CompanionDx® Analyzes Non-small Cell Lung Cancer Data for Personalized Cancer Therapy

Abstract Published at American Society of Clinical Oncology Annual Meeting; Illustrates Increased Survival Rate for Stage 1 Non-small Cell Lung Cancer Patients without Pharmacokinetic Gene Variant

HOUSTON, Tx (PRWEB) May 27, 2015 -- CompanionDx announced that its abstract “Role of combined germline pharmacogenomic and somatic genomic analysis in personalized cancer therapy: Non-small cell lung cancer (NSCLC) case study” was published by the American Society of Clinical Oncology (ASCO) as part of their annual meeting, May 29 – June 2 in Chicago.

The molecular and clinical data used for the study was obtained from The Cancer Genome Atlas (TCGA) database. The study reports improved patient outcomes from a preliminary analysis of gene sequence data derived from 404 lung adenocarcinoma patient samples. The novelty of the study is based on the combined assessment of both germline pharmacogenetic variations and somatic-cell mutations within the tumors to predict patient survival and positive responses to chemotherapy.

The results suggest a correlation between variations in patients’ metabolism of cancer drugs and somatic-cell driver mutations. The results revealed a statistically significant increase in survival for stage 1 patients without Cytochrome P450 (CYP450) germline variants.

A caveat to using TCGA data is that germline data is not available, and the results would have to assume that the CYP450 variants in each tumor represent the germline and not de novo somatic mutations. It was noted that further prospective clinical studies will be conducted to evaluate the above conclusions.

“The research and analysis done by our CompanionDx team and partner, Cleveland Clinic, illustrates our commitment to provide physicians with the integrated genomic solutions and actionable intelligence they need to form more accurate, comprehensive and effective cancer treatment regimens,” said David Lasecki, president of CompanionDx.

The study is part of a new research collaboration between CompanionDx and Cleveland Clinic, which will include the UPGRADE (Utility of PharmacoGenomics for Reducing Adverse Drug Effects) registry. UPGRADE is a multicenter registry that includes up to 279,000 patients enrolled at up to 2,000 clinical sites. The primary objective is to assess whether pharmacogenomics testing leads to clinically-meaningful changes in a patient’s medication regimen.

Charis Eng, M.D., Ph.D., Hardis Chair and Founding Director of the Genomic Medicine Institute of Cleveland Clinic’s Lerner Research Institute, and Kevin Hicks, Pharm.D., Ph.D., Pharmacogenomicist in the Department of Pharmacy and Genomic Medicine Institute of Cleveland Clinic will be the national coordinating investigators for UPGRADE. Both will be compensated by CompanionDx.

"This exemplifies how academic-private partnerships can rapidly achieve meaningful translational research to support the practice of precision medicine,” said Dr. Eng.
The entire abstract can be found at http://abstracts.asco.org/156/AbstView_156_150159.html. Authors of the abstract are: Pratheesh Sathyan, Ph.D.; Prem Gurnani, M.S.; David Lasecki; and Kevin Rosenblatt; M.D., Ph.D.; all of CompanionDx Reference Lab, LLC, Houston, TX; and Charis Eng, M.D., Ph.D., FACP; and Kevin Hicks, Pharm.D., Ph.D. of Cleveland Clinic, Cleveland, OH.

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About CompanionDx
CompanionDx is the integrated genomic diagnostic and decision support company. Headquartered in Houston, CompanionDx is committed to enhancing and extending patients’ lives by providing physicians with the actionable intelligence they need. Only CompanionDx has the integrated genomic solutions, combining diagnostics such as next-generation sequencing, pharmacogenomics and therapeutic drug monitoring. CompanionDx’s certified molecular biologists, pathologists and technologists conduct all tests within two high-complexity, CLIA-certified labs, while continually seeking ways to improve the approach to patient therapy. From tumor diagnosis to treatment, CompanionDx delivers the clinical insight physicians need while continuing to advance the field with data intelligence. For more information about how CompanionDx is redefining the patient journey, visit www.companiondxlab.com
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