INTELLECTUAL PROPERTY OFFICE

BL O/335/10

24 September 2010

COUNCIL REGULATION (EC) 469/2009 CONCERNING THE CREATION OF A SUPPLEMENTARY PROTECTION CERTIFICATE FOR MEDICINAL PRODUCTS

APPLICANTS	University of Queensland and CSL Limited
ISSUE	Whether SPC applications SPC/GB 07/014, 07/015, 07/016, 07/017, 07/021, 07/081, 07/082 and 07/084 comply with Article 3 and may be granted
HEARING OFFICER	Dr L Cullen

DECISION

Introduction

1 This decision relates to eight applications for supplementary protection certificates (SPCs) in the name of the University of Queensland and CSL Limited all of which relate to vaccine products that provide protection against infection by Human Papillomavirus (HPV). These products are in the form of virus-like particles (VLPs) comprising the respective HPV L1 proteins.

2 The details of these 8 various SPC applications including the product definitions are summarised in Table 1.

3 These applications are based on three patents as indicated in Table 1. The parent patent EP(UK) 0595935 B1 entitled 'Papillomavirus Vaccines', was filed on 20 July 1992, with an earliest priority date in Australia of 19 July 1991, and was granted on 19 March 2003. First divisional patent EP(UK) 1298211 B1, entitled 'Polynucleotide segment of HPV16 Genome' was granted on 12 July 2006. Second divisional patent EP(UK) 1359156 B1, entitled 'Vaccine against Human Papillomavirus' was granted on 7 March 2007. The expiry date of this patent family is 19 July 2012.

Table 1: SPC applications for Human Papillomavirus (HPV) vaccines filed by University of Queensland & CSL Ltd.

Application	**SPC/GB 07/014**	**SPC/GB 07/015**	**SPC/GB 07/016**	**SPC/GB 07/017**	**SPC/GB 07/021**	**SPC/GB 07/081**	**SPC/GB 07/082**	**SPC/GB 07/084**
Type of Product	Combination	Single	Single	Single	Single	Single	Single	Combination
Basic Patent	EP 0595935	EP 0595935	EP 0595935	EP 1298211	EP 1359156	EP 1298211	EP 1359156	EP 1359156
Title of Basic Patent	"Papillomavirus Vaccine"	"Papillomavirus Vaccine"	"Papillomavirus Vaccine"	"Polynucleotide segment of HPV16 Genome	"Vaccine against Human Papillomavirus (type 18)"	"Polynucleotide segment of HPV16 Genome"	"Vaccine against Human Papillomavirus (type 18)"	"Vaccine against Human Papillomavirus (type 18)"
Marketing Authorisation (MA)	Gardasil	Gardasil	Gardasil	Gardasil	Gardasil	Cervarix	Cervarix	Cervarix
Title of MA	"Gardasil – Human Papillomavirus [Types 6,11,16,18] vaccine (recombinant, adsorbed)	Gardasil – Human Papillomavirus [Types 6,11,16,18] vaccine (recombinant, adsorbed)	Gardasil – Human Papillomavirus [Types 6,11,16,18] vaccine (recombinant, adsorbed)	Gardasil – Human Papillomavirus [Types 6,11,16,18] vaccine (recombinant, adsorbed)	Gardasil – Human Papillomavirus [Types 6,11,16,18] vaccine (recombinant, adsorbed)	Cervarix – Human Papilloma Virus 16 and Human Papilloma Virus 18 L1 proteins"	Cervarix – Human Papilloma Virus 16 and Human Papilloma Virus 18 L1 proteins"	Cervarix – Human Papilloma Virus 16 and Human Papilloma Virus 18 L1 proteins"
Definition of Product (from form SP1)	"The combination of HPV6, HPV11, HPV16 & HPV18 virus-like particles"	"HPV11 virus-like particle"	"HPV6 virus-like particle"	"HPV16 virus-like particle"	"HPV18 virus-like particle"	"HPV16 virus-like particle"	"HPV18 virus-like particle"	"The combination of HPV16 & HPV18 virus-like particles"
HPV virus(es) covered	HPV6 + HPV11 + HPV16 + HPV18	HPV11	HPV6	HPV16	HPV18	HPV16	HPV18	HPV16 + HPV18
Article of SPC Regulation at issue	Article 3(a)	Article 3(b)	Article 3(b)	Article 3(b)	Article 3(b)	Article 3(b)	Article 3(b)	Article 3(a)

4 Two marketing authorisations (MAs) are supplied in support of these various applications: EU/1/06/357/001-017 for the medicinal product Gardasil (RTM) granted on 20 June 2006 by Commission Decision C(2006)4281 to Sanofi Pasteur MSD, France; and EU/1/07/419/001-009 for the medicinal product Cervarix (RTM) granted on 20 September 2007 by Commission Decision C(2007)4440 to GlaxoSmithKline Biologicals, Belgium[1]. Details of the medicinal products covered by these marketing authorisations are provided in Table 2. These authorisations are all valid in the UK.

Table 2: Combinations of active ingredients listed in the UK Marketing Authorisations provided in support of SPC applications SPC/GB 07/014, 07/015, 07/016, 07/017, 07/021, 07/081, 07/082 and 07/084.

Medicinal Product	***GARDASIL[2]***	***SILGARD[2]***	***CERVARIX[3]***
EU Marketing Authorisation	EU/1/06/357/ 001-017	EU/1/06/358/ 001-017	EU/1/07/419/ 001-009
Human Papilloma Virus (HPV) type 6 L1 protein 1	✓	✓	-
Human Papilloma Virus (HPV) type 11 L1 protein 1	✓	✓	-
Human Papilloma Virus (HPV) type 16 L1 protein 1	✓	✓	✓
Human Papilloma Virus (HPV) type 18 L1 protein 1	✓	✓	✓
Total # of active ingredients	**4**	**4**	**2**

5 As will be noted from Table 2, the difference between the two MAs is that Gardasil is an MA for a 4 component HPV vaccine and Cervarix is an MA for a two-component vaccine. The Summary of Product Characteristics (SmPC) for each MA which is annexed to the decision granting the respective marketing authorisation provides greater detail of the active ingredients in these medicinal products.

6 In application SPC/GB 07/014, the applicant is seeking an SPC for the combination of active ingredients of the combined four component Gardasil vaccine whereas in SPC applications SPC/GB 07/015, 016, 017 & 021 the applicant is seeking an SPC for each of the single components of the authorised four component HPV vaccine – see Table 1. In application SPC/GB 07/084, the applicant is seeking an SPC for the combination of

[1] The applicant has also provided a copy of marketing authorisation number EU/1/06/358/001-017 for the medicinal product Silgard (RTM), granted on 20 June 2006, by Commission Decision C(2006)4283, the same date as the MA for Gardasil with all the applications based on Gardasil (i.e. SPC/GB 07/014-017 & 07/021). The Summary of Product Characteristics (SmPC) for Silgard, annexed to the decision granting the marketing authorisation, indicates that it is an identical medicinal product to that in Gardasil. The same recombinant techniques were used to produce the vaccines covered by each of these MAs. The only difference is that the authorisation for Gardasil is granted to Sanofi Pasteur MSD (part of Merck, Sharp & Dohme) in France while that for Silgard is granted to Merck, Sharp & Dohme in the UK. The comments in relation to Gardasil apply equally to Silgard.

[2] The L1 proteins in Gardasil and Silgard are produced using the same recombinant DNA procedures to obtain the recombinant L1 proteins in the form of virus like particles (VLPs): for Silgard and Gardasil, the VLPs are produced in yeast cells - *Saccaromyces cervisiae CANADE 3C-5 (strain 1895)*; see respective Marketing Authorisation for further details.

[3] For Cervarix, the recombinant L1 proteins VLPs are produced in a *Baculovirus* expression system which uses Hi-5 Rix4446 cells derived from the insect *Trichoplusia ni*; see respective Marketing Authorisation for further details.

active ingredients of the combined two component Cervarix vaccine whereas in SPC applications SPC/GB 07/081 & 07/082 the applicant is seeking an SPC for each of the single components of the authorised two component HPV vaccine – see Table 1. Considering these eight SPC applications, it is clear that the applicant has applied for SPCs to cover all the possible single HPV vaccine active ingredients as well as each combination of two and four HPV vaccine active ingredients covered by the marketing authorisations for Gardasil and Cervarix.

