

Bioinformatics in IVD Testing

<https://marketpublishers.com/r/B43AC0A3CC2EN.html>

Date: June 2013

Pages: 198

Price: US\$ 1,995.00 (Single User License)

ID: B43AC0A3CC2EN

Abstracts

Computer diagnostics could offer opportunity for clinical laboratory professionals to add value to clinicians in diagnosing diseases. IT companies in collaboration with test vendors are developing computer software that complements the skills of human test interpretation.

This report, Bioinformatics in IVD Testing looks at the various IVD market segments where bioinformatics is expected to have the most impact.

Bioinformatics-based testing has made a huge contribution to cancer diagnosis and therapy management. In infectious disease diagnostics it allows the detection of difficult to culture pathogenic bacteria or viruses and to uncover the epidemiology of infections. The bioinformatic analysis of mutations of known human genes is used to diagnose common disorders, inherited diseases, or different types of cancer and can indicate the prognosis of malignant diseases.

What developments are driving this trend? What are labs and providers doing to incorporate these products into practice? And how are payors and regulators reacting? Who is partnering with who to deliver a solid combination product? This report delves into these issues and provides an excellent round-up of the current status of bioinformatics in the IVD industry.

As part of its coverage, the report provides information on the following developments:

Selected Diagnostic Tests That Incorporate Bioinformatics

Selected Multiplexed Tissue-Based Cancer Tests

Selected Histology Analyses Software Tools

Selected Blood-Based Cancer Biomarker Tests That Use Software Analysis Tools

Selected Chronic Diseases Tests With Integrated Bioinformatics

Selected Innovations in Bioinformatic-Based Tests For Psychiatric Disorders

Selected Systems For Bioinformatics-Based Infectious Disease Testing

Selected Next Generation Sequencing Platforms

The report discusses tests and technologies that are currently available and those that are expected to take their place. Generally, current products and technologies establish the standard of care and its value to payers. Many of the assays and techniques presented in the report are expected to replace the standard of care in 2013, but with healthcare systems' emphasis on cost/benefit analysis for new technologies adoption, the market value and thus penetration capabilities of newer approaches may be limited.

The report looks at the bioinformatics-based product offerings and developments of the following companies, among others:

Abbott

Cannon

RocheAffymetrix Inc.

AssureRx Health, Inc.

Bio-Reference Laboratories, Inc. (BRLI)

Dako A/S

Siemens

Thermo Fisher

Medtronic Inc.

PerkinElmer, Inc.

Prometheus Labs

QIAGEN N.V.

Quest

Contents

CHAPTER ONE: EXECUTIVE SUMMARY

Introduction
Scope and Methodology
Market Trends
IVD Markets Most Affected by Bioinformatics
Advances in Lab Medicine

CHAPTER TWO: INTRODUCTION

Background
Bioinformatics-based Diagnostics
The Case for Bioinformatics

CHAPTER THREE: ENABLING TECHNOLOGIES AND COMMERCIALIZATION ARRANGEMENTS

Alliances and Collaborations
Major Partnerships
Advances in Clinical Bioinformatics
Reimbursement-Driven Health Data Analytics
Insurers, PBMs and Providers
The Interface and Test Technologies
Bioinformatics for Consumers

CHAPTER FOUR: MARKET ANALYSIS – BIOINFORMATICS-BASED DIAGNOSTICS

Background
The Commercial Outlook
Trends In Bioinformatics-Based Tests For Cancer
Technologies
Tissue-based Tests
Blood-Based Tests
Market-cleared Tests
Trends in Bioinformatics-based Tests for Diabetes
Trends in Bioinformatics-based Tests for Cardiovascular Disease

Trends in Bioinformatics-based Tests for Chronic Diseases

Arthritis

Gastrointestinal Conditions

Alzheimer's Disease

Parkinson's Disease

Psychiatric Disorders

Trends In Bioinformatics-Based Tests In Microbiology

Software Applications

Genome Sequencing

Mass Spectrometry

Trends in Bioinformatics-based Diagnostics for Prenatal Studies

The Commercial Outlook

CHAPTER FIVE: CONCLUSION

CHAPTER SIX: IVD COMPANIES AND BIOINFORMATIC-BASED OFFERINGS

23andMe

Affymetrix Inc.

Ameritox Ltd.

Aperio Technologies, Inc.

ArcticDx Inc.

Arrayit Diagnostics Inc.

AssureRx Health, Inc.

Atossa Genetics, Inc.

BG Medicine, Inc.

Biodesix, Inc.

Biolmagene

Bio-Reference Laboratories, Inc. (BRLI)

bioTheranostics

Breath Testing at Home

CardioDx, Inc.

Children's Hospital of Philadelphia:

Chronix Biomedical Inc.

CombiMatrix Molecular Diagnostics, Inc.

Complete Genomics

Crescendo Bioscience, Inc.

