ENGLISH TRANSLATION

24 March 2020

Subject: Submission of statement and evidence for patent examiners to reject patent application No. 0501002434

Attention to: Director-General of the Department of Intellectual Property

Attachments:

1. WO2004011436 (publication date of 5 February 2004)
2. Examination Guidelines for Patent relating to pharmaceutical inventions

Janssen Pharmaceutical N.V. filed a patent application for “The Use of Substituted Quinoline Derivatives for Treatment of Drug Resistant Mycobacterium Strains" in application No. 0501002434 (filing date of 27 May 2005); publication No. 137147 (publication date of 8 October 2014).

Even though a patent application opposition period of 90 days after the publication date has already expired, AIDS Access Foundation (AAF) and Thai Network of People Living with HIV/AIDS (TNP+), non-governmental development organizations aiming to promote access to pharmaceutical treatment and healthcare, found the patent application to be in contradiction to the Patent Act B.E. 2522 as amended by the Patent Act (No. 2) B.E. 2535 and the Patent Act (No. 3) B.E. 2542.

This patent application concerns an antituberculosis agent with a generic name of bedaquiline. Tuberculosis (TB) is a serious and growing threat to the wellbeing of the public and public health system of country. It is also a global health challenge. Currently, Thailand is among the world top 10 countries with TB patients. According to Bureau of Tuberculosis,
Ministry of Public Health, 108,000 patients were treated each year with 12,000 deaths annually and more than 46,000 left untreated. Of this, around 3,900 patients have multidrug resistant tuberculosis (MDR-TB) requiring bedaquiline treatment. This number is on the rise while the cost of MDR-TB treatment is extremely high, ranging from 200,000 – 1,200,000 THB per patient. If the country cannot afford to include bedaquiline in the Universal Health Coverage scheme—owing to the exorbitant cost of the drug and the lack of generic equivalents resulting from the unjustified patent protection granted—Thai patients will not be able to access the treatment. This will result in diminishing quality of life and even death, due to the serious side effects and low treatment success rate.

Thus, AAF and TNP+ hereby submitting these statements and evidences for the consideration of examiners to reject the aforementioned patent. Because the subject matter of the patent application, including the number of claims, has been amended many times before and after the patent publication, AAF and TNP+ have grouped the grounds for patent rejection into: 1) the grounds opposing the 51 claims at the time of publication and 2) the grounds opposing the 41 claims as amended after the publication as followed:

1. The Issues relating to the 41 claims as the patent applicant has amended after publication which reduced the numbers of claims down from 51 claims:

1.1) Name of the invention in this patent application, which is “The Use of Substituted Quinoline Derivatives for Treatment of Drug Resistant Mycobacterium Strains,” obviously refers to a treatment or cure of human diseases or animal diseases. Therefore, the subject matter of this invention is a treatment or cure which is in contradiction to the Article 9(4) as treatment or cure of human diseases or animal diseases are not protected according to the Patent Act. Furthermore, it contradicts to the Examination Guidelines for Patent / Petty Patent Applications revised edition B.E. 2555 (Attachment No. 3) on the page 37(15) in which “the use of …… compound for a treatment of disease” was given as an example of invention which is not eligible for protection.
1.2) Claim No. 1-31 describe the use of substituted quinoline derivatives for the preparation of drug used in treatment of drug-resistant mycobacterium by using swiss-type claim, but the subject matter of the claims is the use of the compound according to Formula (Ia) or (Ib) for treatment. Thus, these claims are in contradiction to the Article 9(4). The description of the claims are vague as it fails to describe the dose and the dosing regimen. Therefore, these claims are only the unspecific description which is in contradiction to the Article 17(4).

Moreover, these claims also contradict to the the Examination Guidelines for Patent / Petty Patent Applications revised edition B.E. 2555 (Attachment No. 3) on the page 37(16) in which “the use of …… compound for a treatment of disease” was given as an example of invention which is not eligible for protection.

