

CHAPTER ONE: INTRODUCTION.....	1
STUDY OBJECTIVE.....	1
REASONS FOR DOING THIS STUDY.....	1
INTENDED AUDIENCE.....	2
SCOPE OF THE STUDY.....	2
METHODOLOGY.....	2
INFORMATION SOURCES.....	3
ABOUT THE AUTHOR.....	3
RELATED BCC RESEARCH REPORTS.....	3
BCC ONLINE SERVICES.....	4
DISCLAIMER.....	4
CHAPTER TWO: SUMMARY.....	5
SUMMARY.....	5
SUMMARY (CONTINUED).....	6
<i>SUMMARY TABLE GLOBAL PHARMACEUTICAL CONTRACT</i>	
<i>MANUFACTURING AND CONTRACT RESEARCH</i>	
<i>ORGANIZATIONS REVENUE, THROUGH 2016 (\$ BILLIONS)</i> .....	7
<i>SUMMARY FIGURE GLOBAL PHARMACEUTICAL CONTRACT</i>	
<i>MANUFACTURING AND CONTRACT RESEARCH</i>	
<i>ORGANIZATIONS REVENUE, 2009-2016 (\$ BILLIONS)</i> .....	7
CHAPTER THREE: OVERVIEW.....	8
DEFINITIONS.....	8
DEFINITIONS (CONTINUED).....	9
HISTORY OF OUTSOURCING.....	10
<i>TABLE 1 KEY DEVELOPMENTS IN THE HISTORY OF</i>	
<i>OUTSOURCING</i> .....	10
<i>TABLE 1 (CONTINUED)</i> .....	11
CHAPTER FOUR: OVERVIEW OF CONTRACT MANUFACTURING.....	12
TYPES OF CONTRACT MANUFACTURERS.....	12
CONTRACT MANUFACTURING TRAITS.....	12
REQUIREMENT.....	12
ABILITY TO BE FLEXIBLE.....	13
CAPABILITIES WITHOUT COST.....	13
ADVANTAGES AND DISADVANTAGES OF CONTRACT	
MANUFACTURING.....	13
<i>TABLE 2 KEY ADVANTAGES OF CONTRACT MANUFACTURING</i> .....	14
<i>TABLE 3 KEY DISADVANTAGES OF CONTRACT MANUFACTURING</i> .....	14
SELECTING A CONTRACT MANUFACTURER.....	14
<i>TABLE 4 KEY FACTORS IN SELECTING A CONTRACT</i>	
<i>MANUFACTURER</i> .....	15
<i>TABLE 4 (CONTINUED)</i> .....	16

ADDITIONAL FACTS ABOUT CONTRACT MANUFACTURING.....	16
LOCATION AND PROXIMITY .....	16
AFTER-SALES SUPPORT .....	16
CHAPTER FIVE: OVERVIEW OF CONTRACT RESEARCH.....	17
OVERVIEW OF CONTRACT RESEARCH .....	17
SERVICES OFFERED BY CONTRACT RESEARCH	
ORGANIZATIONS .....	18
<i>TABLE 5 SERVICES OF CONTRACT RESEARCH ORGANIZATIONS.....</i>	<i>18</i>
<i>TABLE 5 (CONTINUED).....</i>	<i>19</i>
SELECTING A CONTRACT RESEARCH ORGANIZATION .....	19
<i>TABLE 6 KEY CHARACTERISTICS IN SELECTING A CONTRACT</i>	
<i>RESEARCH ORGANIZATION .....</i>	<i>19</i>
<i>TABLE 6 (CONTINUED).....</i>	<i>20</i>
RESEARCH PROVIDED BY CONTRACT RESEARCH	
ORGANIZATIONS.....	20
<i>TABLE 7 TYPES OF RESEARCH PROVIDED BY CONTRACT</i>	
<i>RESEARCH ORGANIZATIONS.....</i>	<i>20</i>
<i>TABLE 7 (CONTINUED).....</i>	<i>21</i>
CHAPTER SIX: OVERVIEW OF CONTRACT PACKAGING .....	22
NEEDING A CONTRACT PACKAGER .....	22
<i>TABLE 8 REASONS BEHIND NEEDING A CONTRACT PACKAGER.....</i>	<i>22</i>
<i>TABLE 8 (CONTINUED).....</i>	<i>23</i>
SELECTING A CONTRACT PACKAGER .....	23
<i>TABLE 9 KEY CHARACTERISTICS IN SELECTING A CONTRACT</i>	
<i>PACKAGER.....</i>	<i>24</i>
HIRING A CONTRACT PACKAGER .....	24
<i>TABLE 10 KEY STEPS IN HIRING A CONTRACT PACKAGER.....</i>	<i>25</i>
TYPES OF PACKAGING .....	25
TYPES OF PACKAGING (CONTINUED).....	26
CHAPTER SEVEN: PROJECT MANAGEMENT.....	27
SPECIFICATIONS OF PROJECT MANAGEMENT.....	27
<i>TABLE 11 STEPS OF PROJECT MANAGEMENT.....</i>	<i>27</i>
<i>TABLE 11 (CONTINUED).....</i>	<i>28</i>
PROCESSES OF PROJECT MANAGEMENT.....	28
<i>TABLE 12 PROCESSES OF PROJECT MANAGEMENT.....</i>	<i>28</i>
<i>TABLE 12 (CONTINUED).....</i>	<i>29</i>
FACTORS INVOLVED .....	29
ROLE OF THE PROJECT MANAGER .....	29
<i>TABLE 13 KEY RESPONSIBILITIES OF PROJECT MANAGERS.....</i>	<i>30</i>
TECHNOLOGY TRANSFER .....	30
<i>TABLE 14 TECHNOLOGY TRANSFER STEPS.....</i>	<i>31</i>

CHAPTER EIGHT: REGULATORY ASPECTS.....	32
REGULATORY ASPECTS .....	32
<i>TABLE 15 REGULATED FACTORS OF CMO'S AND CRO'S</i> .....	33
<i>TABLE 16 TITLE 21 CFR RULES ASSOCIATED WITH CONTRACT</i>	
<i>MANUFACTURING</i> .....	33
<i>TABLE 16 (CONTINUED)</i> .....	34
<i>TABLE 16 (CONTINUED)</i> .....	35
WARNING LETTERS.....	36
<i>TABLE 17 WARNING LETTERS ISSUED TO CONTRACT</i>	
<i>MANUFACTURERS, 2010</i> .....	36
<i>TABLE 18 WARNING LETTERS ISSUED TO CONTRACT</i>	
<i>MANUFACTURERS, 2009</i> .....	37
REGULATORY APPROVALS.....	37
<i>TABLE 19 REGULATORY APPROVALS OF CONTRACT</i>	
<i>MANUFACTURERS AND FACILITIES, JANUARY THROUGH</i>	
<i>MARCH, 2011</i> .....	38
<i>TABLE 20 REGULATORY APPROVALS OF CONTRACT</i>	
<i>MANUFACTURERS AND FACILITIES, 2010</i> .....	38
<i>TABLE 20 (CONTINUED)</i> .....	39
<i>TABLE 21 REGULATORY APPROVALS OF CONTRACT</i>	
<i>MANUFACTURERS AND FACILITIES, 2009</i> .....	39
<i>TABLE 21 (CONTINUED)</i> .....	40
CHAPTER NINE: INDUSTRY STRUCTURE FOR NORTH AMERICA .....	41
MARKET SHARE OF INDUSTRY LEADERS .....	41
CONTRACT MANUFACTURERS OF BULK DRUGS AND APIs .....	41
<i>TABLE 22 MARKET SHARE OF CONTRACT MANUFACTURING</i>	
<i>COMPANIES PROVIDING BULK DRUGS/API'S, IN NORTH</i>	
<i>AMERICA, 2010 (%)</i> .....	41
<i>TABLE 22 (CONTINUED)</i> .....	42
<i>FIGURE 1 MARKET SHARE OF CONTRACT MANUFACTURING</i>	
<i>COMPANIES PROVIDING BULK DRUGS/API'S, IN NORTH</i>	
<i>AMERICA, 2010 (%)</i> .....	42
CONTRACT MANUFACTURERS OF SOLID-DOSAGE FORMS.....	42
<i>TABLE 23 MARKET SHARE OF CONTRACT MANUFACTURING</i>	
<i>COMPANIES PROVIDING SOLID DOSAGE FORMS, IN NORTH</i>	
<i>AMERICA, 2010 (%)</i> .....	43
<i>FIGURE 2 MARKET SHARE OF CONTRACT MANUFACTURING</i>	
<i>COMPANIES PROVIDING SOLID DOSAGE FORMS, IN NORTH</i>	
<i>AMERICA, 2010 (%)</i> .....	43
CONTRACT MANUFACTURERS OF LIQUID DOSAGE FORMS .....	44
NONSTERILE.....	44
<i>TABLE 24 MARKET SHARE OF CONTRACT MANUFACTURING</i>	
<i>COMPANIES PROVIDING NONSTERILE LIQUID DOSAGE FORMS,</i>	
<i>IN NORTH AMERICA, 2010 (%)</i> .....	44

