

SKIN DISEASE TREATMENT TECHNOLOGIES AND GLOBAL MARKETS



PHM127A
May 2013

Paul Evers
Project Analyst

ISBN: 1-56965-405-0

bcc | Research
Market Forecasting

BCC Research
49 Walnut Park, Building 2
Wellesley, MA 02481
866-285-7215, 781-489-7301
www.bccresearch.com
Custom Reports:
carol.laverty@bccresearch.com

TABLE OF CONTENTS

TOPIC	PAGE NO.
CHAPTER 1 INTRODUCTION	2
STUDY GOALS AND OBJECTIVES	2
REASONS FOR DOING THE STUDY	2
SCOPE OF REPORT	2
MARKET ANALYSES AND FORECASTS	2
METHODOLOGY	2
INTENDED AUDIENCE	3
INFORMATION SOURCES	3
ANALYST CREDENTIALS	3
RELATED BCC REPORTS	3
BCC ONLINE SERVICES	3
DISCLAIMER	4
CHAPTER 2 SUMMARY	6
SKIN DISEASE AND ITS TREATMENT	6
DISEASES INCLUDED	6
TREATMENTS	6
<i>SUMMARY TABLE 1 DERMATOLOGICAL AGENTS</i>	7
ABOUT THE MARKET	7
LEADING COMPANIES	8
<i>SUMMARY TABLE 2 MAJOR GLOBAL DERMATOLOGY MARKETS, THROUGH 2018 (\$ MILLIONS)</i>	8
<i>SUMMARY FIGURE MAJOR GLOBAL DERMATOLOGY MARKETS, 2011-2018 (\$ MILLIONS)</i>	8
CHAPTER 3 OVERVIEW	11
SKIN STRUCTURE AND FUNCTIONS	11
STRUCTURE	11
Epidermis	11
Basement Membrane	12
Dermis	12
Hypodermis	12
FUNCTIONS	12
DISEASES OF THE SKIN	13
<i>TABLE 1 PREVALENCE AND DIRECT COSTS OF SELECTED SKIN DISEASES, U.S., 2004 (MILLIONS)</i>	13
CHAPTER 4 MAJOR SKIN DISEASES	15
DERMATITIS	15
SEBORRHEIC DERMATITIS	15
Available Treatments	15
ATOPIC DERMATITIS	15
Available Treatments	16
CONTACT DERMATITIS	16
Available Treatments	17
Irritant Contact Dermatitis	17

TOPIC	PAGE NO.
Allergic Contact Dermatitis	17
DERMATITIS PIPELINE	18
<i>TABLE 2 DERMATITIS RESEARCH PIPELINE</i>	18
<i>TABLE 3 GLOBAL DERMATITIS MARKET, THROUGH 2018 (\$ MILLIONS)</i>	19
IMMUNE-RELATED CONDITIONS	20
LUPUS ERYTHEMATOSUS	20
CURRENT TREATMENT OPTIONS	21
PIPELINE	21
<i>TABLE 4 CUTANEOUS LUPUS PIPELINE</i>	21
IMMUNO-BULLOUS DISEASES	22
Treatment Options	22
Market	22
<i>TABLE 5 GLOBAL MARKET FOR IMMUNE-RELATED SKIN CONDITIONS, THROUGH 2018 (\$ MILLIONS)</i>	23
LICHEN PLANUS	23
Current Treatment Options	23
ERYTHEMA MULTIFORME	24
Treatments Available	24
PSORIASIS	25
SUBTYPES	25
Plaque Psoriasis	25
Guttate Psoriasis	25
Erythrodermic Psoriasis	26
Pustular Psoriasis	26
Psoriasis of the Nails	26
TREATMENT	26
Topical Therapies Available	26
Emollients	26
Keratolytics	26
Topical Corticosteroids	27
Vitamin D3 Products	27
Tazarotene	27
Tar Preparations	27
Anthralin	27
Topical Immunomodulators	28
Intralesional Therapy	28
Phototherapy with UVB	28
Photochemotherapy (PUVA)	28
Systemic Therapy	28
Methotrexate	28
Acitretin	28
Cyclosporine	29
Hydroxyurea	29
Cytokine Antagonists and Other Immunomodulators	29
PSORIASIS TREATMENT BENEFITS AND RISKS	29
Cost of Treatment	31
<i>TABLE 6 COST OF PSORIASIS THERAPIES FOR A TYPICAL WESTERN EUROPEAN COUNTRY (\$)</i>	31