1.3) Claim No. 32-33 describe the combination of the compound in Formula (Ia) or (Ib) and an antimycobacterial agent. The combination of these agents does not involve inventive step as it is a mere combination of the compound according to Formula (Ia) or (Ib) previously disclosed in the WO2004/011436 (publication date of 5 February 2004) (Attachment No. 1) which had been filed before the filing in Europe and outside the Kingdom with the filing No. 04102402.7, and one or more other antimycobacterial agents which are generally known without the demonstration of the inventive step. In addition, the Examination Guidelines for Patent/Petty Patent Applications revised edition B.E. 2555, Title 5, Part 2 on the page 361 provides that the synergistic effects of the two active pharmaceutical ingredients (Attachment No. 2) must be considered in determining whether a pharmaceutical combination has an inventive step or not.

It is found that this patent application fails to provide results and other details, demonstrating synergistic effects and the non-obviousness of technical resolutions in comparison with the prior arts, and the details of the new anti-tuberculosis effects derived from the combination of the said compound. In summary, the use of the said compound follows the prior arts and the inventor does not demonstrate new anti-tuberculosis effects of such combination. Therefore, this invention is obvious to the persons having ordinary skill in pharmaceutical arts which make it in contradiction with the Article 5(2), 7, and 17(4).
1.4) Claim No. 34 describes the pharmaceutical composition of the said invention broadly as a mere admixture of active pharmaceutical ingredients and pharmaceutical carriers without any specifics, and fails to demonstrate the inventive step. For this reason, it is in contradiction to the Article 5(2), 7, and 17(4).

1.5) Claim No. 35 describes the products with the compound according to Formula (Ia) or (Ib) and one or more other antimycobacterial agent as ingredients in the form of combination preparation to be administered concurrently, separately or sequentially for the treatment of mycobacterium diseases. This product is merely a combination formulation of two known compounds which demonstrates no specificness, inventive step, nor synergistic effects. Also, the ingredients of the formula are not clear. Thus, this claim is in contradiction to the Article 5(2), 7, and 17(4).

1.6) Claim No. 36-39 describe the combination, composition, or product according to the Claim No. 23-26. These claims merely specify the names of antimycobacterial agents or the compound in the formula (Ia) or (Ib), but fails to demonstrate the inventive step. Furthermore, the details of the ingredients used in the combination, composition, or product are unclear. Thus, these claims are in contradiction to the Article 5(2), 7, and 17(4).

1.7) Claim No. 40-41 describes the use of the combination, composition, or product from the Claim No. 32-39 in preparation of drug for the treatment of drug-resistant mycobacterium. The subject matter of these claims is a treatment of diseases which is in contradiction to the Article 9(4). These claims are also vague and fail to demonstrate the dose and the dosing regimen of the medication. Therefore, these claims are also in contradiction to the Article 17(4).

2. The Issues relating to the 51 claims as find in the publication are as follow:

2.1) Name of the invention in this patent application, which is “The Use of Substituted Quinoline Derivatives for Treatment of Drug Resistant Mycobacterium Strains,” obviously refers to a treatment or cure of human diseases or animal diseases. Therefore, the subject matter of this invention is a treatment or cure which is in contradiction to the Article 9(4) as treatment or
cure of human diseases or animal diseases are not protected according to the Patent Act. Furthermore, it contradicts to the Examination Guidelines for Patent / Petty Patent Applications revised edition B.E. 2555 (Attachment No. 3) on the page 37(15) in which “the use of …… compound for a treatment of disease” was given as an example of invention which is not eligible for protection.

2.2) Claim No. 1-22 describe the use of substituted quinoline derivatives for the preparation of drug used in treatment of drug-resistant mycobacterium by using swiss-type claim, but the subject matter of the claims is the use of the compound according to Formula (Ia) or (Ib) for treatment. Thus, these claims are in contradiction to the Article 9(4). The description of the claims is vague as it fails to describe the dose and the dosing regimen. Therefore, these claims are only the unspecific description which is in contradiction to the Article 17(4). Moreover, these claims also contradict to the Examination Guidelines for Patent / Petty Patent Applications revised edition B.E. 2555 (Attachment No. 3) on the page 37(16) in which “the use of …… compound for a treatment of disease” was given as an example of invention which is not eligible for protection.

