IN THE HIGH COURT AT CALCUTTA

ORIGINAL SIDE

COMMERCIAL DIVISION

Present:

The Hon'ble Justice Krishna Rao

IPDPTA No. 12 of 2023

Enterabio Ltd.

Versus

The Controller General of Patents & Designs, Mumbai & Anr.

Mr. S. Majumdar, Sr. Adv.
Mr. Paritosh Sinha
Ms. Amrita Majumdar
Ms. Mitul Dasgupta
Ms. Enakshi Saha
Mr. K.K. Pandey

... For the appellant.

Mr. Nandlal Singhania
Ms. Sanchita Burman Ray

... For the respondent authority.

Hearing Concluded On : 02.08.2024

Judgment on : 30.08.2024

Krishna Rao, J.:

1. This is an appeal under Section 117A of the Patents Act, 1970 against the order passed by the Assistant Controller of Patents and Designs dated 29th September, 2020, rejecting the appellant's Patent Application No.1150/KOLNP/2011.

2. The subject invention pertains to composition for oral administration of proteins (insulin). Invention provides a single solid oral pharmaceutical composition comprising insulin, a protease inhibitor and a compound selected from the group consisting of a monosodium and a disodium salt of N-8-[2- hydroxybenzoyl]amino)caprylate (SNAC). The protease inhibitor is selected from aprotinin and soy bean trypsin inhibitor (SBTI) in a range of from 10 to 200 mg, and said compound is in a range of from 50 % to 70 % by weight of the composition and a method of administering them.

The absorption enhancer increases absorption of insulin in the blood stream.

A protease inhibitor prevents activity of protease which degrades a protein, insulin in the present case.

3. Learned Counsel for the appellant has contended that the Assistant Controller of Patents and Designs has not provided adequate reasons by selective reading and misrepresentation of prior arts. The Controller proceeded to reach his conclusion on the basis of on hindsight

reconstruction which is not permitted under law. The Controller failed to consider the patent granted in all major jurisdictions.

4. In the First Examination Report, it is mentioned that *"the alleged invention may not be considered novel over the prior art document D3 EP 1933862A2 (publication date : 25/06/2008). The prior art document D3 belongs to the first applicant of instant application but the applications have different priority dates and hence, D3 can be cited in here for reference. The subject matter of D3 is entirely similar to the subject matter of instant application [see abstract, claim, description]. Thus, the subject matter of instant application is merely a repetition of D3. Thus, instant application is neither novel nor inventive in view of D3. In view of this, the alleged invention cannot be considered novel u/s 2(1)(j) of Patents Act 1970."*

Abstract of the application reads as follows: *"Various types and amounts of insulin e.g. those listed above in the specification as compared for their ability to regulate blood sugar in methods and compositions of the present invention. Insulin tablets or capsules are formulated as described in the above examples, except that the type and amount of insulin is varied. The most effective type/amount of insulin is used in clinical trials."*

5. Claim of the appellant in the application was as follows:

*"**WE CLAIM:***

***1.** An oral pharmaceutical composition comprising a protein having a molecular weight of up to*

100,000 Daltons, a protease inhibitor, and a compound selected from the group consisting of N-(8-[2-hydroxybenzoyl] amino)caprylate (SNAC), N-(10-[2-hydroxybenzoyl]amino) decanoate (SNAD), a salt of said SNAC or said SNAD, and a combination thereof.

2. *The composition of claim 1, wherein said protein is a recombinant protein.*

3. *The composition of claim 1, wherein said compound is a salt of said SNAC or said SNAD, and said salt is selected from the group consisting of a monosodium salt, a disodium salt, and a combination thereof.*

4. *The composition of claim 1, wherein said protein is selected from the group consisting of insulin, a glucagon, an interferon gamma, an interferon alpha, a growth hormone, an erythropoietin, a GLP-1, a GLP-1 analogue, and granulocyte colony stimulating factor (G-CSF)*

5. *The composition of claim 1, wherein said protease inhibitor is selected from the group consisting of a serpin, a suicide inhibitor, a transition state inhibitor, a protein protease inhibitor, a chelating agent, a Cysteine protease inhibitor, a Threonine protease inhibitor, an Aspartic protease inhibitor, and a Metalloprotease inhibitor.*