TOPIC	PAGE NO.
THE PSORIASIS PIPELINE	32
THE PSORIASIS MARKET	34
<i>TABLE 7 PSORIASIS GLOBAL AND REGIONAL MARKET, THROUGH 2018 (\$ MILLIONS)</i>	35
SKIN INFECTIONS	35
BACTERIAL INFECTIONS	35
Impetigo/Ecthyma	36
Cellulitis	36
Treatments Available	37
Necrotizing Subcutaneous Infection	38
Available Treatment	38
FUNGAL INFECTIONS	38
Candidiasis	38
Treatments Available	39
<i>TABLE 8 ANTIFUNGALS FOR SUPERFICIAL FUNGAL INFECTIONS</i>	40
Tinea Versicolor	40
Treatments Available	40
VIRAL INFECTIONS	41
Herpes Simplex	41
Treatments Available	42
Herpes Zoster	42
Warts	42
<i>TABLE 9 ANTIVIRAL DRUGS</i>	43
SKIN INFECTION PIPELINE	44
<i>TABLE 10 SKIN INFECTIONS PIPELINE</i>	44
THE ANTI-INFECTIVE MARKET	47
<i>TABLE 11 SKIN INFECTIONS: GLOBAL MARKET, THROUGH 2018 (\$ MILLIONS)</i>	47
ACNE	47
Comedonal	48
Papulopustular	48
Nodulocystic	48
Treatments Available	49
Retinoids	49
Antibiotics	49
Anti-Inflammatory Drugs	50
Hormonal Therapy	50
Treatment Failure	51
THE ACNE PIPELINE	51
<i>TABLE 12 THE ACNE PRODUCT PIPELINE</i>	51
THE ACNE MARKET	52
<i>TABLE 13 GLOBAL ACNE MEDICATIONS MARKET, THROUGH 2018 (\$ MILLIONS)</i>	53
SKIN CANCERS	53
MELANOMA	53
Treatment	54
NONMELANOMA SKIN CANCERS	54
Basal Cell Carcinoma	54
Squamous Cell Carcinoma	55
SKIN CANCER PIPELINE	55

TOPIC	PAGE NO.
<i>TABLE 14 SKIN CANCER THERAPEUTICS RESEARCH PIPELINE</i>	56
SKIN CANCER MARKET	59
<i>TABLE 15 SKIN CANCER THERAPEUTIC MARKET, THROUGH 2018 (\$ MILLIONS)</i>	59
CHAPTER 5 DERMATOLOGY PRODUCTS, BY BRAND NAME	61
ALDARA	61
ALTABAX	61
AMEVIVE	62
AVITA GEL	62
BACTROBAN CREAM	62
BENZAMYCIN	62
BETNOVATE	63
DALACIN	63
CONDYLOX	63
DAIVOBET	64
DESONATE	64
DIFFERIN	64
ELIDEL	65
ELOCON	65
ERIVEDGE	65
ESTROSTEP FE	66
EXTINA	66
FINACEA	66
FINEVIN	67
GRALISE	67
HORIZANT	67
KLARON	68
LAMISIL	68
MEDROL	68
TRI-CYCLEN	69
PROGRAF	69
PROTOPIC	69
RETIN-A MICRO	70
SOLODYN	70
STELARA	70
SYLATRON	71
TACLONEX	71
TAZORAC	71
TEFLARO	72
TYGACIL	72
VELTINGEL	72
VERDESO	73
VIBATIV	73
VIBRAMYCIN	73
YERVOY	74
ZELBORAF	74
ZOVIRAX	74

