

CHAPTER ONE: INTRODUCTION	1
STUDY GOALS AND OBJECTIVES.....	1
REASONS FOR DOING THE STUDY	1
INTENDED AUDIENCE.....	2
SCOPE OF REPORT	2
METHODOLOGY	3
INFORMATION SOURCES.....	3
RELATED BCC REPORTS	3
ANALYST CREDENTIALS.....	4
BCC ONLINE SERVICES.....	4
DISCLAIMER	4
 CHAPTER TWO: SUMMARY.....	 5
SUMMARY.....	5
<i>SUMMARY TABLE GLOBAL VALUE OF DNA VACCINE MARKET BY APPLICATION, THROUGH 2014 (\$ MILLIONS)</i>	6
<i>SUMMARY FIGURE GLOBAL VALUE OF DNA VACCINE MARKET BY APPLICATION, THROUGH 2014 (\$ MILLIONS)</i>	6
SUMMARY (CONTINUED)	7
 CHAPTER THREE: OVERVIEW	 8
INTRODUCTION	8
<i>TABLE 1 CLINICAL STATUS OF DNA VACCINES, AS OF JULY 2009 (NUMBER)</i>	8
DNA VACCINE TECHNOLOGIES COVERED IN THIS REPORT	9
<i>TABLE 2 SCOPE OF THIS REPORT</i>	9
GLOBAL MARKET FOR DNA VACCINES	9
<i>TABLE 3 GLOBAL VALUE OF DNA VACCINE MARKET BY APPLICATION, THROUGH 2014 (\$ MILLIONS)</i>	10
<i>TABLE 4 GLOBAL VALUE OF HUMAN DNA VACCINE MARKET BY INDICATION, THROUGH 2014 (\$ MILLIONS)</i>	10
FORCES DRIVING DNA VACCINE MARKET GROWTH	11
<i>TABLE 5 DNA VACCINE INDUSTRY GROWTH DRIVING FORCES</i>	11
LIFE CYCLE STATUS OF DNA VACCINE TECHNOLOGIES	12
<i>TABLE 6 LIFE CYCLE STAGE OF VACCINE TYPES</i>	12
COMMERCIAL STATUS OF DNA VACCINE TECHNOLOGIES	12
<i>TABLE 7 COMMERCIAL STATUS OF DNA VACCINES</i>	13
DNA VACCINE INDUSTRY	13
<i>TABLE 8 DNA VACCINE INDUSTRY STRUCTURE</i>	14
 CHAPTER FOUR: DNA VACCINE TECHNOLOGIES	 15
HISTORY	15
<i>TABLE 9 DNA VACCINE HISTORY</i>	15
THE HUMAN IMMUNE SYSTEM.....	16
<i>TABLE 10 COMPONENTS OF THE IMMUNE SYSTEM</i>	17

THE HUMAN IMMUNE SYSTEM (CONTINUED)	18
VACCINES.....	19
VACCINE EVOLUTION.....	19
<i>FIGURE 1 EVOLUTION OF VACCINE TECHNOLOGIES</i>	19
VACCINE TYPES	20
<i>TABLE 11 VACCINE TYPES</i>	20
Technology Life-Cycle Stage of Vaccine Types.....	21
<i>TABLE 12 TECHNOLOGY LIFE-CYCLE STAGE OF VACCINE TYPES</i>	21
DNA VACCINES.....	22
INTRODUCTION.....	22
<i>FIGURE 2 MECHANISM OF ACTION OF A DNA VACCINE</i>	23
CHANGING VACCINE PARADIGM.....	23
<i>TABLE 13 CHANGING VACCINE PARADIGM</i>	24
<i>TABLE 14 ADVANTAGES AND DISADVANTAGES OF DNA VACCINES</i>	25
Changing Vaccine Paradigm (Continued)	26
<i>FIGURE 3 SAFETY AND EFFICACY PROFILE OF DNA VERSUS</i>	
<i>VIRAL-VECTOR VACCINES</i>	27
FUNCTION AND SCOPE OF DNA VACCINES.....	28
<i>FIGURE 4 DNA VACCINE FUNCTION AND MARKET SCOPE</i>	28
<i>TABLE 15 EMERGING COMPETITIVE LANDSCAPE FOR DNA</i>	
<i>VACCINES</i>	29
CANCER DNA VACCINES	30
<i>TABLE 16 CANCER VACCINE TYPES</i>	30
DNA VACCINE TECHNOLOGY VALUE CHAIN.....	31