<i>FIGURE 3 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING NONSTERILE LIQUID DOSAGE FORMS, IN NORTH AMERICA, 2010 (%)</i> .....	45
STERILE .....	45
<i>TABLE 25 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING STERILE LIQUID DOSAGE FORMS, IN NORTH AMERICA, 2010 (%)</i> .....	46
<i>FIGURE 4 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING STERILE LIQUID DOSAGE FORMS, IN NORTH AMERICA, 2010 (%)</i> .....	46
CONTRACT MANUFACTURERS OF SEMISOLID DOSAGE FORMS .....	46
<i>TABLE 26 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING SEMISOLID DOSAGE FORMS, IN NORTH AMERICA, 2010 (%)</i> .....	47
<i>FIGURE 5 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING SEMISOLID DOSAGE FORMS, IN NORTH AMERICA, 2010 (%)</i> .....	47
CONTRACT RESEARCH COMPANIES .....	48
<i>TABLE 27 MARKET SHARE OF CONTRACT RESEARCH COMPANIES, IN NORTH AMERICA, 2010 (%)</i> .....	48
<i>FIGURE 6 MARKET SHARE OF CONTRACT RESEARCH COMPANIES, IN NORTH AMERICA, 2010 (%)</i> .....	49
CONTRACT PACKAGING COMPANIES .....	49
<i>TABLE 28 MARKET SHARE OF CONTRACT PACKAGING COMPANIES, IN NORTH AMERICA 2010 (%)</i> .....	50
<i>FIGURE 7 MARKET SHARE OF CONTRACT PACKAGING COMPANIES, IN NORTH AMERICA, 2010 (%)</i> .....	50
CHAPTER TEN: INDUSTRY STRUCTURE FOR EUROPE .....	51
MARKET SHARE OF INDUSTRY LEADERS .....	51
CONTRACT MANUFACTURERS OF BULK DRUGS AND APIs .....	51
<i>TABLE 29 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING BULK DRUGS/API'S, IN EUROPE, 2010 (%)</i> .....	51
<i>TABLE 29 (CONTINUED)</i> .....	51
<i>FIGURE 8 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING BULK DRUGS/API'S, IN EUROPE, 2010 (%)</i> .....	52
CONTRACT MANUFACTURERS OF SOLID DOSAGE FORMS .....	53
<i>TABLE 30 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING SOLID DOSAGE FORMS, IN EUROPE, 2010 (%)</i> .....	53
<i>FIGURE 9 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING SOLID DOSAGE FORMS, IN EUROPE, 2010 (%)</i> .....	54

CONTRACT MANUFACTURERS OF LIQUID DOSAGE FORMS.....	54
NONSTERILE.....	54
<i>TABLE 31 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING NONSTERILE LIQUID DOSAGE FORMS, IN EUROPE, 2010 (%).....</i>	<i>55</i>
<i>FIGURE 10 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING NONSTERILE LIQUID DOSAGE FORMS, IN EUROPE, 2010 (%).....</i>	<i>55</i>
STERILE .....	56
<i>TABLE 32 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING STERILE LIQUID DOSAGE FORMS, IN EUROPE, 2010 (%).....</i>	<i>56</i>
<i>FIGURE 11 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING STERILE LIQUID DOSAGE FORMS, IN EUROPE, 2010 (%).....</i>	<i>57</i>
CONTRACT MANUFACTURING OF SEMISOLID DOSAGE FORMS.....	57
<i>TABLE 33 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING SEMISOLID DOSAGE FORMS, IN EUROPE, 2010 (%).....</i>	<i>57</i>
<i>FIGURE 12 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING SEMISOLID DOSAGE FORMS, IN EUROPE, 2010 (%).....</i>	<i>58</i>
CONTRACT RESEARCH COMPANIES .....	58
<i>TABLE 34 MARKET SHARE OF CONTRACT RESEARCH COMPANIES, IN EUROPE, 2010 (%).....</i>	<i>59</i>
<i>FIGURE 13 MARKET SHARE OF CONTRACT RESEARCH COMPANIES, IN EUROPE, 2010 (%).....</i>	<i>59</i>
<i>TABLE 35 MARKET SHARE OF CONTRACT PACKAGING COMPANIES, IN EUROPE, 2010 (%).....</i>	<i>60</i>
<i>FIGURE 14 MARKET SHARE OF CONTRACT PACKAGING COMPANIES, IN EUROPE, 2010 (%).....</i>	<i>61</i>
CHAPTER ELEVEN: INDUSTRY STRUCTURE FOR EMERGING MARKETS .....	62
MARKET SHARE OF INDUSTRY LEADERS .....	62
CONTRACT MANUFACTURERS OF BULK DRUGS AND APIs .....	62
<i>TABLE 36 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING BULK DRUGS/API'S, IN REST OF WORLD, 2010 (%).....</i>	<i>63</i>
<i>FIGURE 15 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING BULK DRUGS/API'S, IN REST OF WORLD, 2010 (%).....</i>	<i>63</i>
CONTRACT MANUFACTURERS OF SOLID DOSAGE FORMS .....	64
<i>TABLE 37 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING SOLID DOSAGE FORMS, 2010 (%).....</i>	<i>64</i>

<i>FIGURE 16 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING SOLID DOSAGE FORMS, IN REST OF WORLD, 2010 (%)</i> .....	65
CONTRACT MANUFACTURERS OF LIQUID DOSAGE FORMS.....	65
NONSTERILE.....	65
<i>TABLE 38 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING NONSTERILE LIQUID DOSAGE FORMS, IN REST OF WORLD, 2010 (%)</i> .....	66
<i>FIGURE 17 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING NONSTERILE LIQUID DOSAGE FORMS, IN REST OF WORLD, 2010 (%)</i> .....	66
STERILE .....	67
<i>TABLE 39 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING STERILE LIQUID DOSAGE FORMS, IN REST OF WORLD, 2010 (%)</i> .....	67
<i>FIGURE 18 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING STERILE LIQUID DOSAGE FORMS, IN REST OF WORLD, 2010 (%)</i> .....	68
CONTRACT MANUFACTURING OF SEMISOLID DOSAGE FORMS.....	68
<i>TABLE 40 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING SEMISOLID DOSAGE FORMS, IN REST OF WORLD, 2010 (%)</i> .....	69
<i>FIGURE 19 MARKET SHARE OF CONTRACT MANUFACTURING COMPANIES PROVIDING SEMISOLID DOSAGE FORMS, IN REST OF WORLD, 2010 (%)</i> .....	69
CONTRACT RESEARCH COMPANIES.....	69
<i>TABLE 41 MARKET SHARES OF CONTRACT RESEARCH COMPANIES, IN REST OF WORLD, 2010 (%)</i> .....	70
<i>FIGURE 20 MARKET SHARES OF CONTRACT RESEARCH COMPANIES, IN REST OF WORLD, 2010 (%)</i> .....	70
CONTRACT PACKAGING COMPANIES.....	71
<i>TABLE 42 MARKET SHARE OF CONTRACT PACKAGING COMPANIES, IN REST OF WORLD, 2010 (%)</i> .....	71
<i>FIGURE 21 MARKET SHARE OF CONTRACT PACKAGING COMPANIES, IN REST OF WORLD, 2010 (%)</i> .....	72
TYPES OF CONTRACT MANUFACTURING AND RESEARCH FIRMS.....	72
<i>TABLE 43 SERVICES PROVIDED BY CONTRACT MANUFACTURING AND RESEARCH FIRMS</i> .....	73
<i>TABLE 43 (CONTINUED)</i> .....	74
<i>TABLE 44 SERVICES PROVIDED BY CONTRACT PACKAGING FIRMS BY PACKAGING TYPE</i> .....	75
CHAPTER TWELVE: TECHNOLOGY TRANSFER.....	76
REASONS FOR TECHNOLOGY TRANSFER.....	76

