discussion about the capabilities and platforms of the tools presented took place, and a matrix was created linking specific Developer and Adopter groups with shared interests in particular tools. Wanting an opportunity to work with other Cancer Centers sharing similar interests in specific areas to undertake the review of tools and databases, several Special Interest Groups within the Workspace were formed, including both Developers and Adopters, working together on specific tools. The Special Interest Groups will follow up the Kickoff Meeting with a series of teleconferences in early April.

The Integrative Cancer Research Workspace participants also expressed a desire for explicit and close coordination with the Cross Cutting Workspaces - Architecture and Vocabularies and Common Data Elements. Cancer Centers with membership in both the Integrative Cancer Research Workspace and the Cross Cutting Workspaces were asked to act as coordinators for shared activities and communications between the Workspaces.

For additional information on the Integrative Cancer Research Workspace breakout session presentations, activities, discussions, agreements and possible deliverables, please see the caBIG website – http://caBIG.nci.nih.gov

caBIG Integrative Cancer Research Workspace

- Burnham Institute
- Cold Spring Harbor
- Columbia University—Herbert Irving
- Dartmouth—Norris Cotton
- Duke University
- Fox Chase
- Georgetown University—Lombardi
- Memorial Sloan Kettering
- Meyer L. Prentis—Karmanos
- New York University
- Northwestern University—Robert H. Lurie
- Oregon Health and Science University
- Thomas Jefferson University—Kimmel
- University of California, San Francisco
- University of Chicago
- University of Iowa—Holden
- University of Michigan
- University of North Carolina—Lineberger
- University of Pennsylvania—Abramson
- University of South Florida—H. Lee Moffitt
- Vanderbilt University—Ingram
- Washington University—Siteman
- Wistar

caBIG Tissue Banks and Pathology Tools Workspace

Participants in the Tissue Banks and Pathology Tools Workspace convened at the Kickoff Meeting to discuss the implementation and integration of tissue bank and pathology tools and infrastructure components in an effort to facilitate information sharing by the cancer research community.

Developers from Washington University—Siteman and the University of Pittsburgh presented tissue and pathology related technologies currently utilized by their respective Cancer Centers. NCICB representatives also provided an overview of relevant NCI activities. Adopters from Northwestern University—Robert H. Lurie, University of North Carolina—Lineberger, Dartmouth—Norris Cotton, University of Pennsylvania—Abramson, and Thomas Jefferson University—Kimmel provided insight into the capabilities and requirements of their respective Cancer Centers.

Based on Workspace participant discussions regarding the needs of the research community, the group identified high-level functional requirements and prepared a draft prioritization matrix. From these requirements, it was determined that, to develop or modify Tissue Banks and Pathology components or tools to achieve caBIG operability, the following were required:

- Shared policies and guidelines (e.g., IRB, Privacy Documents, Material Transfer Agreements)
- Common data elements and common terminology
- Open source tools and Application Programming Interfaces (APIs)
- Shared and accessible data
- Support from other Workspaces (Cross Cutting and Domain)
- Training and documentation

Upon completion of the prioritization matrix, the Workspace participants focused on identifying the scope of the effort, key milestones, and a phased implementation approach based on agreed prioritized requirements.

The next steps identified by the group are to:

- Review caBIG Tissue Bank and Pathology Tools Workspace documentation
- Formalize the Project Charter
- Share Database Schemas/Models
- Review Existing Common Data Elements and Coordinate with the Vocabularies and Common Data Elements Workspace
- Share IRB, Privacy, and Specimen Ordering Forms
- Survey other Cancer Centers
- Invite applicable vendors

For additional information on the Tissue Banks and Pathology Tools Workspace breakout session presentations, activities, discussions, agreements and possible deliverables, please see the caBIG website – http://caBIG.nci.nih.gov

caBIG Tissue Banks and Pathology Tools Workspace

- Dartmouth—Norris Cotton
- Indiana University
- Jackson Laboratory
- Johns Hopkins—Sidney Kimmel
- Thomas Jefferson University—Kimmel
- Northwestern University—Robert H. Lurie
- University of Alabama at Birmingham
- University of Arizona
- University of North Carolina—Lineberger
- University of Pennsylvania—Abramson
- University of Pittsburgh
- Virginia Commonwealth University—Massey
- Washington University—Siteman

caBIG Architecture Workspace

Participants of the Architecture Workspace met during the Kickoff Meeting to discuss their important role as a Cross Cutting Workspace and to identify key activities and next steps. During the course of these sessions, representatives from Georgetown University—Lombardi, University of Chicago, Washington University—Siteman, Duke University, Cold Spring Harbor, Ohio State University—Arthur G. James/ Richard J. Solove, University of Pittsburgh, Fred Hutchinson, and the University of Wisconsin presented approaches and frameworks for architecture projects. NCICB's existing bioinformatics architecture, caCORE, was also discussed with Workspace participants.