<i>FIGURE 5 DNA VACCINE TECHNOLOGY VALUE CHAIN</i>	32
<i>TABLE 17 TECHNOLOGY DRIVERS FOR DNA VACCINE VALUE</i>	
<i>CHAIN</i>	33
ANTIGEN DISCOVERY.....	34
PLASMID DESIGN.....	34
<i>TABLE 18 PLASMID DESIGN OBJECTIVES</i>	34
<i>TABLE 19 WAYS TO OPTIMIZE MAMMALIAN GENE EXPRESSION</i>	
<i>IN PLASMID DNA</i>	35
Plasmid Design (Continued)	36
PLASMID MANUFACTURE.....	37
<i>FIGURE 6 CONVENTIONAL AND PLASMID DNA VACCINE</i>	
<i>PRODUCTION PROCESS</i>	38
<i>TABLE 20 DNA PLASMID QUALITY COMPARSION</i>	38
DELIVERY TECHNOLOGIES.....	39
<i>TABLE 21 COMPARISON OF DNA DELIVERY TECHNOLOGIES</i>	39
Uncomplexed pDNA	39
Electroporation	40
<i>FIGURE 7 EP PROCESS SCHEMATIC</i>	41
Liposomes.....	41
Gold Particles.....	42

Nanoparticles.....	42
Bacterial Ghosts	43
Bacteriophages.....	43
Viruses	44
<i>TABLE 22 IN VIVO VIRAL VECTOR TECHNOLOGIES COMPARED</i>	<i>44</i>
Viruses (Continued).....	45
TARGETING TECHNOLOGIES.....	46
<i>FIGURE 8 STRATEGIES FOR TARGETING DENDRITIC CELLS.....</i>	<i>47</i>
ADJUVANT TECHNOLOGIES.....	47
<i>TABLE 23 DNA VACCINE ADJUVANT TECHNOLOGIES.....</i>	<i>48</i>
DNA VACCINE TECHNOLOGY NEEDS	48
<i>TABLE 24 TECHNOLOGY NEEDS FOR DNA VACCINES.....</i>	<i>49</i>
DNA Vaccine Technology ... (Continued).....	50
CHAPTER FIVE: DNA VACCINE APPLICATIONS	51
RESEARCH TOOLS APPLICATIONS	51
CLINICAL APPLICATIONS.....	51
OVERVIEW TO DNA VACCINE CLINICAL TRIALS PROCESS.....	51
<i>TABLE 25 DNA VACCINE DEVELOPMENT FLOWSHEET.....</i>	<i>52</i>
<i>TABLE 26 DNA VACCINE PRECLINICAL DEVELOPMENT STEPS.....</i>	<i>53</i>
<i>FIGURE 9 FUTURE VACCINE CLINICAL TRIALS OVERVIEW.....</i>	<i>54</i>
Overview to DNA ... (Continued).....	55
DNA VACCINE CLINICAL TRIALS SUMMARY.....	56
<i>TABLE 27 DNA VACCINES CLINICAL TRIALS SUMMARY BY</i>	
<i>DISEASE TYPE, AS OF JULY 2009.....</i>	<i>56</i>
<i>TABLE 28 DNA VACCINES CLINICAL TRIALS SUMMARY BY</i>	
<i>DELIVERY TECHNOLOGY, AS OF JULY 2009.....</i>	<i>57</i>
<i>TABLE 29 DNA VACCINES CLINICAL TRIALS SUMMARY BY</i>	
<i>VACCINE TYPE, AS OF JULY 2009.....</i>	<i>58</i>
<i>TABLE 30 DNA VACCINES CLINICAL TRIALS SUMMARY BY</i>	
<i>VACCINE TYPE AND INDICATION, AS OF JULY 2009.....</i>	<i>58</i>
CANCER DNA VACCINE CLINICAL TRIALS	59
<i>TABLE 31 CANCER DNA VACCINES CLINICAL TRIALS, AS OF 2009.....</i>	<i>60</i>
<i>TABLE 31 (CONTINUED).....</i>	<i>61</i>
<i>TABLE 31 (CONTINUED).....</i>	<i>62</i>
Melanoma.....	62
Melanoma (Continued)	63
Prostate Cancer	64
Breast Cancer	65
Multiple Cancers	65
INFECTIOUS DISEASE DNA VACCINES.....	66
