



STAFF REPORT

Therapies and Diagnostics for Ovarian Cancer: *Global Markets to 2022*

April 2018

BCC Research Staff

Report Code: HLC143B

Table of Contents

- Chapter 1: Introduction 1**
 - Study Goals and Objectives..... 1
 - Reasons for Doing This Study..... 1
 - Scope of Report..... 1
 - Methodology..... 2
 - Geographic Breakdown..... 3
 - Analyst’s Credentials..... 7
 - Related BCC Research Reports..... 7

- Chapter 2: Summary and Highlights..... 9**
 - Market Context for Ovarian Cancer Therapies and Diagnostics..... 11

- Chapter 3: Overview and Biology..... 13**
 - Overview 13
 - Biology 14
 - Metastasis 15
 - Risk Factors 15
 - Family History..... 15
 - Genetic Mutation 16
 - Lynch Syndrome 16
 - Peutz-Jeghers Syndrome 16
 - Age..... 16
 - Previous Conditions..... 17
 - Prevention..... 18
 - Birth Control..... 18
 - Childbearing Status 18
 - Removal of the Ovaries and Fallopian Tubes 19
 - Hysterectomy/Tubal Ligation 19
 - Symptoms 19
 - Gastrointestinal..... 20
 - Abdominal 20
 - Whole Body 20
 - Diagnosis 21
 - Overview 21
 - Current Screening Practices 21
 - Stages of Ovarian Cancer 25
 - Stage I 25
 - Stage II 25
 - Stage III 25
 - Stage IV..... 26

- Chapter 4: Market Dynamics and Technology Background 28**
 - Market Definition and Overview 28
 - Market Drivers 28
 - Increase in Healthcare Expenditures..... 28
 - Continued Emphasis on R&D activities in Cancer and Treatment Technologies 28
 - Promised Potential of Alternative Therapies 29
 - Greater Understanding of the Genetic Base of Individual Cancers 29

Increasing incidences of Ovarian Cancer Worldwide.....	29
Greater Use of Combination Therapies for Treatment.....	30
Increasing Cancer Prevalence Rates and Aging Population	30
Rising Awareness Among People with Cancer and Its Treatment	30
Market Restraints	31
Lack of Accurate Diagnosis of Ovarian Cancer	31
The Launch of Generic Drugs	31
Market Opportunities	31
Rising Female Population in the Asia-Pacific Region.....	32
Aging Demographics in Japan.....	32
Technological Advancements in the Drug Sector.....	32
Emergence of New Therapies for Disease Control.....	33
Chapter 5: Market Breakdown by Diagnosis	35
Overview	35
Background	36
Diagnostic Tests	36
Pelvic Exam.....	37
Laboratory Tests.....	37
Recurrent Ovarian Epithelial Cancer	54
Market Forecast	59
New Developments	61
Chapter 6: Ovarian Cancer Treatment	64
Treatment Strategies for Ovarian Cancer	64
Current Treatment Practices.....	64
Surgery	65
Chemotherapy.....	66
Intraperitoneal Chemotherapy	67
IV Chemotherapy.....	67
Targeted Therapy	68
Immunotherapy.....	68
Radiation Therapy	69
Palliative/Supportive Care.....	69
Recurrent Ovarian Cancer.....	69
Metastatic Ovarian Cancer	69
Sensitive Cancer Treatment	70
Resistant Cancer Treatment.....	70
Recurrent Ovarian Epithelial Cancer	71
Secondary Chemotherapy Drugs.....	71
Surveillance After Treatment	75
Novel Strategies for Prevention of Multidrug Resistance (MDR) in Cancer.....	76
Chapter 7: Market Breakdown by Cancer Type	80
Epithelial Ovarian Tumors.....	80
Germ Cell Tumors	81
Stromal Tumors.....	82
Primary Peritoneal Cancer	83
Stages of Ovarian Cancer	84
Stage 1	85
Stage 2	86

Stage 3	87
Stage 4	88
Prognosis	90
Chapter 8: Market Breakdown by Region	93
Introduction	93
North America	93
U.S.	94
Canada	95
Europe	96
Acquisitions and Collaborations	97
Germany	98
U.K.	99
France	99
Italy	100
Spain	101
Rest of Europe	102
Asia-Pacific	103
India	104
China	105
Japan	106
Middle East & Africa	107
Drivers	108
Restraints	109
Latin America	109
Mexico	110
Drivers	112
Restraints	113
Chapter 9: Pipeline Analysis	115
Current Scenario	115
New Product Developments	115
VEGF Inhibitor	115
PARP Inhibitors	116
Promising Pipeline Molecules/Drugs in Development	118
Atezolizumab	118
Avelumab	119
Lurbinectedin	120
Veliparib	121
Trametinib	122
Fosbretabulin	123
Mirvetuximab Soravtansine	124
Most Promising Drug	124
ONX-0801	124
Recent Developments in the Ovarian Cancer Treatment	126
Gene Therapy Inhibited Chemoresistant Tumor	126
Synthetic Gene Circuit Development	127
Novel Combination Therapy	128
Birinapant	129
CancerSEEK	129

