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NCI efforts to expand the Cancer Biomedical Informatics Infrastructure

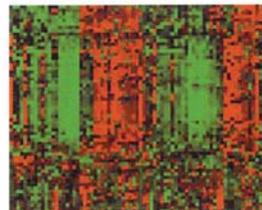
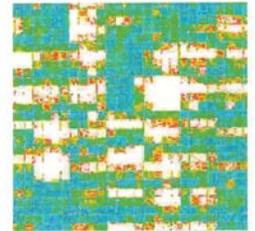
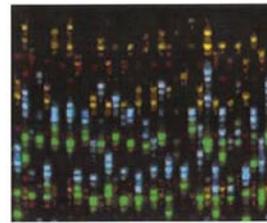
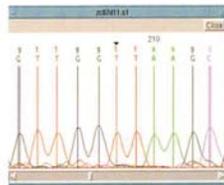
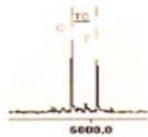
Ken Buetow
NCICB/NCI/NIH/DHHS

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Incredible developments in biomedical information generation



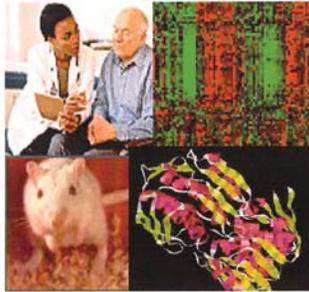
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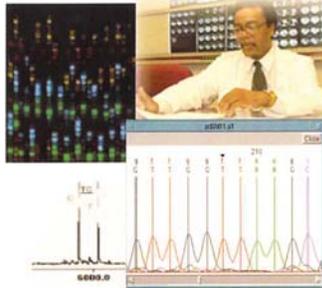
NCI Research Platforms