View of the examiner

7 The view of the examiner, first expressed in the examination report dated 28 September 2007, was that SPC applications SPC/GB 07/015, 07/016, 07/017 & 07/021 for the single active ingredients HPV6, HPV11, HPV16 and HPV18 respectively did not meet the requirements of Article 3(b) of Regulation 469/2009 (hereafter the 'Regulation')[4]. The marketing authorisation for Gardasil, which was supplied in support of each of these SPC applications, is not a valid authorisation for a medicinal product to place the products for which an SPC application has been made, on the market for human use. As indicated in Table 2, this authorisation is for a medicinal product which has a combination of four active HPV vaccine ingredients, whereas the product for which protection is being sought in each application is a single HPV active ingredient.

8 Similarly, the view of the examiner in relation to SPC applications SPC/GB 07/081 and 07/082 for the single active ingredients HPV18 and HPV16 respectively, first expressed in the examination report dated 4 December 2009, was that they also did not meet the requirements of Article 3(b) of Regulation 469/2009. The marketing authorisation for Cervarix, which was supplied in support of each of these SPC applications, is not a valid authorisation for a medicinal product to place the products for which an SPC application has been made, on the market for human use. As indicated in Table 2, this authorisation is for a medicinal product which authorises a product that is a combination of two active HPV vaccine ingredients, whereas the product for which SPC protection is being sought in each application is a single HPV active ingredient.

9 The examiner also noted in his correspondence with the applicant in relation to SPC/GB 07/081 and 07/082 that these applications are for the same product as SPC/GB 07/017 and SPC/GB 07/021 respectively and indicated that, in his view, if these applications were found to overcame the objection in relation to Article 3(b) of the Regulation, there would be an issue in relation to Article 3(2) of EC Regulation 1610/96 which applies *mutatis mutandis* to Regulation 469/2009.

View of the applicant

10 In their letter dated 1 February 2007, the applicant explained in detail the reasons why they disagreed with the examiners view. The argument presented by the applicant & his agent can be summarised in the following fashion:

> (1) The basic patents protecting the individual HPV L1 protein VLPs were filed in July 1992. A marketing authorisation approving medicinal products

[4] EC Regulation 469/2009 concerning the creation of a supplementary protection certificate for medicinal products is a codification of and has superceded EC Regulation 1768/92.

consisting of the various HPV L1 protein VLPs was granted in September 2006, over 14 years later. The authorised product Gardasil contains a combination of four active ingredients - the recombinant L1 proteins of HPV6, HPV11, HPV16 and HPV18 virus-like particles. None of the individual active ingredients have been the subject of a marketing authorisation before. Each component of Gardasil can be considered to be effective against a different disease. The recombinant L1 protein of HPV18 only provides protection against HPV18 mediated cervical cancer. The applicant thus will have a little over 5 years to exploit their basic patents, i.e. a quarter of the normal patent term, and recoup the investment that the company has made in this product. Denying a SPC in this circumstance will circumvent the purpose of the Regulation, for example, as laid out in recitals 3 and 4 of the Regulation, as recognised by the CJEU in *Farmitalia Carlo Erba SrL's SPC Application* (case C-392/97). This was also highlighted by the UK Court in the *Draco* decision (see *Draco A.B.'s SPC Application,* [1996] RPC especially lines 14-15, page 437).

(2) The applicant finds support for their view in (a) the practice in other European jurisdictions, namely, France and Italy who have granted some equivalent SPCs to those at issue here; and (b) in previous practice at the Intellectual Property Office (IPO), citing five earlier UK SPC applications which have been granted previously in circumstances identical in their view to the present ones.

(3) The applicant also considers that the *Draco* decision referred to above should not be applied in the present case because there is only one MA at issue here (rather than 3 MAs concerning the same product) and so there is no concern regarding granting SPC protection for a period exceeding the maximum term. Also the product for which the SPC application is being sought is covered by a patent and so cannot be considered to be 'formulation research' which was not patented as was the case in *Draco*.

Relationship to Earlier IPO decisions

11 As mentioned above, the issues raised in this case concern the interpretation of Articles 3(a) and 3(b) of the Regulation and are very similar to the issues raised in two earlier office decisions which also relate to vaccines, *Medeva* (see *BL O/357/09*)[5] and *Georgetown et al*. *(see BL O/401/09)*[6]. The examiner wrote to the applicant on 23 April 2010 indicating that the Office proposed to defer further consideration of the five applications citing the MA for Gardasil until the outcome of both of the above decisions, which had been appealed and are currently the subject of references by the UK Courts to the Court of Justice of the European Union (CJEU), was known[7,8].

[5] The *Medeva* case (*BL O/357/09*) concerned applications SPC/GB 09/015-09/019 in the name of Medeva B.V. For full text of IPO decisions see http://www.ipo.gov.uk/pro-types/pro-patent/pro-p-os/p-challenge-decision-results.htm under the relevant BL number. See also *Medeva B.V. v the Comptroller General of Patents*, [2010] EWHC 68 (Pat) (Kitchen J) which upheld the Office decision on appeal.

[6] The *Georgetown et al*. (*BL O/401/09*) case concerns SPC applications SPC/GB 07/070, 07/071, 07/073, 07/078, 07/079 and 07/080 in the name of Georgetown University; SPC/GB 07/069 in the name of Loyola University of Chicago and SPC/GB 07/075 in the name of University of Rochester.

[7] See the Order for Reference to the Court of Justice of the European Union (CJEU) dated 24 June 2010

12 The applicant responded on 14 July 2010 waiving their right to be heard and asking that a single decision be issued on the five applications SPC/GB 07/014, 07/015, 07/016, 07/017 and 07/021 citing the MA for Gardasil on the basis of the papers currently on file. The applicant also requested that this decision not be deferred as proposed in the official letter dated 23 April 2010.

13 The applicant wrote on 26 August 2010 in response to a telephone enquiry from the Office to indicate that this decision on the papers should also consider the three SPC applications based on the MA for Cervarix, i.e., SPC/GB 07/081, 07/082 and 07/084, which were identified by the examiner in the letter of 23 April 2010 as being closely related to the five SPC applications based on the MA for Gardasil. The applicant no longer wished to defer further consideration of all eight applications until the outcome of the references to the CJEU in relation to the *Medeva* and *Georgetown et al.* cases are known (see footnote 7 & 8). Their principal reason for doing so was that, on the assumption that the Hearing Officer's decision would be to refuse these eight applications in agreement with the views of the examiner, the applicant would appeal the decision and seek a referral to the CJEU from the UK courts so that relevant related issues in this case can be considered at the same time as those in the *Medeva* and *Georgetown et al.* cases referred to above.

14 The case was passed to me as the Hearing Officer to consider the request to withdraw the "stay" and to issue a decision. Although it is not certain that a hearing officer will confirm the view of the examiner, as to the allowability or not of an SPC application, I am satisfied that, if I were to do so, the questions at issue in this case, although related, are sufficiently different, that they would complement those already being asked and so serve a useful purpose. If I considered that it was not a sensible use of resources and/or the questions at issue in this case were not sufficiently different to serve a useful purpose, I would not be inclined to agree with the request. While I do not know if a higher court will agree to make a reference on appeal from an IPO decision, it is sufficient that I consider, should one be made, that it would help provide greater clarity and consistency in how the SPC Regulation is applied.

15 As indicated above, the eight SPC applications filed by the applicant divide into two types, two of the applications relate to the interpretation of Article 3(a) while the other six applications relate to the interpretation of Article 3(b) of the Regulation. It is these latter six cases which I consider are sufficiently different from the earlier *Medeva* and *Georgetown et al.* cases to warrant dealing with them now rather than waiting for the outcome of the referral to the CJEU.

16 In the most general sense, the applicant is seeking SPCs for the single components A, B, C or D based on a family of basic patents that disclose these products singly, i.e. patent 1 covers products C or D, patent 2 covers product A and patent 3 covers product B. Of the two marketing authorisations that are being cited in support of these SPC

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from the UK Court of Appeal in relation to *Medeva*. The Medeva case has been assigned case no C-322/10 by the CJEU – see http://curia.europa.eu/jcms/jcms/j_6/ for further details.