6. *The composition of claim 5, wherein said protease inhibitor is a serpin, and said serpin is a trypsin inhibitor.*

7. *The composition of claim 1, wherein said protease inhibitor is selected from the group consisting of Lima bean trypsin inhibitor, Aprotinin, soy bean trypsin inhibitor (SBTI), and Ovomucoid.*

8. *The composition of claim 1, further comprising an omega-3 fatty acid.*

9. *The composition of claim 1, further comprising EDTA or a salt thereof.*

10. *The composition of claim 1, further comprising a coating that inhibits digestion of said composition in a stomach of a subject, an enteric coating, or a gelatin coating.*

11. *The composition of claim for oral administration of a protein to a subject.*

12. *The composition of claim 1, wherein said protein is selected from the group consisting of insulin, Exenatide, and a combination thereof, for treating diabetes mellitus in a subject.*

13. *A method for oral administration of a protein having a molecular weight up to 100,000 Daltons to a non-human subject, comprising administering orally to said subject a pharmaceutical composition comprising said protein, a protease inhibitor, and a compound selected from the group consisting of N-(8-[2-hydroxybenzoyl]amino)caprylate (SNAC), N-(10-[2-hydroxybenzoyl)amino)decanoate (SNAD), a salt of said SNAC or said SNAD, and a combination thereof.*

14. *A method for treating diabetes mellitus in a non-human subject, comprising administering orally to said subject a pharmaceutical composition comprising insulin, Exenatide, or a combination thereof; a protease inhibitor; and a compound selected from the group consisting of N-(8-[2-hydroxybenzoyl]amino)caprylate (SNAC), N-(10-[2- hydroxybenzoyl]amino)decanoate (SNAD), a salt of said SNAC or said SNAD, and a combination thereof."*

6. Brief description of the drawings was as follows:

Figure 1

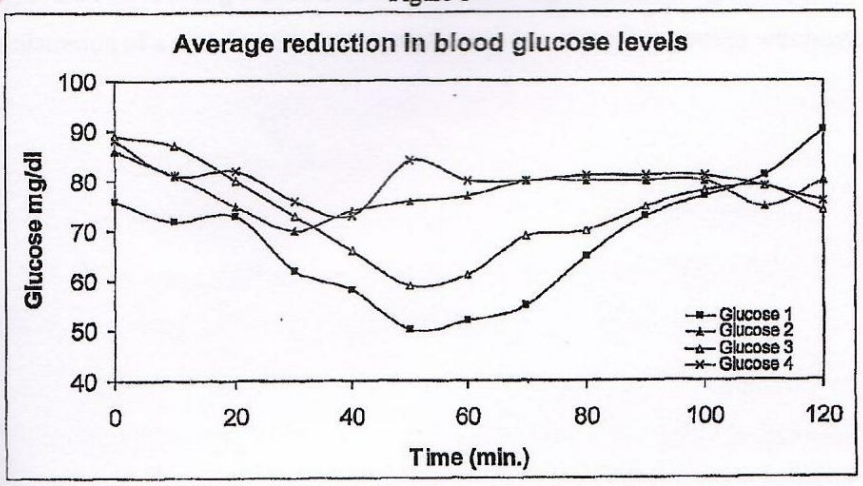
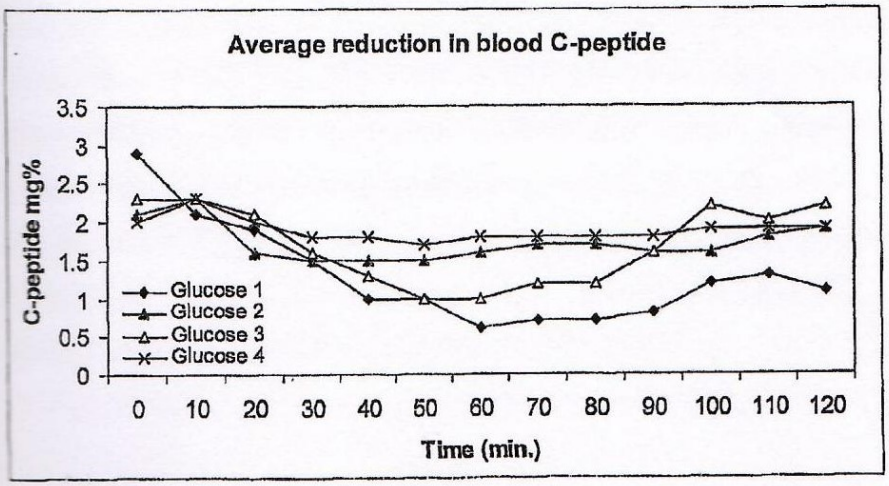