Cancer
Centers



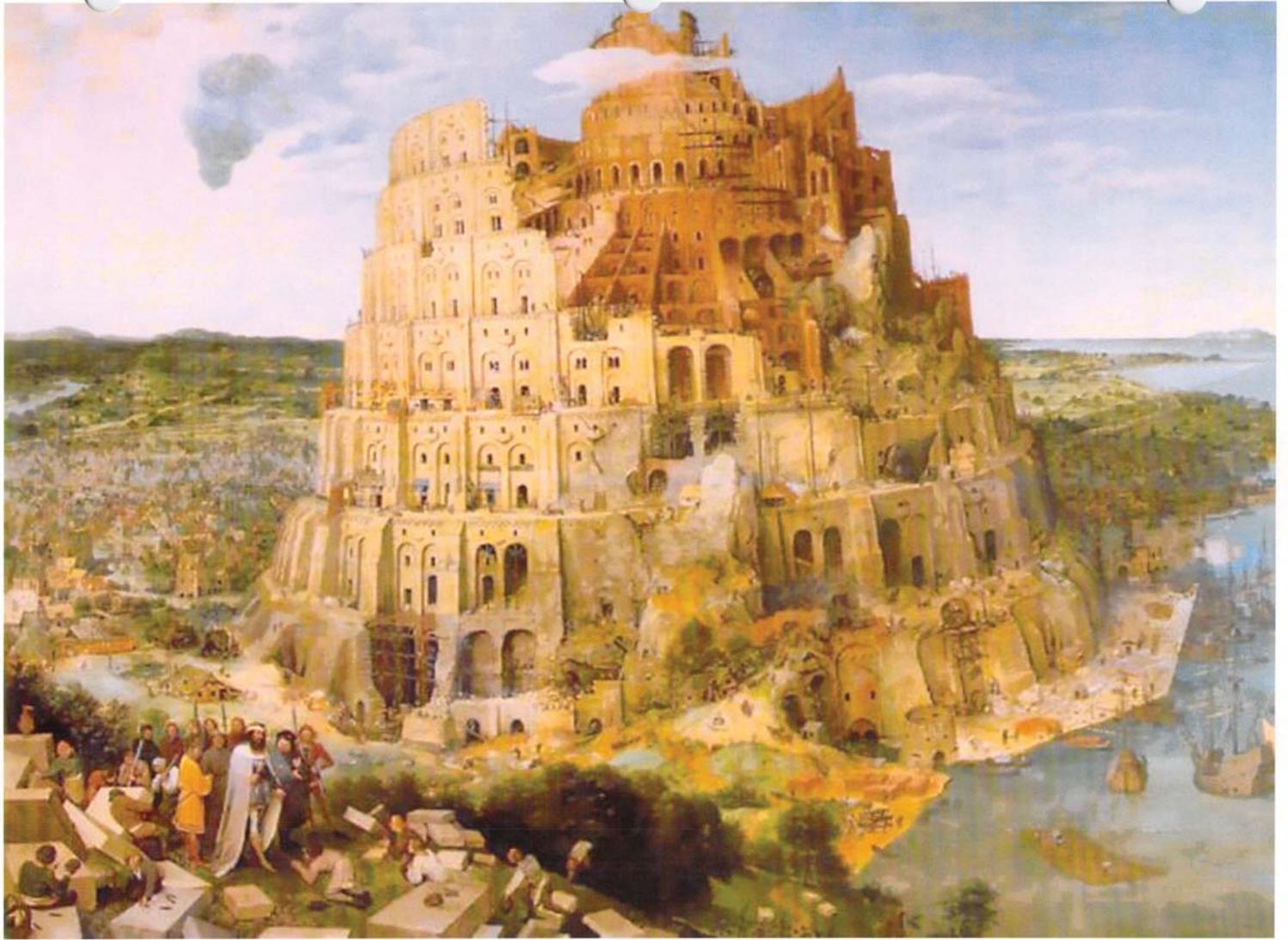
COOP
Groups

SPORE



Specific
Initiatives
(MMHCC)

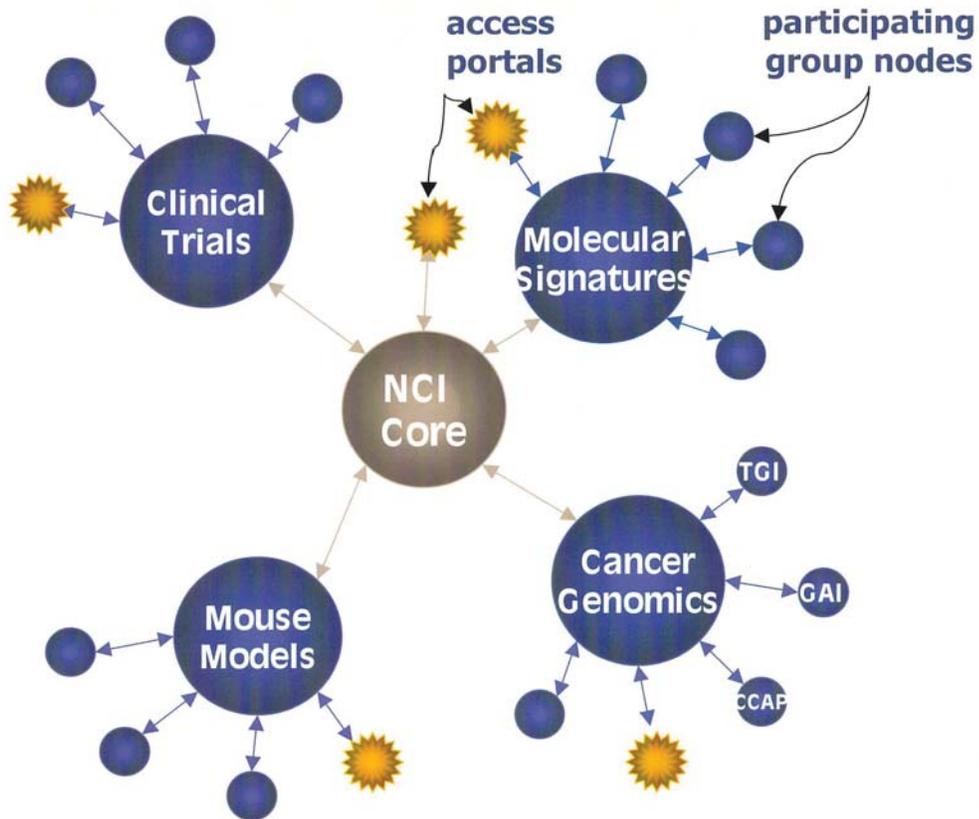
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building common architecture, common tools, and common standards





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my home entertainment system...



- modular
- defined connections
- multimedia presentation
- multiple standardized content
- expandable
- updatable



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NCI-supported standards

- Vocabulary/Ontologies - EVS
- Common data elements - caDSR
- Common data models - caBIO



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Modular components:

- clinical trials support - C3D
- molecular pathology - caArray
- cancer images - calmage
- pre-clinical models - caModelsDb
- laboratory support - caLIMS

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Content

- Cancer genomics data
- Gene expression data
- Mouse model data
- Therapeutic agents
- Clinical trial protocols



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Were from the government,
and we're here to help...

