

## Pyrosequencing<sup>®</sup> technology at AACR

### POSTER SESSIONS

**Saturday, April 13<sup>th</sup> - 8:00 AM – 12:00 PM**

#### Epigenetic Alterations in Cancer: Causes and Consequences

Exhibit Hall B-F, San Diego Convention Center - Poster section 1

**# 1 DNA hypermethylation phenotypes and one carbon metabolism genetic variants in breast tissues from normal healthy women**

*Ramona G. Dumitrescu, Catalin Marian, Shiva Krishnan, Scott Spear, Bhaskar Kallakury, Françoise Seillier-Moiseiwitsch, Habtom Resson, Jo Freudenheim, Peter Shields. Georgetown Univ. Medical Ctr., Washington, DC, University at Buffalo, The State University of New York, Buffalo, NY*

**# 9 Genome-wide hypomethylation in HNSCC is more pronounced in HPV-negative tumors and is associated with genomic instability**

*Kristy L. Richards, Baili Zhang, Keith A. Baggerly, Stefano Colella, Spiridon Tsavachidis, James C. Lang, David E. Schuller, Ralf Krahe. University of Texas MD Anderson Cancer Center, Houston, TX, Ohio State University, Columbus, OH*

**# 10 DNA methylation profiles in lung and head and neck cancer as a signature of environmental and lifestyle exposure**

*Zdenko Herceg IV, Thomas Vaissiere Jr., Cyrille Cuenin III. International Agency for Research on Cancer, Lyon, France*

**# 14 LINE-1 hypomethylation is inversely correlated with microsatellite instability (MSI) and CpG island methylator phenotype (CIMP) in colorectal cancer**

*Shuji Ogino, Takako Kawasaki, Katsuhiko Noshio, Mutsuko Ohnishi, Yuko Suemoto, Gregory Kirkner, Charles Fuchs. Dana-Farber Cancer Institute, Boston, MA, Brigham and Women's Hospital, Boston, MA*

#### Epigenetic Profiling

Exhibit Hall B-F, San Diego Convention Center - Poster section 2

**# 16 Repetitive DNA hypomethylation in multiple myeloma**

*Valentina Bollati, Domenica Ronchetti, Laura Mosca, Giorgio Lambertenghi Deliliers, Pier Alberto Bertazzi, Andrea Baccarelli, Antonino Neri. Center of Molecular and Genetic Epidemiology, Department of Environmental and Occupational Health, University of Milan & IRCCS Maggiore Hospital, Mangiagalli and Regina Elena Foundation, Milan, Italy, Center of Molecular Genetics, Department of Medical Sciences, University of Milan & IRCCS Maggiore Hospital, Mangiagalli and Regina Elena Foundation, Milano, Italy, EPOCA Epidemiology Research Center, Department of Environmental and Occupational Health, University of Milan & IRCCS Maggiore Hospital, Mangiagalli and Regina Elena Foundation, Milan, Italy*

**# 30 Pyrosequencing is an effective method for the quantitative analysis of global and gene specific DNA methylation using low quantities of DNA**

*Matthew Poulin, Vasantha Srikantan, Liyang Yan, Jennifer Rusiecki. EpigenDx, Inc., Worcester, MA, Uniformed Services University of the Health Sciences, Bethesda, MD*

#### Growth Control: Gene Regulation

Exhibit Hall B-F, San Diego Convention Center - Poster section 4

**# 17 Intergenic non-coding RNA inhibits 45S rRNA processing and induces lung cancer cell death**

*Yih-Hong Shiao, Yuhan Gu, Sorin T. Lupascu, Janet R. Fields, Lucy M. Anderson. NCI-Frederick, Frederick, MD*

## Biomarkers of DNA Damage and Repair, Exposure, and Phenotype 1

Exhibit Hall B-F, San Diego Convention Center - Poster section 24

### # 17 Poly(ADP-ribose) polymerase-1 (PARP-1) genomics in relation to activity in healthy volunteers and cancer patients

*Tomasz Zaremba, Michael Cole, Sally A. Coulthard, Elizabeth R. Plummer, Nicola J. Curtin. Newcastle University, Newcastle upon Tyne, United Kingdom*  
*Drug Resistance 1: Cellular Mechanisms*

## Drug Resistance 1: Cellular Mechanisms

Exhibit Hall B-F, San Diego Convention Center - Poster section 30

### # 21 Naturally occurring resistance to 5-aza-2' deoxycytidine in vitro in cancer cell lines and its implication in vivo in myelodysplastic syndromes

*Taichun Qin Sr., Jaroslav Jelinek Sr., Jean-pierre Issa Sr. UT M.D. Anderson Cancer Ctr., Houston, TX*

## Saturday, April 13<sup>th</sup> - 1:00 PM – 5:00 PM

### DNA Damage and Repair

Exhibit Hall B-F, San Diego Convention Center, Poster Section 30

### # 21 Treatment of rat chondrosarcoma cells with 5-Aza-2'-deoxycytidine results in global demethylation accompanied by changes in tumorigenicity.

