Global Prenatal & Maternal Diagnostic Market Analysis to 2020

Description: Fetal Ultrasound Screening Market
Today, ultrasound is used on average five times per pregnancy before delivery. The fetal ultrasound screening market generated revenues of about $x million in 2014 with the potential to earn $x million in 2021, growing at a CAGR of x%. Fetal MRI prenatal screening is performed rarely, only when the ultrasound screening provides an ambiguous result and to detect suspected central nervous system (CNS) disorders in the fetus during the second trimester. The fetal MRI segment had generated estimated revenue of $x million in 2014 with a potential to earn $x million in 2021.

Maternal Serum Testing Market
The global maternal serum test market was worth $x million in 2014 and is forecast to grow and reach $x million by 2021. The market consists of test methods for:
- Pregnancy-associated plasma protein (PAPP-A)
- Alpha-fetoprotein (AFP)
- Human chorionic gonadotropin (hCG)
- Estriol
- Inhibin-A

Had it not been for the launch of noninvasive prenatal tests (NIPTs) in 2011, this market would have fared much better.

Noninvasive Prenatal Test Market
Noninvasive prenatal tests (NIPTs) are the future of prenatal screening and have shown signs of surpassing the traditional maternal serum test revenues by earning about $x million in 2014. With a CAGR of x%, this market is forecast to reach $x million in 2021.

Newborn Screening Market
Newborn screening is an accepted national health policy in about 52 countries. It is a well-entrenched routine of newborn care in the U.S., U.K., Japan, Australia and most western European countries for the last three decades. In the Asian continent, China, Philippines and Thailand have developed admirable newborn screening programs in a relatively short period of time. Mass spectrometry has become the standard technique for newborn screening. Using this technique, medical technologists are capable of screening as many as 30 metabolic disorders from a single sample of blood. The global market for newborn screening has been valued at $x million in 2014 and it will be worth about $x million by 2021.

Preimplantation Genetic Diagnosis Market
Preimplantation genetic diagnosis (PGD) has been in practice for more than twenty years in about 60 countries globally. PGD testing is performed to identify genetic defects in embryos. The tests are usually performed in cases of a known genetic defect, in late age pregnancy, or in patients with a history of repeated miscarriages. PCR, FISH, CGH, and SNP analysis are some of the most common techniques used, and PCR is the most widely used technology. The global market for PGD was worth about $x million in 2014 and this has been predicted to enlarge and reach $x million in 2021.

Objectives of this Report
Since the 1960s, technologies for testing fetuses for conditions including trisomies have been continually advancing. The initial nongenetic testing such as ultrasound and serum screening for protein level markers, have developed remarkably throughout the years. Yet, these conventional tests are limited in sensitivity and specificity. Parallel to the development of these conventional technologies, two invasive techniques called amniocentesis and chorionic villus sampling (CVS) were introduced in 1980s to offer near 100% detection rates for trisomies. Yet, the chances of injury to the fetus and the consequence of miscarriages deterred both patients and obstetricians from using these techniques and to this date the techniques are used in high
Risk pregnancies for the confirmation of positive results from screening tests.

When human genome sequencing was successfully accomplished, experts in the healthcare industry expected that DNA sequencing would mainly focus on genetic diseases in adults. Instead, the impact of sequencing technology has been primarily on prenatal, newborn and PGD tests. In a short span of four years, the different types of maternal serum screening tests and fetal ultrasound tests are getting gradually replaced by the new technology of non-invasive prenatal tests (NIPTs). In the past four years, hundreds and thousands of these new tests have been performed in screening cell-free DNA from maternal blood.

The objective of this report is to provide an overview of the various technologies being employed for detecting genetic diseases in embryos, fetuses and newborns. The various chapters describe common pregnancy disorders, numerical chromosome disorders and structural chromosome disorders, single gene disorders inherited by fetuses, newborns and embryos. The global prenatal and maternal diagnostic test market is assessed with respect to:

- Fetal Ultrasound
- Prenatal MRI Screening
- Maternal Serum Screening Tests
- Noninvasive Prenatal Tests (NIPTs) using cell-free DNA (cffDNA)
- NIPTs by Product
- Prenatal Diagnostic Invasive Tests
- Newborn Screening for Genetic Diseases
- Newborn Screening Market by Technology
- Preimplantation Screening/Diagnosis (PGS/PGD)

SWOT and merger/acquisition analysis is also performed as is a comprehensive documentation of the legislation pertaining to newborn screening by geography and how clinical programs are implemented in developed and developing markets.

Emerging trends in associated markets are also analyzed in order to give the reader a comprehensive overview of how prenatal and maternal diagnostic testing is affected by the following industries:

- Molecular Diagnostics Market
- Liquid Biopsy Market
- Personalized Medicine Diagnostics Market
- In vitro Diagnostics (IVD) Market

This is a comprehensive 359 page report strengthened with over 260 figures and tables. Published in January 2016, the GLOBAL PRENATAL & MATERNAL DIAGNOSTIC MARKET TO 2020 report has a detailed overview of 114 companies in the market with specifics pertaining to financial and business strategy, current products on the market and pipeline products.