- **Goal:** data generated among diverse research disciplines by different investigators can be transparently connected, analyzed, and integrated through a network of distributed institutional nodes

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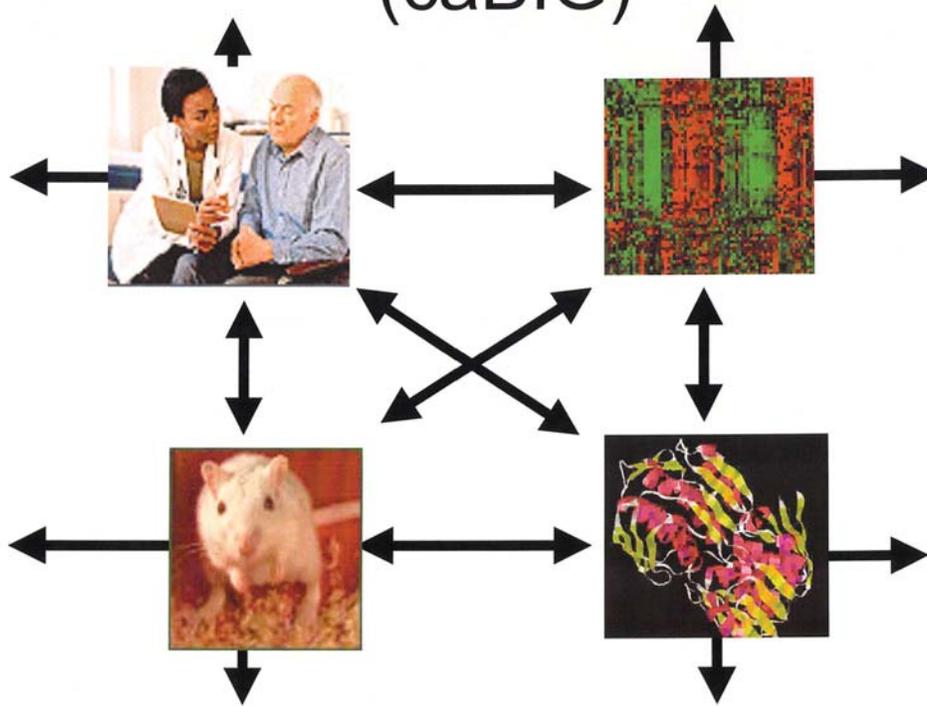
Cancer Biomedical Informatics Grid (caBIG)

- Common, widely distributed informatics platform
- Shared vocabulary, data elements, data models
- Common standard for developing applications

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Cancer Biomedical Informatics Grid (caBIG)



Within a group, extended NCICB caCORE and local infrastructures join diverse data and connect it to public data sources



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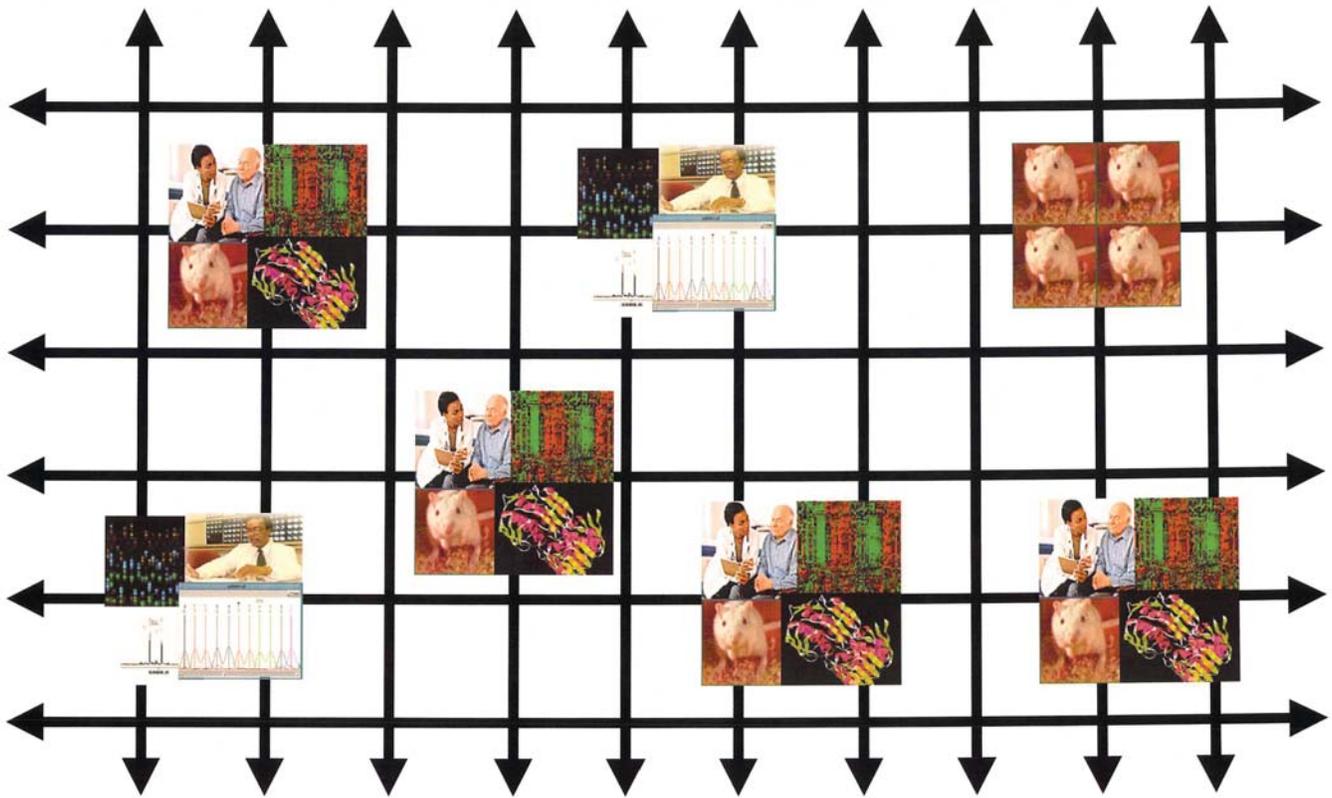
Cancer Biomedical Informatics Grid (caBIG): pilot effort

