

Drug Discovery Technologies - A Global Market Overview

<https://marketpublishers.com/r/DE54339D6E4EN.html>

Date: August 2014

Pages: 248

Price: US\$ 3,060.00 (Single User License)

ID: DE54339D6E4EN

Abstracts

The development of new drugs for treating difficult diseases, such as cancer requires extensive expenditure, in addition to consuming a lot of time. The first step in designing a new drug involves the utilizing high-throughput screening of large chemical libraries for identifying compounds that can provide the requisite therapeutic effect. The capability of visualizing biological activity at the cellular level has constituted a strategic component in drug discovery, and adding automation and high-volume screening methods has enabled in testing compounds in large numbers. The field of pharmaceutical research is being provided considerable impetus through the combination of imaging and screening.

Worldwide market for drug discovery technologies explored in this study includes Bioanalytical Assays, Bioinformatics, Cell Based Assays, Genomic Technologies, High Throughput Screening, Proteomic Technologies and Others comprising Epigenetics, Metabolomics, Combinatorial Chemistry, Synthetic Biology, Systems Biology and Nanotechnology.

The global market value for the above mentioned technologies is analyzed in USD. High Throughput Screening accounts for a lion's share in global drug discovery technologies market with an expected share of about 30% in 2015 valued at \$18 billion followed by Bioanalytical Assays or instruments by about \$14 billion.

This 248 pages global market report includes 28 charts (includes a data table and graphical representation for each chart), supported with meaningful and easy to understand graphical presentation, of market numbers. This report profiles 56 key global players and 67 major players across the United States – 41; Europe – 16; Asia-Pacific – 7; and Rest of World - 3. The research also provides the listing of the

companies that are engaged in technology, contract research services and providers of discovery technologies. The global list of companies covers addresses, contact numbers and the website addresses of 186 companies.

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USPTO Issues '979 Patent for Biohaven's Glutamate Modulating Agents to Treat GAD
Patents Issued for Suven's New Chemical Entities to treat Neurodegenerative Disorders
Japan Patent Office Approves Patent for C4XD's Technology
Additional Patents Issued on MorphoSys' Ylanthia in the US and in China
Sareum Receives a Patent for its Kinase Inhibitors in Japan
USPTO Grants Patent for Prima BioMed's CVac
Japan Patent Office Decides to Issue Patent for Marina's SMARTICLES Nucleic Acid Delivery Technology
USPTO Grants a Patent in Regulus' Sarnow Patent Estate on microRNA Therapies to Treat HCV

USPTO Grants Patent for Kadimastem's Cell Technology
USPTO Grants a Novel Patent in Alnylam's McSwiggen Patent Estate
Suven Receives Patent Approval in the US for its Major Depressive Disorder Drug
Notice of Allowance for Canadian Patent Granted to VistaGen
Issue of Patent on Broad Institute's New Gene-Editing Method
US Patent Office Grants Patent for HUB's Method of Growing Organoids
Dyadic Granted US Patent for High Throughput Screening
US Patent Granted to Theranostics Health
Reveleris Flash Chromatography System Receives Patent from the Australian Patent Office
Sareum Receives Patent for one of its CHK1 Cancer Programme-related Inventions in the US
Lpath's iSONEP Receives Patent from USPTO
KeyGene Obtains Patent for High Throughput Screening in the US
BioInvent's F.I.R.S.T. Drug Discovery Technology Gets Patent in the US
Plasticell Receives Additional Patents for its CombiCult Cell Culture Technology in the US, Europe, Australia and Singapore
EntomoPharm Receives Patent for its BBB Insect Model in Europe
Summit Gets Patent for Utrophin Modulator SMT C1100 in the US
USPTO Grants Patent to OncoMed for Methods of Treating Cancer with its Antibody Vantictumab
Novel Component of Phylomer Peptide Platform Patented by Phylogica for Advanced Cell-Penetrating Drug Discovery
COTI Receives Two Newly Granted Patents for its Lead Oncology Asset in the US