CHALLENGING PROBLEMS DURING TECHNOLOGY TRANSFER.....	77
TECHNOLOGY TRANSFER .....	78
STEPS FOR SUCCESSFUL TECHNOLOGY TRANSFER .....	78
TYPES OF CONTRACTUAL AGREEMENTS USED IN	
TECHNOLOGY TRANSFER.....	79
CONFIDENTIAL DISCLOSURE AGREEMENT (CDA) .....	80
MATERIAL TRANSFER AGREEMENT (MTA) .....	80
ASSIGNMENT DEED .....	80
LICENSE AGREEMENT.....	81
CO-DEVELOPMENT AND CO-MARKETING AGREEMENTS .....	81
CHARACTERISTICS OF A SUCCESSFUL PROJECT.....	81
CHARACTERISTICS OF A SUCCESSFUL ... (CONTINUED).....	82
 CHAPTER THIRTEEN: NEW DEVELOPMENTS.....	 83
LONZA.....	83
ABBOTT .....	84
HOSPIRA .....	85
COVIDIEN .....	85
OTHER .....	86
OTHER (CONTINUED).....	87
 CHAPTER FOURTEEN: MARKET ANALYSIS FOR NORTH AMERICA.....	 88
CONTRACT MANUFACTURING .....	88
CONTRACT MANUFACTURE OF BULK DRUGS/API'S.....	88
Market Overview .....	88
Market Revenue .....	89
<i>TABLE 45 BULK DRUG/API CONTRACT MANUFACTURING, FOR</i>	
<i>NORTH AMERICA, THROUGH 2016 (\$ BILLIONS).....</i>	<i>90</i>
<i>FIGURE 22 BULK DRUG/API CONTRACT MANUFACTURING, FOR</i>	
<i>NORTH AMERICA, 2009-2016 (\$ BILLIONS).....</i>	<i>90</i>
CONTRACT MANUFACTURE OF DOSAGE FORMULATIONS .....	90
Solid Dosage Formulations .....	91
Market Overview .....	91
Market Revenue.....	92
<i>TABLE 46 SOLID DOSAGE FORM CONTRACT MANUFACTURING,</i>	
<i>FOR NORTH AMERICA, THROUGH 2016 (\$ BILLIONS).....</i>	<i>93</i>
<i>FIGURE 23 SOLID DOSAGE FORM CONTRACT MANUFACTURING,</i>	
<i>FOR NORTH AMERICA, 2009-2016 (\$ BILLIONS).....</i>	<i>93</i>
Market by Formulation .....	93
Market Revenue.....	94
<i>TABLE 47 SOLID DOSAGE FORM CONTRACT MANUFACTURING</i>	
<i>REVENUE, BY FORMULATION, FOR NORTH AMERICA,</i>	
<i>THROUGH 2016 (\$ BILLIONS).....</i>	<i>94</i>

<i>FIGURE 24 SOLID DOSAGE FORM CONTRACT MANUFACTURING REVENUE, BY FORMULATIONS, FOR NORTH AMERICA, 2009-2016 (\$ BILLIONS)</i> .....	95
<i>TABLE 48 SOLID DOSAGE FORM CONTRACT MANUFACTURING MARKET SHARES, BY FORMULATION, FOR NORTH AMERICA, 2010 (%)</i> .....	95
<i>FIGURE 25 SOLID DOSAGE FORM CONTRACT MANUFACTURING MARKET SHARES, BY FORMULATIONS, FOR NORTH AMERICA, 2010 (%)</i> .....	96
Liquid Dosage Formulation .....	96
Market Overview .....	96
Market Revenue.....	97
Nonsterile Formulations.....	97
<i>TABLE 49 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING, FOR NORTH AMERICA, THROUGH 2016 (\$ MILLIONS)</i> .....	98
<i>FIGURE 26 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING, FOR NORTH AMERICA, 2009-2016 (\$ MILLIONS)</i> .....	98
Sterile Formulations.....	98
<i>TABLE 50 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING, FOR NORTH AMERICA, THROUGH 2016 (\$ MILLIONS)</i> .....	99
<i>FIGURE 27 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING, FOR NORTH AMERICA, THROUGH 2016 (\$ MILLIONS)</i> .....	99
Market by Formulation .....	99
Nonsterile Formulations.....	99
<i>TABLE 51 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR NORTH AMERICA, THROUGH 2016 (\$ MILLIONS)</i> .....	100
<i>FIGURE 28 LIQUID DOSAGE FORM (NON STERILE) CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR NORTH AMERICA, 2009-2016 (\$ MILLIONS)</i> .....	101
<i>TABLE 52 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING MARKET SHARES BY FORMULATION, FOR NORTH AMERICA, 2010 (%)</i> .....	101
<i>FIGURE 29 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING MARKET SHARES, BY FORMULATION, FOR NORTH AMERICA, 2010 (%)</i> .....	102
Sterile Formulations.....	102
<i>TABLE 53 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR NORTH AMERICA, THROUGH 2016 (\$ MILLIONS)</i> .....	103



<i>FIGURE 30 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR NORTH AMERICA, 2009-2016 (\$ MILLIONS)</i> .....	103
<i>TABLE 54 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR NORTH AMERICA, 2010 (%)</i> .....	104
<i>FIGURE 31 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR NORTH AMERICA, 2010 (%)</i> .....	104
CONTRACT MANUFACTURE OF SEMISOLID DOSAGE FORMULATIONS.....	104
Market Overview .....	104
Market Revenue .....	105
<i>TABLE 55 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING, FOR NORTH AMERICA, THROUGH 2016 (\$ MILLIONS)</i> .....	105
<i>FIGURE 32 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING, FOR NORTH AMERICA, 2009-2016 (\$ MILLIONS)</i> .....	106
<i>TABLE 56 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR NORTH AMERICA, THROUGH 2016 (\$ MILLIONS)</i> .....	107
<i>FIGURE 33 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR NORTH AMERICA, 2009-2016 (\$ MILLIONS)</i> .....	107
<i>TABLE 57 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR NORTH AMERICA, 2010 (%)</i> .....	108
<i>FIGURE 34 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR NORTH AMERICA, 2010 (%)</i> .....	108
CONTRACT MANUFACTURE OF ADVANCED DRUG DELIVERY PRODUCTS .....	108
Market Overview .....	109
<i>TABLE 58 CONTRACTING COMPANIES PROVIDING DRUG- DELIVERY SYSTEMS</i> .....	110
Market Revenue .....	111
<i>TABLE 59 ADVANCED DRUG DELIVERY SYSTEMS REVENUE BY CONTRACT MANUFACTURING, FOR NORTH AMERICA, THROUGH 2016 (\$ BILLIONS)</i> .....	111
<i>FIGURE 35 ADVANCED DRUG DELIVERY SYSTEMS REVENUE BY CONTRACT MANUFACTURING, FOR NORTH AMERICA, THROUGH 2016 (\$ BILLIONS)</i> .....	111
Market by Formulation .....	112

<i>TABLE 60 ADVANCED DRUG DELIVERY SYSTEMS FOR NORTH AMERICA, BY CONTRACT MANUFACTURING REVENUE, BY FORMULATION, THROUGH 2016 (\$ MILLIONS)</i> .....	113
<i>FIGURE 36 ADVANCED DRUG DELIVERY SYSTEMS FOR NORTH AMERICA, BY CONTRACT MANUFACTURING REVENUE, BY FORMULATIONS, 2009-2016 (\$ MILLIONS)</i> .....	113
Market Share.....	114
<i>TABLE 61 ADVANCED DRUG DELIVERY SYSTEMS FOR NORTH AMERICA, BY CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, 2010 (%)</i> .....	114
<i>FIGURE 37 ADVANCED DRUG DELIVERY SYSTEMS FOR NORTH AMERICA, BY CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATIONS, 2010 (%)</i> .....	115
CONTRACT MANUFACTURE OF OTC AND NUTRITIONAL PRODUCTS.....	115
Market Overview .....	116
Market Revenue .....	117
<i>TABLE 62 OTC AND NUTRITIONAL PRODUCT REVENUE FOR NORTH AMERICA BY CONTRACT MANUFACTURING, THROUGH 2016 (\$ BILLIONS)</i> .....	117
<i>FIGURE 38 OTC AND NUTRITIONAL PRODUCT REVENUE FOR NORTH AMERICA BY CONTRACT MANUFACTURING, 2009-2016 (\$ BILLIONS)</i> .....	117
Market by Formulation .....	118
<i>TABLE 63 OTC AND NUTRITIONAL PRODUCTS BY CONTRACT MANUFACTURING REVENUE BY FORMULATION FOR NORTH AMERICA, THROUGH 2016 (\$ BILLIONS)</i> .....	118
<i>FIGURE 39 OTC AND NUTRITIONAL PRODUCTS BY CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR NORTH AMERICA, 2009-2016 (\$ BILLIONS)</i> .....	119
Market Shares .....	119
<i>TABLE 64 OTC AND NUTRITIONAL PRODUCTS BY CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR NORTH AMERICA, 2010 (%)</i> .....	119
<i>FIGURE 40 OTC AND NUTRITIONAL PRODUCTS BY CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATIONS, FOR NORTH AMERICA, 2010 (%)</i> .....	120
CONTRACT RESEARCH.....	120
MARKET OVERVIEW.....	120
Partnerships .....	121
Expansions of Facilities.....	121
MARKET REVENUE.....	121
<i>TABLE 65 CONTRACT RESEARCH REVENUE FOR NORTH AMERICA, THROUGH 2016 (\$ BILLIONS)</i> .....	122