*Christopher A. Hamm, Hehuang Xie, Elisabeth A. Seftor, Maria F. Bonaldo, M Beto Soares. Childrens Memorial Hospital Chiacago IL.*

## Environmental, Occupational, and Drug Exposures

Exhibit Hall B-F, San Diego Convention Center, Poster Section 11

### # 5 Effects of short-term exposure to particulate air pollution on blood DNA methylation

*Andrea Baccarelli, Robert Wright, Valentina Bollati, Letizia Tarantini, Augusto Litonjua, Helen Suh, David Sparrow, Pantel Vokonas, Joel Schwartz. Center of Molecular and Genetic Epidemiology, Department of Environmental and Occupational Health, University of Milan & IRCCS Maggiore Hospital, Mangiagalli and Regina Elena Foundation, Milano, Italy, Harvard School of Public Health, Boston, MA, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, Veterans Affairs Boston Healthcare System, Boston, MA*

## Monday, April 14<sup>th</sup> - 8:00 AM – 12:00 PM

### Novel Biomarkers for Tumor Detection and Progression

Exhibit Hall B-F, San Diego Convention Center, Poster Section 7

### # 2 Replacing PCR with COLD-PCR enriches variant DNA sequences and redefines the sensitivity of genetic testing in cancer

*Jin Li, Lilin Wang, Harvey Mamon, Matthew M. Kulke, Ross Berbeco, Mike G. Makrigiorgos. Dana Farber Cancer Institute, Boston, MA*

## Monday, April 14<sup>th</sup> - 1:00 PM – 5:00 PM

### Epigenetics of Cancer: Clinical Implications

Exhibit Hall B-F, San Diego Convention Center, Poster Section 3

### # 5 Analysis of promoter hypermethylation in exfoliated epithelial cells isolated from breast milk.

*Chung M. Wong, Douglas L. Anderton, Sallie Smith Schneider, Kathleen F. Arcaro. University of Massachusetts, Amherst, MA, Baystate Health, Springfield, MA*

### # 6 Methylation profiles in lymph node metastases from breast cancers

*Weiwei Feng, Rosaria Orlandi, Maria Luisa Carcangiu, Elda Tagliabue, Jia Xu, Robert C. Bast Jr., Yinhua Yu. U.T.M.D. Anderson Cancer Center, Houston, TX, Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy*

### # 25 New methylation profile and high microsatellite instability in African-American colon cancer

*Hassan Brim, Krisahm Kumar, Kevin Belgrave, Kamla Al-Mawaly, Francis Giardiello, Edward Lee, Mitra Hafezi, Camela Sahebi, Duane Smoot, Mehdi Nouraie, Hassan Ashktorab. Howard Univ., Washington, DC, Sultan Qabus University, Muscat, Oman, The Johns Hopkins University, Baltimore, MD*

**Tuesday, April 15<sup>th</sup> - 8:00 AM – 12.00 PM**

## Signaling in Lung and Brain Tumorigenesis

Exhibit Hall B-F, San Diego Convention Center, Poster Section 7

### # 29 Differential expression of gastrin (GAST) in non-small cell lung cancer

*George Xinarianos, Alexandros Daskalos, Georgios Nikolaidis, Andrea Varro, John K. Field, Triantafillos Liloglou. University of Liverpool, Liverpool, United Kingdom*

## Molecular Predictors of Drug Sensitivity and Resistance

Exhibit Hall B-F, San Diego Convention Center, Poster Section 10

### # 15 ERCC1 C118T polymorphism and oxaliplatin sensitivity: a study on its role in DNA repair, protein expression and clinical effects in advanced colorectal cancer (ACC)

*Dina M. Kweekeel, Miriam Koopman, Tahar Van der Straaten, Xiaobo Lu, Kees Franken, Johan H. Van Krieken, Hans Gelderblom, Ninja F. Antonini, Cornelis J. Punt, Henk-Jan Guchelaar. LUMC, Leiden, The Netherlands, Radboud University Medical Center, Nijmegen, The Netherlands, China Medical University, Beijing, China, Netherlands Cancer Institute, Amsterdam, The Netherlands*

**Tuesday April 15<sup>th</sup> - 1:00 PM – 5.00 PM**

## Late-Breaking Research: Cellular and Molecular Biology 4

Exhibit Hall B-F, San Diego Convention Center, Poster Section 18

### # 5 MicroRNA 124 and its role in response to epigenetic therapy in Acute Myelogenous Leukemia And Myelodysplastic Syndrome

*Ryan J. Castoro, Amanda Saraf, Yoshiyuki Watanabe, Woonbok Chung, Samih El Ahdab, Jaroslav Jelinek, Jean-Pierre Issa. M.D. Anderson Cancer Center, Houston, TX*