After hearing a wide range of issues and perspectives, the group agreed to address caBIG system architecture as a series of layered components. Each layer will include a set of system functions and an appropriate set of abstracted interfaces to the surrounding layers. This allows for design flexibility with each component layer while minimizing technical risk to a given layer.

The layers and components that were identified by the group include:

- APIs, query interface, exposed data/ metadata structures, grid service interfaces
- Model, metadata, management, data mappings, ID management, data and model change control
- Runtime technologies, service advertisement, execution of grid queries, messaging, workflow

The group also identified two areas that will require uniquely focused attention in order for caBIG to be successful:

- Security/authentication/authorization patient ID, honest broker. This functionality needs to be part of the runtime environment, but the group felt that it should be addressed as a distinct set of requirements and may need special attention
- Software development best practices, tutorials, testing, communications, standards adoption. The group feel that these activities need to be part of the caBIG development landscape for all Domain Workspace activities.

For each of these areas identified, workgroups were formed with representation from Workspace participants. Various methods of communication between the Working Groups and other Workspaces were addressed. The group recognized that the Architecture Workspace, being a Cross Cutting Workspace, needs to gain information from other Workspaces (which will ultimately adopt the standards and products produced by the Architecture Workspace).

Finally, the Architecture Workspace agreed that, at periodic intervals, a reference implementation that instantiates all the components should be constructed. These reference implementations should be drawn from pilot projects in the Domain Workspaces.

For additional information on the Architecture Workspace breakout session presentations, activities, discussions, agreements and possible deliverables, please see the caBIG website – http://caBIG.nci.nih.gov

caBIG Architecture Workspace

- Cold Spring Harbor
- Duke University
- Georgetown University—Lombardi
- Fred Hutchinson
- Ohio State University—Arthur G. James/ Richard J. Solove
- University of Chicago
- University of Pittsburgh
- University of Wisconsin
- Washington University—Siteman

caBIG Vocabularies and Common Data Elements Workspace

At the Kickoff Meeting, the Vocabularies and Common Data Elements Workspace participants reviewed and set priorities for the proposed activities. Representatives from University of California—Davis, University of Hawaii, Jackson Laboratory, Mayo Clinic, Albert Einstein, University of Pittsburgh, and Fred Hutchinson presented information on possible project areas or activities. NCICB representatives discussed existing vocabulary and common data element resources that the NCI could contribute to the activities of the Workspace.

Members also engaged in discussions about the role of their Cross Cutting Workspace in helping to identify and support review, approval, and implementation of both vocabulary and common data element standards across the Domain Workspaces. The take away items from the Workspace breakout sessions were a communications plan, action items, broad issues of concern, and initial meeting agendas.

Participants established methods for communicating with other Workspaces to discuss standards, assisted in the development of standard vocabularies/ common data elements, and integrated activities across all Domain Workspaces. How standard vocabularies will be employed relies in a large part on the development plan of the Architecture Workspace. The group identified the coordination of efforts with the Architecture Workspace as a major directive. Additional communication needs involve working with relevant efforts external to caBIG (e.g., HL7, CHI standards, ISO 11179, W3C), as well as, the cancer research community.

