

Special Notice DARPA-SN-11-32: Chronicle of Lineage Indicative of Origins (CLIO)  
Proposer's Day Workshop, Workshop Date: Monday, March 28, 2011  
REGISTRATION DEADLINE: 4:00 PM ET, Friday, March 25, 2011  
TECHNICAL POC: Dr. Michael Callahan, DARPA/DSO  
Email: [DARPA-SN-11-32@darpa.mil](mailto:DARPA-SN-11-32@darpa.mil)  
URL: [http://www.darpa.mil/Opportunities/Solicitations/DSO\\_Solicitations.aspx](http://www.darpa.mil/Opportunities/Solicitations/DSO_Solicitations.aspx)

The Defense Sciences Office (DSO) of the Defense Advanced Research Projects Agency (DARPA) is hosting a Proposers' Day Workshop that will provide critical information on the program vision, the program objectives, and opportunities associated with the development of an interdisciplinary proposal to respond to the Chronicle of Lineage Indicative of Origins (CLIO) Broad Agency Announcement, DARPA-BAA-11-42. This solicitation is specifically for multidisciplinary research proposals in the area of genomic and proteomic technologies that can continuously and persistently record specific natural or human promulgated environmental, physical and genomic events within the genetic or epigenetic systems of microorganisms.

The CLIO program specifically seeks to enhance biological security and the protection of genomic intellectual property in the global biocommodities community by developing safe and secure systems for encoding non-hereditary events into the genome of viruses and prokaryotes. These technologies will enable the protection and authentication of intellectual property in high value organisms, ensuring compliance with agreements during licensure for foreign manufacturing and exoneration of laboratories, institutions, and states in incidents involving misuse. The funding is intended to establish the technical precedence for the use of genomic, epigenic or biophysical taggant systems to record information and potentially to report on environmental events during research or commercial activities.

The vision of the CLIO program is to develop and demonstrate novel methods to:

- Ensure the safe handling of pathogenic organisms by preventing the adverse manipulation of these pathogens (i.e., addition of virulence factors, immune-modulators or antibiotic resistance genes) and providing secure access to proprietary microorganisms;
- Protect intellectual property in the microbial genome and authenticate ownership and true origin of organisms by genetic and non-genetic signatures (possibly utilizing a cryptographical or complex mathematical approach) that are stably incorporated into the microbe's critical metabolic or genomic processes and cannot be altered by transient events (e.g., evolutionary events and/or manipulation);
- Document through persistent encoding systems that are integrated in a microorganism the chronology and nature of manipulation or environmental conditions, including growth conditions, cell metabolism, division, genetic manipulation such as introduction of antibiotic resistance, animal passage or large-scale growth.

The CLIO Proposers' Day Workshop will introduce interested researchers to the details of the program, provide a forum to facilitate interaction and encourage collaboration between researchers with expertise in relevant disciplines.

The CLIO Proposers' Day Workshop will be held on Monday, March 28, 2011 at the Booz Allen Hamilton building located at 3811 North Fairfax Drive, Arlington, VA, 22203 from 1:00pm – 4:00pm. The goals of the workshop are to: (a) introduce the research community (academia and industry) to the CLIO program vision and its goals; (b) explain the mechanics of a DARPA program and the objectives and milestones of this particular anticipated effort; and (c) encourage and promote collaborative arrangements among potential organizations that have the relevant expertise, facilities and capabilities for executing a research and development program responsive to the CLIO program goals.

Potential participants should note that formation of research teams with sufficient expertise to address the objectives described in the anticipated BAA will be critical to the success of the CLIO program. DARPA is specifically interested in trans-discipline teams with expertise in mathematical disciplines associated with encryption, epigenetics and epigenetic control, genetic control elements, and synthetic biology.

Workshop details including registration, meeting location and lodging are provided on the registration website.

Please note: This workshop is UNCLASSIFIED. No CLASSIFIED discussions or information are permitted at the venue.

To register for the workshop please visit: <http://events.SignUp4.com/CLIO>

The username is: CLIO

The password is: ProposerDay

There is no fee for the CLIO Proposers' Day Workshop. Registration is limited (maximum 100 people; 2 people per organization) by the venue capacity. The registration cutoff date is 4:00PM ET, Friday, March 25, 2011, and early registration is strongly recommended.

Further administrative questions should be addressed to [DARPA-SN-11-32@darpa.mil](mailto:DARPA-SN-11-32@darpa.mil). Please refer to the CLIO Proposer's Day Workshop (DARPA-SN-11-32) in all correspondence. This announcement is not a request for proposals; any so sent will be returned.

#### **Point of Contact**

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