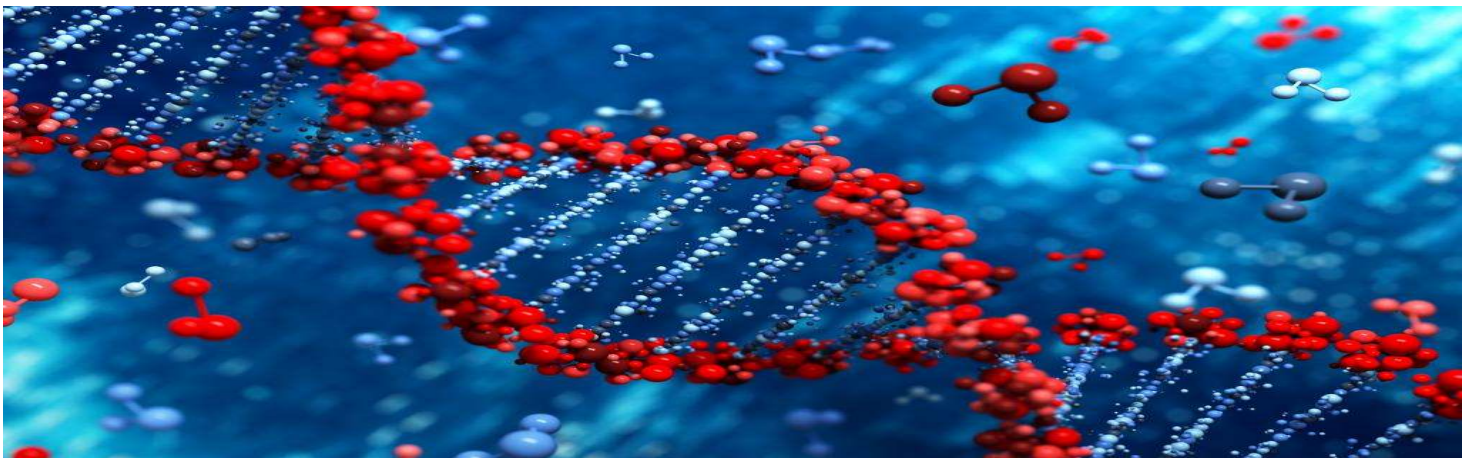




RESEARCH  
REPORT  
Feb 2019



# PCR Markets

Forecasts for qPCR, dPCR, Singleplex & Multiplex Markets with Executive and Consultant Guides, Including Customized Forecasting and Analysis

2020 to 2024



Howe Sound Research is a market research and consulting company based in Vancouver, British Columbia, Canada. In our spare time we like to sail in a large body of water nearby called Howe Sound. We publish market research reports that address scientific industries with an emphasis on Biotechnology and Clinical Diagnostic markets. We consider ourselves experts in these areas.

We approach market research differently than other companies. At any one time we have a limited number of reports and we update them frequently, sometimes several times a year. Our reports are prepared by people who understand the industry and have worked and studied in the area. This contrasts with the many research mills who produce canned reports on the Handbag market one day and the XRay market the next.

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### 3.1 Players in a Dynamic Market

Market participants assume a variety of roles in a complex evolving

The in vitro (outside the body) diagnostic services industry can be bewildering to outsiders. The original research and intellectual property often begin in an academic research facility. The resulting tests can be brought to market by independents or multinational pharmaceutical companies. Public and private labs and hospitals make the tests available for physicians to order. This section will categorize the various market participants to foster an understanding of their different roles and their impacts on marketplace developments. These participants are discussed below in turn and listed, with their orientation in the table below.

**TABLE 3 MARKET PLAYERS BY TYPE**

Market Player	Type
Academic/research lab	Public
Diagnostic test developer	Private, for profit
Genomic Instrumentation Supplier	Private, for profit
Pharmaceutical/Reagent Supplier	Private, for profit
Independent testing lab	Private, for profit
Public National/regional lab	Public
Hospital lab	Public/Private
Physician lab	Public/Private
Audit body	Public/Private
Cerification body	Public

Most development comes from public research labs

**3.1.1 Academic Research Lab** The university lab and the (public/private) funding system is the source of the majority of new significant technological developments. These labs often provide testing services on an RUO basis and may or may not receive compensation for

## 4.1 Factors Driving Growth

The market for PCR is growing. The primary factors driving this growth are presented in the table below. Underlying these factors is the explosion in genetic knowledge where genetic factors are still just beginning to be understood in their relation to disease, and health. The applications for genetic testing (and therefore PCR) are continuing to expand with no end in sight. This creates a complex market where growth and disruption are simultaneously occurring. This section will discuss the specific factors driving PCR growth in turn.

**TABLE 4 FIVE FACTORS DRIVING GROWTH**

**Several key factors are driving demand for PCR Diagnostics**

<b>Growth Factors</b>
A New Standard
Experience Curve Effects
Multiplexing
Syndromic Diagnostics Looks Unstoppable
Target solutions

### 4.1.1 A New Standard



### 4.3.2 Shifting Role of Diagnostics

The role of diagnostics is changing. Traditionally diagnosis is done by a doctor with a patient presenting symptoms of an established disease. Specific tests inform the diagnosis. In the new paradigm, *the diagnosis shifts to lab testing* and the physician relies on the lab for precise disease definition and even therapy selection. Eventually screening tests, initially of at risk groups, will detect cancers and infectious disease early. Key to the New Diagnostics is *time to result*. Fast multiplex diagnostics changes healthcare practice.

