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COMPANY PRESS RELEASE

## **Transgenomic's WAVE(R) System Advances Study of Genetic Variation Implicated in Leukemia**

### ***Technology Offers Novel Approach to Analysis of Key Drug Targets***

Los Angeles, Dec. 4/ -- Transgenomic Inc. (Nasdaq:[TBIO](#)) announced today that its WAVE System will be cited in several presentations at the American Society of Hematology (ASH) annual meeting, Dec. 6-8 in San Diego, Calif. Two of these presentations involve the analysis of genes that have been implicated in the pathogenesis of leukemia and identified as targets for therapeutic intervention.

A research team led by Giovanni Martinelli, M.D., has used Transgenomic's WAVE System in two leukemia-related studies. The first describes detection of mutations in the BCR-ABL gene that are potentially associated with resistance to therapy with the novel tyrosine kinase inhibitor imatinib in chronic myeloid leukemia patients. The other study involves detection of small duplications and point mutations in the FLT3 gene, which has been implicated in the pathogenesis of acute myeloid leukemia and is the target of several investigational drugs.

The group's work on the FLT3 gene has also resulted in two recent publications in the October issues of *Clinical Chemistry* and *The Lancet Oncology*. Dr. Martinelli commented on the significance of this body of work and the role of the WAVE System. "Several FLT3 inhibitors are under investigation for treatment of acute myelogenous leukemia. These drug candidates have varying degrees of effectiveness against leukemic cells with different FLT3 abnormalities, making thorough analysis of the FLT3 gene in patient populations critical." Dr. Martinelli continued, "The traditional approach of screening for FLT3 alterations involves PCR amplifications and gel electrophoresis. This approach is cumbersome, and more importantly, fails to detect very small internal tandem duplications as well as point mutations. Our methodology, based on use of the WAVE System, has proven capable of detecting all types of alterations in the FLT3 gene, including unanticipated mutations, with sensitivity and specificity approaching 100%."

Transgenomic scientists, led by Stan Lilleberg, Ph.D., director of Discovery Services, recently presented results of WAVE-based FLT3 analyses at the Association for Molecular Pathology's annual meeting held Nov. 20-23 in Orlando, Fla. According to Dr. Lilleberg, "Our platforms, particularly the WAVE HS System, offer the analytical sensitivity required to scan and/or score for mutations that may only be present in a small percentage of leukemic cells. Compared to other approaches, we have been able to demonstrate increased analytical sensitivity for detection of both internal tandem duplications and point mutations, by detecting variants present in less than 1% of the total FLT3 gene copies." He concluded, "We believe this has important implications for the development of targeted therapeutics, selection of appropriate therapeutic strategies for individual patients and post-treatment monitoring."

Other presentations by Transgenomic's customers at the ASH meeting will cover various topics in a number of different scientific sessions that include prognostic and diagnostic markers in leukemia, minimum residual disease and diagnostic markers, pathogenesis/biology of myeloproliferative disorders and von Willebrand Disease.

#### **About Transgenomic**

Transgenomic provides versatile and innovative research tools and related consumable products to the life sciences industry for the synthesis, separation, analysis and purification of nucleic acids and a wide variety of nucleic acid-based specialty chemicals. Transgenomic's biosystems segment offers its WAVE Systems and associated consumables. These systems are specifically designed for use in genetic variation detection and single- and double-strand DNA/RNA analysis and purification. These systems

have broad applicability to genetic research and molecular diagnostics. To date there have been approximately one thousand systems installed in over 30 countries around the world.

Through its nucleic acids business segment, Transgenomic provides specialty chemicals, including advanced nucleic acid building blocks and associated reagents, used in applications such as genetic diagnostics and therapeutics. Manufacturing operations include a cGMP facility for the synthesis of oligonucleotides.

For more information about the innovative genomics research tools developed and marketed by Transgenomic, please visit the Company's Web site at [www.transgenomic.com](http://www.transgenomic.com).

#### **Forward-Looking Statement**

Certain statements in this press release constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, which involve known and unknown risks, uncertainties and other factors that may cause our actual results to be materially different from any future results, performance or achievements expressed or implied by such statements. Forward-looking statements include, but are not limited to, those with respect to the importance that the detection sensitivity of the WAVE System has to implications for the development of targeted therapeutics, selection of appropriate therapeutic strategies for individual patients, and post-treatment monitoring. The known risks, uncertainties and other factors affecting these forward-looking statements are described from time to time in Transgenomic's reports to the Securities and Exchange Commission. Any change in such factors, risks and uncertainties may cause the actual results, events and performance to differ materially from those referred to in such statements. Accordingly, Transgenomic claims the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995 with respect to all statements contained in this press release. All information in this press release is as of the date of the release, and Transgenomic undertakes no duty to update this information, including any forward-looking statement, unless required by law.

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