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**Datasheet for the decision  
of 16 November 2023**

**Case Number:** T 0154/17 - 3.3.04

**Application Number:** 07875082.5

**Publication Number:** 2068918

**IPC:** A61K39/39

**Language of the proceedings:** EN

**Title of invention:**

Vaccine composition containing synthetic adjuvant

**Patent Proprietor:**

Infectious Disease Research Institute

**Opponent:**

Avanti Polar Lipids, Inc.

**Relevant legal provisions:**

EPC Art. 56

**Keyword:**

Inventive step - (no)  
Prohibition of reformatio in peius

**Decisions cited:**

G 0009/92, G 0001/03



**Beschwerdekammern**

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**Chambres de recours**

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Case Number: T 0154/17 - 3.3.04

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.04**  
**of 16 November 2023**

**Appellant:** Access to Advanced Health Institute  
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**Representative:** Mewburn Ellis LLP  
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**Respondent:** Avanti Polar Lipids, Inc.  
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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
20 December 2016 concerning maintenance of the  
European Patent No. 2068918 in amended form**

**Composition of the Board:**

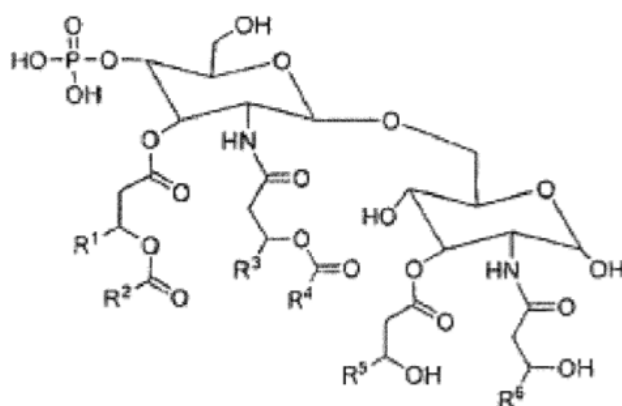
**Chair** T. Sommerfeld  
**Members:** R. Hauss  
L. Bühler  
O. Lechner  
M. Blasi

## Summary of Facts and Submissions

I. European patent No. 2 068 918 (patent in suit) was granted with a set of 18 claims. Independent claim 12 reads as follows:

*12. A pharmaceutical composition for use in inducing or enhancing an immune response, comprising:*

*(a) a glucopyranosyl lipid adjuvant (GLA); and  
(b) a pharmaceutically acceptable carrier or excipient, and wherein the GLA has the formula:*



*where:*

*R<sup>1</sup>, R<sup>3</sup>, R<sup>5</sup> and R<sup>6</sup> are C<sub>11</sub>-C<sub>20</sub> alkyl; and  
R<sup>2</sup> and R<sup>4</sup> are C<sub>12</sub>-C<sub>20</sub> alkyl; or a pharmaceutically acceptable salt thereof.*

II. The patent in suit was opposed under Article 100(a) and (c) EPC on the grounds that the claimed subject-matter lacked novelty and inventive step and extended beyond the content of the application as filed.

- III. The patent proprietor requested that the opposition be rejected, and presented the correct version of the granted claims as its **main request**. As set out in the patent proprietor's letter dated 30 August 2016 (in the section entitled "Claim requests", starting on page 24), this version corrects a publication error in claim 7 of the patent specification (B1) and corresponds to the actual text of the patent as granted. In the course of the opposition proceedings, the patent proprietor also filed further amended sets of claims as auxiliary requests 1 to 3.
- IV. Claim 12 of **auxiliary request 1** is identical to claim 12 of the main request, except that it further specifies that the composition is for use in inducing or enhancing an immune response "in a patient".
- V. The documents cited in the proceedings before the opposition division included the following:
- D7:** Infection and Immunity, 49(1), 225-237 (1985)  
**D16:** J Immunother 10(6), 398-404 (1991)  
**D30:** Pharmaceutical Biotechnology - Volume 6 - Vaccine Design - The Subunit and Adjuvant Approach, ed. M.F. Powell & M.J. Newman, Plenum Press, New York and London, Chapter 21, pages 495 to 524 (1995)  
**D45:** J Med Chem 42, 4640-4649 (1999)  
**D75:** Declaration of Prof. Rietschel (29 August 2016)  
**D75a, D75b:** Pyrogenicity data (evaluated and raw data) filed by the opponent
- VI. The decision under appeal is the opposition division's interlocutory decision rejecting the patent proprietor's main request and auxiliary request 1 and finding that the patent as amended in the form of auxiliary request 2 (comprising claims filed during

