



Publication Demonstrates Unique Ability of Panorama Test to Determine Zygosity in Twin Pregnancies

August 5, 2019

100% Accuracy in Detecting Zygosity Enables Earlier Risk Stratification for Serious Perinatal Complications

SAN CARLOS, Calif., Aug. 5, 2019 /PRNewswire/ -- [Natera, Inc. \(NASDAQ: NTRA\)](#), a global leader in cell-free DNA testing, today announced results of a prospective validation study published in the *Journal of Clinical Medicine* demonstrating 100% accuracy of its Panorama® non-invasive prenatal test (NIPT) in determining zygosity, fetal sex, and chromosomal abnormalities (or aneuploidies) in twins as early as 9 weeks of gestation.¹ Panorama is the industry's only NIPT validated to determine whether twins are monozygotic (identical) or dizygotic (non-identical/fraternal).



Twin pregnancies account for approximately 1 in 30 live births² and have a greater risk of developing serious perinatal complications.^{3,4} Approximately two-thirds of monozygotic (identical) pregnancies are monochorionic,⁵ where the twins share a placenta. Monochorionic pregnancies are at risk for twin-to-twin transfusion syndrome (TTTS)—a complication of disproportionate blood supply resulting in high morbidity and mortality.^{3,4,6,7,8}

"The ability to accurately determine zygosity, and to do so early in pregnancy, is a major advancement in the management of the twin pregnancies because it allows clinicians to triage patients based on their risk for serious medical complications," said Errol Norwitz, M.D., Ph.D., Chairman, Department of Obstetrics and Gynecology, Professor, Tufts Medical Center. "Early identification of chorionicity can sometimes be difficult to determine, especially as a pregnancy approaches the second trimester. In fact, studies have shown that up to 19% of monochorionic pregnancies may be incorrectly classified as dichorionic and may not be triaged appropriately."⁸

"Panorama's unique ability to accurately report on the individual fetal fraction for dizygotic twins contributes to the test's overall accuracy," said Paul Billings M.D., Ph.D., Natera's Chief Medical Officer. "Furthermore, accurate zygosity determination allows for improved aneuploidy testing in twin pregnancies."

The study titled "Validation of a Single-Nucleotide Polymorphism-Based Non-Invasive Prenatal Test in Twin Gestations: Determination of Zygosity, Individual Fetal Sex, and Fetal Aneuploidy" can be found [here](#).

About Panorama®

Panorama reveals a baby's risk for severe genetic disorders as early as nine weeks into pregnancy. The test uses a unique single-nucleotide polymorphism (SNP)-based technology to analyze fetal/placental DNA obtained through a blood draw from the mother. It is the only test that differentiates between maternal and fetal DNA in the relevant chromosomes of interest. The test also screens twin pregnancies for zygosity, fetal sex

of each baby, and identifies risk for more genetic conditions in twin pregnancies than any other NIPT. Panorama is one of several genetic screening tests from Natera designed to help families on the path to parenthood.

This test was developed by Natera, Inc., a laboratory certified under the Clinical Laboratory Improvement Amendments (CLIA). This test has not been cleared or approved by the U.S. Food and Drug Administration (FDA). Although FDA does not currently clear or approve laboratory-developed tests in the U.S., certification of the laboratory is required under CLIA to ensure the quality and validity of the tests.

About Natera

[Natera](#) is a global leader in cell-free DNA testing. The mission of the company is to change the management of disease worldwide with a focus on reproductive health, oncology, and organ transplantation. Natera operates an ISO 13485-certified and CAP-accredited laboratory certified under the Clinical Laboratory Improvement Amendments (CLIA) in San Carlos, Calif. It offers a host of proprietary genetic testing services to inform physicians who care for pregnant women, oncologists, and cancer researchers, including biopharmaceutical companies, and genetic laboratories through its cloud-based software platform. For more information, visit [natera.com](#). Follow Natera on [LinkedIn](#).

Forward-Looking Statements

All statements other than statements of historical facts contained in this press release are forward-looking statements and are not a representation that Natera's plans, estimates, or expectations will be achieved. These forward-looking statements represent Natera's expectations as of the date of this press release, and Natera disclaims any obligation to update the forward-looking statements. These forward-looking statements are subject to known and unknown risks and uncertainties that may cause actual results to differ materially, including with respect to our efforts to develop and commercialize new product offerings, our ability to successfully increase demand for and grow revenues for our product offerings, our collaborations with commercial partners such as medical institutions, contract laboratories, laboratory partners, and other third parties, whether the results of clinical studies will support the use of our product offerings, our expectations of the reliability, accuracy and performance of our screening tests, or of the benefits of our screening tests and product offerings to patients, providers and payers. Additional risks and uncertainties are discussed in greater detail in "Risk Factors" in Natera's recent filings on Forms 10-K and 10-Q and in other filings Natera makes with the SEC from time to time. These documents are available at [www.natera.com/investors](#) and [www.sec.gov](#).

Contacts

Investor Relations: Mike Brophy, CFO, Natera, Inc., 650-249-9090

Media: Anna Czene, Sr. Director, Corporate Communications, 818-731-2203, pr@natera.com

References

1. Norwitz ER, McNeill G, Kalyan A, et al. Validation of a Single-Nucleotide Polymorphism-Based Non-Invasive Prenatal Test in Twin Gestations: Determination of Zygosity, Individual Fetal Sex, and Fetal Aneuploidy. *J Clin Med*. 2019;8(7). pii: E937.
2. Martin JA, Hamilton BE, Osterman MJK, Driscoll AK, Drake P. Births: Final Data for 2017. *Natl Vital Stat Rep*. 2018;67(8):1-50.
3. Oldenburg A, Rode L, Bødker B, et al. Influence of chorionicity on perinatal outcome in a large cohort of Danish twin pregnancies. *Ultrasound Obstet Gynecol*. 2012;39(1):69-74.
4. Chasen ST, Chervenak FA. Twin pregnancy: Prenatal issues. *UpToDate*. 2017.
5. Marceau K, McMaster Minni TB, Smith Taylor F, et al. The Prenatal Environment in Twin Studies: A Review on Chorionicity. *Behav Genet*. 2016;46:286-303.
6. Committee on Practice Bulletins—Obstetrics, Society for Maternal-Fetal Medicine. Practice Bulletin No. 169: Multifetal Gestations: Twin, Triplet, and Higher-Order Multifetal Pregnancies. *Obstet Gynecol*. 2016;128(4):131-146.
7. Society for Maternal-Fetal Medicine, Simpson LL. Twin-twin transfusion syndrome. *Am J Obstet Gynecol*. 2013;208(1):3-18.
8. Blumenfeld YJ, Momirova V, Rouse DJ, et al. Accuracy of sonographic chorionicity classification in twin gestations. *J Ultrasound Med*. 2014;33(12):2187-92.



View original content to download multimedia:<http://www.prnewswire.com/news-releases/publication-demonstrates-unique-ability-of-panorama-test-to-determine-zygosity-in-twin-pregnancies-300896110.html>

SOURCE Natera