<i>FIGURE 41 CONTRACT RESEARCH REVENUE, FOR NORTH AMERICA, 2009-2016 (\$ BILLIONS)</i> .....	122
Market by Discipline .....	122
<i>TABLE 66 CONTRACT RESEARCH REVENUE BY DISCIPLINE, FOR NORTH AMERICA, THROUGH 2016 (\$ BILLIONS)</i> .....	123
<i>FIGURE 42 CONTRACT RESEARCH REVENUE BY DISCIPLINE, FOR NORTH AMERICA, 2009-2016 (\$ BILLIONS)</i> .....	123
Market Shares by Discipline.....	124
<i>TABLE 67 CONTRACT RESEARCH MARKET SHARE, BY DISCIPLINE, FOR NORTH AMERICA, 2010 (%)</i> .....	124
<i>FIGURE 43 CONTRACT RESEARCH MARKET SHARE, BY DISCIPLINE, FOR NORTH AMERICA, 2010 (%)</i> .....	124
CONTRACT PACKAGING.....	125
MARKET OVERVIEW.....	125
Market Revenue .....	125
<i>TABLE 68 CONTRACT PACKAGING REVENUE, FOR NORTH AMERICA, THROUGH 2016 (\$ BILLIONS)</i> .....	126
<i>FIGURE 44 CONTRACT PACKAGING REVENUE, FOR NORTH AMERICA, 2009-2016 (\$ BILLIONS)</i> .....	126
Market by Package Type.....	127
<i>TABLE 69 CONTRACT PACKAGING REVENUE BY TYPE, FOR NORTH AMERICA, THROUGH 2016 (\$ MILLIONS)</i> .....	128
<i>FIGURE 45 CONTRACT RESEARCH REVENUE BY DISCIPLINE, FOR NORTH AMERICA, 2009-2016 (\$ MILLIONS)</i> .....	128
Market Share by Type.....	129
<i>TABLE 70 CONTRACT PACKAGING MARKET SHARE, BY TYPE, FOR NORTH AMERICA, 2010 (%)</i> .....	129
<i>FIGURE 46 CONTRACT PACKAGING MARKET SHARE, BY TYPE, FOR NORTH AMERICA, 2010 (%)</i> .....	129
CHAPTER FIFTEEN: MARKET ANALYSIS FOR EUROPE.....	130
CONTRACT MANUFACTURING .....	130
CONTRACT MANUFACTURE OF BULK DRUGS/API'S.....	130
Market Overview .....	130
Market Revenue .....	131
<i>TABLE 71 BULK DRUG/API CONTRACT MANUFACTURING REVENUE, FOR EUROPE, THROUGH 2016 (\$ BILLIONS)</i> .....	131
<i>FIGURE 47 BULK DRUG/API CONTRACT MANUFACTURING REVENUE, FOR EUROPE, 2009-2016 (\$ BILLIONS)</i> .....	132
CONTRACT MANUFACTURE OF ORAL DOSAGE FORMULATIONS.....	132
Solid Dosage Formulations .....	133
Market Overview .....	133
Market Revenue.....	134

<i>TABLE 72 SOLID DOSAGE FORM CONTRACT MANUFACTURING, FOR EUROPE, THROUGH 2016 (\$ BILLIONS)</i> .....	134
<i>FIGURE 48 SOLID DOSAGE FORM CONTRACT MANUFACTURING, FOR EUROPE, 2009- 2016 (\$ BILLIONS)</i> .....	135
Market by Formulation.....	135
Market Revenue.....	136
<i>TABLE 73 SOLID DOSAGE FORM CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR EUROPE, THROUGH 2016 (\$ BILLIONS)</i> .....	136
<i>FIGURE 49 SOLID DOSAGE FORM CONTRACT MANUFACTURING REVENUE, BY FORMULATIONS, FOR EUROPE, 2009-2016 (\$ BILLIONS)</i> .....	137
<i>TABLE 74 SOLID DOSAGE FORM CONTRACT MANUFACTURING MARKET SHARES, BY FORMULATION, FOR EUROPE, 2010 (%)</i> .....	137
<i>FIGURE 50 SOLID DOSAGE FORM CONTRACT MANUFACTURING MARKET SHARES, BY FORMULATIONS, FOR EUROPE, 2010 (%)</i> .....	138
Liquid Dosage Formulation.....	138
Market Overview.....	138
Market Revenue.....	139
Nonsterile Formulations.....	139
<i>TABLE 75 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING, FOR EUROPE, THROUGH 2016 (\$ MILLIONS)</i> ....	140
<i>FIGURE 51 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING, FOR EUROPE, 2009-2016 (\$ MILLIONS)</i> .....	140
Sterile Formulations.....	140
<i>TABLE 76 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING, FOR EUROPE, THROUGH 2016 (\$ MILLIONS)</i> ....	141
<i>FIGURE 52 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING, FOR EUROPE, 2009-2016 (\$ MILLIONS)</i> .....	141
Market by Formulation.....	141
Nonsterile Formulations.....	141
<i>TABLE 77 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR EUROPE, THROUGH 2016 (\$ MILLIONS)</i> .....	142
<i>FIGURE 53 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING REVENUE, BY FORMULATIONS, FOR EUROPE, 2009-2016 (\$ MILLIONS)</i> .....	143
<i>TABLE 78 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING MARKET SHARES, BY FORMULATION, FOR EUROPE, 2010 (%)</i> .....	143
<i>FIGURE 54 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING MARKET SHARES, BY FORMULATIONS, FOR EUROPE, 2010 (%)</i> .....	144
Sterile Formulations.....	144

<i>TABLE 79 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR EUROPE, THROUGH 2016 (\$ MILLIONS)</i> .....	145
<i>FIGURE 55 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR EUROPE, 2009-2016 (\$ MILLIONS)</i> .....	145
<i>TABLE 80 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR EUROPE, 2010 (%)</i> .....	146
<i>FIGURE 56 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATIONS, FOR EUROPE, 2010 (%)</i> .....	146
CONTRACT MANUFACTURE OF SEMISOLID DOSAGE FORMULATIONS.....	146
Market Overview .....	146
Market Revenue .....	147
<i>TABLE 81 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING, FOR EUROPE, THROUGH 2016 (\$ MILLIONS)</i> .....	148
<i>FIGURE 57 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING, FOR EUROPE, 2009-2016 (\$ MILLIONS)</i> .....	148
<i>TABLE 82 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR EUROPE, THROUGH 2016 (\$ MILLIONS)</i> .....	149
<i>FIGURE 58 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING REVENUE, BY FORMULATIONS, FOR EUROPE, 2009-2016 (\$ MILLIONS)</i> .....	149
<i>TABLE 83 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR EUROPE, 2010 (%)</i> .....	150
<i>FIGURE 59 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATIONS, FOR EUROPE, 2010 (%)</i> .....	150
CONTRACT MANUFACTURE OF ADVANCED DRUG DELIVERY PRODUCTS .....	150
Market Overview .....	151
<i>TABLE 84 CONTRACTING COMPANIES PROVIDING DRUG DELIVERY SYSTEMS</i> .....	152
Market Revenue .....	152
<i>TABLE 85 ADVANCED DRUG DELIVERY SYSTEMS REVENUE, BY CONTRACT MANUFACTURING, FOR EUROPE, THROUGH 2016 (\$ BILLIONS)</i> .....	153
<i>FIGURE 60 ADVANCED DRUG DELIVERY SYSTEMS REVENUE, BY CONTRACT MANUFACTURING, FOR EUROPE, 2009-2016 (\$ BILLIONS)</i> .....	153

Market by Formulation .....	153
<i>TABLE 86 ADVANCED DRUG DELIVERY SYSTEMS BY CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR EUROPE, THROUGH 2016 (\$ MILLIONS)</i> .....	154
<i>FIGURE 61 ADVANCED DRUG DELIVERY SYSTEMS BY CONTRACT MANUFACTURING REVENUE, BY FORMULATIONS, FOR EUROPE, 2009-2016 (\$ MILLIONS)</i> .....	155
Market Share .....	155
<i>TABLE 87 ADVANCED DRUG DELIVERY SYSTEMS BY CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR EUROPE, 2010 (%)</i> .....	156
<i>FIGURE 62 ADVANCED DRUG DELIVERY SYSTEMS BY CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATIONS, FOR EUROPE, 2010 (%)</i> .....	156
CONTRACT MANUFACTURE OF OTC AND NUTRITIONAL PRODUCTS.....	157
Market Revenue .....	158
<i>TABLE 88 OTC AND NUTRITIONAL PRODUCTS REVENUE, BY CONTRACT MANUFACTURING, FOR EUROPE, THROUGH 2016 (\$ BILLIONS)</i> .....	158
<i>FIGURE 63 OTC AND NUTRITIONAL PRODUCTS REVENUE, BY CONTRACT MANUFACTURING, FOR EUROPE, 2009-2016 (\$ BILLIONS)</i> .....	158
Market by Formulation .....	159
<i>TABLE 89 OTC AND NUTRITIONAL PRODUCTS BY CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR EUROPE, THROUGH 2016 (\$ BILLIONS)</i> .....	159
<i>FIGURE 64 OTC AND NUTRITIONAL PRODUCTS BY CONTRACT MANUFACTURING REVENUE, BY FORMULATIONS, FOR EUROPE, 2009-2016 (\$ BILLIONS)</i> .....	160
Market Shares .....	160
<i>TABLE 90 OTC AND NUTRITIONAL PRODUCTS BY CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR EUROPE, 2010 (%)</i> .....	160
<i>FIGURE 65 OTC AND NUTRITIONAL PRODUCTS BY CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATIONS, FOR EUROPE, 2010 (%)</i> .....	161
CONTRACT RESEARCH .....	161
MARKET OVERVIEW .....	161
Partnerships .....	161
Expansions of Facilities.....	162
Market Revenue .....	162
<i>TABLE 91 CONTRACT RESEARCH REVENUE, FOR EUROPE, THROUGH 2016 (\$ BILLIONS)</i> .....	163