<i>TABLE 32 INFECTIOUS DISEASES DNA VACCINES CLINICAL</i>	
<i>TRIALS, AS OF JULY 2009.....</i>	<i>66</i>
<i>TABLE 32 (CONTINUED).....</i>	<i>67</i>
HSV	67

HPV	68
Influenza	68
Influenza (Continued).....	69
Influenza (Continued).....	70
SARS	71
Dengue	71
<i>TABLE 33 DENGUE VACCINE LANDSCAPE, AS OF JULY 2009.....</i>	<i>71</i>
HBV	72
<i>TABLE 34 HBV THERAPEUTIC LANDSCAPE, AS OF JULY 2009.....</i>	<i>72</i>
HBV (Continued)	73
HCV.....	74
Japanese Encephalitis.....	74
<i>TABLE 35 JAPANESE ENCEPHALITIS VACCINE LANDSCAPE, AS OF JULY 2009</i>	<i>74</i>
CMV	75
<i>TABLE 36 CMV VACCINE LANDSCAPE, AS OF JULY 2009.....</i>	<i>76</i>
HIV	76
<i>TABLE 37 HIV DNA VACCINES CLINICAL TRIALS, AS OF JULY 2009.....</i>	<i>77</i>
<i>TABLE 37 (CONTINUED).....</i>	<i>78</i>
<i>TABLE 37 (CONTINUED).....</i>	<i>79</i>
<i>TABLE 37 (CONTINUED).....</i>	<i>80</i>
HIV (Continued).....	81
BIODEFENSE DNA VACCINES	82
<i>TABLE 38 BIODEFENSE DNA VACCINES CLINICAL TRIALS, AS OF JULY 2009.....</i>	<i>82</i>
ANIMAL HEALTH DNA VACCINES.....	82
<i>TABLE 39 ANIMAL HEALTH DNA VACCINES CLINICAL PIPELINE, AS OF JULY 2009.....</i>	<i>83</i>
<i>TABLE 40 WEST NILE VIRUS HUMAN VACCINES LANDSCAPE, AS OF JULY 2009</i>	<i>84</i>
CHAPTER SIX: DNA VACCINE INDUSTRY.....	85
VACCINE INDUSTRY STRUCTURAL SHIFTS	85
<i>TABLE 41 VACCINE INDUSTRY STRUCTURAL SHIFTS</i>	<i>85</i>
INDUSTRY STRUCTURE	86
<i>TABLE 42 VACCINE INDUSTRY STRUCTURE: TRADITIONAL VERSUS EMERGING.....</i>	<i>87</i>
<i>FIGURE 10 MARKETING OF APPROVED VACCINES IN THE UNITED STATES, 2009 (%)</i>	<i>88</i>
<i>TABLE 43 COMPARISON OF VACCINES AND PHARMACEUTICALS BUSINESSES.....</i>	<i>89</i>
INDUSTRY STRUCTURE (CONTINUED)	90
DNA VACCINE INDUSTRY COMPETITORS.....	91
<i>TABLE 44 DNA VACCINE INDUSTRY COMPETITOR POSITION.....</i>	<i>91</i>
DNA VACCINE COMMERCIAL VALUE CHAIN	92

<i>FIGURE 11 DNA VACCINE COMMERCIAL VALUE CHAIN</i>	93
DNA VACCINE COMPETITOR STRATEGIC POSITIONING.....	93
<i>TABLE 45 LARGE PHARMA VACCINE COMPANY STRATEGIC FOCUS</i>	94
<i>TABLE 46 INTEGRATED BIOTECHNOLOGY COMPANY STRATEGIC FOCUS</i>	95
<i>TABLE 47 INTEGRATED BIOTECHNOLOGY COMPANY STRATEGIC MARKET FOCUS</i>	96
<i>TABLE 47 (CONTINUED)</i>	97
<i>TABLE 48 SPECIALIZED BIOTECHNOLOGY COMPANY STRATEGIC FOCUS</i>	98
INDUSTRY ACQUISITIONS AND STRATEGIC ALLIANCES	99
<i>TABLE 49 INDUSTRY ACQUISITIONS AND MERGERS, 2006–2009</i>	99
INDUSTRY ACQUISITIONS AND ... (CONTINUED).....	100
<i>TABLE 50 DNA VACCINE STRATEGIC ALLIANCES</i>	101
INDUSTRY ACQUISITIONS AND ... (CONTINUED).....	102
 CHAPTER SEVEN: DNA VACCINE MARKETS	 103