TOPIC	PAGE NO.
ZYCLARA	75
CHAPTER 6 CURRENT AND FORECAST MARKETS	77
DEVELOPED MARKETS	77
U.S.	77
TABLE 16 U.S. ANNUAL DIRECT COST OF PRESCRIPTION DRUGS, 2004 (\$ MILLIONS)	78
TABLE 17 THE DERMATOLOGY MARKET IN THE U.S. THROUGH 2018 (\$ MILLIONS/%)	78
JAPAN	79
TABLE 18 THE DERMATOLOGY MARKET IN JAPAN, THROUGH 2018 (\$ MILLIONS/%)	79
GERMANY	79
TABLE 19 THE DERMATOLOGY MARKET IN GERMANY, THROUGH 2018 (\$ MILLIONS/%)	80
FRANCE	80
TABLE 20 THE DERMATOLOGY MARKET IN FRANCE, THROUGH 2018 (\$ MILLIONS/%)	81
ITALY	81
TABLE 21 THE DERMATOLOGY MARKET IN ITALY, THROUGH 2018 (\$ MILLIONS/%)	82
SPAIN	82
TABLE 22 THE DERMATOLOGY MARKET IN SPAIN, THROUGH 2018 (\$ MILLIONS)	83
UNITED KINGDOM	83
TABLE 23 THE DERMATOLOGY MARKET IN THE UNITED KINGDOM, THROUGH 2018 (\$ MILLIONS/%)	85
BRIC MARKETS	85
BRAZIL	85
TABLE 24 THE DERMATOLOGY MARKET IN BRAZIL, THROUGH 2018 (\$ MILLIONS/%)	86
RUSSIA	86
TABLE 25 THE DERMATOLOGY MARKET IN RUSSIA, THROUGH 2018 (\$ MILLIONS/%)	88
INDIA	88
TABLE 26 THE DERMATOLOGY MARKET IN INDIA, THROUGH 2018 (\$ MILLIONS/%)	88
CHINA	89
TABLE 27 HEALTHCARE STATISTICS IN CHINA 2006 VERSUS 2011 (\$ BILLIONS/%)	89
TABLE 28 THE DERMATOLOGY MARKET IN CHINA, THROUGH 2018 (\$ MILLIONS/%)	90
CHAPTER 7 THE DERMATOLOGY INDUSTRY	92
INDUSTRY STRUCTURE AND TRENDS	92
COMPANY PROFILES	94
ABBVIE	94
AGENUS	94
AICURIS	95
ALLERGAN	96
ALMIRALL	97
AMGEN	98
ANACOR	98
ANGES MG	99
APEIRON	100
ASTELLAS	101
ASTION	101
ASTRAZENECA	103
BARRIER THERAPEUTICS	104

TOPIC	PAGE NO.
BASILEA	104
BRISTOL-MYERS SQUIBB	105
CELGENE	105
CIPHER PHARMACEUTICALS	106
DUSA	107
BLU-U	107
ELI LILLY	107
GALDERMA	108
GENENTECH	109
GLAXOSMITHKLINE	110
STIEFEL, A GSK COMPANY	110
The Center for Skin Biology	110
HANALL BIOPHARMA	111
IMMUNE TECHNOLOGIES & MEDICINE	111
INCYTE	112
JANSSEN BIOTECH	113
KAKEN PHARMACEUTICALS	114
LEO	115
MEDA	116
NANOBIO	117
NAVIDEA	119
NITRIC BIOTHERAPEUTICS	120
NOVARTIS	120
PFIZER	121
PHOTOCURE	122
REGENERON	123
SWITCH BIOTECH	124
VALEANT	124
CHAPTER 8 APPENDIX I: GLOSSARY	127
CHAPTER 9 APPENDIX II: THE IMMUNE SYSTEM	134
TABLE 29 IMMUNOTHERAPEUTICS IN SKIN DISEASES	138