oral proceedings on 30 September 2016) met the requirements of the EPC.

VII. According to the decision under appeal:

- (a) The subject-matter of claim 12 of the main request lacked novelty over a specific compound that was made available to the public before the relevant date and was both in conformity with the formula in claim 12 and suitable for the use stated in the claim (Article 54(2) EPC).
- (b) Auxiliary request 1 restricted the use of the composition in claim 12 to *in vivo* use under Article 54(5) EPC (namely inducing or enhancing an immune response "in a patient"). The subject-matter claimed in auxiliary request 1 was found to be novel.
- (c) Starting from the technical teaching of document D16, the objective technical problem was to provide an alternative to compound "504" disclosed in D16. Modifying the acyl chain length at position R<sup>4</sup> to be in conformity with the definition in claim 12 of auxiliary request 1 was an arbitrary measure which did not involve an inventive step.
- (d) The opposition division admitted new auxiliary request 2 filed at the oral proceedings and held that this request met the requirements of the EPC.

VIII. Both the opponent and the patent proprietor appealed against this decision.

IX. In its notice of appeal and its reply to the patent proprietor's grounds of appeal, the opponent requested that the decision under appeal be set aside and that the patent be revoked. In the reply to the opponent's appeal, the patent proprietor *inter alia* defended the

amended version of the patent that had been considered allowable in the decision under appeal.

- X. The board summoned the parties to oral proceedings, in accordance with their requests.
- XI. The opponent withdrew its appeal but did not present any modified requests.
- XII. Thus, the patent proprietor remained as the sole appellant while the opponent retained its status as respondent in relation to the patent proprietor's appeal.
- XIII. In a communication under Article 15(1) RPBA, issued in preparation for oral proceedings and advising the parties of the board's preliminary opinion, the board addressed *inter alia* the following points:
  - (a) Since the opponent had withdrawn its appeal it could no longer pursue a request for revocation of the patent in suit.
  - (b) The board was of the preliminary view that the subject-matter of claim 12 as granted was novel.
  - (c) To take account of the objections raised by the opposition division and the opponent (respondent), the board considered it appropriate to assess inventive step starting from the disclosure of document D16.
- XIV. Both parties advised the board that they would not be attending the oral proceedings.
- XV. The board cancelled the oral proceedings.
- XVI. The parties' arguments that are relevant for the present decision relate to the inventive step of the

subject-matter of claim 12 in the main request and auxiliary request 1.

XVII. The appellant's arguments may be summarised as follows.

Document D30 was the closest prior art. Document D16 should not be considered as it was a less promising starting point, and the person skilled in the art would not have chosen D16 as the starting point. Within D16, the compound designated "MPL" would have been a better starting point than compound 504.

D16 showed that compound 504 was toxic, or at least five times more toxic than compound MPL, based on the LD<sub>50</sub> values in specific mice (D16: Table 3). GLA compositions according to the patent in suit, on the other hand, had been clinically tested in humans and found to be safe, well tolerated and effective.

The objective technical problem should be formulated as that of providing improved lipid A-type adjuvants suitable for use *in vivo*, or of finding a synthetic lipid A compound with high immunostimulatory activity and lower toxicity.