Key Questions Answered in this Report

- What are the major prenatal pregnancy complications?
- What are the major genetic diseases detected in fetuses?
- What are the appropriate technologies for the detection of aneuploidies, microdeletions, duplications, copy number variations/alterations and translocations?
- How far is genetic counseling important in educating pregnant women and healthcare professionals?
- What is the impact of recent advances in clinical genomics on genetic counseling?
- What different noninvasive and invasive prenatal screening tests are performed during a pregnancy?
- What are the detection rates, true positive rates and true negative rates for NIPTs?
- Currently, in which countries are NIPTs available?
- What is the cost of NIPTs region-wise?
- What is the uptake of conventional maternal serum tests, NIPTs and invasive diagnostic tests in the S.?
- What is the average cost of maternal serum screening, NIPTs, fetal ultrasound screening and invasive diagnostic tests in the S.?
- What strategies should be adopted for clinical implementation of NIPTs for all pregnancies?
- What is the "patient directed model" for integration of NIPTs into healthcare systems?
- How does the detection rate of NIPTs compare with the rates of conventional maternal serum screening tests?
- What are the genetic disorders detectable by different prenatal screening and diagnostic tests?
- What is the reliability of amniocentesis and CVS results?
- Is the future of invasive diagnostic tests uncertain?
- Do intact fetal cells in maternal blood have use in noninvasive prenatal diagnosis (NIPD)?
- What about the use of trophoblast cells obtained from the cervix in NIPD?
- How many genetic conditions are detected during newborn genetic screening in the S.?
- What is the status of newborn genetic screening in developed, developing and other countries?
- What are the differences between preimplantation genetic screening (PGS) and preimplantation genetic diagnosis (PGD)?
- What PGS/PGD testing products are currently available on the market?
- What advanced technologies are currently used in prenatal, newborn and PGD testing?
- What is the global market for fetal ultrasound screening, through 2021?
- Who are the market leaders in fetal ultrasound systems?
- What is the global and regional market for prenatal screening by fetal MRI, through 2021?
- What is the global and regional market for maternal screening tests, through 2021?
- What is the global and regional market for NIPTs using cffDNA, through 2021?
- What is the global and regional market for invasive prenatal diagnostic tests, through 2021?
- What is the global and regional market for newborn screening tests, through 2021?
- What is the global market for newborn screening tests by technology, through 2021?
- What is the global and regional market for pre-implantation genetic diagnosis (PGD), through 2021?
- What is the global market for molecular diagnostics, through 2021?
- What is the global market for liquid biopsy tests, through 2021?
- What is the overall global market for personalized medicine diagnostics, through 2021?
- What is the overall global market for in vitro diagnostics (IVD), through 2021?
- What are the recent acquisition activities in prenatal screening industry?
- What are the important factors that drive the growth of prenatal and newborn genetic testing industry?
- What are the challenges faced by the prenatal screening industry?
- What are the possible future developments in prenatal screening industry?
2.4.1.4 Prevalence of Preterm Births in the U.S. by Race/Ethnicity
2.4.1.5 Prevalence of Preterm Births in the U.S. by Plurality of Birth
2.4.1.6 Prevalence of Preterm Births in the U.S. by Maternal Age
2.4.1.7 Multiple Births in the U.S.
2.4.2 Placenta Previa
2.4.3 Breech Presentation
2.4.4 Meconium Stained Liquor
2.4.5 Oligohydramnios and Polyhydramnios
2.5 Fetal Problems
2.5.1 Fetal Growth Restriction
2.5.2 Imperforate Anus
2.5.3 Congenital Heart Disease

3.0 Types of Genetic Diseases in Fetuses: An Overview
3.1 Single Gene Disorders
3.1.1 Autosomal Dominant Genetic Disorders
3.1.1.1 Huntington Disease (HD)
3.1.1.2 Familial Hypercholesterolaemia (FH)
3.1.1.3 Marfan syndrome
3.1.1.4 Myotonic Dystrophy
3.1.2 Autosomal Recessive Genetic Disorders
3.1.2.1 Cystic Fibrosis (CF)
3.1.2.2 Canavan Disease
3.1.2.3 Neutropenia
3.1.2.4 Ellis-van Creveld Syndrome (EVC)
3.1.2.5 Familial Mediterranean fever (FMF)
3.1.2.6 Fanconi Anemia (FA)
3.1.2.7 Gaucher Disease
3.1.2.8 Mucopolysaccharidosis (MPSs)
3.1.2.9 Phenylketonuria (PKU)
3.1.2.10 Sickle Cell Disease
3.1.2.11 Beta-Thalassaemia
3.1.2.12 Inheritance Pattern of Autosomal Recessive Genetic Disorders
3.1.2.13 Chances of Inheriting a Single Gene Disorder
3.1.2.14 Common Recessive Disease Traits in Selected Ethnic Groups
3.1.2.15 Comprehensive List of Common Single Gene Disorders
3.1.3 X-Linked Dominant Genetic Disorders
3.1.3.1 Hypophosphotemic Rickets
3.1.3.2 Incontinentia Pigmenti
3.1.3.3 Focal Dermal Hypoplasia
3.1.3.4 Orofaciodigital Syndrome
3.1.3.5 Inheritance of Sex-Linked Dominant Disorders
3.1.4 X-Linked Recessive Disorders
3.1.4.1 Lesch-Nyhan Syndrome
3.1.4.2 Menkes Disease (Kinky hair syndrome)
3.1.4.3 Hemophilia A and B
3.1.4.4 Fabry’s Disease
3.1.4.5 Wiskott-Aldrich syndrome (WAS)
3.1.4.6 Bruton’s Agammaglobulinemia
3.1.4.7 Color Blindness
3.1.4.8 Complete Androgen Insensitivity Syndrome
3.1.4.9 Inheritance of X-Linked Recessive Traits
3.2 Chromosomal Disorders
3.2.1 47, XXY (Klinefelter Syndrome)
3.2.1.1 Prenatal Diagnosis of Klinefelter Syndrome
3.2.2 47, XYY Syndrome
3.2.2.1 Diagnosis of 47, XYY Syndrome
3.2.3 45, X Syndrome (Turner Syndrome)
3.2.3.1 Prenatal Diagnosis of Turner Syndrome
3.2.4 47, XXX (Triple X Syndrome)
3.2.4.1 Tests for Triple X Syndrome
3.2.5 Trisomy 21 (Down Syndrome)
3.2.5.1 Tests for Down Syndrome
3.2.5.2 Incidence of Down Syndrome by Maternal Age
3.2.5.3 Developmental Delay in Children with Down Syndrome
3.2.6 Trisomy 18 (Edward's Syndrome)
3.2.6.1 Prenatal Diagnosis of Trisomy
3.2.6.2 Clinical Manifestations of Trisomy
3.2.7 Trisomy 13 (Patau Syndrome)
3.2.7.1 Prenatal Diagnosis of Trisomy
3.2.8 Triploid Syndrome
3.2.8.1 Congenital Anomalies Associated with Triploidy
3.2.8.2 Prenatal Diagnosis of Triploidy
3.2.9 Prevalence of Trisomies in the U.S.
3.2.9.1 Trisomies and Abortions
3.2.10 Maternal Age-Related Frequencies of Aneuploid Fetuses
3.2.11 Clinical Features of Common Chromosomal Aneuploidy
3.2.12 Maternal Age and Chromosomal Aneuploidy
3.2.13 Sensitivity and Specificity of Maternal Serum and Ultrasound Tests for Aneuploids
3.3 Structural Chromosomal Abnormalities
3.3.1 Autosomal Deletions
3.3.1.1 Wolf-Hirschhorn Syndrome (WHS)
3.3.1.2 Cri du chat Syndrome
3.3.1.3 Langer-Giedion Syndrome
3.3.2 Common Autosomal Microdeletion Syndrome
3.3.2.1 Williams Syndrome
3.3.2.2 WAGR Syndrome
3.3.2.3 Prader-Willi Syndrome (PWS)
3.3.2.4 Angelman Syndrome
3.3.2.5 Miller-Dieker Syndrome
3.3.2.6 Smith-Magenis Syndrome (SMS)
3.3.2.7 Alagille Syndrome (ALGS)
3.3.2.8 CATCH 22 Syndrome
3.3.2.9 DiGeorge Syndrome
3.3.3 Autosomal Duplication Syndromes
3.3.3.1 Beckwith-Wiedemann Syndrome (BWS)
3.3.3.2 Charcot-Marie-Tooth Disease Type 1A (CMT1A)
3.3.3.3 Cat-Eye Syndrome
3.3.4 Appropriate Technologies for the Detection of Microdeletions, Duplications and Copy Number Variants