<i>FIGURE 66 CONTRACT RESEARCH REVENUE, FOR EUROPE, 2009-2016 (\$ BILLIONS)</i> .....	163
Market by Discipline .....	163
<i>TABLE 92 CONTRACT RESEARCH REVENUE BY DISCIPLINE, FOR EUROPE, THROUGH 2016 (\$ MILLIONS)</i> .....	164
<i>FIGURE 67 CONTRACT RESEARCH REVENUE BY DISCIPLINE, FOR EUROPE, 2009-2016 (\$ MILLIONS)</i> .....	164
Market Share by Discipline.....	164
<i>TABLE 93 CONTRACT RESEARCH MARKET SHARE, BY DISCIPLINE, FOR EUROPE, 2010 (%)</i> .....	165
<i>FIGURE 68 CONTRACT RESEARCH MARKET SHARE, BY DISCIPLINE, FOR EUROPE, 2010 (%)</i> .....	165
CONTRACT PACKAGING.....	166
MARKET OVERVIEW.....	166
Market Revenue .....	166
<i>TABLE 94 CONTRACT PACKAGING REVENUE, FOR EUROPE, THROUGH 2016 (\$ BILLIONS)</i> .....	167
<i>FIGURE 69 CONTRACT PACKAGING REVENUE, FOR EUROPE, 2009-2016 (\$ BILLIONS)</i> .....	167
Market by Package Type.....	167
<i>TABLE 95 CONTRACT PACKAGING REVENUE BY TYPE, FOR EUROPE, THROUGH 2016 (\$ MILLIONS)</i> .....	168
<i>FIGURE 70 CONTRACT RESEARCH REVENUE BY DISCIPLINE, FOR EUROPE, 2009-2016 (\$ BILLIONS)</i> .....	169
Market Share by Type.....	169
<i>TABLE 96 CONTRACT PACKAGING MARKET SHARE BY TYPE, FOR EUROPE, 2010 (%)</i> .....	170
<i>FIGURE 71 CONTRACT PACKAGING MARKET SHARE BY TYPE, FOR EUROPE, 2010 (%)</i> .....	170
 CHAPTER SIXTEEN: MARKET ANALYSIS FOR REST OF WORLD/EMERGING MARKETS .....	 171
CONTRACT MANUFACTURING .....	171
CONTRACT MANUFACTURE OF BULK DRUGS/API'S.....	171
Market Overview .....	171
Market Revenue .....	172
<i>TABLE 97 REST OF WORLD BULK DRUG/API'S CONTRACT MANUFACTURING REVENUE, THROUGH 2016 (\$ BILLIONS)</i> .....	173
<i>FIGURE 72 REST OF WORLD BULK DRUG/API'S CONTRACT MANUFACTURING REVENUE, 2009-2016 (\$ BILLIONS)</i> .....	173
CONTRACT MANUFACTURE OF ORAL DOSAGE FORMULATIONS.....	173
Solid Dosage Formulations .....	174
Market Overview .....	174
Market Revenue.....	175

<i>TABLE 98 SOLID DOSAGE FORM CONTRACT MANUFACTURING, FOR REST OF WORLD, THROUGH 2016 (\$ BILLIONS)</i> .....	175
<i>FIGURE 73 SOLID DOSAGE FORM CONTRACT MANUFACTURING, FOR REST OF WORLD, 2009-2016 (\$ BILLIONS)</i> .....	176
Market by Formulation.....	176
Market Revenue.....	176
<i>TABLE 99 SOLID DOSAGE FORM CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR REST OF WORLD, THROUGH 2016 (\$ BILLIONS)</i> .....	177
<i>FIGURE 74 SOLID DOSAGE FORM CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR REST OF WORLD, 2009-2016 (\$ BILLIONS)</i> .....	177
<i>TABLE 100 SOLID DOSAGE FORM CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR REST OF WORLD, 2010 (%)</i> .....	178
<i>FIGURE 75 SOLID DOSAGE FORM CONTRACT MANUFACTURING MARKET SHARE BY FORMULATION, FOR REST OF WORLD, 2010 (%)</i> .....	178
Liquid Dosage Formulation.....	179
Market Overview.....	179
Market Revenue.....	179
Nonsterile Formulations.....	179
<i>TABLE 101 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING FOR REST OF WORLD, THROUGH 2016 (\$ MILLIONS)</i> .....	180
<i>FIGURE 76 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING FOR REST OF WORLD, 2009-2016 (\$ MILLIONS)</i> .....	180
Sterile Formulations.....	181
<i>TABLE 102 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING, FOR REST OF WORLD, THROUGH 2016 (\$ MILLIONS)</i> .....	181
<i>FIGURE 77 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING, FOR REST OF WORLD, 2009-2016 (\$ MILLIONS)</i> .....	181
Market by Formulation.....	182
Nonsterile Formulations.....	182
<i>TABLE 103 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR REST OF WORLD, THROUGH 2016 (\$ MILLIONS)</i> .....	182
<i>FIGURE 78 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR REST OF WORLD, 2009-2016 (\$ MILLIONS)</i> .....	183



<i>TABLE 104 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR REST OF WORLD, 2010 (%)</i> .....	183
<i>FIGURE 79 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR REST OF WORLD, 2010 (%)</i> .....	184
Sterile Formulations.....	184
<i>TABLE 105 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING REVENUE BY FORMULATION FOR REST OF WORLD, THROUGH 2016 (\$ MILLIONS)</i> .....	185
<i>FIGURE 80 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING REVENUE BY FORMULATION, FOR REST OF WORLD, 2009-2016 (\$ MILLIONS)</i> .....	185
<i>TABLE 106 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR REST OF WORLD, 2010 (%)</i> .....	186
<i>FIGURE 81 LIQUID DOSAGE FORM (STERILE) CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR REST OF WORLD, 2010 (%)</i> .....	186
CONTRACT MANUFACTURE OF SEMISOLID DOSAGE FORMULATIONS.....	186
Market Overview .....	186
Market Revenue .....	187
<i>TABLE 107 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING, FOR REST OF WORLD, THROUGH 2016 (\$ MILLIONS)</i> .....	188
<i>FIGURE 82 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING, FOR REST OF WORLD, 2009-2016 (\$ MILLIONS)</i> .....	188
Market by Formulation .....	188
<i>TABLE 108 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING REVENUE BY FORMULATION, FOR REST OF WORLD, THROUGH 2016 (\$ MILLIONS)</i> .....	189
<i>FIGURE 83 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING REVENUE BY FORMULATION, FOR REST OF WORLD, 2009-2016 (\$ MILLIONS)</i> .....	189
<i>TABLE 109 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING MARKET SHARE BY FORMULATION, FOR REST OF WORLD, 2010 (%)</i> .....	190
<i>FIGURE 84 SEMISOLID DOSAGE FORM CONTRACT MANUFACTURING MARKET SHARE BY FORMULATION, FOR REST OF WORLD, 2010 (%)</i> .....	190
CONTRACT MANUFACTURE OF ADVANCED DRUG DELIVERY PRODUCTS .....	190

