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Revisions to Examination Guidelines for PTE Applications

In Response to Supreme Court Decisions on Genentech v. JPO Cases

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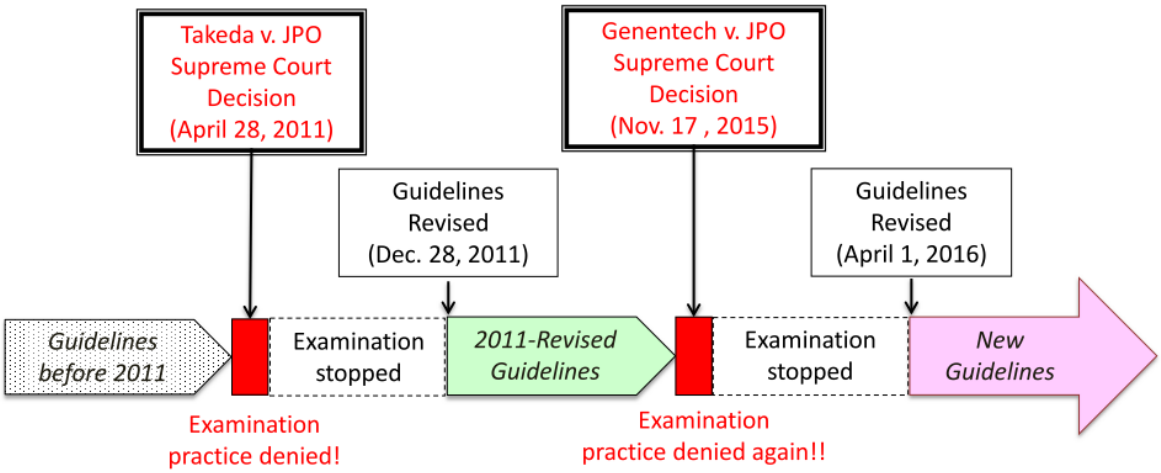
ABSTRACT

The grand panel decisions rendered by the Grand Panel of the Intellectual Property High Court (IPHC) on May 30, 2014, for Genentech v. Japan Patent Office (JPO) cases (IPHC Decisions Nos. 2013 (Gyo-Ke) 10195, etc.) were upheld by the Supreme Court of Japan (SCJ) on November 17, 2015 (SCJ Decisions Nos. 2014 (Gyo-Hi) 356, etc.). These SCJ decisions conclusively denied the JPO's examination practice for applications of patent term extension (PTE) for the second time in these several years, since another series of IPHC/SCJ decisions denied the JPO's pre-2011 examination practice and forced the JPO to revise its examination guidelines on December 28, 2011. In response to these new IPHC/SCJ decisions, the JPO revised its examination guidelines again, and started examination of PTE applications based on the revised guidelines from April 1, 2016. This article outlines the history of changes in the JPO's examination practice of PTE applications, and its revised guidelines in response to the new IPHC/SCJ decisions.



I. Introduction

1. PTE System in Japan

The patent term extension (hereinafter "PTE") system prescribed in the Japan Patent Law is intended to address a situation where there is a period during which a patented invention cannot be worked due to the necessity to obtain an administrative disposition designated by Cabinet Order. In other words, the PTE system provides a compensation for a period lost for obtaining a

disposition by allowing the duration of the patent right (or "patent term") to be extended for up to five years, upon filing of an application requesting registration of a PTE (hereinafter "a PTE application") (Article 67(2) of the Patent Law).

The "*disposition designated by Cabinet Order*" prescribed in Article 67(2) includes: a regulatory approval of a pharmaceutical drug prescribed in Article 14(1) of the Pharmaceutical Affairs Law (hereinafter "the PAL")[1]; and a regulatory approval of an agrochemical prescribed in Article 2(1) of the Agrochemicals Regulation Law (Article 3 of the Order for Enforcement of the Patent Law). Accordingly, PTE is allowed in Japan only for patents granted for inventions relating to pharmaceutical drugs or agrochemicals (the following parts of this article are focused on pharmaceutical drugs, or simply "drugs", although they also apply to agrochemicals).

One of the characteristics of the PTE system in Japan is that the patents whose terms can be extended by PTE are not limited to those claiming an active ingredient, but include other related patents such as those claiming a pharmaceutical/agrochemical composition containing such an active ingredient and those claiming a process for producing such an active ingredient. Another characteristic is that the terms of two or more patent rights can be extended by PTE based on a single administrative disposition, and the term of a single patent right can be extended two or more times by PTE based on two or more administrative dispositions. In other words, it is not necessary to choose one of two or more relevant administrative dispositions as a basis for PTE or to choose one of two or more relevant patent rights as a subject of PTE.

The scope of an extended patent right is defined in terms of the "product" being the subject of the disposition (regulatory approval) and the "uses" thereof (Article 68-2 of the Patent Law).