- Groups willing to share:
 - Infrastructure
 - Applications
 - Data
 - Communities
- NCI support for local efforts
- NCICB support to utilize caCORE and applications
- Coordination with NCI advisory bodies and cancer research community (AACI, AACR, ASCO, others)
- ~ 10 groups

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Pilot Cancer Biomedical Informatics Grid (caBIG)





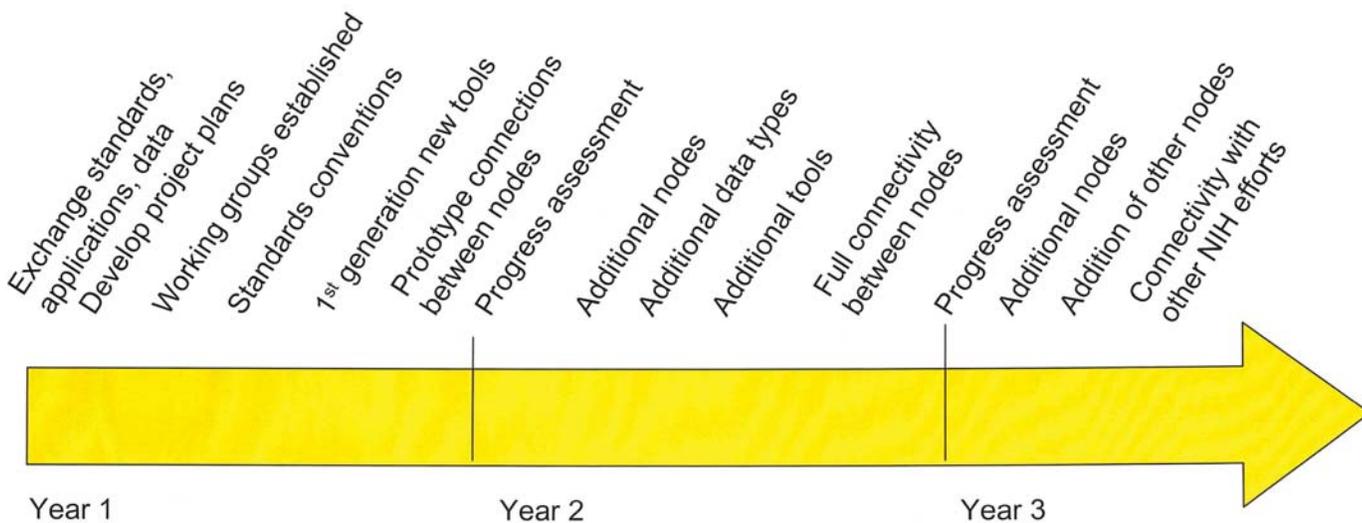
Cancer Biomedical Informatics Grid (caBIG): timeline

- Phase I – (summer 2003)
 - Meetings to discuss caBIG initiative
 - NCI-designated Cancer Center needs/capability/interest assessment
 - Extensions to NCICB infrastructure
- Phase II – (early fall 2003)
 - Select pilot participants
 - Develop business plans
 - Establish working group
 - Establish communications portal for sharing resources
 - Infrastructure
 - Applications
 - Data
- Phase III – (late 2004)
 - Preliminary Assessment of pilot network
 - Expand participation



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Cancer Biomedical Informatics Grid (caBIG): milestones/deliverables





Cancer Biomedical Informatics Grid (caBIG)