Figure 2



7. In the impugned order, the Assistant Controller of Patents and Designs held that:

> *"D2 is considered as the closest prior art. The subject matter claimed in claim 1 differs from the formulation of D2 in that*
>
> *a. Insulin is not present as enteric microspheres, but a single solid dosage form.*
>
> *b. The concentrations of the ingredients in the formulation are different."*

8. The First Examination Report is the only examination report found D3 as a novelty and inventive steps destroying document but in the impugned order, it is mentioned that D2 as the closest prior art and the invention was found to be devoid of inventive steps based on combined reading of D1–D4 without showing as to how a coherent thread was traced leading from the prior arts to invention.

9. The appellant in response to the First Examination Report, amended the claims but no Second Examination Report was called for even though two new prior art documents including D2 was raised for the first time in the hearing notice.

Section 13(3) of The Patents Act, 1970, reads as follows:

> "*Where a complete specification is amended under the provisions of this Act before, the amended specification shall be examined and investigated in like manner as the original specification.*"

10. In the case of ***Britannia Industries Limited –vs- The Controller Patents of Patent and Designs and Another,*** the Coordinate Bench of this Court in **IPDPTA/27/ 2023** held that :

> "***10.*** *In passing the impugned order, reliance has also been placed on a new document being D7. Even though amendments were filed and the application was re-examined, no Second Examination Report was issued. This is ex face contrary to the mandate of Section 13 (3) of the Act. The re-examination of a re-filed application is a mandatory procedure and the Controller was statutorily bound to follow the same. Thus, even on this ground the impugned order is not sustainable.*"

11. In the First Examination Report, the numbering of the prior arts not matched with the numberings of the prior arts in the hearing notices, which creates confusion. Details of prior arts referred in the First Examination Report and two hearing notices dated 17th January, 2020 and 23rd June, 2020, are as follows:

PRIOR ART	***DESCRIPTION IN FER DATED 12.01.2018***	***DESCRIPTION IN HEARING NOTICE DATED 17.01.2020***	***DESCRIPTION IN HEARING NOTICE DATED 23.06.2020***	***DESCRIPTION IN HEARING NOTICE DATED 06.07.2020***
US2007/0087957A1	*D1*	*D3*	*D3*	*D3*
US2006/0234913A1	*D2*	*D4*	*D4*	*D4*
EP1933862A2	*D3*	*D5*	*D5*	*D5*
WO2007121318A2	*D4*			
WO2006103657A2	*D5*			
KIDRON M ET AL		*D1*	*D1*	*D1*
QI.R ET AL		*D2*	*D2*	*D2*

The Assistant Controller of Patents and Designs has not considered the grants in other jurisdictions including US, Europe and Australia where identical documents were cited. In the hearing notice, D2 (QI R ET AL), D3 (US2007/0087957A1) and D4

(US2006/0234913A1) were cited by the Controller were also cited in US, EP and AU, EP in these jurisdiction, patent were granted.

Section 8 of The Patents Act, 1970, reads as follows:

> ***"8. Information and undertaking regarding foreign applications.***- *(1) an applicant for a patent under this Act is prosecuting either alone or jointly with any other person an application for a patent in any country outside India is respect of the same or substantially the same invention, or where to his knowledge such an application is being prosecuted by some person through whom he claims or by some person deriving title from him, he shall file along with his application [or subsequently [within the prescribed period as the Controller may allow]]-*
>
> *(a)A statement setting out detailed particulars of such application; and]*
>
> *(b)An undertaking that, [upto the date of grant of patent in India], he would keep the Controller informed in writing, from time to time, of [detailed particulars as required under] clause (a) in respect of every other application relating to the same or substantially the same invention, if any, filed in any country outside India subsequently to the filing of the statement referred to in the aforesaid clause, within the prescribed time.*
>
> *[(2) At any time after an application for patent is filed in India and till the grant of a patent or refusal to grant of a patent made thereon, the Controller may also require the applicant to furnish details, as may be prescribed, relating to the processing of the application in a country outside India, and in that event the applicant shall furnish to the Controller information available to him within such period as may be prescribed]."*

The appellant has complied with the mandate of the above Section and provided all details of all such patent applications applied for and granted in other jurisdictions.