General and immediate action items were agreed upon to assist the Workspace participants to achieve their goals. The initial action items focus on educating the Workspace members on relevant standard vocabularies and common data elements with subsequent educational activities to be shared with the Domain Workspaces. Additional action items are listed as follows:

- Educate Workspace participants on knowledge space (e.g., NCI services, Mayo models, Hutchinson models)
- Provide Workspace members with access to NCI's caDSR (VPN account)
- Develop organizational structure of the Working Group
- Coordinate with Architecture Working Group and Workspace
- Understand other Workspace needs (interaction and gap analysis)
- Establish training needs for Workspace and cancer community
- Generate Use Case Scenarios
- Development of Common Information Processing Model
- Coordinate with outside entities (e.g., Standards Bodies, Program Initiatives)

The group also identified a variety of issues related to vocabulary and common data element development and use. Some issues to be addressed in future meetings include:

- Applicability of an information process model in identifying caBIG standards
- Need for development of use cases within domains

caBIG Vocabularies and Common Data Elements Workspace

- Albert Einstein
- Fred Hutchinson
- Jackson Laboratory
- Mayo Clinic
- University of California—Davis
- University of Hawaii
- University of Pittsburgh

- Assignment of responsibility for development of Common Data Elements for domains
- Centralized/distributed tools and resources for Vocabulary and Common Data Element development
- Process for evaluating applicable standards
- Process for conferring approval for Common Data Elements
- Schedule for standards evaluation and selection; and how that fits with schedule for caBIG development

The Workspace members agreed that the successful implementation of standard vocabularies and common data elements will require both a significant development effort and an educational focus. The ability to achieve true interoperability will be attained by reaching across domains, leveraging NCI and community initiatives, and promoting the use of standard vocabularies.

For additional information on the Vocabularies and Common Data Elements Workspace breakout session presentations, activities, discussions, agreements and possible deliverables, please see the caBIG website – http://caBIG.nci.nih.gov

Kickoff Meeting Strategic Level Working Groups Update

An overview of the working session activities and discussions of the three caBIG Strategic Level Working Groups is provided in the sections below.

caBIG Strategic Planning

Members of the Strategic Planning Working Group met at the Kickoff Meeting to discuss ways in which they could assist the caBIG Oversight Board in the areas of strategic planning and vision development activities. The deliberations produced a list of possible deliverables, which included the creation of a framework to assess the adequacy and progress of Workspace goals and the development and deployment of usability guidelines for caBIG work products.

The Strategic Planning Working Group also discussed the issue of interacting with outside organizations and experts, drawing up a list of possible external players that may provide beneficial contributions to the caBIG effort. The group recommended the development of a protocol for conducting such interactions.

In furtherance of the development of a detailed strategy, the group produced a list of action items, which included creation of a collaborative work environment and the development of caBIG strategy roadmap, pinpointing salient topics and setting short and long term goals over the next decade.

The Strategic Planning Working Group has demonstrated its commitment to the caBIG effort, agreeing to participate in bi-weekly teleconferences and convene bi-annually in order to advance the goals set during the caBIG Kickoff Meeting.

For additional information on the Strategic Planning Working Group breakout session discussions and activities please see the caBIG website – http://caBIG.nci.nih.gov

caBIG Strategic Planning

- City of Hope
- Cold Spring Harbor
- Duke University
- Fox Chase
- Fred Hutchinson
- MD Anderson
- St Jude Children's Research Hospital
- University of Alabama at Birmingham
- University of Colorado
- University of Iowa—Holden
- University of Pennsylvania—Abramson
- University of Pittsburgh
- University of Southern California—Norris
- University of Vermont
- Washington University—Siteman
- Yale University

caBIG Data Sharing and Intellectual Capital

The initial meeting of the Data Sharing and Intellectual Capital Working Group was held at the Kickoff Meeting. Sixteen representatives from Cancer Centers and a patient advocate attended this session and engaged in a lively discussion of issues related to data sharing and the risks to intellectual capital that may affect the caBIG initiative.

The group discussion focused on the following topics:

- Define the caBIG program data context
- Identify potential constraints to the sharing of data and intellectual capital
- Identify what data needs to be shared, how to share the data, and who will have access to the data
- Identify issues/solutions raised by the previous topic that must be addressed
- Identify and propose a cancer community cultural standard with input from industry participants
- Identify patient consent and privacy issues
- Identify additional caBIG participants for inclusion in the initiative

The key points raised and outcomes from these topic discussions are noted below:

Define the caBIG Program data context. The group discussed and agreed that the following categories of data that must be shared: clinomic, genomic, proteomic, and patient data. The group also noted that the term "open source" can be interpreted in different ways and therefore the group should establish a working definition for caBIG purposes.