Market Overview .....	191
<i>TABLE 110 CONTRACTING COMPANIES PROVIDING DRUG DELIVERY SYSTEMS IN ROW</i> .....	192
<i>TABLE 111 ADVANCED DRUG DELIVERY SYSTEMS REVENUE BY CONTRACT MANUFACTURING, FOR REST OF WORLD, THROUGH 2016 (\$ BILLIONS)</i> .....	192
<i>FIGURE 85 ADVANCED DRUG DELIVERY SYSTEMS REVENUE BY CONTRACT MANUFACTURING, FOR REST OF WORLD, THROUGH 2016 (\$ BILLIONS)</i> .....	193
Market by Formulation .....	193
<i>TABLE 112 ADVANCED DRUG DELIVERY SYSTEMS BY CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR REST OF WORLD, THROUGH 2016 (\$ MILLIONS)</i> .....	194
<i>FIGURE 86 ADVANCED DRUG DELIVERY SYSTEMS BY CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR REST OF WORLD, 2009-2016 (\$ MILLIONS)</i> .....	194
Market Share .....	195
<i>TABLE 113 ADVANCED DRUG DELIVERY SYSTEMS BY CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR REST OF WORLD, 2010 (%)</i> .....	195
<i>FIGURE 87 ADVANCED DRUG DELIVERY SYSTEMS BY CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR REST OF WORLD, 2010 (%)</i> .....	196
CONTRACT MANUFACTURE OF OTC AND NUTRITIONAL PRODUCTS.....	196
Market Revenue .....	197
<i>TABLE 114 OTC AND NUTRITIONAL PRODUCTS REVENUE BY CONTRACT MANUFACTURING, FOR REST OF WORLD, THROUGH 2016 (\$ BILLIONS)</i> .....	198
<i>FIGURE 88 OTC AND NUTRITIONAL PRODUCTS REVENUE BY CONTRACT MANUFACTURING, FOR REST OF WORLD, 2009-2016 (\$ BILLIONS)</i> .....	198
<i>TABLE 115 OTC AND NUTRITIONAL PRODUCTS BY CONTRACT MANUFACTURING REVENUE, BY FORMULATION, FOR REST OF WORLD, THROUGH 2016 (\$ BILLIONS)</i> .....	199
<i>FIGURE 89 OTC AND NUTRITIONAL PRODUCTS BY CONTRACT MANUFACTURING REVENUE, BY FORMULATIONS, FOR REST OF WORLD, 2009-2016 (\$ BILLIONS)</i> .....	200
Market Shares .....	200
<i>TABLE 116 OTC AND NUTRITIONAL PRODUCTS BY CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR REST OF WORLD, 2010 (%)</i> .....	200

<i>FIGURE 90 OTC AND NUTRITIONAL PRODUCTS BY CONTRACT MANUFACTURING MARKET SHARE, BY FORMULATION, FOR REST OF WORLD, 2009-2016 (%)</i> .....	201
CONTRACT RESEARCH .....	201
MARKET OVERVIEW .....	201
Partnerships .....	201
Expansions of Facilities.....	202
Market Revenue .....	203
<i>TABLE 117 CONTRACT RESEARCH REVENUE FOR REST OF WORLD, THROUGH 2016 (\$ BILLIONS)</i> .....	203
<i>FIGURE 91 CONTRACT RESEARCH REVENUE FOR REST OF WORLD, 2009-2016 (\$ BILLIONS)</i> .....	204
Market by Discipline .....	204
<i>TABLE 118 CONTRACT RESEARCH REVENUE BY DISCIPLINE, FOR REST OF WORLD, THROUGH 2016 (\$ BILLIONS)</i> .....	205
<i>FIGURE 92 CONTRACT RESEARCH REVENUE BY DISCIPLINE, FOR REST OF WORLD, 2009-2016 (\$ BILLIONS)</i> .....	205
Market Shares by Discipline.....	206
<i>TABLE 119 CONTRACT RESEARCH MARKET SHARE BY DISCIPLINE, FOR REST OF WORLD, 2010 (%)</i> .....	206
<i>FIGURE 93 CONTRACT RESEARCH MARKET SHARE BY DISCIPLINE, FOR REST OF WORLD, 2010 (%)</i> .....	206
CONTRACT PACKAGING.....	207
MARKET OVERVIEW .....	207
<i>TABLE 120 CONTRACT PACKAGING REVENUE, FOR REST OF WORLD, THROUGH 2016 (\$ BILLIONS)</i> .....	208
<i>FIGURE 94 CONTRACT PACKAGING REVENUE, FOR REST OF WORLD, 2009-2016 (\$ BILLIONS)</i> .....	208
Market by Package Type .....	208
Market Revenue .....	209
<i>TABLE 121 CONTRACT PACKAGING REVENUE BY TYPE, FOR REST OF WORLD, THROUGH 2016 (\$ MILLIONS)</i> .....	209
<i>FIGURE 95 CONTRACT RESEARCH REVENUE BY DISCIPLINE FOR REST OF WORLD, THROUGH 2016 (\$ MILLIONS)</i> .....	210
Market Share by Type.....	210
<i>TABLE 122 CONTRACT PACKAGING MARKET SHARE BY TYPE, FOR REST OF WORLD, 2010 (%)</i> .....	211
<i>FIGURE 96 CONTRACT PACKAGING MARKET SHARE BY TYPE, FOR REST OF WORLD, 2010 (%)</i> .....	211
CHAPTER SEVENTEEN: MARKET SHARE BY REGION .....	212
MARKET SHARE OF CONTRACT MANUFACTURED APIs .....	212
<i>TABLE 123 BULK DRUG/API CONTRACT MANUFACTURING MARKET SHARE, BY REGION, 2010 (%)</i> .....	212

<i>FIGURE 97 BULK DRUG/API CONTRACT MANUFACTURING</i>	
<i>MARKET SHARE, BY REGION, 2010 (%)</i> .....	213
MARKET SHARE OF CONTRACT MANUFACTURED SOLID	
DOSAGE FORMS.....	213
<i>TABLE 124 SOLID DOSAGE FORM CONTRACT MANUFACTURING</i>	
<i>MARKET SHARE, BY REGION, 2010 (%)</i> .....	213
<i>FIGURE 98 SOLID DOSAGE FORM CONTRACT MANUFACTURING</i>	
<i>MARKET SHARE, BY REGION, 2010 (%)</i> .....	214
MARKET SHARE OF CONTRACT MANUFACTURED LIQUID	
DOSAGE FORMULATIONS.....	214
NONSTERILE FORMULATIONS.....	214
<i>TABLE 125 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT</i>	
<i>MANUFACTURING MARKET SHARE, BY REGION, 2010 (%)</i> .....	214
<i>FIGURE 99 LIQUID DOSAGE FORM (NONSTERILE) CONTRACT</i>	
<i>MANUFACTURING MARKET SHARE, BY REGION, 2010 (%)</i> .....	215
STERILE FORMULATIONS.....	215
<i>TABLE 126 LIQUID DOSAGE FORM (STERILE) CONTRACT</i>	
<i>MANUFACTURING MARKET SHARE, BY REGION, 2010 (%)</i> .....	215
<i>FIGURE 100 LIQUID DOSAGE FORM (STERILE) CONTRACT</i>	
<i>MANUFACTURING MARKET SHARE, BY REGION, 2010 (%)</i> .....	216
MARKET SHARE OF CONTRACT MANUFACTURED SEMISOLID	
DOSAGE FORMULATIONS.....	216
<i>TABLE 127 SEMISOLID DOSAGE FORM CONTRACT</i>	
<i>MANUFACTURING MARKET SHARES, BY REGION, 2010 (%)</i> .....	216
<i>FIGURE 101 SEMISOLID DOSAGE FORM CONTRACT</i>	
<i>MANUFACTURING MARKET SHARE, BY REGION, 2010 (%)</i> .....	217
MARKET SHARE OF CONTRACT MANUFACTURED ADVANCED	
DRUG DELIVERY PRODUCTS.....	217
<i>TABLE 128 DRUG DELIVERY CONTRACT MANUFACTURING</i>	
<i>MARKET SHARE, BY REGION, 2010 (%)</i> .....	217
<i>FIGURE 102 DRUG DELIVERY CONTRACT MANUFACTURING</i>	
<i>MARKET SHARE, BY REGION, 2010 (%)</i> .....	218
MARKET SHARE OF CONTRACT MANUFACTURED OTC AND	
NUTRITIONAL PRODUCTS.....	218
<i>TABLE 129 OTC AND NUTRITIONAL PRODUCTS CONTRACT</i>	
<i>MANUFACTURING MARKET SHARE, BY REGION, 2010 (%)</i> .....	218
<i>FIGURE 103 OTC AND NUTRITIONAL PRODUCT CONTRACT</i>	
<i>MANUFACTURING MARKET SHARE, BY REGION, 2010 (%)</i> .....	219
MARKET SHARE OF CONTRACT RESEARCH.....	219
<i>TABLE 130 CONTRACT RESEARCH MARKET SHARE, BY REGION,</i>	
<i>2010 (%)</i> .....	219
<i>FIGURE 104 CONTRACT RESEARCH MARKET SHARE, BY REGION,</i>	
<i>2010 (%)</i> .....	220
MARKET SHARE OF CONTRACT PACKAGING .....	220

<i>TABLE 131 CONTRACT PACKAGING MARKET SHARE, BY REGION, 2010 (%)</i> .....	220
<i>FIGURE 105 CONTRACT PACKAGING MARKET SHARE, BY REGION, 2010 (%)</i> .....	221

CHAPTER EIGHTEEN: CONTRACT MANUFACTURING APPLICATIONS  
FOR NORTH AMERICAN MARKETS .....