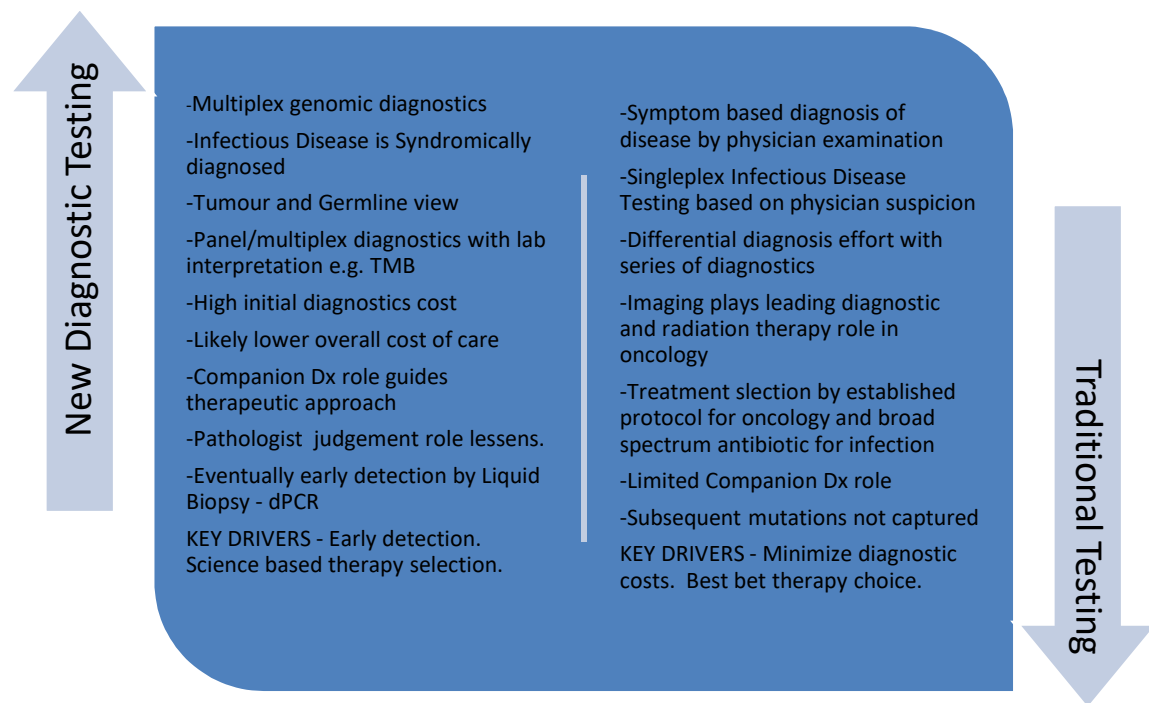


FIGURE 6 COMPARING THE NEW DIAGNOSTICS AND TRADITIONAL TESTING

## 5.1 Recent Developments – Importance and How to Use This Section

### 5.1.1 Importance of These Developments

Many users, especially those in the financial community, have noted that this section of the report can be extremely valuable in helping to understand industry current events and the evolution of key market players. These items are not chosen at random. They have been selected by the author(s) as significant and worth reading about, i.e. important. Please keep this in mind in reviewing them.

### 5.1.2 How to Use This Section

These items are NOT in date order. They are in the order in which they have been added to the report. This report is updated regularly, and new items are incorporated, and others removed. Numbering of items may not be sequential. Generally newer items are in the lower part of this section and have the highest numbers. Please refer to the date of an item to understand its currency. Reading this entire section is recommended for those not familiar with the industry. Many of the trends and issues noted elsewhere are illustrated in these actual events,

## QIAGEN Plans for Next-Generation Digital PCR Systems

Jan 16, 2019

QIAGEN N.V. announced the development of a range of next-generation systems for digital polymerase chain reaction (digital PCR or dPCR), one of the fastest-growing molecular testing applications in the life sciences industry. QIAGEN expects to launch a fully integrated solution in 2020 that offers highly automated workflows combined with significantly quicker time-to-result, higher multiplexing and greater throughput flexibility than currently available digital PCR platforms.

The new systems, which are in advanced stages of development, have been created through the combination of QIAGEN technologies and automation with key digital PCR assets that are being acquired from Formulatrix, Inc., a privately-held U.S. developer of laboratory automation solutions. QIAGEN has reached an agreement to acquire these assets from Formulatrix, and the

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Revenue: ~\$7.5M

### Description:

This privately held company was founded in 2006 by the current Managing Director. The company offers a wide range of syndromic multiplexing kits using a distributor strategy with offices in the UK and New Zealand. The company is active in a wide range of markets beyond human medical syndromic multiples testing, including veterinary and environmental assay markets.

The company offers a robust kit product line with several panel options in each of the following Syndrome categories

Respiratory	GI Enteric
Meningitis	Sepsis
Sexually Transmitted Disease	Bacterial Resistance
Parasites	HPV

The instrument lineup consists of:

A High-Plex System with two main parts: the Sample Processor and a Real-time PCR analyser. This can be supplemented by a nucleic acid extractor machine