LIST OF TABLES

TABLE HEADING	PAGE NO.
SUMMARY TABLE 1 DERMATOLOGICAL AGENTS	7
SUMMARY TABLE 2 MAJOR GLOBAL DERMATOLOGY MARKETS, THROUGH 2018 (\$ MILLIONS)	8
TABLE 1 PREVALENCE AND DIRECT COSTS OF SELECTED SKIN DISEASES, U.S., 2004 (MILLIONS)	13
TABLE 2 DERMATITIS RESEARCH PIPELINE	18
TABLE 3 GLOBAL DERMATITIS MARKET, THROUGH 2018 (\$ MILLIONS)	19
TABLE 4 CUTANEOUS LUPUS PIPELINE	21
TABLE 5 GLOBAL MARKET FOR IMMUNE-RELATED SKIN CONDITIONS, THROUGH 2018 (\$ MILLIONS)	23
TABLE 6 COST OF PSORIASIS THERAPIES FOR A TYPICAL WESTERN EUROPEAN COUNTRY (\$)	31
TABLE 7 PSORIASIS GLOBAL AND REGIONAL MARKET, THROUGH 2018 (\$ MILLIONS)	35
TABLE 8 ANTIFUNGALS FOR SUPERFICIAL FUNGAL INFECTIONS	40
TABLE 9 ANTIVIRAL DRUGS	43
TABLE 10 SKIN INFECTIONS PIPELINE	44
TABLE 11 SKIN INFECTIONS: GLOBAL MARKET, THROUGH 2018 (\$ MILLIONS)	47
TABLE 12 THE ACNE PRODUCT PIPELINE	51
TABLE 13 GLOBAL ACNE MEDICATIONS MARKET, THROUGH 2018 (\$ MILLIONS)	53
TABLE 14 SKIN CANCER THERAPEUTICS RESEARCH PIPELINE	56
TABLE 15 SKIN CANCER THERAPEUTIC MARKET, THROUGH 2018 (\$ MILLIONS)	59
TABLE 16 U.S. ANNUAL DIRECT COST OF PRESCRIPTION DRUGS, 2004 (\$ MILLIONS)	78
TABLE 17 THE DERMATOLOGY MARKET IN THE U.S. THROUGH 2018 (\$ MILLIONS/%)	78
TABLE 18 THE DERMATOLOGY MARKET IN JAPAN, THROUGH 2018 (\$ MILLIONS/%)	79
TABLE 19 THE DERMATOLOGY MARKET IN GERMANY, THROUGH 2018 (\$ MILLIONS/%)	80
TABLE 20 THE DERMATOLOGY MARKET IN FRANCE, THROUGH 2018 (\$ MILLIONS/%)	81
TABLE 21 THE DERMATOLOGY MARKET IN ITALY, THROUGH 2018 (\$ MILLIONS/%)	82
TABLE 22 THE DERMATOLOGY MARKET IN SPAIN, THROUGH 2018 (\$ MILLIONS)	83
TABLE 23 THE DERMATOLOGY MARKET IN THE UNITED KINGDOM, THROUGH 2018 (\$ MILLIONS/%)	85
TABLE 24 THE DERMATOLOGY MARKET IN BRAZIL, THROUGH 2018 (\$ MILLIONS/%)	86
TABLE 25 THE DERMATOLOGY MARKET IN RUSSIA, THROUGH 2018 (\$ MILLIONS/%)	88
TABLE 26 THE DERMATOLOGY MARKET IN INDIA, THROUGH 2018 (\$ MILLIONS/%)	88
TABLE 27 HEALTHCARE STATISTICS IN CHINA 2006 VERSUS 2011 (\$ BILLIONS/%)	89
TABLE 28 THE DERMATOLOGY MARKET IN CHINA, THROUGH 2018 (\$ MILLIONS/%)	90
TABLE 29 IMMUNOTHERAPEUTICS IN SKIN DISEASES	138

LIST OF FIGURES

FIGURE TITLE	PAGE NO.
SUMMARY FIGURE MAJOR GLOBAL DERMATOLOGY MARKETS, 2011-2018 (\$ MILLIONS)	8