GROWTH DRIVING FORCES.....	103
<i>TABLE 51 DNA VACCINE INDUSTRY GROWTH DRIVING FORCES</i>	103
MARKET FORECASTS.....	104
OVERVIEW	104
<i>TABLE 52 GLOBAL VALUE OF PHARMACEUTICAL MARKET BY TYPE, THROUGH 2014 (\$ MILLIONS)</i>	104
Overview (Continued).....	105
DNA VACCINE MARKETS BY END USE.....	106
<i>TABLE 53 GLOBAL VALUE OF DNA VACCINES BY END USE, THROUGH 2014 (\$ MILLIONS)</i>	106
DNA VACCINE RESEARCH TOOLS MARKETS	106
<i>TABLE 54 GLOBAL VALUE OF DNA VACCINES RESEARCH TOOLS MARKET BY APPLICATION, THROUGH 2014 (\$ MILLIONS)</i>	107
DNA VACCINE CLINICAL MARKETS	107
<i>TABLE 55 GLOBAL VALUE OF CLINICAL DNA VACCINES MARKET BY APPLICATION, THROUGH 2014 (\$ MILLIONS)</i>	108
Strategic Positioning	108
<i>FIGURE 12 DNA VACCINE STRATEGIC MARKET GRID</i>	109
Allergies	109
<i>TABLE 56 DNA VACCINE ALLERGY MARKET OPPORTUNITIES</i>	110
Cancer Therapeutics.....	110
<i>TABLE 57 CAUSE OF DEATH, WORLDWIDE, 2004 AND 2030 (% OF ALL DEATHS)</i>	111
Infectious Diseases	111
DNA CANCER VACCINES MARKET	111
<i>TABLE 58 GLOBAL VALUE OF CANCER CLINICAL DNA VACCINES BY INDICATION, THROUGH 2014 (\$ MILLIONS)</i>	112

<i>TABLE 59 DNA VACCINE CANCER MARKET OPPORTUNITIES</i>	112
DNA Cancer Vaccines Market (Continued).....	113
Melanoma.....	114
Solid Tumors (Including Ovarian, Breast and Small-Cell Lung Cancer)	114
Pancreatic Cancer.....	114
INFECTIOUS DISEASE DNA VACCINE MARKETS	114
<i>TABLE 60 GLOBAL VALUE OF INFECTIOUS DISEASE CLINICAL DNA VACCINES MARKET BY INDICATION, THROUGH 2014 (\$ MILLIONS)</i>	115
CMV	115
HBV.....	116
HPV	116
HCV.....	117
HIV	118
ANIMAL HEALTH DNA VACCINE MARKETS	119
<i>TABLE 61 GLOBAL VALUE OF ANIMAL HEALTH CLINICAL DNA VACCINES MARKET, BY INDICATION, THROUGH 2014 (\$ MILLIONS)</i>	119
Canine Melanoma.....	120
Equine West Nile Virus.....	120
Leishmaniasis	120
Feline Leukemia Virus	121
Fish Vaccine Adjuvants.....	121
BIODEFENSE DNA VACCINE MARKETS.....	122
<i>TABLE 62 GLOBAL VALUE OF BIODEFENSE CLINICAL DNA VACCINES MARKET, BY END USE, THROUGH 2014 (\$ MILLIONS)</i>	122
Biodefense DNA Vaccine Markets (Continued)	123
Biodefense DNA Vaccine Markets (Continued)	124
DNA VACCINE MARKETS BY DELIVERY TECHNOLOGY	125
<i>TABLE 63 GLOBAL VALUE OF CLINICAL DNA VACCINES MARKET BY DELIVERY TECHNOLOGY, THROUGH 2014 (\$ MILLIONS)</i>	126
DNA VACCINE MARKET BY FORMAT AND FUNCTION	126
<i>TABLE 64 GLOBAL VALUE OF CLINICAL DNA VACCINES MARKET BY VACCINE FORMAT, THROUGH 2014 (\$ MILLIONS)</i>	127
<i>TABLE 65 GLOBAL VALUE OF CLINICAL DNA VACCINES MARKET BY FUNCTION, THROUGH 2014 (\$ MILLIONS)</i>	127
