

MARKET REPORT



Frontier Pharma: Cardiovascular Disease - Diverse First-in-Class Molecular Targets to Bridge Unmet Needs in Pulmonary Hypertension, Heart Failure and Atherosclerosis

BioPortfolio
Life Science Healthcare and
Pharmaceutical
Market Research and
Corporate Data



Frontier Pharma: Cardiovascular Disease - Diverse First-in-Class Molecular Targets to Bridge Unmet Needs in Pulmonary Hypertension, Heart Failure and Atherosclerosis

BioPortfolio has been marketing business and market research reports from selected publishers for over fifteen years. BioPortfolio offers a personal service to our customers with dedicated research managers who will work with you to source the best report for your needs. Based in the UK, BioPortfolio is well positioned to coordinate our customers' orders sourced from over 50 global report publishers.

We are pleased to present details of this report to assist your buying decision and administrative process. You will find easy-to-use *How To Buy* information on the last page of this document.

We look forward to being of service to you.

If you have bulk and/or recurring requirements, please get in touch - we can liaise with publishers to obtain sample pages and negotiate discounts on your behalf.

Phone: +44 (0)1300 321501 or **Email:** reportstore@bioportfolio.com

Frontier Pharma: Cardiovascular Disease - Diverse First-in-Class Molecular Targets to Bridge Unmet Needs in Pulmonary Hypertension, Heart Failure and Atherosclerosis

Frontier Pharma: Cardiovascular Disease - Diverse First-in-Class Molecular Targets to Bridge Unmet Needs in Pulmonary Hypertension, Heart Failure and Atherosclerosis

Summary

The cardiovascular disease (CVD) therapy area encompasses a range of different diseases and conditions affecting the heart and/or blood vessels. The most crucial risk factors for CVD are hypertension and dyslipidemia, which accelerate the development of atherosclerotic plaque building up within blood vessels. As atheroma develops it causes the affected blood vessels to narrow, restricting blood flow to the body, brain or heart, depending on its location. It is also possible for the fibrous cap of this plaque to break off, triggering the coagulation cascade and causing a thrombus to form locally, which can completely occlude blood flow.

The treatments of CVD typically focus on prevention by controlling the risk factors of CVD. As such, the treatments usually fall within three categories: anti-hypertensives, which aim to alter blood pressure to within a normal range; anti-dyslipidemic drugs, which aim to modify lipid levels to a normal range; and anti-thrombotic drugs, which aim to either prevent a thrombus from forming by inhibiting the coagulation cascade or platelet aggregation.

There has been vast scientific innovation within the CVD therapeutics market over recent decades, particularly within the anti-dyslipidemia market, first with the introduction of statins such as Lipitor (atorvastatin), and more recently with the introduction of PCSK9 inhibitors. Innovation continues within the dyslipidemia pipeline, with a range of first-in-class molecular targets in the pipeline, including those that offer the promise of revolutionizing treatment by reversing the process of atherosclerosis.

Heart failure and pulmonary hypertension remain poorly treated, and are associated with poor prognosis. Heart failure in particular is associated with a five-year mortality rate of 50%. The large pipeline for heart failure includes a high proportion of first-in-class products relative to other CVD indications, and possesses the potential for breakthroughs in the treatment of this condition.

Scope

- With over 1,400 products in active development, the pipeline for CVD is extensive. Does current pipeline innovation hold the potential to change the CVD market in the near future?
- There are 320 first-in-class products in the CVD market that act on a novel molecular target that is not present in an approved product across any indication in the pharmaceutical industry. Which of these hold the greatest potential to improve future disease treatment with regard to their molecular target?
- Analysis of the history of strategic consolidations revealed a modest level of deal activity in recent years, and a large number of first-in-class products not yet involved in any deals. How do deal frequency and value compare between target families and molecule types, and which first-in-class programs that have not yet been involved

in a licensing or co-development deal appear to be particularly promising?

Reasons to buy

- Understand the current clinical and commercial landscape. This includes a comprehensive study of disease pathogenesis, diagnosis and prognosis, and the treatment options available.
- Visualize the composition of the CVD market in terms of dominant molecule types and targets, highlighting what the current unmet needs are and how they can be addressed. This knowledge allows a competitive understanding of gaps in the current market.
- Analyze the CVD pipeline and stratify by stage of development, molecule type and molecular target. There are strong signs in the pipeline that the industry is seeking novel approaches to treating CVD to overcome the unmet need in the market.
- Assess the therapeutic potential of first-in-class targets. Using a proprietary matrix, first-in-class products have been assessed and ranked according to clinical potential. Promising early-stage targets have been reviewed in greater detail.
- Identify commercial opportunities in the CVD deals landscape by analyzing trends in licensing and co-development deals, and analyzing a curated list of CVD therapies that have not yet been involved in deals, and may offer potential investment opportunities.