4.0 Genetic Counseling: An Overview
4.1 Impact of Recent Advances in Clinical Genomics on Genetic Counseling
4.2 Genetic Counselors in DTC GT Industry
4.2.1 Types of Genetic Counseling Offered by DTC GT Companies
4.2.2 Roles of Genetic Counselors in DCT GT Industry

5.0 Prenatal Screening for Genetic Diseases: An Overview
5.1 Routine Prenatal Screening Tests
5.2 Less-Routine Prenatal Screening Tests
5.3 Beta Human Chorionic Gonadotropin (β-hCG) Screening Test
5.3.1 hCG Kits and Manufacturers
5.4 First Trimester Pregnancy-Associated Plasma Protein-A (PAPP-A) Screening Test
5.5 Maternal Serum Alpha-Fetoprotein (MSAFP) Screening Test
5.6 Second Trimester Serum β-hCG Screening Test
5.7 Second Trimester Unconjugated Estriol (uE3) Screening Test
5.8 Second Trimester Inhibin-A Screening Test
5.9 Second Trimester Hexosaminidase Test
5.10 Second Trimester Triple-Screen Quad Screen Tests
5.11 Second Trimester Screening of Cell-Free Fetal DNA (cffDNA)
5.11.1 Sensitivity and Specificity of NIPTs
5.11.2 Diagnostic Applications of cffDNA
5.11.3 Time of Availability of cffDNA in Maternal Blood
5.11.4 The Cost of NIPTs
5.11.5 Cost of NIPTs by Product
5.11.6 History of Aneuploidy Testing from 1970s to 2011
5.11.7 NIPT Methods of Detecting Aneuploidy
5.11.7.1 Shotgun Method
5.11.7.2 Targeted Massively Parallel Sequencing (t-MPS)
5.11.7.3 Single Nucleotide Polymorphisms (SNPs)
5.11.8 Comparison of Amniocentesis and NIPT
5.11.9 Advantages of NIPTs
5.11.10 Disadvantages of NIPTs
5.11.11 Comparison of Performance Criteria for Commonly used Prenatal Tests
5.11.12 Comparison of NIPT Detection Rates with Traditional Tests
5.11.13 False Positive Rates of NIPTs Compared with Those of Traditional Tests
5.11.14 Fetal Genetic Disorders Detected by NIPTs and other Screening Tests
5.12 First Trimester Ultrasound Screening Test
5.12.1 Nuchal Translucency (NT) Screening Test
5.13 Magnetic Resonance Imaging (MRI) in Prenatal Screening
5.14 Prenatal Diagnosis of Genetic Disorders
5.14.1 Amniocentesis (AC)
5.14.1.1 Reliability of Amniocentesis
5.14.2 Chorionic Villus Sampling (CVS)
5.14.2.1 Reliability of CVS Test
5.14.3 Cordocentesis or Percutaneous Umbilical Blood Sampling
5.15 Advantages and Disadvantages of Prenatal Diagnostic Tests
5.16 Future of Invasive Prenatal Diagnostic Tests
5.16.1 Indispensability of Invasive Diagnostic Tests
5.17 Intact Circulating Fetal Cells for Noninvasive Prenatal Tests
5.17.1 Scheme for Isolating Intact Fetal Cells from Maternal Blood
5.18 Trophoblast Retrieval and Isolation from Cervix (TRIC)

6.0 Newborn Screening
6.1 Status of Newborn Screening in Developed and Developing Countries
6.2 Status of Newborn Screening in Middle East and North Africa (MENA)
6.3 Screening Tests Recommended for Newborns in the U.S.
6.4 Most Common Newborn Genetic Disorders
6.4.1 Phenylketonuria (PKU)
6.4.1.1 Screening Tests Used for Diagnosis of PKU
6.4.2 Congenital Hypothyroidism (CHT)
6.4.2.1 Inheritance of CHT
6.4.2.2 Signs and Symptoms of CHC
6.4.2.3 Diagnosis of CHT
6.4.3 Congenital Adrenal Hyperplasia
6.4.3.1 Inheritance of Congenital Adrenal Hyperplasia
6.4.3.2 Symptoms of Congenital Adrenal Hyperplasia
6.4.3.3 Diagnosis of Congenital Adrenal Hyperplasia
6.4.4 Galactosemia
6.4.4.1 Signs and Symptoms of Galactosemia
6.4.4.2 Diagnosis of Galactosemia
6.4.5 Sickle Cell Disease (SCD)
6.4.5.1 Symptoms of SCD
6.4.5.2 Diagnosis of SCD
6.4.6 Biotidinase Deficiency
6.4.6.1 Inheritance of Biotidinase Deficiency
6.4.6.2 Signs and Symptoms of Biotidinase Deficiency
6.4.6.3 Diagnosis of Biotidinase Deficiency
6.4.7 Homocystinuria
6.4.7.1 Signs and Symptoms of Homocystinuria
6.4.7.2 Diagnosis of Homocystinuria
6.4.8 Maple Syrup Urine Disease (MSUD)
6.4.8.1 Inheritance of MSUD
6.4.8.2 Diagnosis of MSUD