DNA VACCINES MARKET BY GEOGRAPHY.....	128
<i>TABLE 66 GLOBAL VALUE OF DNA VACCINES MARKET, BY GEOGRAPHICAL REGION, THROUGH 2014 (\$ MILLIONS)</i>	129
CHAPTER EIGHT: PATENT STATUS.....	130
INTRODUCTION	130
FIGURE 13 PATENT SCOPE FOR DNA VACCINES.....	130

DNA VACCINE PATENTS BY COMPANY AND TECHNOLOGY SUBCLASS	130
<i>FIGURE 14 U.S., EP, AND WO INTEGRATED BIOTECHNOLOGY COMPANY DNA VACCINE-RELATED PATENTS AND PATENT APPLICATIONS, AS OF JULY 2009</i>	131
<i>FIGURE 15 U.S., EP, AND WO INTEGRATED BIOTECHNOLOGY COMPANY DNA VACCINE-RELATED PATENTS BY TECHNOLOGY SUBCLASS AND PATENT APPLICATIONS, AS OF JULY 2009</i>	132
DNA VACCINE PATENTS BY COMPANY ... (CONTINUED)	133
<i>FIGURE 16 U.S., EP, AND WO INTEGRATED BIOTECHNOLOGY COMPANY DNA VACCINE-RELATED PATENTS BY TECHNOLOGY SUBCLASS, AS OF JULY 2009</i>	134
ANTIGENS AND ASSOCIATED PDNA	134
ANTIGENS AND ASSOCIATED PDNA (CONTINUED)	135
<i>TABLE 67 FUNDAMENTAL DNA INFLUENZA VACCINE PATENTS</i>	136
DNA VACCINE PATENTS BY GEOGRAPHY	136
<i>FIGURE 17 GEOGRAPHICAL REGIONS IN WHICH PATENTS HAVE BEEN GRANTED AND PATENT APPLICATIONS FILED FOR INTEGRATED BIOTECHNOLOGY COMPANIES, AS OF JULY 2009 (%)</i>	137
KEY INDUSTRY PATENTS ON OTHER PARTS OF THE VALUE CHAIN.....	137
<i>TABLE 68 FUNDAMENTAL PATENTS ON DNA VACCINE DELIVERY, TARGETING, AND ADJUVANTS</i>	138
LITIGATION STATUS	138
<i>TABLE 69 IP LITIGATION STATUS</i>	139
IP POSITION OF SELECTED DNA VACCINE COMPANIES.....	139
GENEART	139
GENEXINE	140
<i>TABLE 70 GENEXINE PATENT FAMILIES</i>	140
IMMUNOMIC THERAPEUTICS, INC. (ITI)	141
VICAL	142
 CHAPTER NINE: COMPANY PROFILES	143
ADIMMUNE	143
ALDEVRON, LLC	144
ALTEA THERAPEUTICS	144
ALTHEA TECHNOLOGIES, INC.....	145
ANGES MG, INC.	145
AVAX TECHNOLOGIES.....	146
BACILLIGEN, INC.....	146
BAVARIAN NORDIC A/S.....	147
BAYHILL THERAPEUTICS	148
<i>TABLE 71 BAYHILL DNA VACCINE PIPELINE</i>	148
BIGDNA, LTD.....	149

BIOJECT MEDICAL TECHNOLOGIES, INC.....	150
CHANGCHUN BAIKE PHARMACEUTICAL CO., LTD.	150
COBRA BIOMANUFACTURING, PLC.....	151
CRUCCELL	152
CYTOGENIX, INC.....	152
<i>TABLE 72 CYTOGENIX DNA VACCINE PRECLINICAL PIPELINE.....</i>	<i>153</i>
CYTO PULSE SCIENCES, INC.....	154
<i>TABLE 73 CYTO PULSE PIPELINE</i>	<i>154</i>
PROSTATE CANCER STUDY	154
COLORECTAL CANCER STUDY	155
TOLERANCE STUDIES.....	155
HIV STUDY.....	155
CYTRX CORP.....	155
DENDREON CORP.	156
DYNAVAX TECHNOLOGIES.....	156
THE EUROVACC FOUNDATION	157
FIT BIOTECH OYJ, PLC	158
GENEART AG.....	159
<i>TABLE 74 GENEART STRATEGIC ALLIANCES</i>	<i>160</i>