Additional Details

Publisher : GBI Research

Reference :

Number of Pages : 113

Report Format : PDF

Publisher Information :



The image shows a promotional graphic for BioPortfolio. On the left, a person in a lab coat and safety glasses holds a report cover. The cover features the GBI Research logo (GLOBAL BUSINESS INTELLIGENCE) and the BioPortfolio title. The background is a laboratory setting with a person in blue gloves working with test tubes. On the right, the BioPortfolio logo is displayed in large blue letters, followed by the text 'Life Science Healthcare and Pharmaceutical Market Research and Corporate Data'. Below this, the phrase 'Best Prices Guaranteed' is written in bold red text, and the website 'bioportfolio.co.uk' is shown in large blue letters at the bottom.

Table Of Contents for Frontier Pharma: Cardiovascular Disease - Diverse First-in-Class Molecular Targets to Bridge Unmet Needs in Pulmonary Hypertension, Heart Failure and Atherosclerosis [Report Updated: 01-0-2017]

- 1 Table of Contents1 Table of Contents 21.1 List of Tables 41.2 List of Figures 42 Executive Summary 62.1 Robust pipeline with attempts to meet unmet need 62.2 Drugs targeting apolipoproteins and elements of the reverse lipid transport pathway offer potential new therapies for the treatment of dyslipidemia and atherosclerosis 62.3 Cardiovascular disease pipeline emphasizes move away from conventional areas towards targets related to transmembrane and extracellular signaling 63 The Case for Innovation 73.1 Growing Opportunities for Biologic Products 83.2 Diversification of Molecular Targets 83.3 Innovative First-in-Class Product Developments Remain Attractive 93.4 Regulatory and Reimbursement Policy Shifts Favor First-in-Class Product Innovation 93.5 Sustained Innovation in Cardiovascular Disease 103.6 GBI Research Report Guidance 104 Clinical and Commercial Landscape 114.1 Cardiovascular Disease Overview 114.2 Symptoms, Disease Staging and Prognosis 124.2.1 Symptoms 124.2.2 Prognosis 124.3 Diagnosis 134.3.1 Blood Pressure Test 134.3.2 Tests for Dyslipidemia 144.3.3 Imaging Tests 144.3.4 Stress Testing 154.4 Epidemiology 154.5 Etiology and Pathophysiology 154.5.1 Etiology 154.5.2 Pathophysiology 174.6 Management and Treatment of Cardiovascular Disease 204.6.1 Pharmacological Intervention 204.6.2 Non-pharmacological Intervention 254.6.3 Unmet Need 264.7 Overview of Marketed Products 275 Assessment of Pipeline Product Innovation 295.1 Overview 295.2 Pipeline by Stage of Development and Molecule Type 295.2.1 Cardiovascular Disease Overall 295.2.2 Key Cardiovascular Indications 315.3 Pipeline by Molecular Target 345.3.1 Cardiovascular Disease 345.3.2 Key Cardiovascular Indications 375.4 Comparative Distribution of Programs between the Market and Pipeline by Molecular Target Class 385.5 First-in-Class Programs Targeting Novel Molecular Targets 395.5.1 Cardiovascular Disease 396 Signaling Network and Innovation Alignment within Cardiovascular Disease 596.1 Complexity of Signaling Networks in Cardiovascular Disease 596.2 Signaling Pathways and First-in-Class Molecular Target Integration 596.3 First-in-Class Matrix Assessment 607 First-in-Class Target and Pipeline Program Evaluation 667.1 Pipeline Programs Targeting Apelin Receptor 667.2 Pipeline Programs Targeting Apolipoproteins (Apolipoprotein E, Apolipoprotein C-III and Apolipoprotein A-I) 677.2.1 APOE 687.2.2 APOCIII 707.2.3 ApoA1 717.3 Pipeline Programs Targeting Scavenger Receptor Class B Member 1 (SRB1) 747.4 Pipeline Programs Targeting Cholesteryl Ester Transfer Protein (CETP) 777.5 Pipeline Programs Targeting Glutamyl Aminopeptidase 807.6 Pipeline Programs Targeting E-selectin 827.7 Pipeline Programs Targeting Platelet Glycoproteins (Platelet Glycoprotein VI and Platelet Glycoprotein Ib Alpha Chain) 857.7.1 Platelet Glycoprotein VI (GP6) 857.7.2 Platelet Glycoprotein Ib Alpha Chain (GP1ba) 877.8 Pipeline Programs Targeting Tissue Factor 887.9 Conclusion 908 Strategic Consolidations 918.1 Industry-Wide First-in-Class Deals 918.2 Licensing Deals 938.2.1 Deals by Region, Value and Year 938.2.2 Deals by Stage of Development and Value 948.2.3 Deals by Molecule Type, Molecular Target and Value 958.2.4 List of Deals with Disclosed Deal Values 978.3 Co-development Deals 988.3.1 Deals by Region, Value and Year 988.3.2 Deals by Region, Year and Value 988.3.3 Deals by Stage of Development and Value 998.3.4 Deals by Molecule Type, Molecular Target and Value 1008.3.5 List of Deals with Disclosed Deal Values 1028.4 First-in-Class Programs with and without Prior Involvement in Licensing and Co-development Deals 1029 Appendix 1069.1 References 1069.2 Abbreviations 1109.3 Disease List 1109.3.1 Hypertension 1109.3.2 Dyslipidemia 1109.3.3 Heart failure 1119.3.4 Thrombosis 1119.3.5 CVD events 1119.3.6 Other 1119.4 Research Methodology 1119.4.1 Data integrity 1119.4.2 Innovative and meaningful analytical techniques and frameworks: 1119.4.3 Evidence based analysis and insight: 1119.5 Secondary Research 1129.5.1 Market Analysis 1129.5.2 Pipeline Analysis 1129.5.3 First-in-Class Matrix Assessment 1129.5.4 First-in-Class Target Profiles 1129.5.5 Licensing and Co-Development Deals 1139.6 Contact Us 1139.7 Disclaimer 113