[8] See the Order for Reference to the Court of Justice of the European Union (CJEU) dated 22 July 2010 from the UK Patents Court (Chancery Division) in relation to *Georgetown et al*. No case reference number had yet been assigned to the *Georgetown et al*. referral on the date that this decision was issued.

applications for single products, one authorises a medicinal product comprising two active components A+B, and the other authorises a medicinal product comprising four active components A+B+C+D. The applicant considers that an SPC can be granted in this situation for each of the individual components of an authorised combination product (in addition to the combination itself). The applicant argues that they will not be able to obtain any SPC protection if the IPO maintains the view of the examiner and so the applicant will be prevented from gaining any compensation at all for the patent term lost until the MA was granted. This is, in their view, a harsh result. This situation has not arisen in the two earlier cases that are currently the subject of CJEU references. For example, in the *Georgetown et al.* case the applicant has been able to obtain SPC protection for the two combination products HPV16 + HPV18 and HPV6 + HPV11 + HPV16 + HPV18 as the relevant applications met the requirements under Article 3(a) of the Regulation (see below). In particular, for reasons, I will outline below, I consider that adopting the approach favoured by the applicant raises a possible question regarding so-called 'evergreening' of SPCs.

17 In this decision, I will first consider applications SPC/GB 07/015, 07/016, 07/017, 07/021, 07/081 and 07/082 where the question at issue is the interpretation of Article 3(b) of the Regulation. I will then turn to consider applications SPC/GB 07/014 and 07/084 where the question at issue is the interpretation of Article 3(a) of the Regulation.

The Relevant Law – Article 3 of EC Regulation 469/2009

18 Article 3 of the Regulation defines the conditions for obtaining a certificate (emphasis added):

> **"Article 3**
>
> A certificate shall be granted if, in the Member State in which the application referred to in Article 7 is submitted and at the date of that application:
>
> **(a) the product is protected by a basic patent in force;**
>
> **(b) a valid authorisation to place the product on the market as a medicinal product has been granted in accordance with Directive 2001/83/EC or Directive 2001/82/EC, as appropriate;**
>
> (c) the product has not already been the subject of a certificate;
>
> (d) the authorisation referred to in point (b) is the first authorisation to place the product on the market as a medicinal product"

19 Article 1 of the Regulation provides definitions for these terms as follows:

> "**Article 1**
>
> For the purposes of this Regulation, the following definitions shall apply:
>
> (a) **'medicinal product'** means **any substance or combination of substances** presented for treating or preventing disease in human beings or animals and any substance or combination of substances which may be administered to human beings or animals with a view to making a medical diagnosis or to restoring, correcting or modifying physiological functions in humans or in animals;
>
> (b) '**product**' means **the active ingredient or combination of active ingredients of a medicinal product**;
>
> (c) 'basic patent' means a patent which protects a product as such, a process to obtain a product or an application of a product, and which is designated by its holder for the purpose of the procedure for grant of a certificate;

(d) ‘certificate’ means the supplementary protection certificate.”

(emphasis added in bold)

SPC Applications SPC/GB 07/015, 016, 017, 021, 081 and 07/082

20 The issue at question in relation to these six SPC applications is the interpretation of Article 3(b), and consequently of Article 1(b), of Council Regulation (EC) 469/2009 and whether or not the product for which an SPC has been applied for in each case is covered by a valid authorisation to place it on the market as a medicinal product.

Article 3(b) - The Relevant Case Law and its Interpretation

21 From Articles 1 and 3 of the Regulation, the term “product” means the active ingredient or combination of active ingredients of a medicinal product whilst the term “medicinal product” refers to any substance or combination of substances presented for treating or preventing disease in human beings of animals. This makes clear that certificates are not granted for the medicinal product but rather for the active ingredients present in a medicinal product. Article 1(c) makes clear that the basic patent must protect the product.

22 The interpretation of Articles 1(a) and (b) was set out in *Draco A.B.’s SPC Application* (*see* [1996] RPC 417). The importance of the definitions provided by Articles 1(a) and 1(b) and the role of the marketing authorisation was considered by Jacob J as he then was. He noted that the distinction made in these definitions must also be applied in reading recitals 8 and 9 and thus he makes clear that the protection granted by a certificate is strictly confined to the active ingredient which is presented for treatment. At page 438, lines 30 to 35 of his judgment, he stated:

> "*It will be noted that the two recitals use both the phrase medicinal product and product. Without more there could be ambiguity. This is because authorisations typically are not for active ingredients as such. They are much more tightly drawn, generally to dosage and formulation or presentation. That has to be so because the actual performance of an active ingredient depends on these matters in addition to the active ingredient itself.*"

He went on to note that the authors of the Regulation had thought about the difference between the active ingredient and the actual formulation, and in so doing had defined "medicinal product" and "product" in Article 1. He then stated at page 439, lines 1 to 5:

> *"I have no doubt, nor do I think anyone else would have any doubt, that recitals 8 and 9 must be read as using these definitions. So strictly confined to the product which obtained authorisation means: strictly confined to the active ingredient of that which is presented for treatment."*

27 As a result the protection afforded by a certificate extends only to the product (the active ingredient or combination of active ingredients) covered by the authorisation to sell the corresponding medicinal product. Thus, it is clear that a marketing authorisation for a medicinal product which comprises a single active ingredient does not meet the condition for grant laid down by Article 3(b) in the situation where an SPC is sought for a combination of active ingredients. The converse is also true as a marketing authorisation for a medicinal product which comprises a combination of active ingredients does not meet the condition for grant laid down by Article 3(b) in the situation where an SPC is sought for a single active ingredient. More recently, Jacob LJ has again considered the interpretation of the Regulation and Article 1 in the Court of Appeal decision in *Generics UK v Daiichi*, 2009 EWCA CIV 646. At paragraph 58 he states:

> *"58. In the Regulation "product" means "the active ingredient or combination of active ingredients" (Art.2(b)). Clearly that must be read with the words "as the case may be" at the end. If you have two active ingredients the "product" is the pair of them. And ofloxacin is a combination of significantly active ingredients. So it is that combination which was the subject of the 1990 and 1985 authorisations. The authorisation for levofloxacin was the first authorisation for that active ingredient alone."*

28 It is clear that Jacob LJ considers that when a medicinal product is a combination of actives then, for the purposes of the Regulation, it is that combination which is the product as defined by Article 1(b) and for which a certificate could be granted. The corollary is thus also true, where the medicinal product is a single active ingredient, then for the purposes of the Regulation, it is that active ingredient which is the product as defined by Article 1(b) and for which a certificate could be granted.

29 Further Article 4 of the Regulation defines the subject matter of protection of a certificate in the following terms:

> *"Within the limits of the protection conferred by the basic patent, the protection conferred by a certificate shall extend only to the product covered by the authorisation to place the corresponding medicinal product on the market and for any use of the product as a medicinal product that has been authorized before the expiry of the certificate."*

30 Thus whilst the protection is within the limits of the patent, it "*extends only to the product covered by the authorisation...*" and so it is apparent that it is not possible to break up a combination into its component parts. In *Gilead Sciences SPC Application* [2008] EWHC 1902 (Pat) (hereafter referred to as Gilead), Kitchin J recognized, at para 28, that the Regulation may produce a "harsh result" in some circumstances so that not every application for a certificate was successful. He considered in para 29 the possibility of breaking up a combination of active ingredients into its individual actives so that each might be protected. However, he recognised that such an approach was "hard to reconcile" with Article 4 and the definitions set out in Article 1 of the Regulation:

> *"A possible answer, canvassed briefly before me in argument, is to regard such a medicine as containing, effectively, three products, that is to say the two active ingredients separately and in combination. In such a case an SPC could then be*

granted for the ingredient claimed by the basic patent. This solution has its attractions and would permit the holder of the basic patent claiming only one of two active ingredients to secure an SPC for that particular ingredient, assuming, of course, it is not already the subject of a certificate (Article 3(c)) and the authorisation is the first authorisation to place that ingredient on the market in a medicinal product (Article 3(d)). However, it must depend upon the proper interpretation of, at least, Articles 1(b) and 4 and it is my initial impression that it is hard to reconcile with the words of Article 4 which specify that protection shall extend only to the product covered by the marketing authorisation".

Analysis & Argument – Article 3(b)

31 In the following paragraphs, I will use application SPC/GB 07/021 as the primary example to discuss the issues as they apply to all six SPC applications. I will make specific reference to the other applications as required. I will use the marketing authorisation for Gardasil as the primary example to discuss the general points in relation to the interpretation of both marketing authorizations. Unless specifically stated otherwise, the comments in relation to the MA for Gardasil apply equally in relation to that for Cervarix.

32 SPC applications SPC/GB 07/015 and 07/016 cite the parent EP0595935 as the basic patent with the marketing authorisation for Gardasil. SPC applications SPC/GB 07/017 and 07/081 cite divisional EP1298211 as the basic patent with the MA for Gardasil and Cervarix respectively. SPC application SPC/GB 07/021 cites second divisional EP1359156 as the basic patent with the marketing authorisation for Gardasil while SPC application SPC/GB 07/082 cites the same patent but with the marketing authorisation for Cervarix. This is summarized in Table 1.