GENEART AG (CONTINUED)	161
GENETIC IMMUNITY.....	162
<i>TABLE 75 GENETIC IMMUNITY DNA VACCINE PIPELINE</i>	<i>162</i>
GENEXINE	163
<i>TABLE 76 GENEXINE DNA VACCINE PIPELINE.....</i>	<i>164</i>
<i>TABLE 77 GENEXINE PATENT FAMILIES</i>	<i>165</i>
<i>TABLE 77 (CONTINUED).....</i>	<i>166</i>
IL-12 MUTANT	166
EFFICIENT DNA AND RAD VECTORS.....	166
SAFE ADENOVIRAL VECTOR	166
GENOMIDEA, INC.....	167
GENOVAC GMBH.....	167
GENOVAC GMBH (CONTINUED).....	168
GENVEC, INC.	169
GEOVAX LABS.....	169
GLAXOSMITHKLINE.....	170
GLAXOSMITHKLINE (CONTINUED)	171
GREENPAK BIOTECH, LTD.	172
HENDERSON MORLEY, PLC.....	172
ICHOR MEDICAL SYSTEMS, INC.....	173
<i>TABLE 78 ICHOR DNA VACCINE PIPELINE.....</i>	<i>174</i>
IMMUNOGENETIX THERAPEUTICS, INC.....	175
IMMUNOMIC THERAPEUTICS, INC.....	176
<i>TABLE 79 IMMUNOMIC DNA VACCINE PIPELINE.....</i>	<i>176</i>
JRC-LAMP-VAX.....	177

SRW-LAMP-VAX.....	178
<i>TABLE 80 ITI STRATEGIC ALLIANCES</i>	178
IMMUNOVACCINE TECHNOLOGIES, INC.	179
IN CELL ART.....	180
INDIAN IMMUNOLOGICALS	181
INTERCELL AG	182
INVIVOGEN	182
JUVARIS BIOTHERAPEUTICS, INC.....	183
<i>TABLE 81 JUVARIS DNA VACCINE PIPELINE</i>	184
LENTIGEN CORP.	184
LIPOXEN, PLC	184
MANNKIND CORP.	185
MANNKIND CORP. (CONTINUED)	186
MEDICAL MARKETING INTERNATIONAL GROUP, PLC.....	187
<i>TABLE 82 GENVAX PIPELINE</i>	188
MERCK	189
<i>TABLE 83 MERCK DNA VACCINE PIPELINE</i>	189
MERIAL	190
MOGAM BIOTECHNOLOGY RESEARCH INSTITUTE.....	191
MOLOGEN AG	191
MULTIMERIC BIOTHERAPEUTICS, INC.	192
NATURE TECHNOLOGY CORP.	193
NIH VACCINE RESEARCH CENTER	193
NOVARTIS.....	193
OXFORD BIOMEDICA, PLC	194
PFIZER.....	195
PHYTOVATION BV.....	195
PLASMIDFACTORY GMBH & CO.	196
PROFECTUS BIOSCIENCES, INC.....	197
QED BIOSCIENCE, INC.....	198
SANOFI-AVENTIS	198
STATENS SERUM INSTITUT	199
SUPRATEK PHARMA	199
TRIPEP.....	200
<i>TABLE 84 TRIPEP THERAPEUTIC DNA VACCINE PIPELINE</i>	200
VAXGEN, INC.....	201
VAXXION THERAPEUTICS, INC.	202
VAXONCO, INC.....	202
VECTURA GROUP, PLC	203
VGX PHARMACEUTICALS, INC.	203
VGX PHARMACEUTICALS, INC. (CONTINUED)	204
<i>TABLE 85 INOVIO AND VGX DNA VACCINE CLINICAL TRIALS, AS</i> <i>OF JULY 2009</i>	205
VGX PHARMACEUTICALS, INC. (CONTINUED)	206

VGXI, INC.....	207
VICAL, INC.....	207
<i>TABLE 86 VICAL STRATEGIC ALLIANCES</i>	<i>208</i>
<i>TABLE 87 VICAL DNA VACCINE PIPELINE</i>	<i>209</i>
<i>TABLE 87 (CONTINUED)</i>	<i>210</i>
<i>FIGURE 18 VICAL LINEAR DNA VACCINE STRATEGIC POSITIONING</i>	<i>211</i>
VIROMED CO., LTD.	212
VIROMED CO., LTD. (CONTINUED)	213