7.0 Preimplantation Genetic Screening & Genetic Diagnosis (PGS/PGD)
7.1 PGS/PGD Technologies
7.1.1 Fluorescent in situ Hybridization (FISH)
7.1.2 Array Comparative Genome Hybridization (aCGH)
7.1.3 Single Nucleotide Polymorphism (SNP) Microarray
7.1.4 Oligonucleotide Genome Sequencing (OGS)
7.1.5 Express Genome Sequencing (EGS)
7.1.6 Next Generation Sequencing (NGS)
7.2 Strengths and Weaknesses of Currently Available PGS/PGD Technologies
7.3 Genetic Diseases Detected During PGD
7.4 PGS/PGD Testing Products in the Market
7.5 Cost of in vitro Fertilization and Related Procedures

8.0 Pregnancy, Prenatal, Newborn and PGD-Related Technologies: An Overview
8.1 Beta Human Chorionic Gonadotopin (ß-hCG) Test
8.1.1 Setting up the Test Strip
8.1.2 Procedure of the Test
8.1.3 Interpretation of ß-hCG Test Result
8.2 Pregnancy Associated Plasma Protein-A (PAPP-A) Test
8.2.1 Principle of PAPP-A Test
8.3 Maternal Serum Alpha Fetoprotein (MSAFP) Test
8.3.1 Principle of MSAFP Test
8.4 Unconjugated Estriol (uE3) Test
8.4.1 Principle of uE3 Test
8.5 Inhibin A Test
8.5.1 Principle of Inhibin A Test
8.6 Fetal Karyotyping
8.7 Extended Banding Chromosome Studies
8.8 Innovation in Invasive Prenatal Diagnosis
8.8.1 Microarray: An Alternative for Karyotyping
8.8.2 Rapid Aneuploid Detection by Quantitative Fluorescent PCR (QF-PCR)
8.8.2.1 Principles of QF-PCR
8.8.3 Fluorescence in situ Hybridization (FISH)
8.8.3.1 The Format of Fish Test Result
8.8.3.2 Commonly Used FISH-Based Tests
8.8.3.3 Microdeletions/Microduplications Detectable by FISH
8.8.3.4 Types of FISH Probes and Their Functions
8.8.4 Microarray-Based Comparative Genomic Hybridization (array-CGH)
8.9 Advances in Prenatal Screening: The Power to Know Sooner
8.9.1 NIPTs: An Overview of Tests and Technologies
8.9.1.1 Harmony Test
8.9.1.2 InformaSeq
8.9.1.3 Panorama Test
8.9.1.4 Prena Test
8.9.1.5 NIFTY Test
8.9.1.6 IONA Test
8.9.1.7 Verifi Test
8.9.1.8 MaterniT GENOME Test
8.9.1.9 MaterniT21 PLUS Test
8.9.1.10 HeridiT UNIVERSAL Carrier Screen
8.9.2 Comparison of MaterniT21 PLUS, Verifi, Harmony and Panorama Tests
8.9.3 U.S. Patents for NIPTs by Company
8.9.3.1 Selected Issued Patents of NIPTs
8.9.3.2 Assignees of Major U.S. Patents and their Current Licensees
8.9.4 Global Availability of NIPTs
8.9.5 Cost Effectiveness of NIPTs
8.9.6 Clinical Implementation Strategies to be adopted for NIPTs
8.9.7 Integration of NIPT into Healthcare System: Patient-Directed Model
8.10 Tandem Mass Spectrometry (MS/MS) in Newborn Screening
8.11 Fetal Ultrasound in Prenatal Screening
8.11.1 Types of Fetal Ultrasound Exams
8.11.2 Best Obstetric and Gynecological Ultrasound Systems in the Market
8.11.3 Best Premium Fetal Ultrasound Machines
8.11.3.1 Philips Epiq 7
8.11.3.2 GE Voluson E8
8.11.3.3 GE Voluson E10
8.11.3.4 Samsung UGEO WS80A
8.11.4 High-End Systems
8.11.4.1 Philips Epiq 5
8.11.4.2 Philips Affinity 70
8.11.4.3 GE Voluson E6
8.11.4.4 GE Voluson S8
8.11.5 Midrange Systems
8.11.5.1 Philips Affinity 50
8.11.5.2 GE Voluson S6
8.11.5.3 Samsung AccuVix A30
8.11.5.4 Philips Clear Vue 650
8.11.6 Economy Systems
8.11.6.1 Philips Clear Vue 550
8.11.6.2 GE Logiq P5
8.11.6.3 Samsung H60
8.11.6.4 Alpinion Ecube 7
8.11.7 Portable Systems
8.11.7.1 GE Voluson 1
8.11.7.2 Samsung UGEO HM70A
8.12 Therapeutic Genome Editing: A Breakthrough Technology
8.12.1 Genome Editing Technologies
8.12.1.1 Growing Popularity of CRISPR Kits
8.12.2 Therapeutic Applications of Genome Editing
8.12.3 The First Genetically Modified Human Embryos

9.0 Prenatal Screening and Diagnostics: Market Overview
9.1 Global Market for Fetal Ultrasound
9.1.1 Market Leaders in Fetal Ultrasound
9.2 Global Market for Prenatal MRI Screening
9.3 Global Market for Maternal Serum Screening Tests
9.4 Global Market for Noninvasive Prenatal Tests (NIPTs) using cffDNA
9.4.1 Global Market for NIPTs by Product
9.5 Global Market for Prenatal Diagnostic Invasive Tests
9.6 Global Market for Newborn Screening for Genetic Diseases
9.6.1 Newborn Screening Market by Technology
9.7 Global Market for Preimplantation Screening/Diagnosis (PGS/PGD)

10.0 Other Genetic Testing-Related Markets
10.1 Emerging Trends in Molecular Diagnostics Market
10.2 Emerging Trends in Liquid Biopsy Market
10.3 Emerging Trends in Personalized Medicine Diagnostics Market
10.4 Emerging Trends in in vitro Diagnostics (IVD) Market

11.0 Market SWOT and Strategy Analysis
11.1 Acquisition Activities in Prenatal Screening Industry
11.1.1 Acquisition of BlueGenome by Illumina
11.1.2 Illumina’s Acquisition of Verinata
11.1.3 Eurofins Joint Venture with Emory Genetics Laboratory
11.1.4 Roche’s Acquisition of Ariosa Diagnostics
11.1.5 Cooper Surgical’s Acquisition of Reprogenetics
11.2 Market Drivers
11.3 Market Restraints
11.4 Future of Prenatal Screening
11.5 Legislation Mandating Newborn Screening by Geography
11.5.1 Newborn Screening Programs in Americas
11.5.2 Newborn Screening Programs in Asia/Pacific
11.5.3 Newborn Screening Programs in Europe
11.5.4 Newborn Screening Programs in Middle East and Northern Africa
11.5.6 Ethical Voices against Problematic Applications of NIPT and NIPT
11.6 Clinical Implementation of NIPTs
11.7 Implementation of NIPTs in Developed Countries
11.7.3 Implementation of NIPTs in Developing and Under-Developed Countries
11.8 Adoption Rates for Different Prenatal Tests in the U.S.