33 The words of Kitchen J in para 39 of *Gilead* are a useful reminder of the general approach to be taken in deciding questions relating to the Regulation. In relation to what depth or degree of consideration should be given to whether or not a product is protected by a basic patent (a question in relation to the interpretation of Article 3(a) of the Regulation), Kitchen J stated that such consideration should not involve an analysis of whether or not the claim is inventive or the result of any significant research effort. He went one to decide that the approach to be taken is the simplest one possible based on the requirements of the Regulation:

"*…. It can be no part of a determination as whether a product is protected by a basic patent to embark upon an analysis of whether the patent or the claim in issue is obvious or invalid for any other reason. Nor can it be right to investigate the extent of research that lies behind it. The scheme of the Regulation is to provide a simple and straightforward system for the grant of SPCs based only upon a consideration of the requirements laid down in the Regulation. Such is also apparent from the Commission Proposal COM (90) 101 of 11 April 1990 which says in terms at paragraph [16] that the proposal provides a simple transparent system which can easily be applied by the parties concerned and does not lead to excessive bureaucracy. I would add that any person may apply to have an SPC declared invalid if the basic patent is revoked or limited to the extent that the*

product for which the SPC was granted would no longer be protected by the patent claims (Article 15(1)(c)).” (emphasis added as underline)

34 I consider that this is also the correct approach for me to adopt in the present case in relation to the requirements of Article 3(b) of the Regulation. I consider that the simplest way to decide if a valid authorisation to place the product on the market as a medicinal product has been granted in accordance with Directive 2001/83/EC is, firstly, to consider what is the product that has been granted an authorisation to be placed on the market as a medicinal product; and then to compare this to the product for which an SPC is being sought; if these agree, the SPC can be granted, if not the SPC may not be granted.

What is the product placed on the market as a medicinal product?

35 The authorised medicinal products of interest in this case are Gardasil and Cervarix. Table 2 above summarises the active ingredients in these two medicinal products as disclosed in the SmPC of both marketing authorizations. These active ingredients are all HPV proteins.

36 As previously discussed in Office Decision BL O/401/09 (*Georgetown et al.*, see for example, para 35), both these medicinal products are vaccines which prevent a number of different types of growths and cancers in female humans caused by HPV. As indicated in each of the three basic patents (see, for examples, paras [0002] to [0008] in EP0595935B1), there are a large number of HPVs (denoted as HPV1-HPV56 which are identified by their DNA sequence homology) which cause various types of lesions, both benign and malignant, in epithelial (i.e., skin) tissue in humans. These vary from relatively benign warts of the skin and mucous membranes to more serious growths such as genital warts and tumours of the female uterine cervix.

37 As indicated in Table 2, Cervarix is a vaccine comprising the recombinant L1 proteins of HPV16 and HPV18 which, from the SmPC annexed to the MA decision, is effective in providing protection against female uterine cancers. The combination of recombinant L1 proteins of HPV6, HPV11, HPV16 and HPV18 in the vaccine product Gardasil provides protection against female uterine cancer via the presence of HPV16 and HPV18, genital warts infections via the presence of HPV6 and HPV11 and abnormal cervical growths (dysplasias) via the presence of all 4 components (see the SmPC annexed to the MA decision). Such abnormal growths can develop into tumours. Thus these two medicinal products comprise a combination of active ingredients that provide protection in humans against infections by HPV.

38 In the medicinal product Gardasil, the product that has been authorised is a combination of the four L1 proteins of HPV6, HPV11, HPV16 and of HPV18 which provide protection against HPV infections, whereas, in the medicinal product Cervarix, the product that has been authorised is a combination of only two L1 proteins of HPV16 and of HPV18. These combinations are what have been granted MAs in accordance with Directive 2001/83/EC based on an assessment of all the clinical data to determine what medicinal products should be approved as safe and effective for human use. Thus, as none of the SPC applications define the product in terms of a combination but only as single recombinant L1 proteins of the various HPV strains, then none of the applications under consideration meet the requirement of Article 3(b).

39 The applicant considers that this is not the correct approach to follow. He argues that the overriding purpose of the Regulation – to compensate patentees for the delay they have experienced in being able to exploit their patented product - is paramount. Thus it is circumventing the purpose of the Regulation if, as proposed by the examiner, an SPC cannot be granted because the relevant active ingredients happens to be administered with other active ingredients in the authorised medicinal products. The applicant states in their letter dated 1 February 2008 that:

> *"Refusing an SPC on this basis would circumvent the purpose of the Regulation. A patentee cannot be expected to predict at the filing date of the patent the manner in which a claimed active ingredient might end up being used some 14 years later when it is first authorised for marketing, particularly in the vaccine field. Accordingly, it would be unfair to penalise a patentee whose product happens to be authorised for administration with other active ingredients when it is first authorised. In this situation, the patentee has still suffered the loss of effective patent term described in recital 3 of the Regulation. The patentee should therefore be entitled to an SPC in respect of the individual active ingredient that is claimed. If no SPC is granted then the patentee's research is penalised in exactly the way described in recital 4 of the Regulation".*

Table 3: Examples of SPCs granted for a single active substance where the marketing authorisation is for a medicinal product comprising a combination of active substances and the basic patent protects the single active substance only (source: Applicant & UK-IPO Patent Register at http://www.ipo.gov.uk/types/patent/p-os/p-find/p-find-spc.htm).

SPC Reference	**SPC/GB 99/010**	**SPC/GB 99/011**	**SPC/GB 01/032**	**SPC/GB 02/020**	**SPC/GB 02/034**
Product for which SPC was granted	Purified pertussis filamentous haemagglutinin	Purified pertussis toxoid	Pneumococcal oligosaccharide serotype 18C conjugate	Recombinant antigen comprising pre-S1 & S sequence of hepatitis B virus	FeLV recombinant canarypox virus
# active ingredients in product protected by SPC	1	1	1	1	1
Basic Patent	EP(UK) 0242301	EP(UK) 0242302	EP(UK) 0245045	EP(UK) 0304578	GB 2217718
Authorised Medicinal Product	Pentavac		Prevenar	Hepacare	Eurifel RCPFeLV
MA reference	UK 06745/0101		EU/1/00/167/001-004	EU/1/00/136/001-002	EU/2/02/031/001-002
# active ingredients in the medicinal product	8		7	3	2
Date SPC granted	17 November 2000	17 November 2000	Withdrawn 24 February 2003	13 March 2003	1 May 2003
In force Status	In force	In force	n/a	Lapsed - Did not	In force

				enter into force	

40 The applicant goes on to argue that grant of an SPC in this situation is particularly appropriate for medicinal products such as Gardasil and Cervarix, as these are examples of vaccine medicinal products, which often comprise multiple active ingredients, i.e., multiple antigens. Such multiple antigen containing vaccines are beneficial for various medical and commercial reasons, e.g., the need for fewer separate vaccinations to obtain immunity in a population, each patient gains protection against many diseases in a single dose. In the vaccine art, it is very difficult to predict which mixture of antigens will ultimately prove to be medically and commercially viable for a medicinal product. Accordingly, it is particularly unreasonable in the vaccine field to expect a patentee to predict at the filing date of his patent, if and with which other antigens, an antigen claimed in the basic patent, might end up being administered when it is authorised for the first time. In such a scenario, the applicant argues, the patentee should therefore be entitled to an SPC in respect of the single claimed antigen comprised in the multi-valent vaccine. To deny an SPC in this situation would mean that the patentee must wait and see whether a vaccine comprising only the claimed antigen receives marketing authorisation. However, the applicant considers that this is unrealistic in the vaccine field, where multivalent vaccines are increasingly the norm. Moreover, when a multivalent vaccine has already been authorised, it is unlikely that there would be any demand for a vaccine comprising only one of the antigens included in the multivalent vaccine. Accordingly the patentee may never have an opportunity to obtain an SPC in respect of the claimed antigen despite the fact that there has been a considerable delay in bringing it to the market. This, the applicant argues, is clearly at odds with the purpose of the Regulation

Previous Practice of the IPO

41 In further support of this view, the applicant then goes on to list 5 examples of SPCs already granted in the UK by the IPO which supports their approach and indicates that the examiner is taking a different view to that previously adopted by the Office. The applicant describes in each case how the patent protects only one or a subset of the active ingredients listed in the SmPC of the Marketing Authorisation cited in support of the SPC application for a single product i.e. active ingredient from the authorised medicinal product which comprises a combination of active ingredients. These cases are summarised in Table 3 above.