At the priority date, the person skilled in the art would have considered compound 504 to be unsuitable as a vaccine adjuvant for use in humans on the basis of the related data in D16. The field of lipid A-type vaccine adjuvants had been dominated by a structurally different series of (3-O-deacylated) compounds for 15 years, which showed that compound 504 was considered a 'dead end' for research. Furthermore, no suggestion could be found in D16 to modify the acyl chain of compound 504. Different modifications would have been preferred.

The person skilled in the art would have sought to minimise the toxicity of the adjuvant compounds.

D16 itself stated that the differences observed between compounds 504 and MPL were due to the absence of a C16 acyl-oxyacyl fatty acid on the C2 carbon of compound 504 (D16, page 403, last paragraph).

At the priority date - 15 years later - it was generally accepted that the absence of acyl chains at the 3-O position was essential for reduced toxicity. The person skilled in the art seeking to solve the objective technical problem starting from compound 504 would have tried these modifications rather than modifying the length of the acyl carbon chains.

Increasing the number of carbons in one of the acyl chains of compound 504 and arriving at a vaccine (adjuvant) component which was safe and effective for use in humans was therefore surprising and inventive.

XVIII. The respondent's arguments may be summarised as follows.

The opposition division's assessment of inventive step in the decision under appeal was correct, and neither the main request nor auxiliary request 1 complied with Article 56 EPC.

Compound 504 and its use disclosed in D16 constituted the closest prior art.

The adjuvant defined in claim 12 differed from compound 504 on account of the length of the acyl chain COR<sup>4</sup> present at the 2' position.

The appellant had referred to the toxicity of compound 504 as a disincentive to modifying compound 504. However, the person skilled in the art would have known from the relevant literature that compound 504 was not toxic. They would have considered



modifying the acyl chain length to obtain further GLA adjuvants without any expectation of failure.

- XIX. The appellant requested that the decision under appeal be set aside and that the opposition be rejected, i.e. that the patent be maintained as granted; or in the alternative, that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of the claims of auxiliary request 1 filed with the letter dated 27 September 2013, or as amended in the form of auxiliary request 2 considered allowable in the decision under appeal.

### **Reasons for the Decision**

1. Admissibility of the patent proprietor's appeal  
  
The appeal complies with Articles 106 to 108 EPC and Rule 99 EPC; it is admissible.
2. Decision without oral proceedings
  - 2.1 Both parties indicated in writing that they would not be attending the oral proceedings (see point XIV. above). The board thus cancelled oral proceedings and decided the case on the basis of the parties' written submissions.
  - 2.2 If a party informs the board that it does not intend to attend the oral proceedings, the board is not obliged to hold oral proceedings in the absence of that party. Rather, under these circumstances, it is within the discretion of the board to decide whether the scheduled oral proceedings are maintained or cancelled.

3. Scope of the appeal case

3.1 Because the opponent withdrew its appeal, its request that the decision under appeal be set aside and the patent in suit be revoked (see points IX. and XI. above) can no longer be considered, owing to the principle of prohibition of *reformatio in peius*.

3.2 As set out in decision G 9/92 of the Enlarged Board of Appeal (OJ EPO 1994, 875), if the patent proprietor is the sole appellant against an interlocutory decision concerning maintenance of a patent in amended form, neither the board of appeal nor the non-appealing opponent may challenge the maintenance of the patent as amended in accordance with the interlocutory decision.

3.3 In the case in hand, this is the version of current auxiliary request 2.

3.4 Thus, the substantive requests to be considered are the main request and auxiliary request 1 of the patent proprietor's appeal.

4. Inventive step

*Patent in suit*

4.1 The patent in suit relates to the field of pharmaceutical and vaccine compositions, in particular adjuvants for such compositions.