Identify potential constraints to the sharing of data and intellectual capital. The group discussed the general lack of confidence in the current technology and the need to restrict access to unpublished data. Two issues were raised: the risk of interpreting data out of context (e.g., partial datasets made available before conclusion of long term studies); and various methods of assigning credit to the primary investigator for the development of data in subsequent, follow-on research.

Identify what data needs to be shared, how to share the data, and who will have access to the data. The group identified the following types of data that may need be shared as part of caBIG activities:

- Pre-publication data which generate IP rights (e.g., data coming out of the Integrative Cancer Research Workspace)
- Post publication data
- Clinical Trials data
- De-identified specimen and tissue resources

Identify issues/solutions raised by the previous topic that must be addressed. The following issues were identified by the group:

- Security issues; confidence concerns relating to privacy and protection of proprietary information; confidence concerns relating to technical accuracy.
- Authentication
- Patient privacy; is there a prototypical system that could be adapted for caBIG needs?
- Setting up the systems and establishing the data exchanges is the most difficult;

caBIG Data Sharing and Intellectual Capital

- University of Arizona
- City of Hope
- Cold Spring Harbor
- Fred Hutchinson
- Jackson Laboratory
- Johns Hopkins—Sidney Kimmel
- Oregon Health and Science University
- Thomas Jefferson University—Kimmel
- University of Iowa—Holden
- University of North Carolina—Lineberger
- University of Michigan
- University of Minnesota
- University of Pittsburgh
- Washington University—Siteman

mapping data elements that are not consistent is difficult; consistent annotations are required across all sites; a research evaluation management process may be required; develop a program for standardized material transfer and licensing agreements (models are available from www.pcabc.upmc.edu); and issues presented by access by industry, both pharma and biotech.

Identify and propose a cancer community cultural standard with input from industry participants. The group recognized that a major issue is the cultural differences between business/pharma and research communities. The group recognized that the caBIG initiative must address patent rights and protection of proprietary information while recognizing the potential challenges to industry participants posed by their competitors.

Identify patient consent and privacy issues. The group identified three issues concerning patient consent that must be addressed: data that can be shared is dependent upon the consent given by the patient; the scope of patient consent is haphazard; and the wording of IRB consent forms needs to be standardized. It was suggested that caBIG could use the HIPAA privacy requirements as a baseline, but upon further consideration it was determined that the scope of these consents are not consistent. Therefore, caBIG may be able to contribute by recommending ways to standardize consents and/or authorizations.

Identify additional participants for inclusion in caBIG initiative. The group identified the following entities to include as possible future participants within the scope of data sharing and intellectual capital:

- An organization representing IRBs (e.g., Public Responsibility in Medicine and Research (PRIM&R))
- American Bar Association (ABA)
- American Intellectual Property Law Association (AIPLA)
- Food and Drug Administration (FDA)

For additional information on the Data Sharing and Intellectual Capital Working Group breakout session discussions and activities please see the caBIG website – http://caBIG.nci.nih.gov

caBIG Training

The Training Working Group convened to discuss their mandate and to delineate priorities and next steps. Participants from seven Cancer Centers attended this working session as well as representatives from NCI's Center for Strategic Dissemination and the Office of Communications.

The group discussed the focus of their activities and agreed that training, coordination, communication, promotion and marketing were critical areas where they could contribute to the caBIG initiative. The remainder of the discussion at the meeting focused on the following three areas:

- Internal communication and facilitating collaboration
- Training
- External communication, promotion and marketing (e.g., with the cancer center community and the broader community)

caBIG Training

- Cold Spring Harbor
- Institute for Cancer Prevention
- Johns Hopkins—Sidney Kimmel
- Mayo Clinic
- Oregon Health and Science University
- University of California—Davis
- University of Chicago
- University of Iowa—Holden
- University of Pennsylvania—Abramson
- University of Pittsburgh

For each of these areas, the Working Group participants discussed and identified possible objectives, strategies, tactics and timelines. In the area of internal communication, group members felt that they could play an important and active role in promoting and facilitating effective communication within and between Working Groups and Workspaces. Related strategies and tactics for internal communication were discussed including options for providing multi-modal communication/collaboration mechanisms and the creation of a registry of current caBIG project activities.

