Cell Phone-Enabled Diagnostics: mHealth Applications in IVD

Description: Mobile health has reached in vitro diagnostics and as this Kalorama report details, may change the industry forever. Over the years, the introduction of transportable, portable, and handheld instruments has resulted in the migration of clinical lab testing from the central lab to a range of environments including self-testing, community clinics, the workplace, home, disaster care and most recently, retail convenience clinics. In spite of promotional materials that emphasize ease of use, the majority of currently available POC tests require a fair amount of medical lab know-how, especially in the interpretation of the test result.

The goal is for cell phone-enabled test devices to provide primary care for underserved areas in developed countries and low income developing markets. Especially since new technologies are allowing POC devices to produce quantitative lab-quality test results that can be transferred automatically to an information system, to a remote caregiver service for consultation or to an electronic medical record.

This report, Cell Phone-Enabled Diagnostics: mHealth Applications in IVD tracks cell phone-enabled products on the market and how they will affect the existing diagnostic industry. As part of this report's coverage, the following is included:

Representative Cell Phone-Enabled Products in Diabetes, Immunoassays, Hematology, Histology and Molecular IVD. Market Outlook for mHealth In IVD and The Best Areas For Commercial Success Description of the Market Leaders, Organizations and Companies In This Market. Government and Payer Support for mHealth The Role of New technologies in the Evolution of POCT Consumer, Physician and Payor Willingness How Upstarts are Faring Vs. Established Products Analyst Conclusions Kalorama lead diagnostic analyst Shara Rosen, R.T., MBA presents the new developments in the convergence of IVD and mobile technologies in this unique overview of the mHealth IVD market. The company profile chapter provides a selection of companies and organizations that are pioneering the use of specially designed digital and or wireless and cell phone-enabled test devices for clinical diagnostic applications. The most advanced applications are available for glucose self-testing and the transmission of stained slide images in histology, microbiology and hematology for remote consultation with and analysis by an expert. The following companies are profiled. Accuser Technologies Pvt. Ltd. AgaMatrix, Inc. Alere ARKRAY ARUP Laboratories Axxin BBInternational BIO-key International, Inc. BodyTel Europe GmbH California Institute of Technology (Caltech) CellScope CellScope Inc. Clearbridge BioLoc Pte Ltd Columbia University DNAFORM eSTI – (Electronic self-testing instruments) Entra Health Systems Freescale Semiconductor Bill and Melinda Gates Foundation Gene-Z Genomic Health, Inc. GenPrime, Inc. Gentag Inc. GlySens Incorporated Harvard University Medical School Heidelberg-Medical-Marketing GmbH (HMM GmbH) HolGenTech Inc. Holomic LLC (formerly Microskia) Infopia Co Ltd Intelligent Optical Systems, Inc. Korea Advanced Institute of Science of Technology (KAIST) Leica Microsystems Lifescan Inc. Massachusetts General Hospital MAVAND Solutions GmbH MEDIWISS Analytic GmbH Medtronic Inc. MycroLab Pty Ltd. NextLab Oasis Diagnostics Oasis Scientific, Inc. QIAGEN N.V. QuantuMDx Group Limited Sano Intelligence SkanneX TelCare Inc. Università Commerciale Luigi Bocconi University of Arizona University of Washington X out TB

The companies selected are those that are pioneers in their field and that provide an overview of the innovations underway in cell phone-enabled diagnostics. The information presented in this report is derived on publicly available information sources such as company, government, and medical organization reports. The analysis is based on the author's industry knowledge combined with literature searches and interviews with industry professionals and experts in the areas of POC tests, mobile health, decentralized healthcare and healthcare economics.

The use of cell phone-enabled diagnostics is in the early stages of development in both developed and developing world markets. Therefore this market analysis is somewhat speculative. In spite of the buzz about the use of cell phone-enabled test devices in mHealth, there are so many combinations of devices, applications and marketsthat the market is hard to define with precision.

Current mHealth programs that use cell phones as part of the diagnostic process (with the exception of glucose self-testing) have been initiated as pilot projects in developing countries with little or no concrete plans for their continuation as fully funded and government supported healthcare services.
Further, since much of the current mHealth products are delivered as smartphone apps and services that are offered as part of a product offering, it is difficult to estimate the size of the opportunity. Nevertheless, this report takes a bold look into the possibilities for cell phone-enabled testing in the next five to ten years.