2. Issues Involved in PTE System

However, a PTE application shall be rejected if obtaining the disposition prescribed in Article 67(2) is not deemed to have been necessary for working the patented invention (Article 67-3(1)(i) of the Patent Law). The main issue here is: how the phrase "*obtaining the disposition ... is not deemed to have been necessary*" in this provision should be interpreted.

Specifically, in cases where a disposition (regulatory approval) on which a PTE application is based is preceded by a similar deposition (regulatory approval), the PTE application shall be rejected if the patented invention subject to the PTE application is deemed to have already been made workable by the preceding disposition. However, it is difficult to determine whether the earlier disposition should have made the patented invention workable.

In this respect, the criteria prescribed in the examination guidelines by the Japan Patent Office (hereinafter "the JPO") were not consistent with the PAL.

[1] The Pharmaceutical Affairs Law was revised and renamed as the "Law for Ensuring the Quality, Efficacy, and Safety of Drugs and Medical Devices" (also called "the Pharmaceutical and Medical Device Law" or simply "PMD") on November 25, 2014. However, for the sake of simplicity and consistency, both PAL and PMD are referred to as PAL in this article.

II. History of Revisions to JPO's Examination Guidelines before the Genentech v. JPO Cases

1. Pre-2011 Examination Guidelines

According to the JPO's examination guidelines before December 28, 2011 (hereinafter "the pre-2011 guidelines"), whether or not "*obtaining the disposition ... is deemed to have been necessary*" was determined only in terms of the active ingredient and the efficacy/effect (i.e., indication of treatment) of the drug subject to the regulatory approval (deposition), without considering any other elements, such as formulation, dosage, regimen, etc., of the drug.

On the other hand, according to Article 14(1) and (2)(iii) of the PAL, a regulatory approval (disposition) of a pharmaceutical drug shall be made by specifying not only the active ingredient and the efficacy/effect (i.e., indication of treatment) of the drug, but also specifying other elements, such as formulation, dosage, regimen, etc., of the drug. In other words, in the examination of a regulatory approval under the PAL, all of the elements identifying the drug are considered.

PAL	Name, ingredients, amount, structure, dosage, regimen, method of use, efficacy, effect, side-effects, and other matters relating to the quality, effectiveness and safety.
JPO	Active ingredient and efficacy/effect only.

Table 1: Elements identifying a drug to be considered in the examination of a regulatory approval under the PAL v. elements to be considered in the examination of a PTE application under the JPO's pre-2011 guidelines

Thus, in order for a pharmaceutical company to launch two or more pharmaceutical drugs under the PAL, it is necessary to obtain two or more regulatory approvals (dispositions) separately for the individual drugs, even when they are identical to each other in the active ingredient and the efficacy/effect but different from each other only in any of the other elements, such as formulation, dosage, or regimen. However, according to the JPO's pre-2011 guidelines, a PTE application was examined only in terms of the active ingredient and the efficacy/effect of the drug subject to the regulatory approval, without considering any other elements of the drug. Accordingly, if a PTE application was based on a regulatory approval (the present regulatory approval) preceded by another regulatory approval (the earlier regulatory approval) for a different drug which only differs from the drug subject to the present regulatory approval in any of the elements other than the active ingredient and the efficacy/effect, the PTE application was rejected on the ground that the patent invention was already enabled by obtaining the earlier regulatory approval.

Therefore, the JPO's examination practice of PTE applications based on the pre-2011 guidelines was often criticized as being inconsistent with the regulatory approval system under the PAL.

2. IPHC & SCJ Decisions on Takeda v. JPO ("*Pacif Capsule*" Cases: IPHC Decisions Nos. 2008 (Gyo-ke) 10458 to 10460 and SCJ Decisions Nos. 2009 (Gyo-hi) 324 to 326)

The JPO's examination practice under the pre-2011 guidelines was overruled by a series of decisions rendered by the Intellectual Property High Court (hereinafter "the IPHC") and the Supreme Court of Japan (hereinafter "the SCJ") on Takeda v. JPO cases, in which the plaintiff (Takeda Pharmaceutical Co., Ltd.) sought for nullification of the JPO's trial decisions to reject the plaintiff's PTE applications based on JP3134187B, the main claim of which reads as follows:

JP3134187B
Claim 1. A controlled-release composition comprising: a core containing a drug; and a coating containing (1) a water-insoluble substance, (2) an hydrophilic substance selected from …, and (3) a crosslinked acrylic acid polymer having an acid-dissociable group and being swellable pH-dependently."

In these cases, prior to obtaining a series of regulatory approvals (the present regulatory approvals) for drugs on which the PTE applications were based, the plaintiff had already received another series of regulatory approvals (the earlier regulatory approvals) for different drugs having the same "*active ingredient*" and the same "efficacy/effect" as those of the drugs of the present regulatory approvals. However, the drugs of the present regulatory approvals had a different "*dosage form*" from that of the earlier regulatory approvals. Due to this difference, the plaintiff had to obtain the present regulatory approvals in order to satisfy the requirements prescribed in the PAL.