12.0 Company Profiles
12.1 23andMe Inc.
12.1.1 23andMe's Agreement with Pfizer
12.1.2 23andMe's Agreement with Genentech
12.1.3 FDA's Approval for 23andMe's Screening Test for Bloom Syndrome
12.2 Abbott Laboratories
12.2.1 ARCHITECT AFP Assay
12.3 Abbott Molecular Inc.
12.3.1 AneuVysion
12.3.2 Cystic Fibrosis Genotyping Assay
12.4 Abcam plc
12.4.1 hCG Human ELISA Kit
12.5 AB Sciex LLC
12.6 Adaltis S.r.l
12.6.1 CLIagen Free Beta-hCG Kit
12.7 Adaptive Biotechnologies Corp.
12.7.1 ImmunoSEQ Platform
12.7.2 ClonoSEQ
12.7.3 Pipeline
12.7.3.1 Quantifying Tumor Infiltration Lymphocytes in Solid Tumors
12.7.3.2 Measuring Immune Reconstitution Post Transplant
12.7.3.3 Diagnosing Cutaneous T-Cell Lymphoma (CTCL)
12.7.3.4 Therapeutics
12.8 Affymetrix Inc.
12.8.1 Microarray Solutions
12.8.2 Affymetrix's Collaborating Partners
12.8.3 Affymetrix's R&D Investment
12.9 Agena Biosciences Inc.
12.9.1 MassARRAY System
12.9.2 Acquisition of Sequenom's Bioscience Business by Agena Biosciences
12.10 Agilent Technologies Inc.
12.10.1 SureScan Microarray Scanner
12.10.2 OneSeq
12.11 Ambry Genetics Corp.
12.11.1 Clinical Diagnostic Tests
12.12 Analogic Corp.
12.12.1 Flex Focus 500
12.12.2 SonixTouchQ+
12.12.3 SonixSP Q+
12.13 Ariosa Diagnostics Inc.
12.13.1 Harmony Test
12.13.2 Granting of Licenses to Harmony Test
12.14 Ansh Labs
12.14.1 picoPAPP-A ELISA Kit
12.14.2 Inhibin A ELISA Kit
12.15 Appistry Inc.
12.15.1 GenomePilot
12.15.2 Ayrris for NGS Analysis
12.15.3 Variant Annotation and Analysis Suite
12.15.4 CloudDx Translational
12.15.5 CloudDx Clinical
12.15.6 Appistry's Partnership with LifeMap Sciences
12.16 ARUP Laboratories
12.16.1 Prenatal Screening and Diagnosis
12.16.2 Next-Generation Sequencing (NGS)
12.16.3 Noninvasive Prenatal Test for Aneuploids
12.17 AssureRx Health Inc.
12.17.1 GeneSight Psychotropic
12.17.2 GeneSight Analgesic
12.17.3 GeneSight ADHD
12.17.4 GeneSight MTHFR
12.18 Asuragen Inc.
12.18.1 AmplideX FMR1 PCR
12.18.2 AmplideX FMR1 mPCR
12.18.3 AmpliseX Controls
12.18.4 Quantidex Pan Cancer Kit
12.18.5 Quantidex BCR/ABL1 Quant Kit
12.18.6 Quantidex DNA Assay
12.18.7 Signature Technology
12.18.8 Signature KRAS Mutations
12.18.9 Signature BRAF Mutations
12.18.10 Signature LTx v2.0
12.18.11 Signature NPM1 Mutations
12.19 Athena Diagnostics Inc.
12.20 AutoGenomics Inc.
12.20.1 INFINITI System
12.21 Base4 Innovation Ltd.
12.21.1 Microdroplet Sequencing
12.22 Beckman Coulter Inc.
12.22.1 SPRiworks System I for Illumina Genome Analyzer
12.22.2 SPRiworks HT for Illumina NGS Platform
12.22.3 SPRisite Reagent Kit
12.22.4 Automated Sample Preparation
12.22.5 Genomic Services
12.22.6 Access Total Beta-hCG Reagent
12.22.7 Access Inhibin A Assay
12.23 Berry Genomics Co., Ltd.
12.23.1 Bambni Test
12.23.2 Berry’s Partnership with Illumina
12.24 Bina Technologies Inc.
12.24.1 Bina RAVE
12.24.2 Bina AAIm
12.24.3 Bina’s Collaboration with AsraZeneca
12.25 Bio-Rad (Israel) Laboratories Inc.
12.26 BGI
12.27 Blueprint Genetics Oy
12.27.1 Services
12.28 Boreal Genomics Inc.
12.28.1 OnTarget Mutation Detection System
12.28.2 Aurora Platform
12.29 Cambridge Epigenetix Ltd.
12.29.1 TrueMethyl Seq Kit
12.29.2 TrueMethyl Array
12.30 Caris Lifesciences
12.30.1 ADAPT Biotargeting System
12.30.2 Caris Molecular Intelligence
12.30.3 Collaboration between Caris Lifesciences and Syapse
12.31 CeGaT GmbH
12.31.1 NGS Service
12.31.2 ADME Research Panel
12.31.3 Forschungsexom
12.32 Centogene AG
12.33 Chromsystems Instruments & Chemicals GmbH
12.34 Chronix Biomedical Inc.
12.34.1 Technology
12.35 Claritas Genomics Inc.
12.36 CLC bio A/S
12.36.1 Products
12.37 Combimatrix Corp.
12.37.1 CombiSNP Array for Prenatal Diagnosis
12.37.2 CombiPGS
12.38 Contec Medical Systems Co., Ltd.
12.38.1 CMS600P B-Ultrasound Diagnostic System
12.38.2 CMS600B3 B-Ultrasound Diagnostic System
12.39 Coriell Life Sciences Inc.
12.39.1 GeneDose
12.40 Correlagen Diagnostics Inc.
12.41 Counsyl Inc.
12.41.1 Family Prep Screen
12.41.2 Informed Pregnancy Screen
12.41.3 Inherited Cancer Screen
12.42 Courtagen Life Sciences Inc.
12.43 Creative Diagnostics
12.43.1 Alpha-Fetoprotein, AFP ELISA Kit
12.43.2 hCG ELISA Kit
12.43.3 Human Free Estriol ELISA Kit
12.44 Cynvenio Biosystems Inc.
12.44.1 LiquidBiopsy
12.44.2 ClearID
12.44.3 Thermo Fisher's Distribution Agreement with Cynvenio
12.44.4 Cynvenio's Collaboration with the University of Southern Denmark
12.45 Diagnostic Automation/Cortez Diagnostics Inc.
12.46 Demeditec Diagnostics GmbH
12.46.1 Estriol, Free/Uncojugated ELISA
12.47 DRG International Inc.
12.47.1 DRG PAPP-A ELISA
12.48 DNA Electronics Ltd.
12.48.1 Genalysis
12.49 DNA Link Inc.
12.49.1 Services
12.49.2 Partnership between Affymetrix and DNA Link Inc.
12.49.3 DNAGPS
12.49.4 AccuID
12.50 DNAnexus Inc.
12.50.1 Adoption of DNAnexus' Cloud Genomics Platform by Natera
12.51 Eagle Biosciences Inc.
12.51.1 Alport Syndrome Kit
12.51.2 Free Beta-hCG ELISA
12.52 Eagle Genomics Ltd.
12.52.1 EagleCore
12.52.2 EagleNsembl
12.53 Enzymatics Inc.
12.53.1 Reagents
12.53.2 SPARK DNA Sample Preparation Kit
12.54 Esoate SpA
12.54.1 MyLabGamma
12.54.2 MyLab GOLD Platform
12.54.3 MyLab 50
12.54.4 MyLab 40
12.54.5 MyLab 25Gold
12.55 Eurofins MWG Operon Inc.
12.55.1 Products and Services
12.56 Exiqon A/S
12.56.1 Products and Services
12.57 Fakuda Denshi Co., Ltd.
12.57.1 UF-400AX
12.57.2 UF-550XTD
12.57.3 UF-760AG
12.57.4 UF-870AG
12.58 GATC Biotech AG
12.58.1 Sanger Sequencing
12.59 GE Healthcare Ltd.
12.59.1 VScan
12.59.2 VScan with Dual Probe
12.59.3 Logiq P5
12.59.4 Logiq P6
12.59.5 GE Venue 50
12.59.6 GE Venue 40
12.59.7 Logiq S8
12.59.8 Logiq E9
12.60 GenapSys Inc.
12.60.1 GENIUS
12.61 Gene by Gene Ltd.
12.62 Genection Inc.
12.63 GeneDx Inc.