4.2 As set out in paragraphs [0005] to [0007] of the patent in suit, it was well known that enterobacterial lipopolysaccharide was a potent stimulator of the immune system, although its use in adjuvants had been curtailed by toxic effects. Certain non-toxic derivatives or synthetic alternatives suitable for adjuvant use in vaccines were known, for instance

monophosphoryl lipid A, diphosphoryl lipid A and 3-O-deacylated variants thereof.

- 4.3 The patent in suit aims to provide further adjuvants in the general class of lipopolysaccharide analogues that can be manufactured with consistent quality. The solution proposed in the patent is a synthetic glucopyranosyl lipid adjuvant ("GLA") as defined in the claims (see paragraphs [0002], [0008] and [0014]).

*Claim analysis*

- 4.4 The main request and auxiliary request 1 each contain several independent claims. For the purposes of the present decision, it is sufficient to focus on claim 12 in each request.
- 4.5 Claim 12 of auxiliary request 1 is a purpose-related product claim pursuant to Article 54(5) EPC, while claim 12 of the main request is not (see points I. and IV. above for the wording of these claims).
- 4.5.1 Article 54(5) EPC provides that the patentability of a substance or composition comprised in the state of the art, for any specific use in a method referred to in Article 53(c) EPC, is not excluded, provided that such use is not comprised in the state of the art.
- 4.5.2 Claim 12 of auxiliary request 1 restricts the use of the composition to inducing or enhancing an immune response "in a patient", which is a use referred to in Article 53(c) EPC. In accordance with the claim format and special concept of patentability provided for in Article 54(5) EPC, the therapeutic indication "use in inducing or enhancing an immune response in a patient" is a technical feature of the claim that must be taken into account in the assessment of novelty and inventive step.

4.5.3 The special concept according to Article 54(5) EPC does not apply to claim 12 of the main request, which is limited by the "for use" feature only in so far as the composition must be suitable for the stated use "in inducing or enhancing an immune response". This is because, without the reference to patients, the stated use also covers *in vitro* methods and is not restricted to methods referred to in Article 53(c) EPC. Qualifying the composition as "pharmaceutical" does not necessarily imply that it is used in patients. *In vitro* use in a cell culture is expressly envisaged in the patent in suit (see paragraph [0158]) and is not ruled out by the definition of the composition or of its use as stated in claim 12 of the main request.

*Starting point in the prior art*

4.6 One point in dispute was which prior-art disclosure should be regarded as the "closest" state of the art.

The respondent took the view that the disclosure of compound "504" in document D16 was the closest prior art and based its objections on this approach.

The appellant maintained that document D30 was the closest prior art and that D16, being a less promising starting point, should not be considered. If D16 were nevertheless to be considered, its disclosure relating to compound "MPL" should be selected as the starting point within that document rather than the disclosure relating to compound 504.

4.7 The board considers that establishing a relative degree of "closeness" of these alternative starting points is not crucial. If inventive step is to be acknowledged, the claimed subject-matter must be inventive starting from any potential starting point in the prior art. On the other hand, if inventive step is to be denied,

the choice of starting point needs no specific justification.

#### 4.7.1 General considerations

Inventive step can, in principle, be assessed starting from any prior-art disclosure. If the starting point is too remote from the claimed subject-matter in terms of purpose and technical features, the problem-and-solution approach will simply not result in a finding that the claimed subject-matter is obvious.

The usual approach, and the more relevant challenge as a test for inventive step, involves selecting a starting point that relates to the same or a similar purpose or objective as the claimed invention and corresponds as closely as possible to it in terms of technical features. The test is to establish if the claimed subject-matter would have been non-obvious even starting from one or, as the case may be, several such "promising" starting points. If this is the case, it may be expected that the claimed subject-matter also involves an inventive step when the assessment is based on more remote starting points.

In view of the similarity criterion, the starting point is by necessity selected with knowledge of the claimed subject-matter. The selection of a starting point serves the purpose of assessing inventive step and is performed by the body deciding on inventive step, from among the prior-art disclosures that are eligible under Article 56 EPC. Depending on the circumstances of the individual case, either only one starting point or several alternative starting points will be considered.