4. KEY GLOBAL PLAYERS

4-Antibody AG
Abbott Laboratories
Accelrys, Inc.
Affymetrix Inc.
Agilent Technologies Inc.
Asahi Kasei Pharma Corporation
Astrazeneca Plc
Aviva Biosciences Corp.
Bayer Healthcare AG
BD Biosciences
Beckman Coulter Inc.
Biacore International AB

Bioanalytical Systems, Inc.
Bio-Rad Laboratories, Inc.
Boehringer Ingelheim GmbH
Bristol-Myers Squibb Company
Caliper Life Sciences, Inc.
Caprion Proteomics, Inc.
Celera Corporation
Celgene Corporation
Charles River Laboratories International, Inc.
Compugen Ltd.
Decode Genetics, Inc.
EMD Millipore Corporation
Evotec AG
GE Healthcare Ltd.
Genedata AG
Hitgen Ltd
Hudson Robotics, Inc.
Illumina Inc.
Incyte Corporation
Isis Pharmaceuticals, Inc.
Kyowa Hakko Kirin Co., Ltd.
Luminex Corporation
Maxcyte, Inc
Merck & Co., Inc.
Millennium Pharmaceuticals, Inc.
Molecular Devices, LLC
Molecular Discovery Ltd.
Molecular Discovery Systems Pty., Ltd.
New England Biolabs, Inc.
Novartis AG
Osiris Therapeutics Inc.
Perkinelmer, Inc.
Promega Corporation
Qiagen N.V.
Quantum Pharmaceuticals
Roche Holding AG
Shimadzu Corporation
Sigma-Aldrich Corporation
Sri Biosciences

Tecan Group Ltd.
The National Center for Drug Screening
Thermo Fisher Scientific Inc.
Viva Biotech Ltd
Waters Corp.

5. KEY BUSINESS TRENDS

Evotec Established Alliance with Eternynogen on New Small Molecule Inhibitors Development

MRC Technology Partnered With Daiichi Sankyo to Discover New Drug Targets

Evotec, Debiopharm Group to Discover New Drugs to treat Cancer

Daiichi Sankyo Forms Alliance with UCSF on New Cures Development to Treat Neurodegenerative Diseases

Debut of a Synergetic Drug Discovery Project for 2014 by Daiichi Sankyo

Analgesic Drug Discovery and Development Collaboration Formed by Convergence and Evotec

MIT SBC, Pfizer Enter into a Three-Year Drug Discovery Research Alliance

Abide, Celgene Partners to Discover and Develop Novel Drugs to Treat Inflammation and Immunological Disorders

Novel Genetic Platform Having the Ability to Yield Natural Microbial Genomes

Johnson & Johnson Innovation Signs Novel Agreements with NEOMED and MaRS Innovation

Boehringer Ingelheim and Circuit Therapeutics Form Drug Discovery Research Pact for Three Years

Life Technologies and NCATS form RNAi Research Alliance to Enhance Novel Therapeutics Discovery

Novel Core Unit of USTAR and U of U Eases Pharmacological Therapeutic Development

JHL Biotech Inks Strategic Collaboration with Selexis to Develop Biologic Drugs

Bayer Offer Funding to the SGC for Expediting Drug Research

HitGen, the University of Manchester's Cancer Research UK Manchester Institute Drug Discovery Group and Cancer Research Technology Form Drug Discovery Pact

BioFocus, Boehringer Ingelheim Enter Into Drug Discovery Pact

Evotec Establishes Drug Discovery Alliance with Johnson & Johnson Innovation on AD Targets

Release of GE Healthcare Life Sciences' Novel Xuri Technology Family

4SC Discovery, CRELUX and AiCuris Form Drug Discovery Pact

Novel SLAP Technology for Drug Discovery Advancements

Inauguration of GE Healthcare Life Sciences Technology Laboratory at the UK's First Open Innovation Bioscience Campus

Debut of an "Open Innovation" Research Alliance by AstraZeneca and Taiwan's NRPB to Accelerate Drug Discovery

Asahi Kasei Pharma and Vernalis plc Collaborate to Discover Drugs for Autoimmune Diseases

Launch of Thermo Fisher Scientific's Novel Innovations at BioProcess International Conference and Exhibition