2.3) Claim No. 23-24 describes the combinations of the compound according to Formula (Ia) or (Ib) and an antimycobacterial agent as a drug. The combination of these agents does not involve inventive step as it is a mere combination of the compound according to Formula (Ia) or (Ib) previously disclosed in the WO2004/011436 (publication date of 5 February 2004) (Attachment No. 1) which had been filed before the filing in Europe and outside the Kingdom with the filing No. 04102402.7, and one or more other antimycobacterial agents which are generally known without the demonstration of the inventive step. In addition, the Examination Guidelines for Patent/Petty Patent Applications revised edition B.E. 2555, Title 5, Part 2 on the page 361 provides that the synergistic effects of the two active pharmaceutical ingredients must be considered in determining whether a pharmaceutical combination has an inventive step or not (Attachment No. 2). It is found that this patent application fails to provide results and other details, demonstrating synergistic effects, the non-obviousness of technical resolutions in comparison with the prior arts, and the details of the new anti-tuberculosis effects derived from
the combination of the said compound. In summary, the use of the said compound follows the prior arts and the inventor does not demonstrate new anti-tuberculosis effects of such combination. Therefore, this invention is obvious to the persons having ordinary skill in pharmaceutical arts which make it in contradiction with the Article 5(2), 7, and 17(4).

2.4) Claim No. 25 describes the pharmaceutical composition of the said invention broadly as a mere admixture of active pharmaceutical ingredients and pharmaceutical carriers without any specifics, and fails to demonstrate the inventive step. For this reason, it is in contradiction to the Article 5(2), 7, and 17(4).

2.5) Claim No. 35 describes the products with the compound according to Formula (Ia) or (Ib) and one or more other antimycobacterial agent as ingredients in the form of combination preparation to be administered concurrently, separately or sequentially for the treatment of mycobacterium diseases. This product is merely a combination formulation of two known compounds which demonstrates no specificness, inventive step, nor synergistic effects. Also, the ingredients of the formula are not clear. Thus, this claim is in contradiction to the Article 5(2), 7, and 17(4).

2.6) Claim No. 27-29 describe the combination, composition, or product according to the Claim No. 23-26. These claims merely specify the names of antimycobacterial agents or the compound in the formula (Ia) or (Ib), but fails to demonstrate the inventive step. Furthermore, the details of the ingredients used in the combination, composition, or product are vague. Thus, these claims are in contradiction to the Article 5(2), 7, and 17(4).

2.7) Claim No. 30-51 concern the substituted quinoline derivatives according to Formula (Ia) or (Ib) has been disclosed in the WO2004/011436 (prior to the date of filing in Europe and outside the kingdom with the filing number 04102402.7). Therefore, this invention lacks novelty and inventive step. Since it is obvious to the persons having ordinary skills in pharmacy, these claims are in contradiction to the Article.

Moreover, AAF and TNP+ wished to express their concerns over the particular patent application as followed:
1. The claims listed in the patent application have been amended multiple times. Thirty-one claims were originally listed before the publication. The number of claims has been amended to 51 claims as of the publication date, then amended yet again to 41 claims after the publication. As the applicant has cited European patent application No. 04102402.7 as reference for the priority date and the aforementioned European patent application only listed 31 claims, it is neither allowable nor correct to cite them as such.

2. In the Indian patent application, Republic of India patent office has removed all use claims (Attachment 4) and allowed only combination claims which must be proven in the determination of novelty and inventive step.

3. The number and content of claims in the patent application have been amended multiple times. The applicant has originally filed 31 claims (27 May 2005), amended them to 51 claims on the publication date (8 October 2014) and yet amended them again to 41 claims after the publication date (2 October 2019). Thus, AAF and TNP+ would like to remark whether it is permissible to grant the amendment on number and content of claims as such; and whether it is fair to other stakeholders, if the opposition has actually been filed within the interference period of 90 days after the publication date.

AAF and TNP+ hereby submitted these statement and evidence as the grounds for the rejection of the patent granted, as well as any not-yet-unpublished patent applications of the same drug.

Yours faithfully,

(Nimit Tienudom)

Director of AIDS Access Foundation