In the case of ***Biotron Limited –vs- The Controller General of Patents and Designs and Anr.*** in ***IPDPTA 61 of 2023*** dated 17th November, 2023, the Coordinate Bench of this Court held that:

> *"**12.** Section 8 of the Act mandates that an applicant is to file all necessary details and undertakings in respect of the same or substantially same invention pending prosecution in other Patent Office in any other country outside India. In this context, the Ayyangar Report had recommended as follows:*
>
> > *"It would be of advantage therefore if the applicant is required to state whether he has made any application for a patent for the same or substantially the same invention as in India in any foreign country or countries, the objections, if any, raised by the Patent Offices of such countries on the ground of want of novelty or unpatentability or otherwise and the amendments directed to be made or actually made to the specification or claims in the foreign country or countries upto the date of acceptance of the application."*
>
> ***13.** Admittedly, the appellant had complied with the mandate of the above section and provided all details of all such patent applications applied for and granted in other jurisdictions. In such circumstances, although not binding, this aspect of the matter ought to have been considered before passing of the impugned order (Stempeutics Research Pvt Ltd vs. Assistant Controller of Patents (OA/3/2017/PT/CHN)."*

12. In the event D3 of the First Examination Report was found to be an anticipating document by the Controller which contained teaching of

the claimed invention in its completeness, there was no need to combine D3 (D5) with other documents including two new documents i.e. Non Patent literature D1 and D2 to suggest lack of inventive steps when D3 (D5) in isolation was self-sufficient. The Controller in the impugned order admitted that D2 is considered as the closest prior art. The subject-matter claimed in claim no.1 differs from the formulation of D2 in that (a) insulin is not present as enteric microspheres, but a single solid dosage from; (b) the concentrations of the ingredients in the formulation are different.

13. A person skilled in the art would be motivated to use a protease inhibitor to reinforce the enhancing effects of SNAC (monosodium salt and disodium salt of N-8[2- hydroxybenzoyl]amino)caprylate), the Controller failed to show as to why a skilled person will be motivated to selectively follow the teachings of formulating oil/oil EMS, which is clearly superior in terms of its activity. The elimination of essential elements of prior art is in itself inventive and not obvious to a skilled person. The Controller has acknowledged that D2 does not teach explicitly replacement of EMS or enteric coating with protease inhibitor.

14. It is evident from the prior art citations that none of the prior arts teach inclusion of both SNAC and SBTI in a single oral solid formulation of insulin. On the date of invention, a person skilled in the art facing the technical problems of making an oral solid formulation of insulin would not be motivated to combine the prior art and arrive at a formulation of insulin along with SNAC and SBTI. D4 teaches away from using SNAC.

15. D2 teaches EMS of insulin to impart stability and cannot be combined with other prior arts. The hypoglycemic effect of the formulation is observed only when SNAC is combined with specific type of EMS (oil/oil). A person skilled in the art would find no motivation to combine the teachings of D2 with other prior arts.

16. Even if D2 is combined with D1, a skilled person would be motivated to consider the holistic teachings of both the documents and prepare an oil/oil EMS formulation. If D3/D5 is combined with said teaching, the skilled person would be inclined to add Omega-3 fatty acid to the formulation. While on combining with D4, a skilled person would be in fact inclined to use CNAB instead of SNAB. Therefore, a combined reading of the prior art, independent of the present invention, i.e. without any hindsight bias.

In the case of ***F. Hoffmann-La Roche Ltd. & Anr. –vs- Cipla Ltd.*** reported in ***2015 SCC OnLine Del 13619,*** the Delhi High Court held that :

> ***"152.*** *Expressing a note of caution, the Bombay High Court in F.H. & B. Corp. (supra) guarded the Courts of law against the common human failing of being wise after the event in regarding something that has been discovered by research as obvious. In Grain Processing (supra) the Court noted that care must be taken to avoid hindsight reconstruction by using the patent in suit as a guide through the MAZE of prior art references in the right way so as to achieve the result of the claims in suit. In Pfizer Inc. v. Teva Pharmaceuticals (supra) it was held that a patent challenger however must demonstrate the selection of a lead compound based on its promising useful*

properties, not a hindsight driven search for structurally similar compounds. Similar caution was advanced in Yamanouchi Pharmaceutical Co. Ltd. (supra) and Otsuka Pharmaceutical Co. Ltd.(supra).

