Ravinder Dhallan, M.D., Ph.D., M.B.A.
Chairman and Chief Executive Officer
Ravgen

Dr. Ravinder Dhallan, founder of Ravgen, was raised and educated in Maryland and earned his Ph.D. in Biomedical Engineering from The Johns Hopkins University in 1993 and his M.D. from The Johns Hopkins School of Medicine in 1994. In May, 2007 Dr. Dhallan earned his MBA from the Wharton School of Business at the University of Pennsylvania. In 1995, Dr. Dhallan left a prestigious residency position in Oncology at Massachusetts General Hospital (Mass General), Harvard University School of Medicine, to aggressively pursue his true ambition -- the goal of solving major clinical problems and contributing to global improvements in healthcare that directly benefit patients.

To both complete his medical training and allow himself the necessary time to set out a strategic plan for his next venture, Dr. Dhallan accepted a residency position in emergency medicine at York Hospital in York, PA in the fall of 1995. He later became an attending physician in the Department of Emergency Medicine at Holy Cross Hospital in Silver Spring, MD in 1998. In addition to the invaluable perspective his training in emergency care gave him in recognizing key patient care problems and devising strategies for solving these problems, Dr. Dhallan devoted off-hours to planning for his first biotech company, Ravgen Inc. More specifically, he decided to focus on the need for non-invasive methods for prenatal diagnosis of disease.

In September of 2000, Dr. Dhallan left his position at Holy Cross Hospital and founded Ravgen. He specifically chose Columbia, MD as the location of Ravgen because of the unique mix of academic and business resources available in the Baltimore and metropolitan Washington, DC corridor. The primary goal at Ravgen (**R**apid **A**nalysis of **V**ariations in the **GEN**ome) is to develop Dr. Dhallan's novel, non-hybridization-based DNA sequencing methods to allow rapid and simultaneous detection of hundreds of informative coding sequences. Ravgen's founding was specifically timed to capitalize on data from the publication of the human genome in 2001.

The first market application of Ravgen's core technology is in prenatal diagnostics. With approximately 4.1 million live births in the United States in 2004, the maternal-fetal medicine

market is expanding rapidly. Although there has been significant growth and development in the field of prenatal diagnosis over the last two decades, there still exists a need for non-invasive prenatal tests that yield accurate diagnostic results. A major hurdle in using free fetal DNA present in the maternal bloodstream for detecting fetal chromosomal abnormalities has been the seemingly low percentage of fetal DNA present in the maternal circulation. In March of 2004, Ravgen published its first paper in the Journal of the American Medical Association (JAMA) describing how the chemical formaldehyde, when added to maternal blood samples, was highly effective in increasing the percentage of fetal DNA recovered from mother's blood. This boost in fetal DNA was of direct benefit in developing a noninvasive prenatal diagnostic test.

In December of 2005, the US Patent and Trade Office issued Ravgen's first patent titled, "Rapid analysis of variations in a genome." In February, 2007, Ravgen published its second clinical paper, detailing application of the Ravgen method for prenatal diagnosis. Not only will this diagnostic approach change prenatal testing, it has broad application and is amenable to high-throughput screening of gene mutations, laying a path for major advances in the early detection of a multitude of diseases including breast, prostate and colon cancer.

Dr. Dhallan's commitment to medicine and patient care, coupled with his inventive nature and strategic thinking have provided the resources and vision to fuel Ravgen's technology, and to develop innovative methods for early diagnosis of human disease.