INDEX

CHAPTER I

THE COLLAPSE OF THE ONE-INNOVATION ONE-PATENT MODEL AND THE RAISE OF PATENT PORTFOLIOS

1.	Introduction. Patentability trends in the new millennium	1
2.	A first tentative explanation: The signalling function of patents	7
3.	The rejection of the "one-innovation one-patent" model	9
	3.1. From sequential innovation to the emergence of com-	
	plex-technology products	10
	3.2. Patent propensity in "complex" and "discrete" industries	15
4.	The era of patent portfolios	20
	4.1. Motivation to build a patent portfolio in complex vis-à-	
	vis discrete technology industries	22
	4.2. Strategic advantages stemming from patent portfolios	26
5.	Patent portfolios and the pharmaceutical sector	32
6.	Conceptual roadmap of the book	33

CHAPTER II

DERIVATIVE PATENTS AS A TOOL TO BUILD PATENT PORTFOLIOS

1.	Introduction. Follow-on innovations and derivative patents	37
2.	Improvements, combination and translation inventions	40

VII

3.	Second use inventions. Origin of the problem	43
4.	Protection of second use patents in the chemical field	47
5.	Selection inventions	52

CHAPTER III

THE PROTECTION OF SECOND THERAPEUTICAL USE INVENTIONS IN THE PRACTICE OF THE EUROPEAN PATENT OFFICE

1.	Introduction	57
2.	The codification of protection of "first" use inventions in	
	the medical field	58
3.	and its drawbacks for the pharmaceutical industry	64
4.	The protection of second medical use inventions through	
	"Swiss-type use claims"	68
	4.1. "Swiss-type use claims" and the protection of products	
	directly obtained through process invention. The con-	
	troversial construction of breadth of protection of	
	Swiss-type-of-claim inventions	69
5.	The expansionist trend of second medical use inventions.	
	What does "further" use expressly mean?	74
	5.A) Transposition of the therapeutical effects on a new	
	class of patients	75
	5.B) Different way of functioning of the medicament at a	
	physiological or at a cellular level	76
	5.C) Alteration of the original form of administration	77
	5.D) Different dosage regimen: the last bastion to conquer	78
6.	The amendments of the EPC 2000 and the new frontiers of	
	second use patents	81
	6.1. The meaning of "any specific use" within the context	
	of novelty of the invention and the patentability of new	
	dosage regimens	83

INDEX

	6.2. The meaning of "any specific use" and the scope of	
	protection of further medical use inventions	85
7.	Second therapeutical use inventions and the plausibility	
	doctrine	90
8.	Conclusion	96

CHAPTER IV

THE CONSTRUCTION OF PATENT CLUSTERS THROUGH DIVISIONAL APPLICATIONS

1.	Introduction	101
2.	Divisional patents and the principle of unity of invention	102
3.	Voluntary divisional patents and the principle of unity of	
	invention	105
4.	Principle of unity of invention put in perspective	111
5.	Strategic advantages stemming from the filing of divisional	
	applications	113
	5.1. Sequence of divisional applications	117
6.	Divisional patents and innovation	118

CHAPTER V

PATENT PORTFOLIOS IN THE PHARMACEUTICAL SECTOR: IMPLICA-TIONS FROM THE UNCERTAIN CONTOURS OF SECOND MEDICAL USE PATENTS

1.	Patent portfolios and uncertainty: a deterrence effect for	
	third innovators	121
2.	The interests at stake: scope of protection of second medical	
	use patents and effects on generic competition	124
3.	The different scenarios and risks of counterfeiting of second	
	medical use inventions by generic companies	127
4.	Further therapeutical use patents and the problem of off-	
	label consumption of pharmaceutical products	130

pag.

4.1. "Skinny labelling" and packaging as a tentative solution	
to shelter generic companies from patent infringement	134
4.2. (Direct) liability of intermediate actors in the chain	138
Infringement of second medical use inventions in national	
jurisdictions	140
5.1. The "manifest arrangement" doctrine in the early	
German jurisprudence	141
5.2. The Pregabalin case and liability for indirect in-	
fringement	143
5.3. The new German approach: towards the proof of "suf-	
ficient scope of use"	146
5.4. The UK approach in the Warner Lamberts saga	147
Concluding remarks. Direct infringement of second medical	
use patents	153
Indirect infringement of purpose-limited product claims	156
	 to shelter generic companies from patent infringement 4.2. (Direct) liability of intermediate actors in the chain Infringement of second medical use inventions in national jurisdictions 5.1. The "manifest arrangement" doctrine in the early German jurisprudence 5.2. The <i>Pregabalin</i> case and liability for indirect infringement 5.3. The new German approach: towards the proof of "sufficient scope of use" 5.4. The UK approach in the <i>Warner Lamberts</i> saga Concluding remarks. Direct infringement of second medical use patents

CHAPTER VI

PATENT PORTFOLIOS AND COMPETITION LAW

1.	Introduction	161
2.	On the perceived tension between patents and competition law	162
3.	Patents, market power and dominance	167
4.	The construction of a patent portfolio and competition law:	
	existence or exercise of patent rights?	172
5.	Patent portfolios, non-use of the patent (filings) and sham	
	litigation	176
	5.1. On the need of modelling competition law intervention	
	on the fundamental principles of the patent system	181
	5.2. The theory of harm in refusal to deal cases involving	
	intellectual property rights	185
	5.3. The theory of harm in strategic patent filing cases: the	
	non-working of the patent as element to substantiate	
	the anticompetitive intent within an abusive conduct	191

INDEX

6.	Strategic implementation of patent portfolios and competi-	
	tion law	196
	61. The Lundbeck, Servier and Generics cases	198
	6.2. The anticompetitive nature of the reverse payment set-	
	tlement agreements	202
	6.3. Reverse patent settlements as part of a broader conduct	
	pursuant to art. 102 TFEU	209
7.	Conclusion	212

CHAPTER VII

CONCLUDING REMARKS

1.	Compulsory licenses as an attempt to solve the problem of	
	derivative patents	215
2.	Procedural and substantial complexities of the compulsory	
	license mechanism envisaged for dependent patents bring-	
	ing about an important technical advance of considerable	
	economic significance over the prior invention	219
3.	Unfeasibility of compulsory licenses to deal with the issue	
	of patent portfolios	226
4.	Limiting the foreclosing potential of portfolios: clarifying	
	patent breadth' contours as means to reduce the uncertainty	
	effects	227
5.	The role of competition law	228
	-	

Bibliography

231