List Of Tables in Frontier Pharma: Cardiovascular Disease - Diverse First-in-Class Molecular Targets to Bridge Unmet Needs in Pulmonary Hypertension, Heart Failure and Atherosclerosis [Report Updated: 01-0-2017]

1.1 List of Tables

Table 1: Cardiovascular Disease Therapeutics Market, Systolic and Diastolic Blood Pressure Level and Corresponding Category 13

Table 2: Cardiovascular Disease Therapeutics Market, Total Cholesterol, LDL and HDL Levels and Corresponding Category 14

Table 3: Cardiovascular Disease Therapeutics Market, Global, Epidemiology of Cardiovascular Disease, Forecast 2017 15

Table 4: Cardiovascular Disease Therapeutics Market, Global, Key Features and Pipeline Activity of Apelin Receptor, 2017 66

Table 5: Cardiovascular Therapeutics Market, Global, Pipeline Programs Targeting Apelin Receptor ,2017 67

Table 6: Cardiovascular Disease Therapeutics Market, Global, Key Features of Apolipoprotein E, 2017 69

Table 7: Cardiovascular Disease Therapeutics Market, Global, Pipeline Programs Targeting Apolipoprotein E, 2017 69

Table 8: Cardiovascular Disease Therapeutics Market, Global, Key Features of Apolipoprotein-CIII, 2017 70

Table 9: Cardiovascular Disease Therapeutics Market, Global, Pipeline Programs Targeting Apolipoprotein-CIII, 2017 71

Table 10: Cardiovascular Disease Therapeutics Market, Global, Key Features of Apolipoprotein-A1, 2017 72

Table 11: Cardiovascular Disease Therapeutics Market, Global, Pipeline Programs Targeting Apolipoprotein-A1, 2017 73

Table 12: Cardiovascular Disease Therapeutics Market, Global, Key Features of SRB1, 2017 75

Table 13: Cardiovascular Disease Therapeutics Market, Global, Pipeline Programs Targeting SRB1, 2017 76

Table 14: Cardiovascular Therapeutics Market, Global, Key Features of CETP, 2017 78

Table 15: Cardiovascular Disease Therapeutics Market, Global, Pipeline Programs Targeting CETP, 2017 78

Table 16: Cardiovascular Disease Therapeutics Market, Global, Key Features of Glutamyl Aminopeptidase, 2017 81

Table 17: Cardiovascular Disease Therapeutics Market, Global, Pipeline Programs Targeting Glutamyl Aminopeptidase, 2017 81

Table 18: Cardiovascular Disease Therapeutics Market, Global, Key Features and Pipeline Activity of E-selectin, 2017 82

Table 19: Cardiovascular Disease Therapeutics Market, Global, Pipeline Programs Targeting E-selectin, 2017 83

Table 20: Cardiovascular Disease Therapeutics Market, Global, Key Features and Pipeline Activity of Platelet Glycoprotein VI, 2017 86

Table 21: Cardiovascular Disease Therapeutics Market, Global, Pipeline Programs Targeting Platelet Glycoprotein VI, 2017 87