Contents:

CHAPTER ONE: EXECUTIVE SUMMARY
  Introduction
  Scope and Methodology
  Market Trends

CHAPTER TWO: INTRODUCTION
  Background
  The Case For Cell phone-Enabled Devices
  Consulting From Far and Wide
  Point of View

CHAPTER THREE: ENABLING TECHNOLOGIES AND COMMERCIALIZATION ARRANGEMENTS
  Overview
  Definition of Cell Phone-Enabled Diagnostics
  Advances in Microfluidics and Biosensors
  The Interface and Communication Technologies
  UC Davis Interface Frontline SMS Medic
  iPhones, Blackberries and PDAs
  Are Consumers Ready for mHealth?
  Physician and Payor Opinion

CHAPTER FOUR: MARKET ANALYSIS - CELL PHONE-ENABLED DEVICES
  Overview
  Cell phone-Enabled Diagnostics For Diabetes
  Scourge of Diabetes
  Market Status of New Cell phone Glucose Monitors
  Regulation
  Diagnostics in Cars?
  Cell phone-Enabled Rapid Immunoassays
  Decentralized Trend
  Lateral Flow Tests
  Focus on Infectious Diseases
  Cell Phone Enabled Microscopy
  Histology
  Microbiology
  Hematology
  Cell Phone-Enabled Molecular Tests
  Amplification
  Nucleic Acid Lateral Flow
  Microfluidic Cartridge-Based Approaches
  The Commercial Outlook for Cell phone-enabled Diagnostic Devices

CHAPTER FIVE: CONCLUSION

CHAPTER SIX: COMPANIES AND OFFERINGS
  Accuster Technologies Pvt. Ltd.
  AgaMatrix, Inc.
  Alere
  ARKRAY
  ARUP Laboratories
  Axxin
  BBInternational
  BIO-key International, Inc.
  BodyTel Europe GmbH
  California Institute of Technology (Caltech)
  CellScope
  CellScope Inc.
  Clearbridge BioLoc Pte Ltd
  Columbia University
  DNAFORM
  eSTI – (Electronic self-testing instruments)
  Entra Health Systems
  Freescale Semiconductor
  Bill and Melinda Gates Foundation
  Gene-Z
  Genomic Health, Inc.
  GenPrime, Inc.
  Gentag Inc.
  GlySens Incorporated
  Harvard University Medical School
  Heidelberg-Medical-Marketing GmbH
  HolGenTech Inc.
  Holomic LLC (formerly Microskia)
  Infopia Co Ltd
  Intelligent Optical Systems, Inc.
  Korea Advanced Institute of Science of Technology (KAIST)
  Labonfoil Consortium
  Leica Microsystems
  Lifescan Inc.
  Massachusetts General Hospital
  MAVAND Solutions GmbH
  MEDIWISS Analytic GmbH
  Medtronic Inc.
  MycroLab Pty Ltd.
  NextLab
  Oasis Diagnostics
  Oasis Scientific, Inc.
  QIAGEN N.V.
  QuantuMDx Group Limited
  Sano Intelligence
  Skannex
  TelCare Inc.
  Università Commerciale Luigi Bocconi
  University of Arizona
  University of Washington
  X out TB

LIST OF EXHIBITS

CHAPTER THREE: ENABLING TECHNOLOGIES AND COMMERCIALIZATION ARRANGEMENTS
  Table 3-1: Selected Cell phone Enabled Test Devices
  Table 4-1: Selected Cell phone-based Glucose Meters
  Table 4-2: Selected Wireless Enabled Glucose Monitors, 2011
  Table 4-3: Rapid Immunoassay Test Sales by Test Category 2011-2016, $ million
  Table 4-4: Selected Cell phone-enabled Rapid Immunoassay Innovations
  Table 4-5: Selected Molecular Tests And Platforms For Infectious Diseases
  Table 4-6: Selected Cell Phone-Enabled Molecular Test Devices In Development

Ordering:

Order Online - http://www.researchandmarkets.com/reports/2860973/

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: Cell Phone-Enabled Diagnostics: mHealth Applications in IVD
Web Address: http://www.researchandmarkets.com/reports/2860973/
Office Code: SCD22DC9

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

<table>
<thead>
<tr>
<th>Format</th>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic (PDF) - Single User</td>
<td></td>
<td>USD 995</td>
</tr>
<tr>
<td>Electronic (PDF) - Enterprisewide</td>
<td></td>
<td>USD 1995</td>
</tr>
</tbody>
</table>

Contact Information
Please enter all the information below in BLOCK CAPITALS

Title: [ ] Mr [ ] Mrs [ ] Dr [ ] Miss [ ] Ms [ ] Prof
First Name: ___________________________ Last Name: ___________________________
Email Address: * ___________________________
Job Title: ___________________________
Organisation: ___________________________
Address: ___________________________
City: ___________________________
Postal / Zip Code: ___________________________
Country: ___________________________
Phone Number: ___________________________
Fax Number: ___________________________

* 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

Please fax this form to:
(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World