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**FOR IMMEDIATE RELEASE**

**Transgenomic Signs Exclusive License for Cold-PCR  
Technology from the Dana-Farber Cancer Institute**

Plans development of extremely high-sensitivity blood-based diagnostic applications of DNA mutation detection for cancer and other diseases

OMAHA, Neb., October 8, 2009 -- Transgenomic, Inc. (OTC BB: TBIO.OB). The company announced today that it has licensed a high-sensitivity mutation detection technology called Cold-PCR from the Dana-Farber Cancer Institute (DFCI), Boston, MA. This variation of the standard PCR technology enriches mutations in DNA samples and is a much more sensitive technique for finding low level mutations in tissue and body fluids that are involved with a variety of diseases. Cold-PCR was invented at DFCI by Dr. Mike Makrigiorgos who has demonstrated its effectiveness in enriching for mutations in cancer-related genes in samples where standard DNA sequencing is not sensitive enough to detect these very low concentration somatic DNA mutations. The licensing terms include exclusive rights to commercialize Cold-PCR technology combined with Sanger sequencing as well as all applications for mitochondrial DNA analysis.

Cold-PCR will have applicability in detection of cancer-related mutations where critical mutations are present at a very low percentage compared to normal DNA. Examples would be in blood and urine or where the tissue collected contains mostly normal cells. This would allow clinicians to use less intrusive methods for genetic analysis or allow more efficient use of tumor tissue samples. Additionally the method could enhance the detection of the emergence of cancer-drug resistance mutations, allowing early detection of relapse.

Transgenomic CEO Craig Tuttle noted: "We believe that Cold-PCR is a critical addition to our high-sensitivity mutation detection portfolio of cutting edge technologies. It will allow us to continue offering affordable, state-of-the-art solutions to challenging areas of genetic analysis and, we hope, allow us to be able to screen patient blood for early detection of cancer, detect cancer drug resistance or relapse earlier as well as expand our mitochondrial DNA analysis toolbox. We have long wanted a technology that would permit us to screen patients earlier in their development of cancer and we hope that Cold-PCR provides us the sensitivity and analytical accuracy to achieve this goal. Discovering cancers at a much earlier phase of development will have a huge impact on cancer diagnosis and treatment."

"During our option period we tested the feasibility of Cold-PCR and developed practical laboratory improvements to the technology," said Dr. Eric Kaldjian, CSO at Transgenomic. "We demonstrated reproducible 30 – 50 fold enrichment of mutant cancer gene DNA, without needing any a-priori information on the position of the mutation. What this means is that one mutant DNA molecule in a hundred is effectively changed to one in two. As a result, we expect that Cold-PCR has significant applications with standard Sanger sequencing methods. Combining Cold-PCR with Transgenomic's WAVE DHPLC and Surveyor Nuclease products may have the potential to detect one mutant copy of DNA out of as many as a thousand normal copies and the sensitivity is likely to keep improving. This will be valuable in cancer-related mutation detection of free DNA in blood and body fluids and in producing a mutation profile of primary tumors to

predict resistance to targeted therapies. It could also have application in analysis of mitochondrial DNA mutations, which can be present at very low levels.”

“We are delighted to be able to develop jointly the application of Cold-PCR to Transgenomic’s existing technologies” said Dr. Mike Makrigiorgos, Director of Medical Physics and Biophysics at Dana-Farber and an Associate Professor of Radiation Oncology at Harvard Medical School. “Together they promise a significant solution to high sensitivity detection of somatic mutations that are key to cancer biology.”

### **Technical Information**

When mutant and reference DNA samples from the same gene are mixed and re-annealed, variations between these sequences cause double-stranded DNA heteroduplexes to form. The WAVE System employs denaturing HPLC to separate these homo- and hetero-duplexes by ion-pairing reverse-phase HPLC. This technology has been in widespread use for genomic analysis being cited in over 2000 peer-reviewed publications. As an alternative offering, Transgenomic’s SURVEYOR Nuclease cleaves such heteroduplexes with high specificity at sites of base mismatch or small insertions/deletions. It has a proven track record as a robust and reliable tool in analyzing DNA variations, especially where the mutant alleles are at a very low concentration within the sample (less than 1% of the total wild type allele concentration). Cold-PCR protocols preferentially amplify heteroduplexes such that mutant alleles become enriched compared to normal alleles. The range of enrichment demonstrated to date varies from 3 to 100-fold, which will contribute to Transgenomic’s target of achieving a 1/10,000 mutant to normal allele ratio detection in a routine, cost-effective and high throughput protocol. This level of detection will allow straightforward tumor analysis via surrogate tissues such as blood and urine.

### **About Transgenomic**

Transgenomic is a global biotechnology company that provides unique products and services for automated high sensitivity genetic variation and mutation analysis. Their offerings include systems, products, discovery and laboratory testing services to the academic and medical research, clinical laboratory and pharmaceutical markets in the fields of Pharmacogenomics and personalized medicine. Specific offerings include WAVE® DHPLC Systems, related consumables and assay kits, Cytogenetics automated systems, and Transgenomic Pharmacogenomics and Reference Laboratory Services. Transgenomic Pharmacogenomics and Laboratory Services utilize their technology and expertise to provide a menu of mutation scanning tests for over 700 cancer-associated genes and more than 60 validated diagnostic tests to meet the needs of pharmaceutical and biotech companies, research and clinical laboratories, physicians and patients. For more information about the innovative systems, products and services offered by Transgenomic, please visit: [www.transgenomic.com](http://www.transgenomic.com).

### **Cautionary Statements**

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 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 management’s current views and estimates of future economic circumstances, industry conditions, company performance and financial results, including the ability of the Company to grow its involvement in the diagnostic products and services markets. The known risks, uncertainties and other factors affecting these forward-looking statements are described from time to time in 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, the company 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.