Table 22: Cardiovascular Disease Therapeutics Market, Global, Key Features and Pipeline Activity of Platelet Glycoprotein Ib Alpha Chain, 2017 88

Table 23: Cardiovascular Disease Therapeutics Market, Global, Pipeline Programs Targeting Platelet Glycoprotein Ib Alpha Chain, 2017 88

Table 24: Cardiovascular Disease Therapeutics Market, Global, Key Features of Tissue Factor, 2017 89

Table 25: Cardiovascular Disease Therapeutics Market, Global, Pipeline Programs Targeting Tissue Factor, 2017 90

List Of Figures, Charts and Diagrams in Frontier Pharma: Cardiovascular Disease - Diverse First-in-Class Molecular Targets to Bridge Unmet Needs in Pulmonary Hypertension, Heart Failure and Atherosclerosis [Report Updated: 01-08-2017]

1.2 List of Figures

Figure 1: Cardiovascular Disease and Associated Indications, Global, US, Innovation Trends in Product Approvals, 1987-2014 8

Figure 2: Cardiovascular Disease and Associated Indications, US, Sales Performance of First-in-Class and Non-First-in-Class Products Post Marketing Approval, 2006-2013 9

Figure 3: Cardiovascular Disease and Associated Indications, Global, Cardiovascular Disease Market by Molecular Target, 2017 28

Figure 4: Cardiovascular Disease and Associated Indications, Global, Pipeline by Therapy Area, 2017 29

Figure 5: Cardiovascular Disease, Global, Pipeline by Stage of Development and Molecule Type, 2017 30

Figure 6: Hypertension, Dyslipidemia, Thrombotic events, and Heart Failure, Global, Pipelines by Stage of Development, 2017 32

Figure 7: Hypertension, Dyslipidemia, Thrombotic Events, and Heart Failure, Global, Pipelines by Molecule Type, 2017 33

Figure 8: Cardiovascular Disease, Global, Pipeline by Molecular Target, 2017 35

Figure 9: Cardiovascular Disease, Global, Pipeline by Molecular Target Breakdown, 2017 36

Figure 10: Hypertension, Dyslipidemia, Thrombotic Events, Heart Failure, Global, Pipelines by Molecular Target, 2017 38

Figure 11: Cardiovascular Disease, Global, Pipeline and Marketed Products by Molecular Target Class, 2017 39

Figure 12: Cardiovascular Disease, Global, Pipeline by Molecular Target Class, First-in-Class Status and Stage of Development, 2017 40

Figure 13: Cardiovascular Disease Therapeutics Market, Global, Percentage Distribution of First-in-Class and Non-First-in-Class Pipeline Products by Stage of Development and Molecular Target (%), 2017 41

Figure 14: Cardiovascular Disease Therapeutics Market, Global, Ratio of First-in-Class Products to First-in-Class Targets by Stage of Development and Molecular Target, 2017 42

Figure 15: Cardiovascular Disease Therapeutics, Global, List of All First-in-Class Pipeline Programs, 2017 Part 1 44

Figure 16: Cardiovascular Disease Therapeutics, Global, List of All First-in-Class Pipeline Programs, 2017 Part 2 45

Figure 17: Cardiovascular Disease Therapeutics, Global, List of All First-in-Class Pipeline Programs, 2017 Part 3 46

Figure 18: Cardiovascular Disease Therapeutics, Global, List of All First-in-Class Pipeline Programs, 2017 Part 4

Figure 19: Cardiovascular Disease Therapeutics, Global, List of All First-in-Class Pipeline Programs, 2017 Part 5
48

Figure 20: Cardiovascular Disease Therapeutics, Global, List of All First-in-Class Pipeline Programs, 2017 Part 6
49

Figure 21: Cardiovascular Disease Therapeutics, Global, List of All First-in-Class Pipeline Programs, 2017 Part 7
50

Figure 22: Cardiovascular Disease Therapeutics, Global, List of All First-in-Class Pipeline Programs, 2017 Part 8
51

Figure 23: Cardiovascular Disease Therapeutics, Global, List of All First-in-Class Pipeline Programs, 2017 Part 9
52

Figure 24: Cardiovascular Disease Therapeutics, Global, List of All First-in-Class Pipeline Programs, 2017 Part 10
53

Figure 25: Cardiovascular Disease Therapeutics, Global, List of All First-in-Class Pipeline Programs, 2017 Part 11
54

Figure 26: Cardiovascular Disease Therapeutics, Global, List of All First-in-Class Pipeline Programs, 2017 Part 12
55