### # 7 Tobacco smoke induces polycomb-mediated repression of DKK1 in lung cancer cells.

*Mustafa Hussain, Mahadev Rao, Ashley Humphries, Fang Liu, Diana L. Caragacianu, David S. Schrupp. NIH/NCI, Bethesda, MD*

## Epigenetically Altered Pathways

Exhibit Hall B-F, San Diego Convention Center, Poster Section 4

### # 9 Epigenetic profiling of apoptotic genes in leukemias and colon cancer

*Samih Y. El Ahdab, Ryan Castoro, Hussein Abbas, Saira Ahmed, Jaroslav Jelinek, Jean-Pierre Issa. UT M.D. Anderson Cancer Ctr., Houston, TX*

### # 10 Frequent dysfunction of the members of the Mu-class glutathione-S-transferases and glutathione peroxidases by DNA hypermethylation in Barrett's-related adenocarcinomas

*Dun-Fa Peng, Mohammad Razvi, Heidi Chen, Albert Roessner, Regine Schneider-Stock, Wael El-Rifai. Vanderbilt Univ., Nashville, TN, Otto-von-Guericke University, Magdeburg, Germany*

## Epigenetically Altered Oncogenes and Tumor Suppressor Genes

Exhibit Hall B-F, San Diego Convention Center, Poster Section 3

### # 1 Aberrant methylation of both Tp73 promoters in non-small cell lung cancer

*Triantafillos Liloglou, Alexandros Daskalos, George Nikolaidis, George Xinarianos, John K. Field. University of Liverpool, Liverpool, United Kingdom*

## Phase II and III Clinical Trials 1: Gastrointestinal, Pancreatic, Head and Neck, and Melanoma

Exhibit Hall B-F, San Diego Convention Center, Poster Section 10

### # 20 Potential mechanisms for improved outcomes in Human Papilloma Virus (HPV)- related head and neck squamous cell carcinomas (HNSCC)

*Quynh-Thu Le, Balasubramanian Narasimhan, Hongbin Cao, Shirley Kwok, Julianna P. Erickson, Albert Koong, Nader Puormand, Christina Kong. Stanford University, Stanford, CA*

## Genetic Epidemiology 4: Other Tumors and Functional/Methodologic Studies

Exhibit Hall B-F, San Diego Convention Center, Poster Section 23

### # 5 FGFR2 polymorphisms and endometrial cancer risk

Aaditya Khatri, Ashleigh Kussman, Mary Ann Mallon, David G. Mutch, Paul J. Goodfellow. Washington University, St. Louis, MO, Washington Univ. School of Medicine, St. Louis, MO

**Wednesday April 16<sup>th</sup> - 8:00 AM – 12:00 PM**

### Signaling Pathways 2

Exhibit Hall B-F, San Diego Convention Center, Poster Section 9

### # 5 Concurrent upregulation of the K-ras 4A splice variant and superoxide in human lung adenocarcinoma cells

Meghana B. Gupta, Anna Maciag, Lucy M. Anderson, Yih-Horng Shiao. NCI - Frederick, Frederick, MD, SAIC-Frederick, Frederick, MD

### Prognostic Biomarkers 2

Exhibit Hall B-F, San Diego Convention Center, Poster Section 25

### # 11 Gene promoter methylation and outcome in surgically treated stage I-II non-small cell lung cancer patients

Lela E. Buckingham, L Penfield Faber, Anthony Kim, Kelly Kaiser, Sanjib Basu, Michael Liptay, Philip Bonomi, John S. Coon. Rush University Medical Center, Chicago, IL

## List of scientific articles on Pyrosequencing technology

Our database of scientific references, related to the development and application of Pyrosequencing is kept up-to-date by Biotage. You can access it directly at the following URL: [www.biotagebio.com/publist](http://www.biotagebio.com/publist)

*Pyrosequencing® Systems are designed for Laboratory Use Only*

*which means that they may be used for either research purposes or by high complexity CLIA certified labs.*

*Pyrosequencing sequencing by synthesis systems enable DNA to be analyzed either bound to solid support or in solution. A review of DNA purification methods can be found in Fakhrai-Rad, et al. Hum Mutation (2002) and other papers listed on the Biotage web site.*

*The Solid Phase Sequencing method is covered by patents owned by Biotage AB and Cepheid AB.*

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#### **PYROSEQUENCING AB**

a subsidiary of Biotage AB  
Kungsgatan 76, SE-753 18 Uppsala, Sweden  
Switchboard: +46 18 56 59 00. Fax: +46 18 59 19 22  
info@biotage.com, www.biotage.com  
Pyrosequencing site: www.biotagebio.com

#### **US OFFICE**

1725 Discovery Drive  
Charlottesville,  
Virginia 22911  
800-446-4752 (Toll Free)

#### **EUROPEAN OFFICES**

Nordic region +46 18 565900  
France +33 1 46 48 06 38  
Germany +49 40 8195 7566  
UK & Northern Ireland + 44 1992 501535

