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Foundation Venture Capital Group Portfolio Company Identifies FRY Gene As Breast Cancer Susceptibility Suppressor

New Brunswick, NJ-- Researchers from GeneAssess, Inc., a Foundation Venture Capital Group portfolio company, announce the publication of the genetic studies that led to the identification of the FRY gene as a breast cancer susceptibility suppressor gene.

“We see great promise in Dr. Zarbl’s discovery of the FRY gene and how it might be used to affect the diagnosis and treatment of aggressive breast cancers,” noted James M. Golubieski, president of Foundation Venture Capital Group. “We are excited about helping to advance his work and bring his ideas to commercialization.”

The studies, which appear in the online journal PLOS ONE (<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0070930>), are the culmination of more than 12 years of research performed by Dr. Helmut Zarbl, founder of GeneAssess, Inc.

“The current focus of GeneAssess is dedicated to the discovery, development and commercialization of novel high value diagnostic tests that help physicians diagnose, treat and improve outcomes for cancer patients,” explained Dr. Zarbl, who is also a professor of environmental and occupational medicine at Rutgers Robert Wood Johnson Medical School and the

associate director for the Public Health Sciences Division at The Rutgers Cancer Institute of New Jersey.

The studies featured in PLOS ONE examined why some rat strains are almost completely resistant to cancer, while other strains develop mammary carcinomas at a very high frequency when exposed to chemical carcinogens, hormones or radiation during the onset of puberty. To find the genes underlying this difference, Dr. Zarbl and his research team performed genetic crosses between a sensitive and resistant strain and examined whether there were chromosomal regions that conferred resistance to the offspring. This genetic linkage analysis identified a region on rat chromosome 12 within a region that is conserved on human chromosome 13. This region also contains the BRCA2 breast cancer suppressor gene.

“After ruling out the BRCA2 gene, we found that FRY, a gene immediately adjacent to the rat BRCA2 suppressor gene, was mutated in the susceptible F344 strain,” said Dr. Zarbl. “Studies further showed that FRY was reduced in all human breast cancer cell lines examined as a result of decreased expression or mutation.”

These findings are the basis for ongoing studies now assessing the role of the FRY gene in cancer susceptibility and progression.

“Dr. Zarbl’s findings suggest that FRY could potentially be used as a platform to develop cancer gene-based susceptibility tests, for disease progression and for tumor grading,” explained Dr. George F. Heinrich, Foundation Venture Capital Group vice chair and CEO. “This tumor suppressor gene could be useful for developing new targeted drugs, especially for the treatment of aggressive and/or advanced breast cancer.”

For more information, contact James M. Golubieski, president of FVCG, at (908) 731-6601 or at jgolubieski@njhf.org.

About Foundation Venture Capital Group

Foundation Venture Capital Group, LLC, (www.foundationventure.com) invests in start-up companies in the life sciences field that want to move their products and ideas to commercialization. FVCG portfolio companies currently include:

- **Actinobac Biomed Inc.**, developing a therapeutic agent targeting blood cells for the treatment of hematological malignancies such as leukemia and lymphomas;
- **Affinetti Biologics, Inc.**, advancing research in the development of therapeutic and diagnostic products based on new discoveries in oral biology and dental medicine;
- **CellXplore, Inc.**, engaged in the development of biomarker-based in vitro diagnostic assays for cancer;
- **Celvive, Inc.**, working to develop technology to treat patients with chronic spinal cord injuries with their own adult stem cells;
- **Durin Technologies**, working to develop a blood test to diagnose Alzheimer's, Parkinson's and other neurodegenerative diseases;
- **GeneAssess, Inc.**, developing a diagnostic tool for more accurate breast cancer staging;
- **Longevica Pharmaceuticals, Inc.**, developing a chemoprotective agent that may keep normal cells healthy during cancer treatments (FVCG's equity interest in Longevica was sold to Rostock International, LTD, a subsidiary of a Moscow (Russia) based global investment firm);
- **MentiNova, Inc.**, working to reduce side effects of L-Dopa Induced Dyskinesia
- **NovoPedics, Inc.**, developing an implantable meniscus replacement/regeneration medical device to restore mobility to patients suffering from severe meniscus knee injuries
- **Snowdon Pharmaceuticals, Inc.**, a drug discovery company focused on several major therapeutic areas.