Dako A/S

deCode genetics ehf

Diaxonhit Group
DiaGenic ASA
DiaTech Oncology
Duke University Medical Center
Everist Genomics, Inc. (EGI)
Foundation Medicine. Inc
Genelex Corporation
Genomic Health, Inc.
Health Discovery Corporation (HDC)
Inform Genomics
Lab21 Limited
Life Technologies
Massachusetts Institute of Technology
Mayo Medical Laboratories
Medtronic Inc.
Metabolon Inc.
Omnyx, LLC
One Lambda, Inc.
Oregon Health & Science University (OHSU)
Pathogenica
Pathway Genomics
PerkinElmer, Inc.
PGXL Laboratories
Prometheus Laboratories Inc.
Qiagen N.V
Ridom GmbH
Selventa
Signal Genetics
Tethys Bioscience Inc.
Stanford University
University of Houston
XDx Inc. – Expression Diagnostics

CHAPTER SEVEN: COMPANY PROFILES: INFORMATION TECHNOLOGY SPECIALISTS

Access Genetics
BioDiscovery, Inc.
CLC bio

CollabRx, Inc. (formerly Tegal Corp)
Definiens
eGenomics
GeneInsight LLC
GenomeQuest Inc.
IBM Corporation
Ingenuity Systems
Knome Inc.
NSilico
Personalis
Signature Mapping Medical Sciences, Inc.
Silicon Valley Biosystems (SV Bio)

List Of Exhibits

LIST OF EXHIBITS

CHAPTER ONE: EXECUTIVE SUMMARY

Table 1-1: Selected Salient Developments For Now And The Future

Table 1-1: IVD Segments Potentially Most Affected By Bioinformatics-Based Tests

CHAPTER TWO: ENABLING TECHNOLOGIES AND COMMERCIALIZATION ARRANGEMENTS

Table 3-1: Selected Collaborations For Bioinformatics-Based Diagnostics

Table 3-2: Selected Open-Source Variant Annotation Software

Table 3-3: Selected Information Technology Innovations In Clinical Diagnostics

CHAPTER THREE: MARKET ANALYSIS – BIOINFORMATICS-BASED DIAGNOSTICS

Table 4-1: Selected Diagnostic Tests That Incorporate Bioinformatics

Table 4-2: Selected Multiplexed Tissue-Based Cancer Tests

Table 4-3: Selected Histology Analyses Software Tools

Table 4-4: Selected Blood-Based Cancer Biomarker Tests That Use Software Analysis Tools

Table 4-5: Selected Innovations In Bioinformatic-Based Tests For CVD

Table 4-6: Selected Chronic Diseases Tests With Integrated Bioinformatics

Table 4-7: Selected Innovations In Bioinformatic-Based Tests For Psychiatric Disorders

Table 4-8: Selected Systems For Bioinformatics-Based Infectious Disease Testing

Table 4-9: Selected Next Generation Sequencing Platforms

Table 4-10: Ivd Segments Potentially Most Affected By Bioinformatics-Based Tests

About

IDBS (Guilford, UK) has developed the Biomolecular Hub that enables all relevant data and annotations for a particular gene or protein to be quickly and easily found regardless of data format. The Biomolecular Hub provides bioinformatics organizations with a unique data and result management capability that can easily integrate with existing tools and analysis environments. It indexes metadata from all types of molecular output files, including NGS, gene expression, arrayCGH, GenomeWide Association Study (GWAS) and proteomics, to provide a managed file store with unique security, audit and search capabilities. Genomic variant and analysis results are stored and associated with their source files to ensure traceability and reproducibility of results.

January 2013, Weill Cornell Medical College and New York-Presbyterian Hospital have created the Institute for Precision Medicine at Weill Cornell and New York-Presbyterian/Weill Cornell Medical Center. This new translational medicine research hub will explore the new frontier of precision medicine, offering optimal targeted, individualized treatment based on each patient's genetic profile. The institute's new genomic research discoveries will help develop novel, personalized medical therapies to be tested in innovative clinical trials, while also building a comprehensive biobank to improve research and patient care.

Physician-scientists at the Institute aim to identify the genetic influencers of a patient's specific illness such as cancer, cardiovascular disease, neurodegenerative disease and others and use this genetic information to design a more-effective course of treatment that targets those specific contributing factors.

The Diagnostic Algorithms Subgroup will publish diagnostic algorithms for challenging clinical scenarios to demonstrate the complexity of choosing the most appropriate test(s) to support an accurate diagnosis and treatment. It will also develop information technology tools using decision support algorithms to help clinicians choose appropriate tests and improve patient outcomes.

I would like to order

Product name: Bioinformatics in IVD Testing

Product link: <https://marketpublishers.com/r/B43AC0A3CC2EN.html>

Price: US\$ 1,995.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/B43AC0A3CC2EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970