



ASX ANNOUNCEMENT

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Clinical validation study supporting the use of BREVA*Genplus*® in breast cancer risk assessment

Melbourne, Australia, 17 December 2014: Molecular diagnostics company Genetic Technologies Limited (ASX: GTG; NASDAQ: GENE, “Company”) announces that findings from a new research study show that adding a panel of 77 single-nucleotide polymorphisms (“SNPs”) improves the predictive accuracy of four commonly used breast cancer risk assessment models. This same panel of 77 SNPs is used in the Company’s recently released BREVA*Genplus*®, an easy-to-use predictive risk test for sporadic, or non-hereditary, breast cancer. Results were presented at the 2014 San Antonio Breast Cancer Symposium, on December 13, 2014.

The study, entitled "Value of Adding Single-Nucleotide Polymorphism Panel Markers to Phenotypic Algorithms of Breast Cancer Risk," was conducted under the supervision of Prof. John L. Hopper and first authored by Dr. Gillian S. Dite from the Centre for Molecular Epidemiology at the University of Melbourne. The study investigated the impact of adding the same 77 SNP panel used in BREVA*Genplus*® to the following breast cancer prediction models: BOADICEA and BRCAPRO, both of which are based on pedigree data for breast and ovarian cancer; BCRAT (Gail score), which is based on established risk factors for breast cancer and family history as represented by the number of first-degree relatives with breast cancer; and IBIS, which combines information on both familial and personal risk factors for breast cancer.

Results show that adding a SNP risk score to these four breast cancer prediction models can improve risk estimates obtained by these models. Because these models place different weighting on different risk components, this new study also shows that combining the 77 SNP score with the most patient-appropriate breast cancer risk-assessment model can improve a clinician's ability to identify high-risk women in different patient populations.

The researchers studied a population-based sample of 750 cases and 405 controls from the Australian Breast Cancer Family Registry and utilized the same methodology as a previous study of seven SNPs conducted by the same researchers.¹ This new Australian study builds on previous observations that including information on multiple SNPs can improve the discriminatory accuracy of BCRAT risk assessment model (Mealiffe et al), as well as extending that observation to more recently identified SNPs associated with breast cancer. This study is expected to be published in a peer-reviewed scientific journal in early 2015.

Commenting on the findings, Genetic Technologies’ Chief Executive Officer Ms Alison Mew said “We are very pleased to see these clinical validation results which demonstrate that incorporating genetic information derived from the SNP panel utilized in BREVA*Genplus*®, improves the discriminatory accuracy of these four breast cancer risk tools, including BCRAT, which is the model on which BREVA*Genplus*® is based.”



BREVAGen^{plus} is an improved version of the Company's first generation breast cancer risk prediction test, BREVAGenTM. BREVAGen^{plus} uses the original seven BREVAGen SNPs, plus a further 70 SNPs that, with an expanded SNP panel, reclassifies patients' risk of developing breast cancer with an ~20% improvement in predictive accuracy, over the first generation test. Importantly, the value of using SNPs as genetic markers for risk is receiving increasing attention in the medical literature.

Furthermore, clinical studies have been conducted to demonstrate the applicability of BREVAGen^{plus} to the African American and Hispanic populations. Publication of this data is expected in first quarter of 2015, removing a significant barrier to test acceptance in the US market.

BREVAGen^{plus} was launched in October 2014, to coincide with Breast Cancer Awareness Month, and has effectively been a re-launch of the product, accompanied by a strategic change in product placement to target large breast and imaging centres as part of a long-term growth plan. Discussions are well-progressed with a number of such centres, with the "on-boarding" process expected to be complete early in 2015.

Reference:

1. Dite GS, Mahmoodi M, Bickerstaffe A, et al. Breast Cancer Res Treat 2013; 139: 887-896.

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About Genetic Technologies Limited

Genetic Technologies was an early pioneer in recognizing important new applications for "non-coding" DNA (Deoxyribonucleic Acid). The Company has since been granted patents in 24 countries around the world, securing intellectual property rights for particular uses of non-coding DNA in genetic analysis and gene mapping across all genes in all species. Its business strategy is the global commercialization of its patents through an active out-licensing program and the global expansion of its oncology and cancer management diagnostics portfolio. Genetic Technologies is an ASX and NASDAQ listed company with operations in the USA and Australia. For more information, please visit www.gtglabs.com.

Safe Harbor Statement

Any statements in this press release that relate to the Company's expectations are forward-looking statements, within the meaning of the [Private Securities Litigation Reform Act](#). The Private Securities Litigation Reform Act of 1995 (PSLRA) implemented several significant substantive changes affecting certain cases brought under the federal securities laws, including changes related to pleading, discovery, liability, class representation and awards fees. Since this information may involve risks and uncertainties and are subject to change at any time, the Company's actual results may differ materially from expected results. Additional risks associated with Genetic Technologies' business can be found in its periodic filings with the SEC.