Thus, the starting point in the prior art is not selected by the person skilled in the art. The notional person skilled in the art enters the scenario of the

problem-and-solution approach only after the objective technical problem has been determined, as this is the person (or team, as it may be) with suitable competence for solving the objective technical problem.

What teaching the skilled person or team seeking to solve the objective technical problem would have derived from the starting point and any supplementary prior-art disclosures, must then be assessed from their point of view before the effective date. In this way, obviousness is assessed without hindsight.

#### 4.7.2 Considerations in relation to the case in hand

In the decision under appeal, the opposition division considered that the subject-matter of claim 12 of auxiliary request 1 did not involve an inventive step, starting from the technical teaching of document D16.

Neither the opposition division nor the respondent argued that the claimed subject-matter lacked an inventive step starting from the technical teaching of document D30 (favoured by the appellant as the "closest" prior art). Their objection was that the claimed subject-matter lacked an inventive step starting from the technical teaching of D16, and in particular the disclosure in D16 relating to compound 504.

As mentioned above, if an inventive step is to be acknowledged, the claimed subject-matter must be inventive starting from any potential starting point in the prior art.

To take account of the objections actually raised by the opposition division and the respondent, the board finds it appropriate to assess inventive step starting from the disclosure of D16, specifically compound 504 in that document.

In particular, for the appeal to be allowable, the board must be convinced that an inventive step can be acknowledged in an assessment that is based on the same starting point as the opposition division's assessment that led to a negative conclusion on inventive step in the decision under appeal.

The question whether the disclosure relating to compound 504 in document D16 might be considered the "closest" prior art is therefore immaterial.

The appellant contended that the person skilled in the art would not have selected compound 504 as a starting point because D16 taught that it was more toxic than MPL. In view of the considerations set out in point 4.7.1 above, the premise for this argument (namely that it is the person skilled in the art who selects the starting point for the assessment of inventive step) is not followed, and the argument is considered not relevant at this stage of the problem-and-solution approach. What teaching the skilled person would have inferred from the disclosure in D16 about the properties of compound 504 is, however, relevant for the assessment of obviousness, and this aspect is considered in point 4.17 below.

#### *Content of D16*

4.8 D16 relates to a comparison of the immunomodulating properties of two forms of monophosphoryl lipid A analogues considered to be adjuvant candidates, one of which is a synthetic substance designated compound "504" (see D16: title and abstract). The other compound is designated "MPL" and was isolated from bacterial cell walls.

The formula of compound 504 is disclosed in document D7 (Fig. 1), which is referenced in D16 as reference 21.

It was not in dispute that compound 504 is in conformity with the formula in claim 12 except for the definition of R<sup>4</sup>, which in compound 504 is a C<sub>11</sub> alkyl chain rather than a C<sub>12</sub>-C<sub>20</sub> alkyl chain.

D16 reports that, after being formulated as aqueous solutions, the compounds were tested on mice and cell cultures and were found to have excellent immunomodulatory activity in multiple assays. The two compounds investigated in D16 were also deemed to have comparatively low toxicity. The authors of D16 concluded from the observed results that monophosphoryl analogues of lipid A were suitable candidates for immunotherapy and vaccine adjuvants.

*Objective technical problem and solution*

- 4.9 The compositions according to claim 12 of the main request and auxiliary request 1 differ from the compositions containing compound 504 described in D16 on account of the structure of the GLA adjuvant with regard to the chain length of substituent R<sup>4</sup>.
- 4.10 According to the appellant, the technical effect associated with the increased chain length of substituent R<sup>4</sup> in the compounds according to the patent in suit was lower toxicity.
- 4.11 However, the alleged lower toxicity was not shown, at least not across the scope of GLA compounds as defined in claim 12.
- 4.11.1 The appellant did not provide any comparative test that allowed the toxicity of the GLA compounds according to claim 12 to be directly compared with the toxicity of compound 504.
- 4.11.2 In the proceedings before the opposition division, the respondent provided document D75a, which contains data



relating to the pyrogenicity of compound 504 and compound "PHAD<sup>TM</sup>", a compound according to claim 12. The sole difference between these compounds is that R<sup>4</sup> is C<sub>11</sub> alkyl in compound 504 but is C<sub>13</sub> alkyl in PHAD.