FOR NORTH AMERICAN MARKETS .....	222
CARDIOVASCULAR DRUGS .....	222
MARKET REVENUE.....	223
<i>TABLE 132 REVENUE FROM CONTRACT MANUFACTURERS OF CARDIOVASCULAR DRUGS, IN NORTH AMERICA, THROUGH 2016 (\$ MILLIONS)</i> .....	224
<i>FIGURE 106 REVENUE FROM CONTRACT MANUFACTURERS OF CARDIOVASCULAR DRUGS, IN NORTH AMERICA, 2009-2016 (\$ MILLIONS)</i> .....	224
REPRODUCTIVE DRUG MARKET .....	224
REPRODUCTIVE DRUG MARKET (CONTINUED).....	225
MARKET REVENUE.....	226
<i>TABLE 133 REVENUE FROM CONTRACT MANUFACTURERS OF REPRODUCTIVE DRUGS, IN NORTH AMERICA, THROUGH 2016 (\$ MILLIONS)</i> .....	226
<i>FIGURE 107 REVENUE FROM CONTRACT MANUFACTURERS OF REPRODUCTIVE DRUGS, IN NORTH AMERICA, 2009-2016 (\$ MILLIONS)</i> .....	226
ONCOLOGY DRUG MARKET.....	227
MARKET REVENUE.....	228
<i>TABLE 134 REVENUE FROM CONTRACT MANUFACTURERS OF ONCOLOGY DRUGS, IN NORTH AMERICA, THROUGH 2016 (\$ MILLIONS)</i> .....	228
<i>FIGURE 108 REVENUE FROM CONTRACT MANUFACTURERS OF ONCOLOGY DRUGS, IN NORTH AMERICA, 2009-2016 (\$ MILLIONS)</i> .....	229
ANALGESICS MARKET .....	229
MARKET REVENUE.....	230
<i>TABLE 135 REVENUE FROM CONTRACT MANUFACTURERS OF ANALGESICS, IN NORTH AMERICA, THROUGH 2016 (\$ MILLIONS)</i> .....	230
<i>FIGURE 109 REVENUE FROM CONTRACT MANUFACTURERS OF ANALGESICS, IN NORTH AMERICA, 2009-2016 (\$ MILLIONS)</i> .....	231
MARKET REVENUE.....	232
<i>TABLE 136 REVENUE FROM CONTRACT MANUFACTURERS OF ANTIVIRALS, IN NORTH AMERICA, THROUGH 2016 (\$ MILLIONS)</i> .....	232
<i>FIGURE 110 REVENUE FROM CONTRACT MANUFACTURERS OF ANTIVIRALS, IN NORTH AMERICA, 2009-2016 (\$ MILLIONS)</i> .....	233

ANTIBIOTICS MARKET .....	233
MARKET REVENUE.....	234
<i>TABLE 137 REVENUE FROM CONTRACT MANUFACTURERS OF ANTIBIOTICS, IN NORTH AMERICA, THROUGH 2016 (\$ MILLIONS)</i> .....	234
<i>FIGURE 111 REVENUE FROM CONTRACT MANUFACTURERS OF ANTIBIOTICS, IN NORTH AMERICA, 2009-2016 (\$ MILLIONS)</i> .....	235
MARKETS FOR OTHER DRUGS.....	235
MARKET REVENUE.....	236
<i>TABLE 138 REVENUE FROM CONTRACT MANUFACTURERS OF OTHER DRUGS, IN NORTH AMERICA, THROUGH 2016 (\$ BILLIONS)</i> .....	236
<i>FIGURE 112 REVENUE FROM CONTRACT MANUFACTURERS OF OTHER DRUGS, IN NORTH AMERICA, 2009-2016 (\$ BILLIONS)</i> .....	237
 CHAPTER NINETEEN: CONTRACT MANUFACTURING APPLICATIONS	
FOR EUROPEAN MARKETS .....	238
CARDIOVASCULAR DRUGS.....	238
MARKET REVENUE.....	239
<i>TABLE 139 REVENUE FROM CONTRACT MANUFACTURERS OF CARDIOVASCULAR DRUGS, IN EUROPE, THROUGH 2016 (\$ MILLIONS)</i> .....	239
<i>FIGURE 113 REVENUE FROM CONTRACT MANUFACTURERS OF CARDIOVASCULAR DRUGS, IN EUROPE, 2009-2016 (\$ MILLIONS)</i> ....	240
REPRODUCTIVE DRUG MARKET .....	240
MARKET REVENUE.....	241
<i>TABLE 140 REVENUE FROM CONTRACT MANUFACTURERS OF REPRODUCTIVE DRUGS, IN EUROPE, THROUGH 2016 (\$ MILLIONS)</i> .....	242
<i>FIGURE 114 REVENUE FROM CONTRACT MANUFACTURERS OF REPRODUCTIVE DRUGS, IN EUROPE, 2009-2016 (\$ MILLIONS)</i> .....	242
ONCOLOGY DRUG MARKET.....	242
MARKET REVENUE.....	243
<i>TABLE 141 REVENUE FROM CONTRACT MANUFACTURERS OF ONCOLOGY DRUGS, IN EUROPE, THROUGH 2016 (\$ MILLIONS)</i> .....	244
<i>FIGURE 115 REVENUE FROM CONTRACT MANUFACTURERS OF ONCOLOGY DRUGS, IN EUROPE, 2009-2016 (\$ MILLIONS)</i> .....	244
ANALGESICS MARKET .....	244
MARKET REVENUE.....	245
<i>TABLE 142 REVENUE FROM CONTRACT MANUFACTURERS OF ANALGESICS, IN EUROPE, THROUGH 2016 (\$ MILLIONS)</i> .....	245
<i>FIGURE 116 REVENUE FROM CONTRACT MANUFACTURERS OF ANALGESICS, IN EUROPE, 2009-2016 (\$ MILLIONS)</i> .....	246
ANTIVIRAL DRUG MARKET .....	246
MARKET REVENUE.....	247

<i>TABLE 143 REVENUE FROM CONTRACT MANUFACTURERS OF ANTIVIRALS, IN EUROPE, THROUGH 2016 (\$ MILLIONS)</i> .....	247
<i>FIGURE 117 REVENUE FROM CONTRACT MANUFACTURERS OF ANTIVIRALS, IN EUROPE, 2009-2016 (\$ MILLIONS)</i> .....	248
ANTIBIOTICS MARKET .....	248
MARKET REVENUE.....	249
<i>TABLE 144 REVENUE FROM CONTRACT MANUFACTURERS OF ANTIBIOTICS, IN EUROPE, THROUGH 2016 (\$ MILLIONS)</i> .....	249
<i>FIGURE 118 REVENUE FROM CONTRACT MANUFACTURERS OF ANTIBIOTICS, IN EUROPE, 2009-2016 (\$ MILLIONS)</i> .....	249
MARKETS FOR OTHER DRUGS.....	250
MARKET REVENUE.....	250
<i>TABLE 145 REVENUE FROM CONTRACT MANUFACTURERS OF OTHER DRUGS, IN EUROPE, THROUGH 2016 (\$ BILLIONS)</i> .....	250
<i>FIGURE 119 REVENUE FROM CONTRACT MANUFACTURERS OF OTHER DRUGS, IN EUROPE, 2009-2016 (\$ BILLIONS)</i> .....	251
CHAPTER TWENTY: CONTRACT MANUFACTURING APPLICATIONS	
FOR REST OF THE WORLD (ROW) .....	252
CARDIOVASCULAR DRUGS .....	252
MARKET REVENUE.....	253
<i>TABLE 146 REVENUE FROM CONTRACT MANUFACTURERS OF CARDIOVASCULAR DRUGS, IN REST OF WORLD, THROUGH 2016 (\$ MILLIONS)</i> .....	253
<i>FIGURE 120 REVENUE FROM CONTRACT MANUFACTURERS OF CARDIOVASCULAR DRUGS, IN REST OF WORLD, 2009-2016 (\$ MILLIONS)</i> .....	254
REPRODUCTIVE DRUG MARKET .....	254
MARKET REVENUE.....	255
<i>TABLE 147 REVENUE FROM CONTRACT MANUFACTURERS OF REPRODUCTIVE DRUGS, IN REST OF WORLD, THROUGH 2016 (\$ MILLIONS)</i> .....	256
<i>FIGURE 121 REVENUE FROM CONTRACT MANUFACTURERS OF REPRODUCTIVE DRUGS, IN REST OF WORLD, 2009-2016 (\$ MILLIONS)</i> .....	256
ONCOLOGY DRUG MARKET.....	256
MARKET REVENUE.....	257
<i>TABLE 148 REVENUE FROM CONTRACT MANUFACTURERS OF DRUGS USED IN ONCOLOGY, IN REST OF WORLD, THROUGH 2016 (\$ MILLIONS)</i> .....	258
<i>FIGURE 122 REVENUE FROM CONTRACT MANUFACTURERS OF DRUGS USED IN ONCOLOGY, IN REST OF WORLD, 2009-2016 (\$ MILLIONS)</i> .....	258
ANALGESICS MARKET.....	258
MARKET REVENUE.....	259