42 The applicant argues that in each of these examples, the Office was content to grant an SPC for a product that comprises a single active ingredient even though the marketing authorisation is for a multivalent vaccine which comprises a combination of 2 or more active ingredients. The applicant considers that the office should continue to follow this practice in relation to the six applications at issue in this case.

43 This hearing officer in the *Georgetown et al.* decision has already considered this question of previous practice of the Office (see para 54, *BL/401/09*). Although, in the present case, the applicant has provided three additional examples of SPCs that have been granted for single active ingredients based on MAs for a combination of active ingredients, this does not alter the fact that, in the intervening period since they were granted, there has been a significant amount of additional case law that has to be taken

into account by the Office when setting its practice in this area. The correspondence referred to by the applicant that settled on the product definition of the SPC to be granted was all in late 2002 and early 2003 (for example, for application SPC/GB 02/034, the correspondence referred to by applicant was dated 18 October 2002, and the administrative steps to grant the SPC were completed on 1 May 2003). These decisions were all made before the Office had to take account of UK case law in this area. The first of the cases from the UK courts which considered the issue of Article 3(b) of the Regulation was the *Takeda* decision[9] of Jacob J (as he then was) which was issued on 2 April 2003. This was an appeal from the original Office decision and it represented the completion of the appeal process on this case. It was at this point that it was necessary for the Office to review its practice in relation to Article 3(b) to take account of the impact of this decision. It is overstating the case, in my view, for the applicant to suggest that:

> *"the granted dates of the SPCs discussed below span the dates on which that case was being decided by the Office (December 2001) and the Patents Court (April 2003). Accordingly, it cannot be said that Takeda has ushered in a new way of considering such cases either."*

It was not appropriate for the Office to consider matters in this regard any sooner.

44 The *Takeda* decision and the subsequent UK and CJEU decisions discussed above have led to the present practice on how Article 3(b) of the Regulation is applied. As was indicated in the *Georgetown et al.* decision (see para 54, BL O/401/09), I do not consider that the case law in relation to Article 3(b) (and Article 1(b)) has in fact been consistently misinterpreted or misapplied in such a way as to prevent the applicant from having an SPC to which they are entitled to. I do accept however that as the case law has developed in relation to Article 3(b) and how to determine what is the product that the authorisation for a medicinal product allows to be placed on the market, practice at the Office has had to adapt to take this case law into account. As the examples provided by the applicant show, current practice is more restrictive than has been the case in the past. However, that is a consequence of the way the legal system works in the UK and it would not be for me, as a Hearing Officer in a lower tribunal, to decide matters in a manner contrary to this case law. This is a matter for the higher courts and I leave it to the applicant to decide whether to pursue matters on appeal as is their right.

45 The applicant also indicated in their letter dated 1st February 2008, that the respective national competent authorities in France and Italy have already granted an SPC corresponding to application SPC/GB 07/021[10]. While acknowledging that the Office is not bound by decisions made in jurisdictions outside the UK, the applicant did refer to recital 8 of the Regulation which indicates that one of the objectives of the Regulation is to ensure SPCs are granted under the same conditions in each Member State (MS) of the European Union (EU)

46 Having considered all the written argument presented by the applicant in relation to these six SPC applications, I am not persuaded that, as they argue, "*the vaccine*

[9] *Takeda Chemical Industries SPC Applications (no. 3),* [2003] RPC 3.

[10] Applications in Italy and France equivalent to SPC/GB 07/014-07/017 were still undergoing substantive examination in these jurisdictions at that time. The present status of these applications is unknown.

industry represents something of a "special case" when it comes to SPC protection". As indicated above and in both the *Medeva* and *Georgetown et al.* decisions[5], I do not think that it is appropriate to make an exception in regards to deciding what type of SPC protection can be granted for vaccine related products that are authorised as combinations as distinct from any other types of pharmaceutically active products which are also authorised as combinations. As acknowledged by the hearing officer in these earlier decisions which also relate to applications for SPCs in the vaccine field, there may be factors from a wider public policy perspective in relation to the development, authorisation and use of vaccines in the UK that have an influence on the types of vaccine products which pharmaceutical companies are interested in commercialising and I have taken note of the general points made by the applicant in the papers on file in this regard. However, in the absence of specific evidence on this point, I do not consider that these general comments are sufficient to support the argument that vaccines are a special case that need to be treated differently to other combination products under the SPC regime.

47 I do not consider that there is any flexibility to interpret the product for which a valid authorisation has been granted to place it on the market for human use as being anything other than a combination of active ingredients when it comprises more than one ingredient which exerts therapeutic activity on humans. I find support for this view from the definition of combination of active ingredients under Article 1(b) of the SPC Regulation as elaborated by the CJEU in C-202/05 *Yissum*[11] and C-431/04 *MIT*[12]. In the present case, the applicant is asking me to accept that they are entitled to interpret a marketing authorisation for a combination of active ingredients as an authorisation for each of the components of the combination as well as of the combination itself for the purposes of gaining an SPC. I consider that this is the wrong approach. Kitchen J in the *Gilead* decision also was doubtful that such an approach was consistent with the definition in Article 1(b) or could be reconciled with Article 4 of the Regulation (see above). Such an approach would lead to uncertainty as to exactly what is the product that is in the authorised medicinal product. The SmPC of a MA is very explicit in explaining all the information about the authorised medicinal product -what it contains, what is/are its active substances(s), what other substances are in the medicinal product, how it is used clinically, what problems may be encountered in its use e.g. side effects or contra-indications, etc. It cannot be considered to provide the same details in relation to each of the active substances for use on their own and for the combination. In this instance, the MA for Gardasil covers the combination of four HPV Ll1 protein VLPs as active substances working in combination to produce a therapeutic effect in the target population – immunity against HPV infections that case growths in the genital/cervical region in females.

48 The correct approach to identifying the product that is the subject of the marketing authorisation was discussed in some detail in recent office decision *BL O/066/10*[13] and

[11] C-202/05, *Yissum Research & Development Company of Hebrew University of Jerusalem v Comptroller-General of Patents*, see also [2004] EWHC 2880 (Pat).

[12] C-431/04, *Re Massachusetts Institute of Technology*, see also [2006] RPC 34.

[13] See decision in relation to SPC/GB 07/038 in *BL/066/10* (for full text see IPO website address referred to in footnote 5).

was upheld by the Patents Court on appeal[14]. Following this approach to determine what is the product authorised by the marketing authorisation for the medicinal product, I am satisfied that the product authorised by the Cervarix MA is a combination of two active substances – the HPV recombinant L1 proteins of HPV16 and HPV18, and not two individual HPV recombinant L1 proteins. The product authorised by the Gardasil MA is a combination of four active substances – the HPV recombinant L1 proteins of HPV6, HPV11, HPV16 and HPV18, not the four individual recombinant L1 proteins.

49 The applicant argues that this interpretation will prevent them from obtaining any SPC protection at all based on their basic patents. This I believe is the crux of the matter, if the applicant is not able to interpret the MA as being suitable to support an SPC for the individual components of the authorised combination product, they will not be able to obtain any SPC protection based on these three basic patents. This they consider is a harsh result because they will not be able to obtain any additional time to compensate for the fact that the MAs cited were not granted until approximately 14 years after the basic patents were filed. As is discussed below, if the applicant seeks an SPC application to the combination of active ingredients in the medicinal products Cervarix or Gardasil, they will have a problem under Article 3(a) of the Regulation.

50 While I can appreciate the applicants concern in this regard, I consider that the proposed solution, which in general terms can be characterised as, the grant of an SPC for A based on a patent for A but an MA for a combination comprising A+B or A+B+C+D is not the correct one. If this approach is correct, such an MA could be used to obtain an SPC for all the individual components (as is being sought in this case) as well as for the combination i.e. for many products rather than one. As was indicated in the *Imclone/Aventis/Yeda* decision [*BL O/066/10* (see footnotes 13 and 14)], a marketing authorisation is granted for one specific medicinal product and this medicinal product contains either one active substance or more than one active substance that exerts a therapeutic effect, if the latter this is a combination of active ingredients. In considering what is the product that the MA has authorised for the purposes of Article 3(b) of the Regulation, I do not consider that it is appropriate to view this product as anything other than a combination of active substances. This is relevant to the consideration of all medicinal products which comprise a combination of active ingredients in the product. I do not think that the present case, which relates to examples of medicinal products which comprise combinations of active ingredients that are vaccines, should be treated any differently to any other class of compounds, e.g., anti-cancer drugs or HIV drugs or drugs for treating coronary problems. The regime for granting SPCs and for authorising medicinal products does not provide for different procedures for dealing with the authorisation of different classes of medicinal products for human or veterinary use. I consider that it is important that the same approach is adopted in dealing with all medicinal products that comprise products that are combinations of active ingredients or substances.

