“CAMERA Goes Live!"

Presentation with Craig Venter
National Press Club
Washington, DC
March 13, 2007

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CAMERA: Community Cyberinfrastructure for Advanced Marine Microbial Ecology Research and Analysis



Paul Gilna Ex. Dir.

National LambdaRail
Direct Connect
Computation and Storage Complex

PI Larry Smarr

Funded by: Gordon and Betty Moore Foundation

Joint Partnership of:

UCSD
UCIrvine

Announced January 17, 2006
$24.5M Over Seven Years

Calit2 CAMERA Production
Compute and Storage Complex is On-Line



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Marine Microbial Ecology

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The Calit2 CAMERA Metagenomics Site is Now Active

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HOME | ABOUT CAMERA | METAGENOMICS | RESEARCH | NEWS | EVENTS | DISCUSSION FORUMS



Larry Smarr with Rick Stevens, Argonne National Laboratory, SC07 (Supercomputing), demonstrating streaming HD video of deep-sea vents on a portable CalIT2-designed, ecotouch tiled display wall

WELCOME TO CAMERA!

We are proud to announce that version 1.0 of the CAMERA (Community Cyberinfrastructure for Advanced Microbial Ecology Research and Analysis) website is now available to the public following a two-month Beta testing period. CAMERA is a user-driven site dedicated to providing the scientific community with metagenomics data and analysis tools.

This first full production release coincides with the publications of a set of papers (based on the Global Ocean Sampling expedition data) in the Public Library of Science Online Journal in March 13, 2007.

WHAT'S NEW IN 1.0?

Based on community input during the testing period, a number of features have been added from the Beta release, including the following:

- Additional searchable databases of microbial eukaryote, fungal and viral sequence data
- Redesigned BLAST results display
- Improved sequence and metadata export capabilities for BLAST search results
- 58 new marine microbial genomes from the Moore Foundation Marine Microbial Sequencing Project



Funded by the Moore Foundation

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News and Events

- Microbial Genomics 2007 April 11th, 2007
- Metagenomics 2007 July 10th, 2007
- Genomics, Medicine, and the Environment 2007 October 8th, 2007

More Events

- CAMERA press conference will be held tomorrow, March 13, from 10-11 a.m. EST. After tomorrow an

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http://camera.calit2.net/

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CAMERA
Global Ocean Sampling Page



Sample ▲	Size	Habitat Type	Geographical Location	Sample Location	Country	Latitude	Longitude	Sample Depth
GS000a	770.4 MB	Open Ocean	Sargasso Sea	Sargasso Station 13	Bermuda (UK)	31d 32'06"n	63d 35'42"w	5 m
GS000b	376.4 MB	Open Ocean	Sargasso Sea	Sargasso Station 13	Bermuda (UK)	31d 32'06"n	63d 35'42"w	5 m
GS000c	436 MB	Open Ocean	Sargasso Sea	Sargasso Stations 3	Bermuda (UK)	32d 10'29.4"n	64d 00'36.6"w	5 m
GS000d	393.8 MB	Open Ocean	Sargasso Sea	Sargasso Station 13	Bermuda (UK)	31d 32'06"n	63d 35'42"w	5 m
GS001a	168.1 MB	Open Ocean	Sargasso Sea	Hydrostation S	Bermuda (UK)	32d 10'00"n	64d 30'00"w	5 m
GS001b	107.1 MB	Open Ocean	Sargasso Sea	Hydrostation S	Bermuda (UK)	32d 10'00"n	64d 30'00"w	5 m
GS001c	108.8 MB	Open Ocean	Sargasso Sea	Hydrostation S	Bermuda (UK)	32d 10'00"n	64d 30'00"w	5 m
GS002	150.2 MB	Coastal	North American East Coast	Gulf of Maine	USA	42d 30'11"n	67d 14'24"w	1 m
GS003	77.7 MB	Coastal	North American East Coast	Browns Bank, Gulf of Maine	Canada	42d 51'19"n	66d 13'2"w	1 m
GS004	66.4 MB	Coastal	North American East Coast	Outside Halifax, Nova Scotia	Canada	44d 8'14"n	63d 38'40"w	2 m
GS005	78.7 MB	Embayment	North American East Coast	Bedford Basin, Nova Scotia	Canada	44d 41'25"n	63d 38'14"w	1 m
GS006	75.1 MB	Estuary	North American East Coast	Bay of Fundy, Nova Scotia	Canada	45d 8'42"n	64d 58'48"w	1 m
GS007	64.3 MB	Coastal	North American East Coast	Northern Gulf of Maine	Canada	43d 37'56"n	66d 50'50"w	1 m
GS008	160.8 MB	Coastal	North American East Coast	Newport Harbor, RI	USA	41d 29'9"n	71d 21'4"w	1 m
GS009	99.6 MB	Coastal	North American East Coast	Block Island, NY	USA	41d 5'26"n	71d 35'6"w	1 m
GS010	96.2 MB	Coastal	North American East Coast	Cape May, NJ	USA	38d 55'24"n	74d 41'8"w	1 m

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CAMERA is Already in Use Worldwide

- **Users from over 40 Institutions in North America, Europe, and the South Pacific**
  - **Including Australia, Canada, France, Germany, Mexico, the Netherlands, Spain, Sweden, Switzerland, and the U.K.**
  - **> 240 Research Scientists, Postdocs, and Students**

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Use of Tiled Display Wall OptIPortal to Interactively View Microbial Genome



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Powered by Rocks

ROCKS

Acidobacteria bacterium Ellin345
Soil Bacterium 5.6 Mb

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Use of Tiled Display Wall OptIPortal to Interactively View Microbial Genome



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Source: Raj Singh, UCSD

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Use of Tiled Display Wall OptIPortal to Interactively View Microbial Genome



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Calit2 Advanced Cyberinfrastructure Connects Remote Microbial Researchers with OptIPortals