Figure 27: Cardiovascular Disease Therapeutics, Global, List of All First-in-Class Pipeline Programs, 2017 Part 13
56

Figure 28: Cardiovascular Disease Therapeutics, Global, List of All First-in-Class Pipeline Programs, 2017 Part 14
57

Figure 29: Cardiovascular Disease Therapeutics, Global, List of All First-in-Class Pipeline Programs, 2017 Part 15
58

Figure 30: Cardiovascular Disease Therapeutics Market, Global, First-in-Class Molecular Target Analysis Matrix for Hypertension, 2017 61

Figure 31: Cardiovascular Disease Therapeutics Market, Global, First-in-Class Molecular Target Analysis Matrix for Heart Failure, 2017 62

Figure 32: Cardiovascular Disease Therapeutics Market, Global, First-in-Class Molecular Target Analysis Matrix for Dyslipidemia, 2017 63

Figure 33: Cardiovascular Disease Therapeutics Market, Global, First-in-Class Molecular Target Analysis Matrix for Thrombosis, 2017 64

Figure 34: Cardiovascular Disease Therapeutics Market, Global, First-in-Class Molecular Target Analysis Matrix for Other Atherosclerotic Cardiovascular Disease Indications, 2017 65

Figure 35: Cardiovascular Disease Therapeutics Market, Global, Industry-Wide Deals by Stage of Development and First-in-Class Status, 2006-2017 91

Figure 36: Cardiovascular Disease Therapeutics Market, Global, Industry-Wide Licensing Deals by Deal Value, Upfront Payment Value, Stage of Development and First-in-Class Status, 2006-2017 92

Figure 37: Cardiovascular Disease Therapeutics, Global, Licensing Deals by Region, Value and Year, 2006-2017
94

Figure 38: Cardiovascular Disease Therapeutics, Global, Licensing Deals by Deal Value, Upfront Payment Value

and Stage of Development, 2006-2017 95

Figure 39: Cardiovascular Disease Therapeutics, Global, Number and Aggregate Deal Value of Licensing Deals by Molecule Type and Molecular Target, 2006-2017 96

Figure 40: Cardiovascular Disease Therapeutics, Global, Licensing Deals with Disclosed Deal Values, 2006-2017 97

Figure 41: Cardiovascular Disease Therapeutics, Global, Co-development Deals by Region, Value and Year, 2006-2017 99

Figure 42: Cardiovascular Disease Therapeutics, Global, Co-development Deals by Stage of Development, Deal Value and Upfront Payment Value, 2006-2017 100

Figure 43: Cardiovascular Disease Therapeutics, Global, Number and Aggregate Deal Value of Co-development Deals by Molecule Type and Molecular Target, 2006-2017 101

Figure 44: Cardiovascular Disease Therapeutics, Global, Co-development Deals with Disclosed Deal Values, 2006-2017 102

Figure 45: Cardiovascular Disease Therapeutics Market, Global, First-in-Class Pipeline Products with Prior Involvement in Licensing or Co-development Deals, 2017 Part 1 103

Figure 46: Cardiovascular Disease Therapeutics Market, Global, First-in-Class Pipeline Products with Prior Involvement in Licensing or Co-development Deals, 2017 Part 2 104

Figure 47: Cardiovascular Disease Therapeutics Market, Global, First-in-Class Pipeline Products with Prior Involvement in Licensing or Co-development Deals, 2017 Part 3 105

How to Buy...

Frontier Pharma: Cardiovascular Disease - Diverse First-in-Class Molecular Targets to Bridge Unmet Needs in Pulmonary Hypertension, Heart Failure and Atherosclerosis [Report Updated: 01-08-2017]

Option 1 - Online

Go to our website and pay online with any major debit or credit card:

<https://www.bioportfolio.co.uk/product/116716>

Option 2 - Request a Proforma Invoice

Fill in the details below, and either **Scan** this page **and email** it to us at reportstore@bioportfolio.com or **Fax** it to us at +44 (0)1305 791844. We will send you a Proforma Invoice and deliver your report on settlement.

Your Name:

Job Title:

Your Email:

Your Contact Phone:

Company Name:

Address:

Post/Zip Code:

Country:

P.O. Number:

Any Other Instructions:

Pricing Options: (please tick one)

- \$6995** | Single User Price
- \$13990** | Site License Price
- \$20985** | Enterprise License Price

Payment Options: (please tick one)

- Online Credit Card** (we will email you the invoice with a payment link)
- Direct Wire Transfer** (we will email you the invoice with our bank details)

Authorising Signature:

Option 3 - Phone Us on +44 (0)1300 321501

We will be delighted to give you our personal attention.