51 Also, I consider that it is important to make sure that the approach adopted for granting SPCs does not lead to so-called 'evergreening of SPCs', where the applicant is able to gain SPC protection for a product that exceeds the maximum 5 year period laid out in the Regulation. This is one of the objectives of the SPC regime that has been

[14] See judgment of Lewison J in *Yeda Research & Development Company Ltd and Comptroller General of Patents,* [2010] EWHC, 1733 (Pat), see especially, paras 22-28.

consistently taken into account by the CJEU in reaching its decisions, for example in *Biogen*[15], *MIT*[11] and *Yissum*[12] cases. A patent holder is entitled to only one period of SPC protection for a product, however this protection will include all uses for that product, including those that are authorised after the SPC has been granted (see Article 4 of the Regulation). As the SPC protects the product for any use, it is important that the product which attracts this protection is properly and clearly identified. In my view, the overall effect of granting the SPCs requested by the applicant is that it will create uncertainty about what product is the subject of the marketing authorisation. It is inconsistent in my view to have a system for the authorisation of medicinal products which identifies, in some detail, what are all the properties of that medicinal product that impact on its quality, safety and efficacy, i.e., a full and detailed characterisation of the medicinal product and, as a consequence, the active ingredients in that medicinal product. Under the regulatory regime put in place to implement Directive 2001/83/EC[16], Product A is a different product to Product A+B and each will require a separate marketing authorisation to allow these products to be made available for human use Thus, I see no reason, why for the purposes of granting an SPC, a marketing authorisation that authorises product A+B should also be considered as a suitable MA to cite in support of an SPC for product A. Such an approach is, in my view, not consistent with recital (10) of the Regulation which makes it clear that SPC protection is to be "*strictly confined to the product which obtained authorisation to be placed on the market as a medicinal product*".

52 The applicant argues that it is unfair to expect them to know if a product covered by a basic patent will end up being approved as medicinal product that comprises a single active substance or a combination of active substances in the time between when the patent is filed and when an MA is granted. As mentioned above, although this argument was put forward, no evidence of how this situation is especially worse for vaccines then for other combination products was provided in the papers on file. This issue was also raised in the earlier *Georgetown et al*. case, mentioned above which also relates to SPC applications for single HPV vaccine components based on either the Cervarix or Gardasil MAs. I see no reason to take a different view in the present case to the one that this Hearing Officer took in that case (see, for example, paras 35-41 of the *Georgetown et al.* decision). Furthermore, I am not convinced that this is a strong point in the applicants favour because it has been known to combine antigens to different diseases into combined or multivalent vaccine products since the 1960's and 1970's, for example, the MMR vaccine, the combined measles, mumps and rubella vaccine, first became widely available in the 1970's, and a combined Diptheria, Pertussis and Tetanus (DPT) vaccine was first developed in the 1940's and became widely available in the 1950's. In the case of HPV, where, as the basic patent points out, there are a number of related HPVs that cause lesions which have the potential to become malignant, surely the combining of antigens to these HPVs in a combined vaccine product to achieve sufficient protection in the target population is not a very surprising outcome!

53 The situation that this applicant finds themselves in is that, unlike the applicants in

[15] C-181/95, *Biogen Inc v SmithKline Beecham Biologicals*, see also [1997] RPC 833.

[16] Directive 2001/83/EC of the European Parliament and of the Council on the Community code relating to medicinal products for human use.

Georgetown et al.[6], the basic patents do not suggest or disclose in any way that the methods discussed therein could be used to produce a vaccine that comprises more than one HPV L1 protein antigen. Thus the applicant in the present case is in the situation where they will not be able to secure any SPC protection in contrast to the situation in *Georgetown et al.* where SPC protection for the combination of active ingredients was secured[17].

54 While I acknowledge that this places the applicant in a more difficult situation and I do have some sympathy with the fact that they are unlikely to be able to gain any SPC protection in this case, the proposed solution, in my view, has much broader consequences because it cannot be confined just to vaccines. It would have to apply to all combination products. As mentioned above, there is no basis under the Regulation for treating one class of compounds differently from another for the purposes of granting an SPC. While, in this case the different active ingredients are very similar and one might consider that it is easy to see how a marketing authorisation for a combination of such closely related HPV products could be used as a means to grant an SPC for the individual HPV components in the combination, it would not be limited to such a situation. If there is a marketing authorisation for a combination of two quite different chemical entities, for example, as was the case in *Astellas*, SPC protection could be obtained for each element of the combination and for the combination itself based on the same MA. In such a scenario, it would be necessary to consider Article 3(d) in quite a different light to try and prevent the increasing number of SPCs that would result involving the same product. For example, an earlier authorisation for A+B, if it served as the basis for an SPC for A, would have to be considered as the earliest authorisation that could be used to approve A or A+B, and possibly even B, for the purposes of calculating the term of the SPC. This would be a significant departure from current practice in the UK. It would mean, in effect, that, in some circumstances one would be regarding product A as being an equivalent to Product A+B. I do not think that such an approach is what is intended by the Regulation. Also, as discussed above, I do not think this approach is consistent with the balance that the SPC regime strikes between all the interests at stake as outlined in recital 10 of the Regulation.

55 Although it is unfortunate for the applicant in the present case, the SPC regime is not designed to reward all patent holders with an SPC, only those that meet the requirements of Article 3 of the Regulation[18]. For the reasons I have given above, I do not consider that applications SPC/GB 07/015, 07/016, 07/017, 07/021, 07/081 and 07/082 meet the requirements of Article 3(b) of the Regulation.

Applications SPC/GB 07/014 and 07/084

[17] See, for example, SPC/GB 07/013, 07/018, 07/076 and 07/077 which were all granted in October 2009; and SPC/GB 07/072 and SPC/GB 07/074 which are stayed pending the outcome of the appeal and reference to the CJEU on this case – see footnote 8.

[18] This is clear from the title to Article 3 of the Regulation and also from the Explanatory memorandum to the proposal for a Council Regulation concerning the creation of a supplementary protection certificate for medicinal products, COM(90)101 final (SYN 255) – see, for example, paras 11, 20.

56 The issue at question in relation to SPC applications SPC/GB 07/014 and 07/084 is the interpretation of Article 3(a) of Council Regulation (EC) 469/2009 and whether or not the product for which an SPC has been applied for is protected by the basic patent.

Article 3(a) - The Relevant Case Law and its Interpretation

57 The ECJ has previously considered the interpretation of Article 3(a) of the Regulation in *Farmitalia Carlo Erba Srl's SPC Application*[19] and the court concluded that the question of what is protected by a patent is not harmonised at EC level and is therefore a matter for national law.

58 As regards domestic patent law, section 125 of the Patents Act 1977 determines how the scope of an invention is to be determined. The relevant subsections read as follows:

> "(1) For the purposes of this Act an invention for a patent for which an application has been made or for which a patent has been granted shall, unless the context otherwise requires, be taken to be that specified in a claim of the specification of the application or patent, as the case may be, as interpreted by the description and any drawings contained in that specification, and the extent of the protection conferred by a patent or application for a patent shall be determined accordingly.
> (2)…
> (3) The Protocol on the Interpretation of Article 69 of the European Patent Convention (which Article contains a provision corresponding to subsection (1) above) shall, as for the time being in force, apply for the purposes of subsection (1) above as it applies for the purposes of that Article."

59 Both Article 69 of the EPC and section 125(1) of the Act should be construed in the light of the Protocol on the Interpretation of Article 69 of the EPC, which reads:

> "*Article 1: General Principles*
> Article 69 should not be interpreted in the sense that the extent of the protection conferred by a European patent is to be understood as that defined by the strict, literal meaning of the wording used in the claims, the description and drawings being employed only for the purpose of resolving an ambiguity found in the claims. Neither should it be interpreted in the sense that the claims serve only as a guideline and that the actual protection conferred may extend to what, from a consideration of the description and drawings by a person skilled in the art, the patentee has contemplated. On the contrary, it is to be interpreted as defining a position between these extremes which combines a fair protection for the patentee with a reasonable degree of certainty for third parties.
>
> *Article 2: Equivalents*
> For the purpose of determining the extent of protection conferred by a European patent, due account shall be taken of any element which is equivalent to an element specified in the claims."