Chapter 10: Patent Analysis	132
Overview	132
Patent Expiration.....	133
Chapter 11: Competitive Landscape and Key Developments	139
Overview	139
Major Players and Market Share	139
Mergers and Acquisitions	140
AbbVie and Stemcentrx.....	140
Hikma Pharmaceuticals and EIMC United Pharmaceuticals	140
Roche and Ignyta.....	141
Chapter 12: Company Profiles	143
About BCC Research.....	172
About BCC Research.....	173
BCC Membership	173
BCC Custom Research	173

List of Tables

Summary Table A: Global Ovarian Cancer Therapeutic Market, by Cancer Type, Through 2022 (\$ Millions)	9
Summary Table B: Global Ovarian Cancer Therapeutic Market, by Region, Through 2022 (\$ Millions)....	10
Table 1 Imaging Tests and Functionality.....	50
Table 2 Global Market for FDA Cleared/Approved Companion Diagnostic Devices for Cancer, by Category, Through 2022 (\$ Millions)	60
Table 3 Global Ovarian Cancer Therapeutics Market, by Cancer Type, Through 2022 (\$ Millions)	80
Table 4 Stage 1 and Substages of Ovarian Cancer	85
Table 5 Stage 2 and Substages of Ovarian Cancer	86
Table 6 Stage 3 and Substages of Ovarian Cancer	87
Table 7 Stage 4 and Substages of Ovarian Cancer	89
Table 8 Global Ovarian Cancer Therapeutics Market, by Region, Through 2022 (\$ Millions).....	93
Table 9 North America Ovarian Cancer Therapeutics Market, Through 2022 (\$ Millions)	94
Table 10 Europe Ovarian Cancer Therapeutics Market, Through 2022 (\$ Millions)	96
Table 11 Asia-Pacific Ovarian Cancer Therapeutics Market, Through 2022 (\$ Millions).....	103
Table 12 Middle East and Africa Ovarian Cancer Therapeutics Market, Through 2022 (\$ Millions).....	107
Table 13 Latin America Ovarian Cancer Therapeutics Market, Through 2022 (\$ Millions).....	110
Table 14 PARP Inhibitors.....	118
Table 15 Pipeline Drugs Summary, by Phase	125
Table 16 Global Sales at Risk from Patent Expiration, 2016–2022 (\$ Millions).....	134
Table 17 Drugs Scheduled to Lose Patent Protection, 2018.....	135
Table 18 Drugs Scheduled to Lose Patent Protection, 2019.....	136
Table 19 Oncology Segment Revenue of Major Players, 2016 (\$ Millions)	139
Table 20 AbbVie Inc.’s Revenue, 2015–2016 (\$ Millions).....	144
Table 21 AstraZeneca’s Revenue, 2015–2016 (\$ Millions)	148
Table 22 Lynparza’s Revenue, 2015–2016 (\$ Millions).....	148
Table 23 Bristol-Myers Squibb’s Revenue, 2015–2016 (\$ Millions)	150
Table 24 Celgene Corp.’s Revenue, 2015–2016 (\$ Millions).....	151
Table 25 Eli Lilly and Company’s Revenue, 2015–2016 (\$ Millions)	154
Table 26 GlaxoSmithKline’s Revenue, 2015–2016 (\$ Millions).....	155
Table 27 Hikma Pharmaceutical’s Revenue, 2015–2016 (\$ Millions).....	156
Table 28 J&J’s Revenue, 2015–2016 (\$ Millions).....	157
Table 29 Merck & Co., Inc.’s Net Revenue, 2014–2016 (\$ Millions).....	158
Table 30 Myriad Genetics, Inc.’s Revenue, 2015–2016 (\$ Millions)	162
Table 31 Novartis AG’s Revenue, 2015–2016 (\$ Millions).....	163
Table 32 Pfizer, Inc.’s Net Revenue, 2014–2016 (\$ Millions)	164
Table 33 Quest Diagnostics, Inc.’s Revenue, 2015–2016 (\$ Millions)	168
Table 34 Roche Holding’s Revenue, 2015–2016 (\$ Millions).....	170
Table 35 Avastin’s Drug Revenue, 2015–2016 (\$ Millions)	170