As shown in D75a and as set out in the accompanying expert declaration D75 (conclusions in point 12), compound 504 and PHAD showed similar pyrogenicity profiles, with each compound being about 100 times less pyrogenic than compound "506", a synthetic form of lipid A that expresses all the toxic activities of bacterial lipopolysaccharides and that was included in the test as a positive control.

The appellant argued in point 6.6 of its reply to the opponent's appeal that the data in D75a and the corresponding raw data provided in D75b still suggested that PHAD was less pyrogenic than compound 504.

Even if that were the case (D75, in point 12, acknowledges that "compound 504 appeared to be somewhat more active in the pyrogen tests than PHAD<sup>TM</sup>", and the respondent, in its grounds of appeal, second paragraph on page 41, speaks of "PHAD having slightly decreased toxicity as compared to compound 504"), it has not been shown that such a finding can be extrapolated to all the compounds covered by the formula in claim 12 (i.e. having substituents R<sup>4</sup> with chain lengths of C<sub>12-20</sub> alkyl).

The scientific journal article D45 does not provide any information that could support such extrapolation. D45 reports research into the effect of varying the carbon chain length of secondary acyloxy chains in certain monophosphoryl lipid A compounds. However, the compound class examined according to D45 has an acylation pattern that is distinct from that of the GLA

compounds according to the patent in suit. Furthermore, several chain lengths were varied simultaneously, within a range of shorter chain lengths of 4 to 14 carbons. On account of these fundamental differences, the board considers that D45 does not provide a generally applicable concept that could be predictive of the effect that chain length in substituent R<sup>4</sup> has on the toxicity of the compounds according to claim 12. For this reason, it would not be correct to extrapolate any of the findings in D45 to GLA.

4.12 As a consequence, the alleged technical effect of lower toxicity cannot be used in the formulation of the objective technical problem.

4.13 No comparative data relating to other properties of the compounds of claim 12 were provided.

4.14 Starting from the disclosure of document D16 in relation to compound 504, the objective technical problem applying to claim 12 of the main request is thus to provide a pharmaceutical composition comprising an alternative GLA compound, suitable for inducing or enhancing an immune response.

The objective technical problem in the case of claim 12 of auxiliary request 1 is to provide a pharmaceutical composition comprising an alternative GLA compound, for use in inducing or enhancing an immune response in a patient.

4.15 The respondent argued (as did the opposition division) that efficacy of the compositions as vaccine adjuvants was not credibly attained across the claimed scope.

4.16 In the board's view, this argument must fail because the technical effect in question is expressed in the claims.

In a purpose-related product claim according to Article 54(5) EPC, like claim 12 of auxiliary request 1, attaining the therapeutic benefit stated in the claim is a technical feature of the claim, i.e. only compositions which attain the therapeutic benefit are claimed.

Claim 12 of the main request likewise states the intended use of the composition in inducing or enhancing an immune response and defines component (a) as an adjuvant, which translates into a requirement of suitability (of both component (a) and the pharmaceutical composition) for the stated purpose.

Thus the wording of the claims implies that the objective technical problems as defined in point 4.14 above are solved across the claimed scope.

The objection that adjuvant efficacy was not demonstrated across the range of compounds defined by the formula in claim 12 should instead have been raised and addressed under Article 100(b) EPC (sufficiency of disclosure) rather than Articles 100(a) and 56 EPC (inventive step) (see decision G 1/03, OJ EPO 2004, 413, Reasons 2.5.2).