60 There is extensive case law on the interpretation of these provisions which govern

[19] ECJ Case C-392/97, *Re. Farmitalia Carlo Erba Srl SPC Application*, see also [2000], RPC, 580

precisely how patent claims should be construed. All are concerned with the principle that patent claims have to be read in the light of the description and may not always be accorded their literal interpretation. However it is important to appreciate that the purpose of the claims in a patent is to delimit the scope of the monopoly conferred by the patent, and the law on claim construction has developed with that in mind. Accordingly, patent law does not itself have any need for a notion of what is "protected" beyond a consideration of the proper construction of the claims for the purposes of determining what is, or is not, infringing or impugning of patentability.

61 Therefore I need to consider specifically the case law on the interpretation of Article 3(a) in order to determine what is the meaning of "protected". In the above mentioned *Takeda* decision[7], which concerned SPC applications for products which were combinations of lansoprazole, which was specified in the nominated basic patents, and certain other antibiotics which were not mentioned in these basic patents, Jacob J (as he then was) commented (at paragraph 10):

> *"In truth, the combination is not as such "protected by a basic patent in force". What is protected is only the lansoprazole element of that combination. It is sleight-of-hand to say that the combination is protected by the patent. The sleight-of-hand is exposed when one realises that any patent in Mr Alexander's sense protects the product of the patent with anything else in the world. But the patent is not of course for any such "combination"."*

62 I find these comments to mean that everything that infringes the basic patent is not necessarily protected by it. Therefore *Takeda* does not readily assist me to determine the meaning of the word 'protected' as used in the Regulation.

63 The question of what the term 'protected by the basic patent' in Article 3(a) meant was further considered in *Gilead* (see above). Kitchin J considered *in obiter* whether the approach of *Takeda* was correct and he did not disagree with it. He then went on to find that:

> *"33. … I believe a test emerges from Takeda which is clear and can be applied without difficulty to a product comprising a combination of active ingredients. It is to identify the active ingredients of the product which are relevant to a consideration of whether the product falls within the scope of a claim of the basic patent. It is those ingredients, and only those ingredients, which can be said to be protected within the meaning of the Regulation. So, in the case of a product consisting of a combination of ingredients A and B and a basic patent which claims A, it is only A which brings the combination within the scope of the monopoly. Hence it is A which is protected and not the combination of A and B."*

Thus at the heart of this test is an analysis of the claim in the basic patent alleged to protect the product.

64 The question of whether a patent protects an active ingredient was considered further by this hearing officer in *Astellas Pharma Inc*., *BL O/052/09*. In this decision, taking account of both *Takeda* and *Gilead*, this hearing officer found that a claim to a single active ingredient, empodepside, did not protect a combination of active ingredients, empodepside and praziquantel, present in a medicinal product Profender, as there was

no disclosure anywhere in the claims or description to suggest that a combination product was envisaged. This decision was appealed and in his judgement, *Astellas Pharma Inc* [2009] EWHC 1916 (Pat), Arnold J upheld the decision of this hearing officer and found that, where the basic patent does not disclose and claim a combination of active ingredients, that combination cannot be considered to be protected by the basic patent within the meaning of Article 3(a). He also held that a claim to an active ingredient which used the term "comprises" means the claim *covers* products which include substances other than the claimed ingredient without having to disclose them (see paragraphs 26-27). Although a combination may be covered by the claim, it is not protected by the claim when applying the test set out in *Gilead (*see paragraphs 28-30*):*

> *"26. I therefore accept that the effect of the word "comprises" is that claim 19 on its true construction covers products which include substances other than the compounds of claims 1-11 and 14. These may include an excipient, but they may also include another compound with anthelmintic activity. This conclusion is supported by the use of the wording "an active ingredient".*
>
> *27. I do not accept that it follows that claim 19 discloses a combination of a compound of claims 1-11 and 14 with another compound with anthelmintic activity. A claim may cover a product without disclosing it: see A.C. Edwards Ltd v Acme Signs & Displays Ltd [1992] RPC 131*
>
> *28. Accordingly, I accept that Profender is covered by claim 19. If one asks oneself what brings Profender within the scope of claim 19, however, it is clear that it is the presence of the empodepside. It is not the presence of the praziquantel, any more than it is the presence of the BHA.*
>
> *29. Applying the test articulated by Kitchin J in Gilead at [33], namely "to identify the active ingredients which are relevant to a consideration of whether the product falls within the scope of a claim of the basic patent", I consider that the answer in the present case is that it is only empodepside which is relevant. Accordingly, Profender is not protected by claim 19 of the Basic Patent within the meaning of Article 3(a) of the Regulation as interpreted in Gilead.*
>
> *30. To put the same point another way, the present case is to be distinguished from Gilead. In that case the basic patent specifically disclosed and claimed a combination of active ingredients, whereas in this case the Basic Patent does not.*"

Thus at the heart of this test is an analysis of the claim in the basic patent alleged to protect the product.

65 The question of whether a patent protects an active ingredient was considered further by Arnold J when he examined an alternative proposal that if no SPC could be granted for a combination of active ingredients then the applicant was entitled to an SPC for a single active. However he found that the applicant was not entitled to such a certificate stating in paragraph 48:

> *"An application for such an SPC would not comply with Article 3(b) of the Regulation since Astellas has not been granted a marketing authorisation for*

emodepside as opposed to Profender: see the recent decision of the Court of Appeal in Generics (UK) Ltd v Daiichi Pharmaceutical Co Ltd [2009] EWCA Civ 646, in particular at [57]-[58]."

66 In *Centocor Inc' s SPC application*[20], the hearing officer found that an SPC could not be granted under Article 3(a) for the product Centoxin, HA-1A human monoclonal antibody, on the basis of a basic patent which protected the combination of a monoclonal antibody and an anti-microbial agent. The applicant considered that the basic patent protected the antibody, i.e., product for which the SPC was being sought, by virtue of infringement under Article 60(2) of the Patents Act 1977, i.e. by applying an infringement test. The hearing officer did not agree and found that even if there are circumstances in which supply of the antibody on its own was an infringing act with regard to section 60(2), it did not follow that the antibody on its own was protected by the basic patent for the combination. This is consistent with the decisions of the Court in both *Gilead* and *Takeda* and the interpretation of the Regulation in these decisions that infringement of a patent is not necessarily the same as protection.

Analysis and Argument – Article 3(a)

67 In the following paragraphs I will discuss the issues as they apply to both SPC applications making specific reference to each application as required. I also discuss the general points in relation to the interpretation of both marketing authorizations using Gardasil as the main example and, unless specifically stated otherwise, the comments in relation to the MA for Gardasil apply equally in relation to that for Cervarix.

SPC Application SPC/GB 07/014

68 This application is based on basic patent EP(UK) 0595935 and the marketing authorisation for Gardasil. As indicated in Table 1 above, this SPC application is for the combination of four HPV recombinant L1 proteins listed in the MA for Gardasil, i.e. HPV6, HPV11, HPV16 and HPV18.

69 The basic patent describes a method for making VLPs of HPV6 or HPV11 (see claim 1), the VLPs obtained by such a method (see claim 16 dependant on claim 1) and a vaccine produced from VLPs of HPV6 or HPV11 obtained by the method of claim 1 (see claim 17 dependant on claim 1). The patent at para [0016], indicates that the object of the invention is "*to provide virus like particles (VLPs) which may be useful as diagnostic agents as well as forming a component of a vaccine for use with papillomavirus infections*". The description then goes on to explain the method by which the VLPs of either of these HPV proteins is made. It refers only to the production or use of HPV6 or HPV11 VLPs. The description or claims in this patent does not make any reference to these VLPs being used together or in combination with other HPV proteins.