<i>TABLE 149 REVENUE FROM CONTRACT MANUFACTURERS OF ANALGESICS, IN REST OF WORLD, THROUGH 2016 (\$ MILLIONS)</i> .....	259
<i>FIGURE 123 REVENUE FROM CONTRACT MANUFACTURERS OF ANALGESICS, IN REST OF WORLD, 2009-2016 (\$ MILLIONS)</i> .....	260
ANTIVIRAL DRUG MARKET .....	260
MARKET REVENUE.....	261
<i>TABLE 150 REVENUE FROM CONTRACT MANUFACTURERS OF ANTIVIRALS, IN REST OF WORLD, THROUGH 2016 (\$ MILLIONS)</i> .....	261
<i>FIGURE 124 REVENUE FROM CONTRACT MANUFACTURERS OF ANTIVIRALS, IN REST OF WORLD, 2009-2016 (\$ MILLIONS)</i> .....	261
ANTIBIOTICS MARKET .....	262
MARKET REVENUE.....	262
<i>TABLE 151 REVENUE FROM CONTRACT MANUFACTURERS OF ANTIBIOTICS, IN REST OF WORLD, THROUGH 2016 (\$ MILLIONS)</i> .....	262
<i>FIGURE 125 REVENUE FROM CONTRACT MANUFACTURERS OF ANTIBIOTICS, IN REST OF WORLD, 2009-2016 (\$ MILLIONS)</i> .....	263
MARKETS FOR OTHER DRUGS.....	263
MARKET REVENUE.....	264
<i>TABLE 152 REVENUE FROM CONTRACT MANUFACTURERS OF OTHER DRUGS, IN REST OF WORLD, THROUGH 2016 (\$ BILLIONS)</i> .....	264
<i>FIGURE 126 REVENUE FROM CONTRACT MANUFACTURERS OF OTHER DRUGS, IN REST OF WORLD, 2009-2016 (\$ BILLIONS)</i> .....	264
CHAPTER TWENTY-ONE: PATENT ANALYSIS .....	265
PATENTS BY YEAR.....	265
<i>TABLE 153 NUMBER OF SIGNIFICANT PATENTS, BY YEAR, 2009-2011</i> .....	265
<i>FIGURE 127 NUMBER OF PATENTS, BY YEAR, 2009-MAY 31, 2011</i> .....	265
<i>FIGURE 128 NUMBER OF PATENTS, BY YEAR, 2009-MAY 31, 2011 (%)</i> .....	266
PATENTS BY COMPANY.....	266
<i>TABLE 154 NUMBER OF U.S. PATENTS, BY COMPANY, 2009-2011</i> .....	267
<i>FIGURE 129 NUMBER OF U.S. PATENTS, BY COMPANY, 2009-2011</i> .....	268
PATENTS BY COUNTRY .....	269
<i>TABLE 155 NUMBER OF U.S. PATENTS, BY COUNTRY, 1/1/2009 TO 5/31/2011</i> .....	269
<i>FIGURE 130 NUMBER OF U.S. PATENTS, BY COUNTRY, 1/1/2009 TO 5/31/2011</i> .....	270
<i>TABLE 156 PATENT SHARES, BY COUNTRY, 1/1/2009 TO 5/31/2011 (%)</i> .....	270



<i>FIGURE 131 PATENT SHARES, BY COUNTRY, 1/1/2009 TO 5/31/2011</i>	
( <i>%</i> ).....	271
PATENTS BY EMPHASIS .....	271
<i>TABLE 157 PATENTS, BY EMPHASIS, 1/1/2009 TO 5/31/2011</i> .....	272
<i>FIGURE 132 NUMBER OF U.S. PATENTS, BY EMPHASIS, 1/1/2009 TO</i>	
<i>5/31/2011</i> .....	272
CHAPTER TWENTY-TWO: CURRENT ENVIRONMENT .....	273
SITUATION OF THE NORTH AMERICAN CONTRACTING	
MARKETS .....	273
CONTRACT MANUFACTURING OF API AND DOSAGE	
FORMS .....	273
CONTRACT MANUFACTURING OF OTC AND	
NUTRACEUTICALS .....	273
CONTRACT RESEARCH .....	274
CONTRACT PACKAGING .....	274
SITUATION OF THE EUROPEAN CONTRACTING MARKET.....	274
CONTRACT MANUFACTURING OF API AND DOSAGE	
FORMS .....	274
CONTRACT MANUFACTURING OF OTC AND	
NUTRACEUTICALS .....	274
CONTRACT RESEARCH .....	275
CONTRACT PACKAGING .....	275
SITUATION OF THE ROW CONTRACTING MARKET .....	275
CONTRACT MANUFACTURING OF API AND DOSAGE	
FORMS .....	275
CONTRACT MANUFACTURING OF OTC AND	
NUTRACEUTICALS .....	275
CONTRACT RESEARCH .....	276
CONTRACT PACKAGING .....	276
OPPORTUNITIES AND CHALLENGES OF THE CURRENT	
CONTRACT MANUFACTURING INDUSTRY .....	276
OPPORTUNITIES AND CHALLENGES...(CONTINUED) .....	277
OPPORTUNITIES AND CHALLENGES...(CONTINUED) .....	278
CHAPTER TWENTY-THREE: COMPANY PROFILES.....	279
AAI PHARMA, INC. ....	279
ABBOTT LABORATORIES.....	279
AEROGEN LTD. ....	280
ALKERMES .....	280
ALTHEA TECHNOLOGIES .....	281
AMCOR .....	282
AMERISOURCE BERGEN CORPORATION .....	282
AMPAC FINE CHEMICALS .....	283
ALBANY MOLECULAR RESEARCH INC. (AMRI).....	283

AP PHARMA INC. ....	284
APTUIT INC. ....	284
ARADIGM CORPORATION .....	285
BASF SE .....	286
BAXTER HEALTHCARE .....	286
BCM/BOOTS MANUFACTURING.....	287
BOEHRINGER INGELHEIM .....	288
BRISTOL-MYERS SQUIBB.....	288
CAMBREX CORPORATION .....	289
CANGENE CORPORATION.....	290
CATALENT PHARMA SOLUTIONS .....	290
CEDARBURG HAUSER PHARMACEUTICALS INC. ....	291
CENEXI.....	291
CHARLES RIVER LABORATORIES .....	292
CHEMBRIDGE CORP.....	292
CLEARSTONE CENTRAL LABORATORIES .....	293
CONFAB LABORATORIES .....	293
COVANCE INC.....	294
COVIDIEN .....	294
CONTRACT PHARMACEUTICALS LIMITED .....	295
CORDEN PHARMA SWITZERLAND LLC.....	295
DAVOS PHARMA.....	296
DECODE GENETICS.....	296
DISHMAN PHARMACEUTICALS AND CHEMICALS LTD. ....	297
DOW CHEMICAL.....	298
DPT LABORATORIES INC. ....	298
DR. REDDY'S LABORATORIES .....	299
DSM PHARMACEUTICAL PRODUCTS .....	299
FUJIFILM DIOSYNTH BIOTECHNOLOGY.....	300
ELAN DRUG TECHNOLOGIES .....	300
EVOTEC AG.....	301
FULCRUM PHARMA PLC .....	301
GIRINDUS AG.....	302
GLAXOSMITHKLINE.....	302
HOSPIRA .....	303
HAUPT PHARMA AG .....	304
HOVIONE S.A.....	304
ICON PLC .....	305
INC RESEARCH, INC.....	305
JUBILANT LIFESCIENCES .....	306
KENDLE INTERNATIONAL INC.....	306
KP PHARMACEUTICAL TECHNOLOGIES INC.....	307
K.V. PHARMACEUTICAL CO.....	307
LIGAND PHARMACEUTICALS, INC. ....	308

LONZA GROUP .....	308
LYNE LABORATORIES.....	309
MERCK / MSD BIOMANUFACTURING NETWORK .....	310
MIKART INC .....	310
NEXTPHARMA TECHNOLOGIES .....	311
NORWICH PHARMACEUTICALS .....	311
NOVAVAX, INC.....	312
OMNICARE CLINICAL RESEARCH.....	312
PAREXEL INTERNATIONAL CORPORATION .....	313
PATHEON INC.....	313
PERRIGO COMPANY.....	314
PFIZER (KING PHARMACEUTICALS) .....	315
PIRAMAL HEALTHCARE LIMITED .....	315
PPD.....	316
PRA INTERNATIONAL.....	316
QUINTILES .....	317
RANBAXY .....	317
REGIS TECHNOLOGIES, INC. ....	318
SKYEPHARMA.....	318
TALECRIS BIOTHERAPEUTICS INC. ....	319
VETTER PHARMA INTERNATIONAL GMBH .....	319
WOCKHARDT LIMITED .....	320
WUXI APP TEC .....	321
XCELLEREX LLC .....	321
ZACH SYSTEM S.P.A.....	322
APPENDIX I: ABBREVIATIONS.....	323