# CALL FOR ABSTRACTS

Poster Session on Genomics and Proteomics

***10TH Annual FDA Science Forum***

## FDA Science: The Critical Path from Concept to Consumer

**May 18-19, 2004, Washington Convention Center**

Co-sponsored by FDA, Williamsburg BioProcessing Foundation, Sigma Xi, AOAC and Prous Science

http://www.dcscienceforum.org/

### *About the FDA Science Forum:*

The FDA Science Forum is a unique conference designed to showcase the broad range of FDA science and its relationship to the Agency's public health mission. This annual meeting serves to facilitate communication between FDA scientists and FDA stakeholders and to promote internal and external collaborations. The FDA Science Forum serves as a comprehensive training program, where scientists from all disciplines and organizational components of FDA meet to share data, knowledge, and ideas on the science-based mission of the Agency.

The 2004 Forum is designed to bring FDA scientists together with representatives from other components of DHHS, industry, academia, government agencies, consumer and patient advocacy groups, Congress, international constituents, and many other stakeholders. The Science Forum also features presentations by leaders of the academic and public health communities, and thereby provides an excellent environment for the open discussion of emerging science, technology, and methodologies, as well as how they can be used to meet the Nation's public health needs.

### *Sigma Xi Scientific Poster Session – Limited number of abstracts being solicited from industry/academia/government on Genomics and Proteomics-related research*

A central focus of the FDA Science Forum is the Sigma Xi-sponsored poster session. In 2003 this session featured over 300 posters from FDA scientists and their collaborators on a wide variety of topics reflective of the FDA's broad public health mission.

Historically, the Sigma Xi poster session has been open only to FDA Scientists – the main purpose being to foster scientific exchange between FDA's various scientific units. For 2004, a limited number of posters will be set aside for presentations in the areas of Genomics and Proteomics by researchers outside of the FDA. The following criteria apply:

- Abstracts should address genomics and/or proteomics as they relate to FDA's public health mission. Topics may include applications, methods development and validation, standards development, etc.
- All abstracts will be peer reviewed by an expert panel for scientific excellence and relevance to the FDA mission. A limited number of top-rated abstracts will be selected for presentation.
- Abstracts should not constitute a product advertisement.
- Authors of accepted abstracts must register to attend the Science Forum. Information on registration can be found at http://www.dcscienceforum.org/

### Deadline

**The deadline for submission of abstracts is Friday, February 20, 2004.**

Abstracts received after this date will be returned.

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Poster Session on Genomics and Proteomics

**Instructions**

Abstracts must adhere to the following guidelines:

1. Abstracts should be typed in MS word, however WordPerfect and rtf files are also acceptable.
2. Abstracts must be 250 words or less, and use 10 point Regular Times New Roman or Arial font.
3. Text formatting -- bold, italic, underlining, subscripts, superscripts, etc. -- are supported, as are Greek letters and special symbols.
4. The Title should be in **Bold** font, followed by the authors' names and address in *Italic*.
5. Abstracts should be e-mailed to Dr. Fred Fry at, ffry@cfsan.fda.gov

A sample follows:

**Monitoring Quality of Cell Substrates by cDNA Microarray Analyses**

*J.Han[1], R.K.Puri[1], R.L.Farnsworth[2], P.Ikonomi[2], [1]Microarray Program, Laboratory of Molecular Tumor Biology, Division of Cellular and Gene Therapies, CBER, FDA, Bethesda, MD 20892, [2]ATCC, Manassas, VA 20110*

The human embryonic kidney (HEK) 293 cells are the most commonly used cell line in the production of biologics. When the 293 cells are grown to over-confluence, they exhibit a transformed phenotype. In addition, changes in cell culture conditions can also influence metabolism, growth rate and the quality of biological product produced by these cells. No effective techniques are available that can monitor global quality of cells in culture. By using the DNA microarray technology, we hypothesized that monitoring of gene expression profiles of cells during various growth conditions may provide a novel approach for quality assessment. The 293 cells cultured in different confluence states (40%, 90%, and over confluence) were harvested, and total RNA extracted. Labeled probes were hybridized with high quality 10K cDNA microarray chips produced at the ATC/NCI. The results were analyzed by GenPix, and mAdb database software tools developed by CIT/NIH. The gene expression patterns of the 293 cells under different confluence conditions were compared. Significant differences in gene expression level were observed in over-confluence cells, comparing with 40% confluence cells. As increases in gene expression belonging to metabolism pathway, such as ALDOA, PFKP, LDHA, transcription such as ATF3, and stress related genes such as PLOD2, DSIPI, PLEC1 etc, were observed in over-confluence cells. These changes were validated by quantitative Real-Time PCR analysis. Additional studies are ongoing to evaluate the quality of adenoviral vectors produced by over-confluence cells.

## Contact Info

For additional information, contact Fred Fry, at 301-436-1976 ffry@cfsan.fda.gov or Jan Johannessen, Office of Science & Health Coordination at 301-827-6687, jjohannessen@fda.gov