### Update on caBIG In Vivo Imaging Workspace

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### caBIG In Vivo Imaging Workspace

- Launched Oct. 2005
- "The workspace will define the needs for and participate in creating, optimizing, and validating tools and methods to extract meaning from in vivo imaging data. In this process, participants will also be actively engaged in defining, refining, and evolving interoperable in vivo imaging informatics data standards. The in vivo imaging technologies and modalities addressed will include systems for research and clinical imaging of live patients and animals (including single-cell organisms) used as model systems for human disease." (https://cabig.nci.nih.gov/workspaces/Imaging/)



# caBIG IVI WS Working Groups (1)

- Vocabulary and Common Data Elements metadata needed for annotation of images, the terminology and ontology (concepts and relationships) needed to represent knowledge about images, and natural language processing techniques for analyzing descriptive text.
- 2. Imaging Standards –relationships with standards bodies (DICOM, IHE, etc.), efforts to harmonize clinical and research workflows to facilitate data collection for clinical trials, DICOM implementation for small-animal imaging systems, and the standardization of imaging workstation functionality.



## caBIG IVI WS Working Groups (2)

- **3. Software** imaging tools for a) detection, b) delineation/ characterization, and c) change over time or in response to therapy of cancer, both in research activities and for clinical treatment; techniques and dataset for software validation, software for multi-center distributed readers, and registries of available software tools.
- 4. Grid/Architecture development of computeraided detection algorithms in a distributed computing environment using the caGRID 0.5 technology; "Kitware" toolkits software for enabling GRID access in existing algorithms.