12.63.1 Cytogenetics and Biochemical Tests
12.63.2 Deletion/Duplication Analysis
12.63.3 Carrier Mutation-Specific Testing
12.64 GenePeeks Inc.
12.64.1 Matchright Technology
12.65 Genesis Genetics
12.65.1 GeniSeq24
12.65.2 UltraPGD
12.65.3 ArrayCGH
12.66 Genetadi Biotech S.L.
12.66.1 AMNIOCHIP
12.66.2 FERTICHIP
12.66.3 PRENATAL GENE
12.67 Genoma Group Srl
12.68 Genomed AG
12.68.1 Aneufast
12.69 GenPath Diagnostics
12.69.1 InheriGen, InheriGen Plus and InheriGen Tx
12.69.2 Prenatal Tests
12.70 Genway Biotech Inc.
12.71 Good Start Genetics Inc.
12.71.1 EmbryVu
12.72 Hitachi Medical Systems America Inc.
12.72.1 Arietta 70
12.72.2 ProSound Alpha 7
12.72.3 Noblus
12.72.4 ProSound F37
12.73 Hologic Inc.
12.73.1 InPlex CF Molecular Test
12.73.2 Rapid fFN Test
12.74 Illumina Inc.
12.74.1 The Verifi Prenatal Test
12.75 INEX Innovations Exchange Pte Ltd.
12.75.1 iGene
12.75.2 FlashFISH
12.75.3 INEX's Collaborative Agreement with BGI
12.76 Invitae Corp.
12.77 Laboratory Corporation of America Inc.
12.77.1 Services
12.78 LifeCodexx AG
12.78.1 Prena Test
12.79 Monobind Inc.
12.79.1 Fertility VAST Panel: HCG, FSH, LH, SPRL
12.79.2 PAPP-A Test
12.80 Multiplicom NV
12.80.1 Clarigo
12.81 Myriad Genetics
12.82 Natera Inc.
12.82.1 Panorama Prenatal Screen
12.82.1.1 Accuracy of Panorama Test
12.82.1.2 Minimal False Negatives in Panorama
12.82.2 Horizon Carrier Screening
12.82.3 Spectrum Preimplantation Test
12.82.4 Natera's 24-chromosome PGS
12.82.5 Anora Miscarriage Test
12.82.6 Prenatal Paternity Test
12.82.7 Agreement between Natera and LifeLabs
12.83 Natus Medical Inc.
12.83.1 ABaer
12.83.2 Algo 5
12.83.3 Algo 3i
12.83.4 AuDX
12.83.5 Echo-Screen III
12.84 NewGene Ltd.
12.84.1 Hereditary Disorders
12.84.2 Alport Syndrome
12.84.3 Aortopathy Panel
12.84.4 RASopathy Gene Panel
12.84.5 Familial Hypercholesterolaemia
12.85 NIPD Genetics Ltd.
12.85.1 VERACITY Test (NIPT)
12.86 Oxford Gene Technology (OGT)
12.86.1 SureSeq NGS Library Preparation Kit
12.86.2 CytoSure Embryo Screen Array
12.86.3 CytoCell FISH Probes
12.86.4 CytoSure Embryo Screen Array
12.86.5 CytoSure Aneuploidy Array
12.86.6 CytoSure Chromosome X Arrays
12.87 Parabase Genomics Inc.
12.87.1 NewbornDx Test
12.88 Pathway Genomics Corp.
12.88.1 Carrier Screening
12.89 PerkinElmer Life and Analytical Sciences Inc.
12.89.1 DELFIA Xpress PIGF Assay
12.89.2 DELFIA Xpress PAPP-A Kit
12.89.3 AutoDELFIA PAPP-A Kit
12.89.4 StepOne Newborn Screens
12.90 Premaitha Health PLC
12.90.1 IONA Test
12.90.2 Premaitha's Investment Agreement with Thermo Fisher
12.91 Progenity Inc.
12.91.1 nxtPanel Test
12.91.2 Verifi Test
12.91.3 Acquisition of Carmenta Bioscience by Progenity
12.92 Qiagen N.V.
12.92.1 Next-Generation Sequencing (NGS)
12.92.2 Target Enrichment Solutions
12.92.3 Library Construction
12.93 Quest Diagnostics Inc.
12.93.1 qNatal Advanced
12.93.2 Inhibin A
12.94 Ravgen Inc.
12.94.1 Prenatal Downs Syndrome Testing
12.94.2 Single Gene Disorder Testing
12.95 Recombine Inc.
12.95.1 CarrierMap
12.96 Reproductive Genetics Institute Inc.
12.97 Reprogenetics Laboratories
12.97.1 Array CGH (aCGH)
12.97.2 Single Gene Disorder Testing
12.97.3 WaferGen Biosystems’ Supply Agreement with Reprogenetics
12.98 Sebia Inc.
12.99 Sequenom Inc.
12.99.1 MaterniT GENOME Test
12.99.1.1 Sensitivity and Specificity of MaterniT GENOME Test
12.99.2 MaterniT21 PLUS
12.99.2.1 Sensitivity and Specificity of MaterniT21 PLUS
12.99.3 HerediT UNIVERSAL Carrier Screen
12.99.4 VisibiliT Prenatal Test
12.99.5 HerediT Cystic Fibrosis Carrier Screen
12.99.5.1 Clinical Data for HerediT
12.99.6 SensiGene Fetal RHD Genotyping
12.99.7 NextView Prenatal Diagnostic Tests
12.100 SeraCare Life Sciences Inc.
12.100.1 Seraseq Trisomy 21 Aneuploidy Reference Material
12.101 Siemens Healthcare
12.101.1 Acuson S2000
12.101.2 Acuson X700
12.101.3 Acuson X600
12.101.4 Acuson X300 PE
12.101.5 Acuson X150
12.101.6 Acuson Antares
12.101.7 Acuson P300
12.102 Sophia Genetics SA
12.102.1 Clinical Genomic Modules
12.103 SpOtOn Clinical Diagnostics Ltd.
12.103.1 Newborn Screening
12.103.2 Ante-Natal Testing
12.104 Stra Biotech GmbH
12.105 Sygnis AG
12.105.1 TruePrime Single Cell WGA Kit
12.105.2 TruePrime WGA Kit
12.105.3 TruePrime RCA Kit
12.105.4 SunScript Reverse Transcriptase RNaseH+ and RNaseH- Kits
12.105.5 SensiPhi/QualiPhi
12.106 SynapDx Corporation
12.106.1 ASD Diagnosis
12.107.1 Thermo Fisher's Brands
12.108 Transgenomic Inc.
12.108.1 Technology Suite
12.108.2 MX-ICP Technology
12.108.3 ICEme Kit
12.108.4 Other Products
12.109 Trivitron Healthcare Private Ltd.
12.110 Trovagene Inc.
12.110.1 PCM BRAF V600E Mutation Detection Test
12.110.2 PCM KRAS Mutation Detection Test
12.110.3 PCR EGFR Mutation Detection Test
12.110.4 HPV HR Detection Test
12.111 Tute Genomics Inc.
12.111.1 Tute Platform
12.112 Warp Drive Bio LLC
12.112.1 Wrap's New Approach
12.112.2 Chemomemes
12.112.3 Genomic Search Engine
12.113 ZS Genetics Inc.
12.113.1 3G Sequencing
12.114 Zymo Research Corporation
12.114.1 DNA Methylation Products
12.114.1.1 Bisulfite Conversion
12.114.1.2 Methylated DNA Standards
12.114.1.3 DNA Methyltransferases
12.114.1.4 5-mC ELISA
12.114.1.5 5-mC Antibodies and Immunoprecipitation
12.114.1.6 Region-Specific DNA Methylation Analysis
12.114.1.7 Global 5-mC Quantification
12.114.1.8 Genome-wide 5-mC Analysis
12.114.2 DNA Purification Products
12.114.2.1 DNA Clean-up
12.114.2.2 Plasmid DNA Purification
12.114.2.3 Genomic DNA
12.114.2.4 Microbial and Environmental DNA Isolation
12.114.2.5 DNA/RNA Co-Purification
12.114.2.6 Sample Collection and Stabilization
12.114.2.7 DNA Ladders
12.114.2.8 Enzymes
12.114.2.9 High-Throughput/Automated Isolation
12.114.2.10 DNA Analysis Kits
12.114.3 Other Products