*Obviousness of the solution*

4.17 As already mentioned (see the last paragraph of point 4.7.2 above), the appellant argued that D16 showed that compound 504 was toxic, or at least five times more toxic than MPL, based on the LD<sub>50</sub> values in specific mice, reported in Table 3 of D16. The person skilled in the art would thus have considered that compound 504 was unsafe and unsuitable for use in humans.

4.18 The board notes that contrary to the appellant's view, document D16 is in fact fairly optimistic about the suitability of compound 504 for stimulating an immune response and as a vaccine adjuvant (as also pointed out by the respondent in point 4.2.2 of its submission of 28 April 2017).

D16 reports that both compound 504 and MPL exhibited considerably reduced toxicity in LD<sub>50</sub> assays when compared with native lipopolysaccharides (LPS), when tested in the particularly sensitive, galactosamine-loaded C57BL/6 murine strain (see D16: abstract, Table 3, paragraph bridging pages 403 and 404). While the LD<sub>50</sub> for MPL was found to be 226 times higher and that for compound 504 40 times higher than that for native LPS, D16 does not suggest at any point that compound 504 was considered unsafe and toxic on account of this difference. As both compounds also exhibited excellent immunomodulatory activity, they were considered to be non-toxic candidates for immunotherapy and vaccine adjuvants (paragraph bridging pages 403 and 404; see also the abstract: "analogues of bacterial lipopolysaccharides with little or no toxicity").

Thus, D16 failed to reproduce the more unfavourable test results regarding compound 504 that are reported in the earlier publication D7 (cited in D16 as reference 21). In the passage that mentions D7, D16 also emphasises that compound 504 was found to be much less toxic and pyrogenic than native lipid A and its diphosphoryl analogue (see D16: paragraph bridging pages 398 and 399).

In conclusion, the teaching in the prior art, in particular in D16, would not have given the skilled person the impression that compound 504 was particularly toxic, or that compounds with minor

structural variations based on compound 504 would turn out to be unacceptably toxic.

- 4.19 The appellant also argued that compound 504, at the priority date of the patent in suit, was considered a 'dead end' for research, as the field of lipid A-type vaccine adjuvant research had been dominated for years by the 3-O-deacylated monophosphoryl lipid A series.
- 4.20 However, this argument remains circumstantial and speculative, as no evidence of a general technical prejudice against compound 504 and related compounds has been presented. Even if research in the technical field had been focused for a time on 3-O-deacylated compounds, this alone, without corresponding statements in the prior art, does not prove that compound 504 was generally considered a 'dead end' that should not be explored further.
- 4.21 In order to solve the objective technical problem starting from compound 504 in D16, the person skilled in the art would have tried to obtain alternative GLA compounds by systematically varying the structure of compound 504, i.e. by merely applying routine measures.
- 4.22 One option for doing this, lying within the skilled person's routine, was to vary acyl chain lengths, for example by varying the chain length of substituent R<sup>4</sup>. In this manner, the person skilled in the art would have arrived at the claimed subject-matter.
- 4.23 As set out above, the appellant failed to show that the person skilled in the art would have had an expectation of failure that would have kept them from trying this modification.

- 4.24 While other structural modifications were likewise possible, such as varying the acylation pattern, this does not mean that the skilled person would not have also varied acyl chain lengths in order to provide alternative GLA compounds. This option would have been an arbitrary choice that cannot establish an inventive step.
- 4.25 These considerations apply equally to claim 12 of the main request and claim 12 of auxiliary request 1 and the respective objective technical problems defined in point 4.14 above.
- 4.26 As a consequence, the subject-matter of claim 12 of the main request and claim 12 of auxiliary request 1 does not involve an inventive step within the meaning of Article 56 EPC.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chair:



I. Aperribay

T. Sommerfeld

Decision electronically authenticated