70 I agree with the applicant that the SPC regime is designed to compensate the patent holder for loss of patent term while a product covered by the basic patent is gaining the necessary regulatory approval for use in humans. The applicant considers that this is a

[20] see [1998] RPC 118

suitable basic patent to cite in support of an application for an SPC for a combination of HPV6, HPV11, HPV16 and HPV18 for the reasons given in their letter dated 1st February 2008. However on close inspection I do not consider that the patent is a suitable one to cite in support of such an SPC application for a four component combination. There is nothing in my view to indicate or suggest that at the time of filing the patent holder considered that the VLPs of the various HPVs would be used in a combination. The innovation that the applicant has gained protection for as described in their patent is focused on a method of making individual HPV L1 protein VLPs. The patent discusses the fact that the VLPs may be produced from the L1 protein of the individual HPV or from a combination of the L1 protein with the L2 protein of the individual HPV (see for example, claim 1 and para [0017]). The SPC is designed to provide compensation for the delay in exploiting a product that is protected by a patent and, currently in the UK, what is protected by a patent for this purpose is determined on the basis of what is claimed in the patent and disclosed in the description, and any figures or diagrams (see discussion of case law above). The basic patent at issue focuses on a method to produce VLPs of HPV L1 proteins that are pure enough for use as diagnostic agents as well as for use as an antigen in a vaccine. This is in my view the innovation that the patent protects and that the patent holder is prevented from exploiting. There is nothing in the patent to suggest that the VLPs of HPV6 or HPV11 prepared using the method claimed in this patent should be used together with each other or in combination with VLPs of HPV16 and HPV18.

71 As mentioned above in the discussion under Article 3(b), the applicant argues that, at the time of filing, they had no way of knowing whether or not the product for which they were seeking a patent would end up being approved for use in humans as a single product or in combination with another product or products. As a consequence, they consider that it is against the spirit and purpose of the Regulation to say that they cannot now have an SPC for the product protected by the basic patent because it refers to HPV6 or HPV11 alone whereas the SPC they are seeking is for a product that that can be considered to include HPV6 or HPV11 or both HPV6 and HPV11 in addition to other HPV species.

72 The Marketing Authorisation for Gardasil makes it clear that this medicinal product comprises 4 active ingredients that are VLPs of 4 different HPVs. It does not in my view indicate or suggest in any way that these 4 different HPVs can be used clinically in any way other than together in a single combined product. They are administered in a single dose by injection into the muscle of a female patent [see SmPC, Section 4: Clinical Particulars, in particular sub-section 4.1: Therapeutic Indications; sub-section 4.2: Posology and Method of Administration] and the ratio of the active ingredients is constant and fixed in this single dosage form[21].

73 The applicant in this case considers that the correct test to determine if the basic patent protects the product for the purposes of Article 3(a), is an infringement test, i.e., would the product for which the SPC is being sought infringe the basic patent? If it would, this basic patent meets the requirement of Article 3(a) and so is a suitable patent to cite in support of this SPC application. As has been explained before by this Hearing Officer in the earlier *Astellas, Medeva, Georgetown et al,* and *Imclone/Aventis/Yeda* decisions

[21] The SmPC at Annex 1, Section 2, 'Qualitative & Quantitative Composiiton' indicates that each 0.5 ml dose of Gardasil comprises 120 micrograms of HPV L1 protein VLPs in a fixed ratio of 1:2:2:1 HPV6:HPV11:HPV16:HPV18.

(all referred to above), this approach to Article 3(a) has been rejected in the UK based on the established case law of the UK Courts and the CJEU outlined above. However, the UK Court of Appeal has made a reference to the CJEU on the *Medeva* case asking for the CJEU to clarify what is meant by '*protected by the basic patent*' in Article 3(a) of the Regulation (see above and footnote 7). However, for the reasons explained above, the present applicant sought a decision on this case from the Office rather than waiting for the outcome of the *Medeva* reference. As such, the decision in relation to this SPC application has been reached on the basis of my analysis of the case law as it currently applies in the UK.

SPC Application SPC/GB 07/084

74 This SPC application for the combination of two HPV recombinant L1 proteins from HPV16 and HPV18 cites EP(UK) 1359156, a divisional from EP(UK) 0595935, and the marketing authorisation for Cervarix, as the basis for this application.

75 Cervarix, according to the SmPC annexed to the marketing authorisation decision from the European Commission, is a medicinal product comprising VLPs of HPV16 L1 protein and VLPs of HPV18 L1 protein. These two active ingredients are presented together in a single dosage form, a 0.5 ml solution for injection by syringe, where the active ingredients are present in a fixed 1:1 ratio of 20 micrograms of HPV16 L1 protein and 20 micrograms HPV18 L1 protein.

76 The basic patent describes a method for making VLPs of HPV18 (see claim 1), VLPs obtained by such a method (see claim 15 dependant on claim 1) and a vaccine produced from VLPs of HPV18 obtained by the method of claim 1 (see claim 16 dependant on claim 1).

77 In this application, the patent relates to a method for making VLPs of HPV18 L1 protein. The product for which an SPC is being sought is a combination of VLPs comprising the L1 proteins of HPV16 and HPV18. In an exactly analogous fashion to that outlined in relation to SPC/GB 07/014 above, I consider that this basic patent relates only to a method for making VLPs comprising HPV18 L1 protein, the VLPs made by this method and a vaccine made from VLPs prepared by this method. The innovation protected by this patent does not disclose a combination of VLPs of HPV18 L1 proteins with VLPs comprising L1 proteins from any other HPV. Thus, I do not consider that such a patent can serve as a suitable basic patent for an SPC application for a product comprising a combination of the VLPs of HPV18 L1 protein with VLPs of HPV16 L1 protein as required by Article 3(a).

Conclusion

78 For the reasons discussed above, I conclude that the products as defined in applications SPC/GB 07/014 and 07/084 do not comply with Article 3(a) of the Regulation (see Table 1 for product definitions).

79 I am aware that the proper interpretation of Article 3(a) is currently under consideration by the CJEU following a reference from the UK Court of Appeal in the *Medeva* case and, should the applicant appeal this decision, a higher court may want to take account

of the outcome of this reference before reaching a final decision in relation to applications SPC/GB 07/014 and 07/084. If so, that is a matter for the higher court. However, at the applicants request and for the reasons I have discussed above, I have reached the decision on these two SPC applications based on my analysis of the case law as it currently applies in the UK.

80 For the reasons discussed above, I also conclude that the product as defined in applications SPC/GB 07/015, 07/016, 07/017, 07/021, 07/081 and 07/082 does not comply with Article 3(b) of the Regulation.

81 Since in accordance with Article 10(3) an opportunity to correct the irregularity in each application has been given, as required by Article 10(4), I reject these applications.

82 I note that although SPC/GB 07/017 and SPC/GB 07/081 are based on different MAs, they cite the same basic patent (EP(UK) 1359156) and they relate to the same product (i.e. VLPs comprising HPV16 recombinant L1 proteins). Similarly, I note that although SPC/GB 07/021 and SPC/GB 07/082 are based on different MAs, they cite the same basic patent (EP(UK) 1298211) and they relate to the same product (i.e. VLPs comprising HPV18 recombinant L1 proteins). These applications are all in the name of the same patent holder, University of Queensland and CSL Limited.

83 Should an appeal be launched in relation to this decision and find that I am incorrect to refuse applications SPC/GB 07/015, 07/016, 07/017, 07/021, 07/081 and 07/082 for failure to comply with Article 3(b) of the Regulation, it will be necessary for these applications to be remitted back to the Office for consideration if they can all proceed to grant. Article 3(2) of Regulation 1610/96[22], which applies *mutatis mutandis* to EC Regulation 469/2009, makes clear that the holder of more than one patent that protects the same product is only entitled to have one SPC for that product.

84 I am also aware that, as part of the referal to the CJEU in the *Medeva* and *Georgetown et al.* cases referred to above, the CJEU has also been asked to provide an answer in relation to the interpretation of Article 3(b) of the Regulation regarding whether or not an SPC can be granted for a single or sub-set of active ingredients based on a marketing authorisation which authorises a product containing a combination of active ingredients. The situation described above in relation to applications SPC/GB 07/015, 07/016, 07/017, 07/021, 07/081 and 07/082 is relevant to this question and indicates a situation where the choice is between no SPC protection or a likely significant expansion of SPC protection. If the applicant appeals this decision, the higher court may want to take account of this in decidng how to proceed. However, that is a matter for the applicant and the higher court.

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[22] Council Regulation 1610/96 of the European Parliament and of the Council concerning the creation of a supplementary protection certificate for plant protection products. Article 3(2) states "*The holder of more than one patent for the same product shall not be granted more than one certificate for that product. However, where two or more applications concerning the same product and emanating from two or more holders of different patents are pending, one certificate for this product may be issued to each of these holders."* See also C-181/95, Biogen, referred to in footnote 15.

Appeal

85 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days.

Dr L Cullen
Deputy Director acting for the Comptroller