APPENDIX
Appendix 1: Representative Companies in Prenatal and Maternal Diagnostics and their Products
Appendix 2: Sources for Tables and Graphs

INDEX OF FIGURES
Figure 1.1: Summary of Prenatal Screening, Prenatal Diagnosis, Newborn Screening and PGS/PGD Markets, Through 2021
Figure 2.1: Risk of Down Syndrome and Chromosomal Abnormalities Due to AMA
Figure 2.2: Maternal Age and Pregnancy Loss Rate
Figure 2.3: Risk of Cesarean Section with Increasing AMA
Figure 2.4: Risk of Gestational Diabetes with AMA
Figure 2.5: Risk of Placenta Previa with AMA
Figure 2.6: Delayed First Pregnancy in the U.S.
Figure 2.7: First Birth Rates for 35-39 Aged U.S. Women by Race
Figure 2.8: Pre-Existing Chronic Diseases among Women of Reproductive Ages in the U.S.
Figure 2.9: Chronic Disease Risk Behaviors and Risk Factors among Women of Reproductive Ages in the U.S.
Figure 2.10: Prevalence of Preeclampsia during Pregnancy by Race/Ethnicity in the U.S.
Figure 2.11: Prevalence of Preeclampsia by Maternal Age in the U.S.
Figure 2.12: Prevalence of Gestational Diabetes by Maternal Age in the U.S.
Figure 2.13: Prevalence of Gestational Diabetes by Maternal Race/Ethnicity in the U.S.
Figure 2.14: Causes of Preterm Labor
Figure 2.15: Prevalence of Preterm Births in the U.S. by Stage
Figure 2.16: Prevalence of Preterm Births in the U.S. by Race/Ethnicity
Figure 2.17: Prevalence of Preterm Births in the U.S. by Plurality of Birth
Figure 2.18: Prevalence of Preterm Births in the U.S. by Maternal Age
Figure 2.19: Prevalence of Multiple Births in the U.S.
Figure 3.1: Inheritance of Autosomal Dominant Faulty Gene When One Parent is a Carrier
Figure 3.2: Inheritance of Autosomal Dominant Faulty Gene When Both Parents are Carriers
Figure 3.3: Percent of Patients taking Sweat Chloride Test Reported in the U.S. Registry
Figure 3.4: Age at CF Diagnosis for all People Reported in the U.S. Registry, 2013
Figure 3.5: Distribution of Race/Ethnicity among People with CS in the U.S., 2013
Figure 3.6: Percent of New CF Diagnosis in U.S. Newborn Screenings, 1990-2013
Figure 3.7: The Six Most Common CFTR Mutations in the U.S.
Figure 3.8: Autosomal Recessive Inheritance when Both Parents are Carriers
Figure 3.9: Autosomal Recessive Inheritance with Carrier Mother and Non-Carrier Father
Figure 3.10: Autosomal Recessive Inheritance from Homozygous Recessive Mother and Carrier Father
Figure 3.11: Autosomal Recessive Inheritance from Two Affected Parents
Figure 3.12: Inheritance Pattern of Sex-Linked Dominant Disorder with Affected Mother and Carrier Father
Figure 3.13: X-Linked Recessive Inheritance with a Carrier Mother and Non-Carrier Father
Figure 3.14: X-Linked Recessive Inheritance with Normal Mother and Affected Father
Figure 3.15: Incidence of Down Syndrome by Maternal Age in the U.S.
Figure 3.16: Prevalence of Trisomies in the U.S.
Figure 3.17: Relative Frequencies of Chromosomal Anomalies in Spontaneous Abortions
Figure 3.18: Maternal Age and Chromosomal Aneuploidy Detected at Amniocentesis
Figure 5.1: Genetic Disorders (%) Detectable by Prenatal Testing Methods
Figure 5.2: Nuchal Translucency as Seen in an Ultrasound Scan
Figure 5.3: The Amniocentesis Procedure
Figure 5.4: Chorionic Villus Sampling Procedure
Figure 5.5: Transvaginal CVS Procedure
Figure 5.6: Decline in Number of Amniocentesis at Yale New Haven Hospital and Bridgeport Hospital in the U.S. between 2011 and 2013
Figure 5.6: Scheme for Isolating Intact Fetal Cells for Prenatal Genetic Diagnosis
Figure 6.1: Number of Newborn Genetic Diseases Screened in Selected Countries
Figure 6.2: The Top Four Countries with Homocystinuria Population (per 100,000)
Figure 7.1: Indications for PGD
Figure 8.1: Markings on the Test Strip
Figure 8.2: Procedure of ß-hCG Test
Table 12.7: Hologic's Financial Data
Table 12.8: Performance of Verifi Test
Table 12.9: Verifi Prenatal Test Lab Partners in the U.S.
Table 12.10: Illumina's Financial Data
Table 12.11: Comparison of Prenatal Test Performance
Table 12.12: Comparison of False Negative Rates
Table 12.13: A Small Sample of Diseases Screened by Horizon Test
Table 12.14: Natus Medical's Financial Data
Table 12.15: Clinical Data for IONA Test
Table 12.16: Sensitivity and Specificity of MaterniT GENOME Test
Table 12.17: Sequenom's Financial Data
Table 12.18: Sensitivity and Specificity of MaterniT21 PLUS Test
Table 12.19: Three Options Offered by Heriti UNIVERSAL Carrier Screen
Table 12.20: Clinical Evaluation Performance of VisibiliT Prenatal Test
Table 12.21: CF Detection Rates for Standard and Expanded Panels
Table 12.22: Accuracy, Sensitivity and Specificity of SensiGene Fetal RHD
Table 12.23: NextView Diagnostic Test Platforms
Table 12.24: Trovogene's Financial Data
Table Ap. 1.1: Participating Companies and their Products and Services