Adimab Establishes Alliance with Celgene on Multi-target Discovery

Eurofins Scientific, GE Healthcare Enter Pact on Drug Discovery Services

Debut of Boehringer Ingelheim and Polyphor into the Next Research Stage of their Alliance

Commercial Release of Agilent's RapidFire 365 High-Throughput Mass Spectrometry System

Zaliscus Plans to Advance Clinical Development of Z944

Debut of Kinexus' DrugKiNET KnowledgeBase

Evotec Establishes Alliance with Harvard University to Develop Novel Antibacterial Agents

UCSF Turns to be the First Partner of Pfizer's CTI in Both Small-Molecule and Biologics Discovery

In-House Development of Various Novel Antiviral Drugs from Achillion

Launch of Thermo Fisher Scientific's Drug Discovery and Biopharma Production Innovations

Sareum Partners with SRI International for Advancing the Clinical Development of Tyrosine Kinase 2 Small Molecule Drug Discovery Program

Launch of Hudson Robotics' High Efficiency Screening, an Advanced Drug Discovery Technology

Accelrys Insight and Accelrys Insight for Excel Drug Discovery Softwares from Accelrys, Inc

Renewal of Evotec and Genentech's Drug Discovery Collaboration

Alchemia, AstraZeneca Form Multi-Target Drug Discovery Pact

RaQualia Establishes Research Alliance with Interprotein to Discover PPI Inhibitor

Collaborative Effort of Evotec and Ono Yields Novel Compounds for Preclinical Development

Galapagos Takeover Cangenix Assets

EMD Millipore's Novel Genomic Biomarker Services

Marketing of an Advanced Metabolite-Identification Platform by Agilent and Molecular Discovery

QuantiGene ViewRNA Assay Platform-based Novel Cancer Biomarker Tests Co-

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Numerate and Merck Partnered to Discover Drug Leads for Cardiovascular Disease Target

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Accelrys, Inc.

Affymetrix Inc.

Agenus Inc.

Agilent Technologies Inc.

Albany Molecular Research, Inc.

Arqule Inc.

Aviva Biosciences Corp.

BD Biosciences

Beckman Coulter Inc.

Bioanalytical Systems, Inc.

Bio-Rad Laboratories, Inc.

Biovision, Inc.

Bristol-Myers Squibb Company
Bruker Corporation
Caliper Life Sciences, Inc.
Capital Genomix, Inc.
Celera Corporation
Celgene Corporation
Charles River Laboratories International, Inc.
Discoverx Corporation
Discovery Genomics, Inc.
EMD Millipore Corporation
Hudson Robotics, Inc.
Illumina Inc.
Incyte Corporation
Isis Pharmaceuticals, Inc.
Life Technologies Corporation
Luminex Corporation
Maxcyte, Inc
Merck & Co., Inc.
Millennium Pharmaceuticals, Inc.
Molecular Devices, LLC
New England Biolabs, Inc.
Osiris Therapeutics Inc.
Perkinelmer, Inc.
Promega Corporation
Sigma-Aldrich Corporation
SRI Biosciences
Thermo Fisher Scientific Inc.
Waters Corp.

2. EUROPE

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Astrazeneca Plc (United Kingdom)
Bayer Healthcare AG (Germany)
Biacore International AB (Sweden)
Biofocus Dpi, Ltd (United Kingdom)
Boehringer Ingelheim GmbH (Germany)

Decode Genetics, Inc. (Iceland)
Evotec AG (Germany)
GE Healthcare Ltd. (United Kingdom)
Genedata AG (Switzerland)
Molecular Discovery Ltd. (Italy)
Novartis AG (Switzerland)
Qiagen N.V. (The Netherlands)
Quantum Pharmaceuticals (Russia)
Roche Holding AG (Switzerland)
Tecan Group Ltd. (Switzerland)

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Hitgen Ltd (China)
Kyowa Hakko Kirin Co., Ltd. (Japan)
Molecular Discovery Systems Pty., Ltd. (Australia)
Shimadzu Corporation (Japan)
The National Center for Drug Screening (China)
Viva Biotech Ltd (China)

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