In the area of training, group members emphasized the importance of developing a toolkit of standardized approaches for caBIG training that were tailored to specific audiences and user groups. Participants felt that was necessary to gain a more comprehensive understanding of the training needs of different caBIG audiences, effective mechanisms for training delivery and barriers to entry.

The discussion on external communication, promotion and marketing centered around how this Working Group could foster and promote awareness of caBIG activities in a way that was consistent and meaningful to a wide variety of audiences (e.g., public, patient advocacy community, private industry, and caBIG co-developers).

All the key areas discussed by the group were identified as high priority areas for action. The most urgent action items that were noted by participants are detailed below:

- Actions related to internal communication and collaboration
- Mechanisms for internal coordination and communication within the Working Group
- Establishing a next meeting of the Working Group

For additional information on the Training Working Group breakout session discussions and activities please see the caBIG website – http://caBIG.nci.nih.gov

Next Steps and Contracts for caBIG Project Activities

The caBIG Workspace and Working Group Kickoff Meeting represents the launching point of caBIG project activities. We are now poised to move the initiative forward by carrying out the actions and activities outlined in the individual Workspace and Working Group action plans, and begin to establish the communications processes to provide for interaction among caBIG participants. Within each of the Workspaces and Working Groups, there are specific next steps, many of which will be carried out by the General Contractor in conjunction with the caBIG participants. Over the next few weeks, each of the Workspaces and Working Groups will start to have follow-up meetings and teleconferences, and the participating Cancer Centers will begin the process of determining their specific plans for involvement in the project. When those plans begin to be implemented, we can confidently say we have moved beyond the kickoff stage of caBIG.

The General Contractor will start contacting the participating Cancer Centers in the beginning of April to discuss contracts, with the first contracts awarded soon afterwards. The process of awarding contracts to the Cancer Centers in support of the overall caBIG initiative will be guided by the General Contractor in collaboration with NCI. This process will consist of four basic steps:

1. A basic agreement with general terms and conditions will be executed with each Cancer Center.

2. SOWs provided by NCI will be sent to appropriate Cancer Centers seeking a cost proposal and project schedule in response.

3. Individual task orders will be issued under the basic agreement for each SOW, which provides funding, establishes a payment schedule with the goal of monthly payments, and allows for work to start. Payment will be based on deliverable submission and acceptance, whereby NCI is the accepting official.

4. Monthly reports and other deliverables submitted to the General Contractor will allow progress to be monitored and will facilitate periodic payments.

To clarify potential misconceptions, answer questions, and begin to establish a working dialogue with Cancer Center contracts staff, a series of teleconferences will be arranged over the next few weeks. The basic agreement will then be provided to the Cancer Centers in a phased manner determined by NCI, to be followed by Statements of Work and corresponding task orders.

caBIG Information and Resources

There are many ways to access additional information and resources on the caBIG initiative and activities. Where possible, the caBIG project team is providing caBIG information and resources via the caBIG website and other electronic mechanisms such as listservs and forums. The intention is to provide simple access to anyone interested in learning more about caBIG activities.

Below is a list of existing caBIG information and resources and related NCI activities such as caCORE. This list will continue to grow as caBIG moves forward with project activities.

- General caBIG Information and caBIG homepage (including information on the caBIG Kickoff Meeting):

  http://caBIG.nci.nih.gov

- caBIG Interactive Overview (multi-media presentation on caBIG):

  http://www.nci.nih.gov/directorscorner/caBIG

- caBIG Workspaces:

  http://caBIG.nci.nih.gov/workspaces

- Inventory of caBIG infrastructure, applications and datasets:

  http://caBIG.nci.nih.gov/inventory

- caCORE – NCI's bioinformatics infrastructure:

  http://ncicb.nci.nih.gov/core

- National Cancer Institute Center for Bioinformatics (NCICB) homepage:

  http://ncicb.nci.nih.gov

In addition to these more general resources, a specific **caBIG Forum** has been established to provide a resource through which all of the caBIG participants can communicate and coordinate with other caBIG members. The forums are readable by anyone, but posting is limited to registered participants.

The caBIG forums can be reached at the following URL: http://ncicbforums.nci.nih.gov/cabigforum

If you do not yet have a login, and you are a registered participant in the caBIG project, you can get one by sending email to Leslie Derr at derrl@mail.nih.gov