Ordering:
Order Online - http://www.researchandmarkets.com/reports/3517287/
Order by Fax - using the form below
Order by Post - print the order form below and send to
Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct and select the format(s) you require.

Product Name: Global Prenatal & Maternal Diagnostic Market Analysis to 2020
Web Address: http://www.researchandmarkets.com/reports/3517287/
Office Code: SCH3FXOT

Product Formats
Please select the product formats and quantity you require:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic (PDF) - Single User:</td>
<td>USD 3800</td>
</tr>
<tr>
<td>Electronic (PDF) - 1 - 10 Users:</td>
<td>USD 7600</td>
</tr>
<tr>
<td>Electronic (PDF) - Enterprisewide:</td>
<td>USD 11000</td>
</tr>
</tbody>
</table>

Contact Information
Please enter all the information below in BLOCK CAPITALS

<table>
<thead>
<tr>
<th>Title:</th>
<th>Mr</th>
<th>Mrs</th>
<th>Dr</th>
<th>Miss</th>
<th>Ms</th>
<th>Prof</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last Name:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email Address: *</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Title:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postal / Zip Code:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone Number:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fax Number:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card:  
You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check:  
Please post the check, accompanied by this form, to:

Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer:  
Please transfer funds to:

Account number  833 130 83
Sort code  98-53-30
Swift code  ULSBIE2D
IBAN number  IE78ULSB98533083313083
Bank Address  Ulster Bank,
27-35 Main Street,
Blackrock,
Co. Dublin,
Ireland.

If you have a Marketing Code please enter it below:

Marketing Code: 

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp