IN THE HIGH COURT OF AUSTRALIA
SYDNEY OFFICE OF THE REGISTRY

Nos. S219 of 2012 & S1 of 2013

BETWEEN

APOTEX PTY LTD ACN 096 916 148
Applicant/Appellant

and

SANOFI-AVENTIS AUSTRALIA PTY LTD
First Respondent

SANOFI-AVENTIS DEUTSCHLAND GMBH
Second Respondent

AVENTISUB II INCORPORATED
Third Respondent

APPLICANT'S/APPELLANT'S SUBMISSIONS

Part I: Certification as to form

1. This submission is in a form suitable for publication on the internet.

Part II: Issues

2. Whether the claim of Australian Patent No. 670,491 (**Patent**), being a claim for a method of treatment of the human body, is a patentable invention within the meaning of s18(1)(a) of the *Patents Act 1990* (Cth) (**Act**). In the alternative, whether the claim, being a claim for a second or subsequent medical use of a previously known product, claims a patentable invention.

3. If special leave is granted, in light of the fact that the Patent claims only the use of a compound for the treatment of psoriasis, whether the Applicant/Appellant (**Apotex**), when it supplies the compound and indicates its use for the treatment of a different disease, would infringe the Patent under s117(1) of the Act.

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Part III: Certification as to Section 78B of the *Judiciary Act 1903*

4. Apotex considers that notice need not be given pursuant to s78B of the *Judiciary Act 1903* (Cth).

Part IV: Citations

5. The reasons for judgment of the primary Judge are reported at *Sanofi-Aventis Australia Pty Ltd v Apotex Pty Ltd (No 3)* (2011) 196 FCR 1 (***Sanofi v Apotex (No 3)***) and *Sanofi-Aventis Australia Pty Ltd v Apotex Pty Ltd (No 4)* (2011) 202 FCR 56 (***Sanofi v Apotex (No 4)***). The final reasons for judgment (concerning costs) are not reported: *Sanofi-Aventis Australia Pty Ltd v Apotex Pty Ltd (No 5)* [2012] FCA 112 (***Sanofi v Apotex (No 5)***).

6. The reasons for judgment of the Full Court are reported at *Apotex Pty Ltd v Sanofi-Aventis Pty Ltd (No 2)* (2012) 204 FCR 494 (***Apotex v Sanofi***).

Part V: Facts

7. In December 1979, Hoechst AG[1] applied in Australia for a patent for a compound now known as **Leflunomide**. Australian Patent No. 529,341 (**341 Patent**) expired 25 years later in 2004, after its term had been extended for 5 years. Claim 1 of the 341 Patent claimed Leflunomide itself. Claim 4 claimed a "*Method for the treatment of inflammations, rheumatic complaints or multiple sclerosis by administering to the patient an effective amount of*" Leflunomide (emphasis added). Rheumatic complaints are treated by rheumatologists. Their main focus is inflammatory arthritis,[2] of which 25% of all cases are Psoriatic Arthritis (**PsA**).[3] PsA is the second-most common inflammatory arthritis, after Rheumatoid Arthritis (**RA**).[4]

8. On 29 March 1994, Hoechst AG applied for the Patent in suit. The Patent expires in 2014. It claims "*A method of preventing or treating a skin disorder, wherein the skin disorder is psoriasis, which comprises administering to a recipient an effective amount of*" Leflunomide. The specification states that psoriasis is one of a number of medical uses for which Hoechst obtained patent protection for Leflunomide, the first group being claimed in the 341 Patent (cited as its European equivalent EP 13,376). The Patent in suit does not refer to PsA.

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[1] Hoechst AG merged with Rhone-Poulenc to form Aventis in 1999 and became part of the Second Respondent in 2004.
[2] *Sanofi v Apotex (No 3)* at [121].
[3] *Sanofi v Apotex (No 3)* at [124].
[4] *Sanofi v Apotex (No 3)* at [124].

9. In 1999, Leflunomide was included on the Australian Register of Therapeutic Goods (**ARTG**), "*indicated*" for the treatment of active **RA**.[5] This registration was later extended to include an indication for active **PsA**. The ARTG entries for Leflunomide[6] stated that the compound was "... *not indicated for the treatment of psoriasis that is not associated with manifestations of arthritic disease*".[7]

10. In or about July 2008, Apotex obtained registration on the ARTG of its generic versions of Leflunomide.[8] It intended to supply Leflunomide for the treatment of PsA and RA. On 30 October 2008, Apotex was restrained on an interlocutory basis from supplying its Leflunomide products.[9]

11. Apotex's Product Information Document (**PI**), was admittedly copied from the Respondents' (**Sanofi**).[10] This was, and is, common practice, now excepted from infringement of copyright by the *Therapeutic Goods Legislation Amendment (Copyright) Act 2011* (Cth).[11] Apotex's "*indications*" were the same, being the ARTG indications described above. The instructions for use of Leflunomide were identical for the treatment of RA and PsA, specifically, a loading dose of 100mg once daily for three days followed by a maintenance dose of 20mg once daily.[12] Sanofi did not seek to restrain Apotex's supply of Leflunomide for use in the treatment of RA.[13]

12. Leflunomide is prescribed by rheumatologists; it is not used in Australia for the treatment of psoriasis alone and it is not prescribed by dermatologists for that purpose.[14] A patient suffering from psoriasis alone, or psoriasis in combination with a disease other than arthritis would not be treated by a rheumatologist.[15] These patients would be treated by a dermatologist.[16]

13. The primary Judge held that a doctor who prescribed Leflunomide to treat PsA would infringe the Patent because, "... *the claimed method is used where the compound (leflunomide) is administered to a recipient in an effective amount so that the recipient's psoriasis is in fact prevented or*

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[5] See the definition in s3 of the *Therapeutic Goods Act 1989* (Cth).
[6] For Sanofi's Leflunomide products and, at the relevant time, Apotex's.
[7] *Sanofi v Apotex (No 3)* at [62].
[8] *Sanofi v Apotex (No 3)* at [6].
[9] Orders of Justice Lindgren in proceedings no. NSD 1664 of 2008 dated 30 October 2008.
[10] The primary Judge held that Apotex had infringed Sanofi's copyright in this respect, rejecting Apotex's submission that there was an implied licence to copy.
[11] See *Sanofi v Apotex (No 4)* at [33]-[44].
[12] See pages 22-23 of Apotex's Product Information for its APO-Leflunomide product.
[13] See the form of orders at *Sanofi v Apotex (No 4)*.
[14] *Sanofi v Apotex (No 3)* at [130].
[15] *Sanofi v Apotex (No 3)* at [129].
[16] *Sanofi v Apotex (No 3)* at [129].

treated",[17] irrespective of the doctor's purpose. There was no dispute that the administration of an effective amount of Leflunomide to a patient with PsA will, to varying degrees, "*...in fact treat or prevent psoriasis...*".[18] Her Honour also held that, by s117, Apotex would itself be liable with respect to such infringing acts[19] and that Apotex's failure to warn medical practitioners, pharmacists and patients that use of Leflunomide would infringe the Patent rendered it liable for misleading and deceptive conduct.[20] Her Honour rejected each of Apotex's attacks on the validity of the patent.[21]

14. At [143], her Honour noted Apotex's reservation of its rights to dispute the patentability of methods of treatment. Keane CJ summarised this at [15]-[28], esp. at [23]-[25]. See per Bennett and Yates JJ at [119], [186]-[197].

15. The Full Court upheld the finding of threatened infringement under s117(1), notwithstanding its different construction of the claim, discussed below. It followed that the primary Judge's conclusion as to misleading and deceptive conduct was also upheld. The Court upheld the finding that the Patent was novel over the 341 Patent and upheld her Honour's rejection of the implied copyright licence.

Part VI: Argument

Methods of treatment of humans

16. The *Patents Act 1990* retained a definition of invention that invokes s6 of the *Statute of Monopolies 1623*.[22] In *National Research Development Corporation v Commissioner of Patents* (***NRDC***),[23] the High Court had articulated "*[t]he right question*" as: whether a claimed invention is "*a proper subject of letters patent according to the principles which have been developed for the application of s6 of the Statute of Monopolies?*".[24]

17. With respect to methods of treatments of humans, the answer to that question in 1990 was, "*probably not*": see *NRDC* at 270 and 275, citing *In the Matter of C & W's Application for a Patent* (***Re C & W's Application***)[25] and *Maeder*

[17] *Sanofi v Apotex (No 3)* at [155].
[18] For example, *Sanofi v Apotex (No 3)* at [263].
[19] *Sanofi v Apotex (No 3)* at [262]-[263].
[20] *Sanofi v Apotex (No 3)* at [281]. The consumer law aspects of Apotex's conduct were not considered separately from the patent issues.
[21] These are listed in *Sanofi v Apotex (No 3)* at [9], G-L.
[22] Schedule 1, "invention"; s18(1)(a).
[23] (1959) 102 CLR 252.
[24] (1959) 102 CLR 252 at 269.
[25] (1914) 31 RPC 235.

v Busch (***Maeder v Busch***).[26] See also *Joos v Commissioner of Patents* (***Joos***),[27] in which Barwick CJ considered these *dicta.*

18. A method of treating a human ailment with a known substance had never been capable of being an invention under the UK *Patents Act 1949* and its predecessors: *Re C & W's Application*; *The Upjohn Company (Robert's) Application* [1977] RPC 94. As discussed below, there is now an express exclusion in the UK *Patents Act 1977* (**1977 UK Act**): originally s4(2) and s1(1)(c); now s 4A(1)(a).

19. That this was also the law in Australia had been accepted before 1990, by Justices of the High Court in *obiter dicta* in:

(a) *Maeder v Busch*, e.g.,

> at 699 per Latham CJ – *I am very doubtful whether such a method or process can itself be regarded as a "manner of manufacture"...'*
>
> at 706 per Dixon J – *No substance or thing forming a possible subject of commerce or a contribution to the productive arts is to be brought into existence...*

(b) *NRDC*, per Dixon CJ, Kitto and Windeyer JJ at 270: (citations omitted)

> *Abbott CJ in R v Wheeler having spoken of a "thing made, which is useful for its own sake, and vendible as such", went on to show that he did not find in such expressions as those any absolute test. He said...: "Something of a corporeal and substantial nature, something that can be made by man from the matters subjected to his art and skill, or at the least some new mode of employing practically his art and skill, is requisite to satisfy this word". It is of course not possible to treat such a statement as conclusive of the question. The need for qualification must be confessed, even if only in order to put aside, as they apparently must be put aside, processes for treating diseases of the human body: see Re C & W's Application; Maeder v Busch.*

(c) *NRDC* at 275: (citations omitted)

> *The point is that a process, to fall within the limits of patentability which the context of the Statute of Monopolies has supplied, must be one that offers some advantage which is material, in the sense that the process belongs to a useful art as distinct from a fine art (see Re Virginia-Carolina Chemical Corporation's Application) – that its value to the country is in the field of economic endeavour. (The exclusion of methods of*

[26] (1938) 59 CLR 684.
[27] (1972) 126 CLR 611 at 623.

> *surgery and other processes for treating the human body may well lie outside the concept of invention because the whole subject is conceived as essentially non-economic: see Maeder v Busch.)*

20. It is significant that the Court acknowledged the "*exclusion*" of methods of treatment in *NRDC* because it is the *NRDC* case that the Federal Court has, since 1990, principally relied on in holding that methods of treatment are patentable, contrary to the High Court's *dicta*.

21. The two matters that the High Court made clear in *NRDC* in its discussion of the developing concept of invention, i.e., manner of manufacture, were:

(a) that the concept was not limited to "*manufacture*" in the sense of "*making tangible goods by hand or machine*"[28]; the "*right question*" is that quoted in paragraph 16 above; and

(b) that there was no requirement for a "*vendible product*":[29] an invention includes a method that "*has as its end result an artificial effect falling squarely within the true concept of what must be produced by a process if it is to be held patentable*";[30] in *NRDC*, the artificial effect possessed its own "*economic utility*".[31]

22. It was in that very context, however, that the Court, citing *Maeder v Busch*, suggested that "*...methods of surgery and other processes for treating the human body may well lie outside the concept of invention because the whole subject is conceived as essentially non-economic*".[32] It appears that the Court thus saw methods of treatment as remaining outside the broader concept of invention that it was articulating.

23. It is beside the point that the medical and pharmaceutical industries are of great economic significance. Items of medical equipment and pharmaceutical compositions are undoubtedly patentable as products, if novel and inventive etc. The idea, however, that to make a human being "*a better working organism*"[33] is "*essentially non-economic*"[34] underlies the exclusion of methods of treatment by the Courts and various legislatures. A method to make a better working human organism is not a proper subject of letters patent in terms of the *NRDC* "*right question*". This approach appears

[28] *NRDC* at 269.
[29] Morton J's phrase in *Re GEC's Application* (1942) 60 RPC 1, discussed in *NRDC* at 271.
[30] *NRDC* at 277.
[31] *NRDC* at 277.
[32] *NRDC* at 275.
[33] Per Sir Stanley Buckmaster in *Re C & W's Application* at 236.
[34] *NRDC* at 275.

to be at the heart of the exclusion of such methods from patentability, for example under the European Patent Convention (**EPC**).

24. An element of this, undoubtedly, is a reluctance of human beings to regard an improvement in, say, the state of the psoriasis from which they suffer, as an artificial effect of economic utility rather than an alleviation of their suffering. The opposite view moves too far from the concept for which monopolies were permitted to be granted in the 1623 Statute and from the developing concept explained in *NRDC*. The proposition that the mere identification of an economic context at the margins of an alleged invention is not sufficient to confer patentability is also confirmed in cases dealing with mere "*schemes*" such as *Grant v Commissioner of Patents*.[35]

25. A further element is the view that it is undesirable for the surgeon with his or her scalpel, or the physician about to administer or prescribe a drug, to have his or her judgment affected by the possibility of patent infringement. This is addressed explicitly in some legislative approaches, as noted below. The undesirability of inquiry into the physician's state of mind is made apparent when, as here, the method claim must be limited by the physician's purpose in order to give the claim novelty.

26. What a patent for a method of medical treatment seeks to monopolise is either the response of the human body to the administration of a particular substance or the professional objective of a physician to bring about that response. Here, Leflunomide is administered to a person suffering from PsA, but the finding of infringement followed from the fact that the person's concomitant psoriasis will also be treated or prevented.[36]

27. Apotex respectfully submits, therefore, that the influential suggestion of Barwick CJ in *Joos*[37] – to the effect that the *NRDC* case had undercut the *dicta* from *Maeder v Busch* (and *Re C & W's Application*) – was incorrect. His Honour's view led to his, apparently reluctantly, "*...conceding, for the purpose of the decision of this case, that a process for the medical treatment of a part of the human body is not a proper subject of letters patent*"[38] and to his Honour's placing (and limiting) the exception "*...if it is to be maintained, on public policy as being, in the language of the Statute of Monopolies,*

[35] (2006) 154 FCR 62, special leave refused: [2007] HCATrans 126.
[36] *Sanofi v Apotex (No 3)* at [262]-[263]; *Apotex v Sanofi* at [55] and [57] per Keane CJ.
[37] *Joos* at 617-619.
[38] *Joos* at 619.

'generally inconvenient'...".[39] This incorrect approach underlies the Federal Court's post-1990 decisions that methods of treatment are patentable.

28. Barwick CJ did not share Lord Buckmaster's view that a process for a better working [human] organism was not any form of manufacture or trade. In a passage quoted by Gummow J at first instance in *Rescare Ltd v Anaesthetic Supplies Pty Ltd* (***Rescare***),[40] Barwick CJ said, referring to "*surgery or other processes for treating the human body*":

> *The national economic interest in the product of good surgery - and therefore in the advancement of its techniques - if in no other respect than the repair and rehabilitation of members of the work force, including management in that grouping, is both obvious and may be regarded as sufficiently proximate, in my opinion, as to be capable of satisfying the economic element of an invention...* [41]

29. The *ratio* of *Joos*, however, was that the claimed process was "*clearly cosmetic, in high contradistinction to a prophylactic or therapeutic medical process*".[42]

30. While not formally abandoning the point in light of the numerous judicial references to it, Apotex submits that the proper basis for the exception is not that a grant of a monopoly in a method of treatment is "*generally inconvenient*". The definition in the *Patents Act 1990* invokes the continuing concept of manner of manufacture but the proviso that limited the power to grant monopolies in the 1623 Statute is not part of the definition. The modern incarnation of the proviso is in s18. See also s138. Cf *Advanced Building Systems Pty Ltd v Ramset Fasteners (Aust) Pty Ltd.*[43]

31. The Report by the Industrial Property Advisory Committee, "Patents, Innovation and Competition in Australia" (29 August 1984) (**IPAC Report**) considered the possibility of express exclusions noting that methods of treatment are unpatentable in many countries "*on public interest grounds.*"[44] The Committee's recommendation was accepted, namely:

> *that the present threshold test of patentability by reference to section 6 of the Statute of Monopolies and to the expression 'manner of new*

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[39] *Joos* at 623.
[40] (1992) 111 ALR 205 at 236-237.
[41] *Joos* at 618.
[42] *Joos* at 623.
[43] (1998) 194 CLR 171 at 190.
[44] IPAC Report, 40.

> *manufacture' be retained, without specific legislative inclusions or exclusions.*[45]

32. Thus, the answer to the NRDC "*right question*" remained, "*No*", under the 1990 Act. The Full Court's suggestions that legislative omission expressly to exclude such methods, in 1990 or since, or the express provision (re cloning) in s18(2), supported a contrary conclusion,[46] did not take into account the legislative history of the 1990 Act in the context of the earlier *dicta* of the High Court, or of the IPAC recommendation.

Post 1990 Act decisions

33. Two decisions of the Full Court of the Federal Court under the 1990 Act have considered the present question, although the *ratio* of each case was that the inventions were not novel: *Anaesthetic Supplies Pty Ltd v Rescare Ltd* (***Anaesthetic Supplies***)[47] and *Bristol-Myers Squibb Company v FH Faulding and Co Ltd* (***Bristol-Myers Squibb***).[48] The Full Court here followed those decisions, partly on the basis recorded by Keane CJ at [25].

34. *Anaesthetic Supplies* did not concern a (second) medical use of a known compound. It involved the treatment of obstructive sleep apnoea by administration of positive air pressure to the nose (i.e., via a device). At first instance, Gummow J accepted that Barwick CJ's approach to the question, via "*generally inconvenient*", should be followed:

> *I accept, with respect, that this is how the question should be approached in the present case. (However, it is to be noted that previously the ground of general inconvenience in the Statute of Monopolies had been regarded as absorbed into the grounds of inutility and lack of novelty...).*[49]

35. It was principally on that basis that Gummow J rejected the argument that a method of treatment was not patentable.[50]

36. Apotex submits that that is not how the Court in *NRDC* or *Maeder v Busch* or the tribunal in *Re C & W's Application* approached the question – to the contrary, it was that "*the whole subject is conceived as essentially non-economic*". This is so, *a fortiori*, when the question is whether the physician's intention accords with the claimed method.

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[45] IPAC Report, 5.
[46] *Apotex v Sanofi* per Keane CJ at [26] and per Bennett and Yates JJ at [193].
[47] (1994) 50 FCR 1.
[48] (2000) 97 FCR 524.
[49] *Rescare* at 237.
[50] See esp. *Rescare* at 238-239.

37. The economic significance of the present dispute arises in the context of a supply of an old product that is no longer patented *per se* and that is also supplied for methods of treatment of diseases different from the method claimed in the patent (here, RA and PsA). The claimed method could only be used by a medical practitioner when he or she engages in conduct for a particular purpose. The primary judge characterised the conduct as "*...oral administration to treat disease*".[51] The practitioner might engage in precisely the same conduct[52] without using the claimed method, that is, to prescribe a loading dose of 100mg once daily for three days before moving to a maintenance dose of 20mg per day. Where such a regime is prescribed for the treatment of RA, there could be no infringement.

38. In *Anaesthetic Supplies*, Lockhart and Wilcox JJ held that the method of treatment claimed was a manner of manufacture.[53] Sheppard J dissented on the basis that a grant of a patent in these circumstances was generally inconvenient.[54]

39. After discussing the position in a number of countries, Lockhart J said that he regarded the resolution of this question "*as a balancing exercise*" between the encouragement of research and "*...the need not unduly to restrict the activities of those who engage in the therapy of humans*".[55] His Honour referred to the Commissioner of Patents' practice of granting patents for such inventions,[56] and to the fact that they were not expressly excluded in the 1990 Act. As submitted, the last reason merely begs the question: the maintenance of the requirement of manner of manufacture and the definition of "*invention*" necessarily retain the exclusion referred to in *NRDC*.

40. In short, Lockhart J's principal reason seems to be that, taking "*...a realistic view of the matter in the light of current scientific development and legal process; the law must move with changing needs and times*"[57] and, such a method "*...results in 'a new and useful effect' so that the new result is 'an artificially created state of affairs' providing economic utility...*".[58]

41. Apotex respectfully submits that this repeats Barwick CJ's error of regarding *NRDC* as overcoming the essential non-patentability of a method of

[51] *Sanofi v Apotex (No 3)* at [270]-[271].
[52] The instructions in the PI for use of Leflunomide were identical for the treatment of (non-infringing) RA and PsA.
[53] *Anaesthetic Supplies* per Lockhart J at 19; per Wilcox J at 42.
[54] *Anaesthetic Supplies* at 41.
[55] *Anaesthetic Supplies* at 16.
[56] This practice commenced after *Joos*, because it could no longer be said that they were "*plainly bad*".
[57] *Anaesthetic Supplies* at 19.
[58] *Anaesthetic Supplies* at 19.

treatment by broadening the idea of a vendible product. Similarly, "*changing needs and times*" apply with no more force now than to the removal of lead from the human organism of *Re C & W's Application.*

42. Wilcox J in *Anaesthetic Supplies* also gave "*little weight*" to the *dicta* in *Maeder v Busch* and *NRDC* because of the broadening of the concept of manner of manufacture in *NRDC*. As submitted, to regard *NRDC* as causing the "*rationale of the exception*" to "*disappear*"[59] is too narrow a reading of that case. The High Court's reiteration in *NRDC* of the statement about excluding patentability of methods of treatment illustrates the fact that an "*artificially created state of affairs of economic utility*" might be necessary for there to be an invention but it is not always sufficient. Darcy's monopoly for playing cards related to something of economic utility but not to a manner of manufacture.[60]

43. In *Bristol-Myers Squibb Company v FH Faulding & Co Ltd* (1998) 41 IPR 467, Heerey J held that the petty patents, which claimed methods of treatment of cancer by a particular dosage regime of a known drug, were not patentable, because the grant of such a patent was generally inconvenient. His Honour declined to follow the *obiter* views of the majority in *Rescare*,[61] and agreed with and adopted those of Sheppard J.

44. The Full Court[62] "*adopted and applied*" the view of the majority in *Anaesthetic Supplies*[63] and that of Davison CJ in *Wellcome*, discussed below. Black CJ and Lehane J also relied on the absence of specific provision in the 1990 Act and the long-standing practice of granting such patents.[64] After saying that "*the other objection to patentability raised by C & W's Application disappears*" in light of *NRDC* and *Joos*,[65] Finkelstein J considered whether the grant of patents for a medical or surgical process was generally inconvenient and concluded that it was not.[66] His Honour also considered that he was bound by the decision in *Anaesthetic Supplies*.[67]

45. In *University of Western Australia v Gray (No 20)* (2008) 246 ALR 603, French J, as the Chief Justice then was, referred to the above *dicta* and, noting that the matter had not finally been settled by the High Court,

[59] Per Wilcox J at 45.
[60] *Darcy v Allin* (1599) Noy 173; (1599) 74 ER 1131.
[61] *Bristol-Myers Squibb Company v FH Faulding & Co Ltd* (1998) 41 IPR 467 at 479-481.
[62] *Bristol-Myers Squibb*.
[63] *Bristol-Myers Squibb* per Black CJ and Lehane J at 529.
[64] *Bristol-Myers Squibb* at 530.
[65] *Bristol-Myers Squibb* at 567.
[66] *Bristol-Myers Squibb* at 567-569.
[67] *Bristol-Myers Squibb* at 569-573.

accepted on the basis of the above Full Court decisions that, to the extent that the patents in suit involved methods of treatment of disease, they were not thereby deprived of patentability.[68]

Second Medical Use – Purpose

46. The Patent states on the face of the specification[69] that this is a second or subsequent medical use. It says, at page 1 lines 6-14,

> *European Patent 13,376 discloses* [Leflunomide] *as being anti-inflammatory. Processes for the preparation of this compound are also described therein.*
>
> *It is additionally known that* [the claimed compounds] *have immunomodulation properties, so that they are suitable as pharmaceutical against chronic graft versus host diseases and against autoimmune disorders, in particular systemic lupus erythematosus (EP 0,217,206).*

47. The first citation is the 341 Patent. The novelty asserted by the specification is, thus, a second or subsequent medical use – administration of Leflunomide for a new purpose. As a matter of biology and chemistry, Leflunomide has always had the same effect in the human body when administered in an effective amount. Neither patent is limited as to amount.

48. This reflects a further central difficulty with methods of treatment: a claim to a new purpose is not a manner of manufacture. This is an entirely different question from whether the invention claimed is in truth novel.

49. In the UK and Europe, methods of treatment are expressly excluded – originally as not being "*capable of industrial application*".[70] The unsound experiment with "*Swiss-form*" claims has ceased, as noted below, and "*purpose-related*" product protection is permitted, whereby - as a question of novelty - a substance (not a method) may be patented "*for use in any such* [otherwise excluded] *method*" of treatment.[71] How claims in that form can be infringed under Australian law, other than by supply with instructions as per s117(2)(c), is unclear.

50. The facts of the present case illustrate this further reason why a method of treatment is not patentable: the determination of the proper scope of a claim

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[68] *University of Western Australia v Gray (No 20)* (2008) 246 ALR 603 at 936-938.
[69] Apotex has always accepted that this ground must be made out on the face of the specification, in light of, *inter alia*, *Advanced Building Society v Ramset* (1998) 194 CLR 171.
[70] 1977 UK Act, s(1)(c); s4(2). See now s 4A(1)(a).
[71] 1977 UK Act, s4A.

"*for preventing or treating*" a given medical condition inevitably gives rise to questions of the purpose of the person administering the treatment. This is undoubtedly the case here, where the manner in which Leflunomide is used i.e. the dosage amounts and frequency and mode of administration are the same in the admittedly non-infringing context of RA as in the (as held) infringing context of PsA. The only distinction is purpose. As Dixon J said in *Maeder v Busch*, "*[i]t is difficult to base any legal distinction on the motive or purpose of the operator or manipulator or on the vocation he pursues*".[72] The undesirability of intervention in the physician's purpose is a reason why methods of treatment are not patentable in many places.

51. Apotex therefore submits, independently from its primary argument concerning methods of treatment generally, that an invention limited by purpose is not patentable. Keane CJ sets out part of Apotex's argument on this at [38]-[40]. This was based on the principle noted by Lord Hoffman in *Merrell Dow Pharmaceuticals Inc v HN Norton & Co Ltd & Penn Pharmaceuticals Ltd* (***Merrell Dow***),[73] commenting on the difficulty in applying the decision of the Enlarged Board of Appeal of the European Patent Office in *Mobil/Friction Reducing Additive Decision*:[74]

> *... in the United Kingdom at least, this aspect of the Enlarged Board's decision has been criticised on the ground that a patent for an old product used in an old way for a new purpose makes it difficult to apply the traditional United Kingdom doctrine of infringement. Liability for infringement is, as I have said, absolute. It depends upon whether the act in question falls within the claims and pays no attention to the alleged infringer's state of mind. But this doctrine may be difficult to apply to a patent for the use of a known substance in a known way for a new purpose. How does one tell whether the person putting the additive into his engine is legitimately using it to inhibit rust or infringing by using it to reduce friction?*[75]
>
> (emphasis added)

52. The answer given to that question in the context of European practice has no satisfactory application in Australia. An invention that can only be defined by a physician's purpose is not patentable, *a fortiori* where, as here, different physicians might have different purposes.

53. Apotex respectfully submits that methods of treatment, or in the alternative, methods of treatment for second or subsequent medical uses are not

[72] *Maeder v Busch* at 706.
[73] [1996] RPC 76 at 92.
[74] G2/88 [1990] OJ EPO 93; G02/88 [1990] EPOR 73.
[75] *Merrell Dow* at 92.

inventions in Australia in terms of the definition in Schedule 1 of the Act. The claimed invention is not a manner of manufacture in terms of s18(1)(a).

UK, European Patent Convention and TRIPS

54. Methods of medical treatment continue to be excluded from being patentable inventions in the UK: 1977 UK Act, s 4A(1)(a). This reflects the position under the EPC including after its amendment in 2000: Art 53(c) (formerly Art 52(4)). This is permitted under Art 27(3) of the Agreement on Trade-Related Aspects of Intellectual Property (**TRIPS**), to which Australia is also a party.[76]

55. This question in the UK has progressed through three stages since 1977:

(a) The direct exclusion by s4(2) of the 1977 UK Act; *"An invention of a method of treatment... shall not be taken to be capable of industrial application."*;

(b) the now-abolished device of claims in "*Swiss-form*";[77] and

(c) the deletion of s4(2) and insertion of s4A,[78] which directly excludes methods of treatment[79] but contemplates the patentability of a substance "*...for use in any such method*",[80] i.e., "*purpose-related product protection*".[81]

56. The traditional exclusion of methods of medical treatment of humans from the class of patentable inventions is reflected in the *travaux préparatoires* to the EPC and, in particular, the 14th meeting of the Patents Working Party held in Brussels from 1-12 June 1964 at which methods of treatment were not considered as an "*invention*" because that was the position under the national laws of the then member states of the European Economic Community.[82] As one commentator has put it, "*From the commencement of*

[76] [1995] ATS 38.
[77] *John Wyeth & Brother Ltd's Application* [1985] RPC 545 at 565-567, applying the decision of the Enlarged Board of Appeal of the European Patent Office in *Re Eisai Co Ltd* (*Eisai*) G5/83 [1985] OJ EPO 64; *Bristol-Myers Squibb Co v Baker Norton Pharmaceuticals Inc* [1999] RPC 253 at [39]-[46], esp. [45] criticising, but following, *Eisai*; *Actavis UK Ltd v Merck & Co Inc* [2008] RPC 26 at [7]-[31]; *Abbott Respiratory* (G2/08) [2010] OJ EPO 456, overturning *Eisai*.
[78] Following an amendment to the EPC, Article 54(5).
[79] 1977 UK Act, s4A(1)(a).
[80] 1977 UK Act, s4A(2).
[81] *Abbott Respiratory* (G2/08) [2010] OJ EPO 456 at [7.1.2].
[82] Minutes of the Proceedings of the 14th meeting of the Patents Working Party held in Brussels from June 1-12, 1964, p 22; cited in Ventose, "In the footsteps of the framers of the European Patent Convention: examining the *travaux préparatoires*", *European Intellectual Property Review*, (2009), 31(7) 353-363, fn 7.

the process, the exclusion of methods of medical treatments from patent protection was seen as beyond question."[83]

57. The distinction between methods of treatment and uses of products for such methods was explained by the EPO Enlarged Board as follows:

> *De facto the two concepts of a method for treatment by therapy and of a product to be used in such a method are so close to each other, that there is a considerable risk of confusion between them unless each is confined to its own domain as allocated to it by the law.... in respect of claims directed to therapy, method claims are absolutely forbidden in order to leave the physician free to act unfettered, whereas product claims are allowable provided their subject matter be new and inventive.*[84]

USA

58. Pursuant to 35 United States Code (**USC**) § 101 Inventions Patentable, "*Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of* [title 35]." There is no exclusion of methods of medical treatment *per se*.

59. In the mid-1990s, however, concerns about the patenting of medical and surgical procedures led to the enactment of 35 USC § 287(c) which deprives patentees of remedies against medical practitioners engaged in infringing "*medical activity*" (the performance of a medical or surgical procedure on a body but not the practice of a patented use of a composition of matter).[85]

60. The United States legislation provides that it is an infringement to seek regulatory approval to market a drug - patented *per se* or in respect of a particular use - if the purpose of the regulatory application is to obtain approval "*...to engage in the commercial manufacture, use, or sale of a drug...claimed in a patent or the use of which is claimed in a patent...*": 35 USC § 271(e)(2). This was construed in *AstraZeneca Pharmaceuticals LP v Apotex Corp,*[86] applying *Warner-Lambert Co. v Apotex Corp.*[87] In each of

[83] Ventose, supra at p 354.
[84] *Abbott Respiratory* (G2/08) [2010] OJ EPO 456 at [5.7].
[85] See too Adelman, Rader & Thomas, *Cases and Materials on Patent Law*, 3rd ed, (2009) at pages 75-76. Finkelstein J referred to this provision in *Bristol-Myers Squibb* at 566.
[86] 669 F.3d 1370 (Fed. Cir. 2012).
[87] 316 F.3d 1348 (Fed. Cir. 2003).

those cases, the Court of Appeals for the Federal Circuit held that no infringement under 271(e)(2) could lie if the indications for which the alleged infringer sought regulatory approval differed from the methods of treatment claimed in the asserted patents. Thus, unless the alleged infringer sought regulatory approval to sell the product for the claimed method of treatment, the mere fact that the product could in theory be used for that purpose was insufficient.

New Zealand

61. In *Wellcome Foundation Limited v Commissioner of Patents* [1979] 2 NZLR 591 (***Wellcome***), Davison CJ held that methods of treatment were patentable. Relevantly, his Honour's main reasoning adopted Barwick CJ's suggestion that *NRDC* had this effect, by the removal of a requirement for a vendible product. As submitted, that is incorrect. On appeal, in *Wellcome v Commissioner* [1983] NZLR 385, the Court of Appeal held that methods of medical treatment were not patentable but the Chief Justice's view has had more acceptance in the Federal Court of Australia.

62. The New Zealand Court of Appeal considered *Wellcome* in *Pharmaceutical Management Agency Ltd v Commissioner of Patents* (**Pharmac**) [2000] 2 NZLR 529, in the course of a decision upholding the patentability of "*the Swiss form of claim*".[88] Drawing perhaps too nice a distinction, at [29], the Court said that "*...it no longer can be said that a method of treating humans cannot be an invention*", while it nevertheless maintained the exclusion of their patentability.

63. In *Pfizer Inc v Commissioner of Patents* [2005] 1 NZLR 362, the Court of Appeal held both that *Pharmac* did not overrule *Wellcome*[89] and that *Wellcome* should not be overruled.[90] Thus the present position in New Zealand is that methods of treatment are not patentable.

64. The New Zealand *Patents Bill 2012* contains, in clause 15, a specific exclusion of methods of treatment of human beings by surgery or therapy and of methods of diagnosis.

[88] As a question of novelty.
[89] *Pfizer Inc v Commissioner of Patents* [2005] 1 NZLR 362 at [42]-[43].
[90] *Pfizer Inc v Commissioner of Patents* [2005] 1 NZLR 362 at [80]-[85].

Canada

65. It appears that a method of treatment is not patentable in Canada: *Janssen Inc v Mylan Pharmaceuticals ULC*, 2010 FC 1123, 88 C.P.R. (4th) 359. See also *Apotex Inc v Wellcome Foundation Ltd*, 2002 SCC 77, [2002] 4 S.C.R. 153. The rationale appears to include a reluctance to intervene in areas of the physician's judgment.

Section 117

66. If methods of treatment are patentable, some consideration of purpose is inescapable. The present issue is whether Apotex has reason to believe that doctors will use it for the claimed purpose. Apotex submits that special leave should be granted to agitate that question. It is closely related to the question whether and on what basis claims to a second or subsequent medical use are patentable.

67. In the field of generic drugs, the original compound patent will usually have expired and secondary liability via s117 for a practitioner's medical use of the compound is the central issue on infringement. The Full Court's approach gives s117(2)(b) a scope far beyond that intended and beyond the US doctrine of contributory infringement, from which s117 was principally derived. [91]

68. The issue with respect to which special leave is sought is what constitutes the necessary "*reason to believe*", for the purposes of s117(2)(b), in a field where drug '*indications*' are closely regulated. Apotex submits that it can only have reason to believe that its product will be used for the purposes indicated in its Product Information.

69. The Full Court also upheld the primary Judge's finding that s117(2)(c) applied.[92] To come within that paragraph, Apotex must threaten[93] to instruct etc. the use of Leflunomide where use "*in accordance*" with the instructions would be for the purpose of treating or preventing psoriasis. If special leave is granted, Apotex would also submit that that conclusion was wrong.

70. The primary basis on which the primary Judge held that s117(2)(c) [94] was satisfied was because, even if the instruction were read as confined

[91] *Northern Territory v Collins* (2008) 235 CLR 619 at [106]-[110].
[92] *Apotex v Sanofi* per Keane CJ at [57]; per Bennett and Yates JJ at [146].
[93] The infringement case was conducted on a *quia timet* basis.
[94] Because the Courts below relied on the conclusions with respect to para (2)(c) to inform the approach to para (2)(b), the former provision is addressed first.

(relevantly) to administration to treat PsA, the effect in fact would be to treat psoriasis.[95] As submitted below, the Full Court rejected that construction of the claim but upheld the finding.

71. The primary Judge also held that the Indication, "*Apo-Leflunomide is indicated for the treatment of:... Active Psoriatic Arthritis. Apo-Leflunomide is not indicated for the treatment of psoriasis that is not associated with manifestations of arthritic disease*"[96] amounted to a positive instruction to use Leflunomide for the treatment or prevention of psoriasis. To read that "*double negative*"[97] as a positive is wrong as a pure question of construction. The physician is told to use Leflunomide for the treatment of PsA. Like RA, PsA is a joint disease. Reflecting the regulatory regime whereby "*indications*" are strictly controlled, the PI says what is permitted but states that the therapeutic good is "*not indicated*" for psoriasis *per se*.[98] The PI cannot sensibly be read as, an instruction "*in accordance with*" which a medical practitioner would use Leflunomide for the purpose of treating or preventing psoriasis. It instructs doctors to use Leflunomide for the treatment or prevention of PsA.

72. The primary Judge's conclusion that Apotex infringed via s117(2)(b) also followed from her Honour's conclusion that para (2)(c) was engaged.[99] As submitted, that conclusion was wrong.

73. The primary Judge additionally relied on the "*effect in fact*"[100] that "*administration of an effective amount of Leflunomide to a person with PsA will ... treat or prevent psoriasis...*".[101] As noted, each member of the Full Court had rejected that construction, preferring a test of objective purpose.[102] The Court nevertheless upheld her Honour's finding.

74. In doing so, the Full Court then applied a subjective, rather than objective, construction of the claim. Compare Bennett and Yates JJ's [125] with their Honours' reliance on the evidence that Professor Brooks "*would administer*

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[95] *Sanofi v Apotex (No 3)* at [262].
[96] *Sanofi v Apotex (No 3)* at [261].
[97] *Sanofi v Apotex (No 3)* at [262].
[98] See the *Therapeutic Goods Act 1989* (Cth), s3(1) ("indications"); s16(1)(e); s22(5); s25AA; s28(5)(ab). See also *Sanofi v Apotex (No 4)* at [13]-[21].
[99] *Sanofi v Apotex (No 3)* at [263].
[100] *Sanofi v Apotex (No 3)* at [151].
[101] *Sanofi v Apotex (No 3)* at [262]-[263].
[102] *Apotex v Sanofi*, per Keane CJ at [40], [46]; Bennett and Yates at [125]-[126].

leflunomide with the treatment of both conditions in mind",[103] and to that evidence as supporting the finding by the primary Judge at [130] [104] that,

> *...if leflunomide is administered to a patient with PsA by a rheumatologist, that administration would be expected by the rheumatologist to prevent or treat the patient's psoriasis, to some extent at least.*[105]
>
> (emphasis added)

75. Reliance on the doctor's expectation is also contrary to Keane CJ's construction at [40] and [46]. This construction was left behind at [54]-[57] where his Honour also relied on Professor Brooks' evidence[106] as to his state of mind. By contrast, Professor Smith, called by Sanofi, said that he was "*...treating the psoriatic arthritis... not treating the psoriasis*"[107] and that treating the psoriasis was not his "*...primary aim of treating the patient*".[108] This conflict on the evidence raises squarely the difficulty with purpose-defined infringement identified by Lord Hoffmann in the passage from *Merrell Dow* extracted above.

76. Thus Apotex was found to infringe on a *quia timet* basis notwithstanding a disconformity between the indications for which its products were to be used (cf the US position discussed above) and the conflict in the evidence as to the purpose of practitioners in administering Leflunomide. It follows that there was no proper foundation for a conclusion that Apotex threatened to supply Leflunomide in circumstances attracting the operation of s 117.

Part VII: Legislation

77. Copies of the relevant provisions of Australian and other statutes will be provided in an agreed book at the time of filing Apotex's submission in reply.

Part VIII: Orders sought

78. Apotex seeks the following orders:

(1) Special leave be granted to the Applicant/Appellant to appeal to this Court from the whole of the judgment and order of the Full Court of the Federal Court of Australia given and made on 18 July 2012 in

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[103] *Apotex v Sanofi* at [149].
[104] *Sanofi v Apotex (No 3)*. Also see *Apotex v Sanofi* at [149]-[150]. Cf Professor Smith's evidence: *Sanofi v Apotex (No 3)* at [43].
[105] *Apotex v Sanofi* at [150].
[106] Whom the primary Judge had held was "ahead of the pack": *Sanofi v Apotex (No 3)* at [221].
[107] *Apotex v Sanofi* at [151] (from *Sanofi v Apotex (No 3)* at [43]).
[108] *Apotex v Sanofi* at [151] (from *Sanofi v Apotex (No 3)* at [43]).

relation to Ground 3 in the Draft Notice of Appeal filed on 10 September 2012.

(2) The appeal be allowed with costs.

(3) The orders of the Full Court of the Federal Court of Australia made on 18 July 2012 be set aside and in lieu thereof the following orders be made:

(a) The appeal be allowed in part.

(b) Orders 2, 3, 4, 6 and 8 made by the primary Judge on 18 November 2011 be set aside.

(c) Order 1 made by the primary Judge on 24 February 2012 be set aside.

(d) Australian Patent No. 670491 be revoked.

(e) Paragraphs 14 - 22 of the Amended Application dated 22 September 2009 be dismissed.

(f) The matter be remitted to the Full Court on the questions of costs of the appeal to that Court and the costs of the trial (which latter question may, at the discretion of the Full Court, be remitted to the primary Judge).

Part IX: Time Estimate

79. Apotex estimates that 3 ¼ hours will be required for its submissions, 4 hours if special leave is granted in relation to s117.

Dated: 25 January 2013

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