List of Figures

Summary Figure A: Global Ovarian Cancer Therapeutic Market, by Cancer Type, 2016–2022 (\$ Millions)	9
Summary Figure B: Global Ovarian Cancer Therapeutic Market, by Region, 2016–2022 (\$ Millions)	10
Figure 1 Woman’s Reproductive System	14
Figure 2 Ovarian Cancer Symptoms	20
Figure 3 Pelvic Examination	22
Figure 4 Transvaginal Ultrasound (TVUS)	22
Figure 5 Pelvic Examination	37
Figure 6 Global Market for FDA Cleared/Approved Companion Diagnostic Devices for Cancer, 2016–2022 (\$ Millions)	59
Figure 7 Global Market for FDA Cleared/Approved Companion Diagnostic Devices for Ovarian Cancer, 2016–2022 (\$ Millions)	60
Figure 8 Epithelial Cancer Therapy Market, 2016–2022 (\$ Millions)	81
Figure 9 Germ Cell Cancer Therapy Market, 2016–2022 (\$ Millions)	82
Figure 10 Stromal Cancer Therapy Market, 2016–2022 (\$ Millions)	83
Figure 11 Primary Peritoneal Cancer Therapy Market, 2016–2022 (\$ Millions)	84
Figure 12 Stage 1 and Substages of Ovarian Cancer	85
Figure 13 Stage 2 and Substages of Ovarian Cancer	86
Figure 14 Stage 3 and Substages of Ovarian Cancer	87
Figure 15 Stage 4 and Substages of Ovarian Cancer	88
Figure 16 U.S. Ovarian Cancer Therapeutics Market, 2016–2022 (\$ Millions)	95
Figure 17 Canada Ovarian Cancer Therapy Market, 2016–2022 (\$ Millions)	96
Figure 18 Germany Ovarian Cancer Therapy Market, 2016–2022 (\$ Millions)	98
Figure 19 U.K. Ovarian Cancer Therapy Market, 2016–2022 (\$ Millions)	99
Figure 20 France Ovarian Cancer Therapy Market, 2016–2022 (\$ Millions)	100
Figure 21 Italy Ovarian Cancer Therapy Market, 2016–2022 (\$ Millions)	101
Figure 22 Spain Ovarian Cancer Therapy Market, 2016–2022 (\$ Millions)	102
Figure 23 RoE Ovarian Cancer Therapy Market, 2016–2022 (\$ Millions)	103
Figure 24 India Ovarian Cancer Therapy Market, 2016–2022 (\$ Millions)	104
Figure 25 China Ovarian Cancer Therapy Market, 2016–2022 (\$ Millions)	105
Figure 26 Japan Ovarian Cancer Therapy Market, 2016–2022 (\$ Millions)	106
Figure 27 Middle East and Africa Ovarian Cancer Therapy Market, 2016–2022 (\$ Millions)	108
Figure 28 Mexico Ovarian Cancer Therapy Market, 2016–2022 (\$ Millions)	111
Figure 29 Lurbinectedin Chemical Structure	120
Figure 30 Velaparib Chemical Structure	121
Figure 31 Trametinib (Mekinist) Chemical Structure	122
Figure 32 Fosbretabulin Chemical Structure	123
Figure 33 Mirvetuximab Soravtansine Chemical Structure	124
Figure 34 ONX-0801 Chemical Structure	125
Figure 35 CancerSEEK Test	130
Figure 36 Global Sales at Risk from Patent Expiration, 2016–2022 (\$ Millions)	134
Figure 37 Global Market Share of Major Players in OC Therapy Industry, 2016 (%)	140
Figure 38 Merck & Co., Inc.’s Revenue Share, by Business Segment, 2016 (%)	159
Figure 39 Merck & Co., Inc. Revenue Share, by Region, 2016 (%)	160
Figure 40 Pfizer, Inc.’s Revenue Share, by Region, 2016 (%)	165
Figure 41 Pfizer, Inc.’s Revenue Share, by Business Segment, 2016 (%)	166



About BCC Research

About BCC Research

With our unparalleled 45-year history, BCC Research provides comprehensive analysis of global market sizing, forecasting and industry intelligence, covering markets where advances in science and technology are improving the quality, standard and sustainability of businesses, economies and lives.

BCC Membership

From market sizing and forecasts, to opportunity assessments and competitive analyses, our ever-expanding library gives you the data, insights and intelligence required to ensure your project is a success. Members benefit from ongoing, unlimited access to the category or collections of their choice, and most membership packages pay for themselves within two to three reports being accessed.

Did you buy this report? You may qualify to apply your purchase price toward a full membership. Call 866/285-7215 or e-mail info@bccresearch.com to request a demo.

BCC Custom Research

Our experts provide custom research projects to those working to identify new markets, introduce new products, validate existing market share, analyze competition and assess the potential for products to impact existing markets. With impressive academic credentials and broad and deep knowledge of global industrial markets, our independent analysts and consultants develop the facts, figures, analysis and assessments to inform the decisions that will move your company ahead. Confidential inquiries to: custom@bccresearch.com or 781-205-2429.

DISCLAIMER

The information developed in this report is intended to be as reliable as possible at the time of publication and is of a professional nature. This information does not constitute managerial, legal or accounting advice, nor should it be considered as a corporate policy guide, laboratory manual or an endorsement of any product, as much of the information is speculative in nature. BCC Research and the author assume no responsibility for any loss or damage that might result from reliance on the reported information or from its use.

ISBN: 978-1-62296-701-8
April 2018