153. *From the decisions noted above to determine obviousness/lack of inventive steps the following inquires are required to be conducted:*

Step No. 1 To identify an ordinary person skilled in the art,

Step No. 2 To identify the inventive concept embodied in the patent,

Step No. 3 To impute to a normal skilled but unimaginative ordinary person skilled in the art what was common general knowledge in the art at the priority date.

Step No. 4 To identify the differences, if any, between the matter cited and the alleged invention and ascertain whether the differences are ordinary application of law or involve various different steps requiring multiple, theoretical and practical applications,

Step No. 5 To decide whether those differences, viewed in the knowledge of alleged invention, constituted steps which would have been obvious to the ordinary person skilled in the art and rule out a hideside approach."

In the case of ***Bristol–Myers Squibb Holdings Ireland Unlimited Company & Others –vs- BDR Pharmaceuticals International Pvt. Ltd. and Another*** reported in ***2020 SCC OnLine Del 1700***, the Delhi High Court held that:

"36. *From the judgments as noted above, some of the principles which govern the field to find out whether an invention is obvious or not can be summed up as under:—*

(i) A hindsight reconstruction by using the patent in question as a guide through the maze of prior art references in the right way so as to achieve the result of the claim in the suit, is required to be avoided.

(ii) The patent challenger must demonstrate the selection of a lead compound based on its promising useful properties and not a hindsight driven search for structurally similar compounds.

(iii) There should be no teachings away from the patent in question in the prior art.

(iv) Mere structural similarity cannot form the basis of selection of lead compound in a prior art and the structural similarity in the prior art document must give reason or motivation to make the claim composition.

(v) Though mosaic of prior art documents may be done in order to claim obviousness, however, in doing so, the party claiming obviousness must be able to demonstrate not only the prior art exists but how the person of ordinary skill in the art would have been led to combine the relevant components from the mosaic of prior art.

(vi) It has to be borne in mind, small changes in structures can have unpredictable pharmacological effects and thus, structural similarity alone is not sufficient to motivate to selection of the lead compound.

(vii) Though it would be tempting to put together a combination of prior arts but this requires a significant degree of hindsight, both in selection of relevant disclosures from these documents and also in disregarding the irrelevant or unhelpful teachings in them."

17. The Controller though had heard the matter twice and was not satisfied with the submissions of the appellant, ought to have specified the amendments in the specification which according to him would be appropriate to put the application in order for grant. The Controller

neither specified any amendment nor permitted any further amendment in the specification by the appellant.

Rule 28(5) of The Patents Rules, 2003, reads as follows:

> *"**5.** After hearing the applicant, or without a hearing if the applicant has not attended or has notified that he does not desire to be heard, the Controller may specify or permit such amendment of the specification as he thinks fit to be made and may refuse to unless the amendment so specified or permitted is made within such period as may be fixed."*

In the present case, the Controller has not complied with the provisions of Rule 28(5) of the Patents Rules, 2003.

18. Considering the above, this Court finds that the impugned order dated 29th September, 2020, passed by the Assistant Controller of Patents and Designs is not sustainable and accordingly, the same is set aside and quashed. The matter is remanded back to the Controller with the following directions:

> *a) To issue Second Examination Report (SER) within four (4) weeks from the date of receipt of this order.*
>
> *b) Permit the appellant to submit its reply to the SER within three (3) weeks from the date of supply of SER to the appellant.*
>
> *(c) Permit the appellant to make amendments and to rely upon additional documents, if required.*
>
> *d) To consider the prosecution of corresponding Patents granted in Australia, Europe and USA, where the same closest prior art was cited.*

e) Matter to be heard by the officer other than the officer who passed the impugned order.

f) Application of the appellant be disposed of by passing a reasoned and speaking order within a period of four (4) months.

19. Appeal is **allowed**. **IPDPTA No. 12 of 2023** is **disposed of**.

(Krishna Rao, J.)