In the trial decisions, the JPO (the collegial body of trial examiners) judged that even if the patentee (plaintiff) had to obtain the present regulatory approvals due to the difference in any of the elements other than the "active ingredient" and the "efficacy/effect" of the drugs, it was not deemed that obtaining the present regulatory approvals was necessary for the patentee to work the patented invention.

The IPHC rescinded the JPO's trial decisions by ruling that even if the drugs subject to the earlier regulatory approvals and the drugs subject to the present regulatory approvals share the same active ingredient and the same efficacy/effect, the PTE applications based on the later regulatory approvals should not be rejected, as long as ***the drugs subject to the earlier regulatory approvals were not covered by the technical scope of the patented invention***, which means that the act of working the drugs enabled by the earlier regulatory approvals did not fall under the scope of working of the patented invention.

The JPO appealed these cases to the SCJ, which made decisions to dismiss the JPO's appeals, on the basis of substantially the same logic as that of the IPHC decisions, thereby forcing the JPO to revise its examination guidelines.

The main difference between these "*Pacif capsule*" cases and the "*Avastin*" cases, which will be described later, is that in the "*Pacif capsule*" cases, the preceding drugs were ***not*** included in the technical scope of the patented invention while in the "*Avastin*" cases, both the preceding and present drugs ***were*** included in the technical scope of the patented invention (see Tables 4 and 5 below).

3. Revisions of examination guidelines (December 28, 2011)

In response to the SCJ decisions on the "*Pacif capsule*" cases, the JPO revised its examination guidelines on December 28, 2011.

The resultant examination guidelines, which were made into effect on December 28, 2011 (hereinafter "the 2011-revised guidelines"), prescribed that when a PTE application was based on a disposition (present deposition) preceded by another disposition (earlier deposition) for a drug which had the same "*elements corresponding to the matters defining the invention*" as those of the drug subject to the present disposition, it was deemed that a part of the patented invention defined by the "*elements corresponding to the matters defining the invention*" according to the earlier disposition was already made workable by the earlier disposition, and that the PTE application should therefore have been deemed to involve a reason for rejection under Article 67-3(1)(i) of the Patent Law.

According to the 2011-revised guidelines, **when the earlier disposition was included in the technical scope of the patented invention**, it was deemed that the part of the patented invention defined by the "*elements corresponding to the matters defining the invention*" according to the earlier disposition was already made workable by the preceding disposition.

PAL	Name, ingredients, amount, structure, dosage, regimen, method of use, efficacy, effect, side-effects, and other matters relating to the quality, effectiveness and safety
JPO	Elements corresponding to the matters defining the invention

Table 2: Elements identifying drugs to be considered in the examination of regulatory approvals under the PAL v. elements to be considered in the examination of PTE applications under the JPO's 2011-revised guidelines

However, the JPO's examination practice based on the 2011-revised guidelines remained controversial, since the "*elements falling under the matters to define the invention*" were quite difficult to determine and often varied largely, depending on the relationship between the claim language/order and the relevant dispositions. The 2011-revised guidelines were also criticized as still involving some of the problems involved in the former, pre-2011 guidelines. For example,

when a PTE application was filed based on a disposition (the present disposition) for a patent with a generic claim drawn to a drug defined only by the active ingredient and the efficacy/effect of the drug while there was a preceding disposition (the earlier disposition) made on a different drug having the same active ingredient and the efficacy/effect as those of the drug subject to the present disposition, the JPO did not allow PTE based on the present disposition, even if the earlier disposition and the present disposition were different in other elements such as formulation/dosage/regimen.

There was also an argument about whether it was appropriate to interpret Article 67-3(1)(i) of the Patent Law, which prescribes a reason for rejection which may be raised for a PTE application in the prosecution stage, taking into consideration Article 68-2 of the Patent Law, which prescribes the scope of an extended patent right in the litigation stage.

III. IPHC & SCJ Decisions on Genentech v. JPO Cases (“*Avastin*” cases: IPHC Decisions Nos. 2013 (Gyo-Ke) 10195 to 10198 and SCJ Decisions Nos. 2014 (Gyo-Hi) 356, etc.)

1. Summary

In such a circumstance, the IPHC and SCJ made a series of decisions which denied the propriety of the JPO’s 2011-revised guidelines by ruling that even if an application for PTE registration is based on a newly-approved drug which shares the same active ingredient and the same efficacy/effect with a previously-approved drug, the PTE registration should be allowed, as long as the newly-approved drug differs from the previously-approved drug in any of the remaining elements such as dosage, regimen, or formulation.

2. Background

The plaintiff (Genentech, Inc.) is the patentee of both JP3398382B and JP3957765B, the main claims of which respectively read as follows:

JP3398382B
Claim 1. A composition for treating cancers, comprising a therapeutically effective amount of an hVEGF antagonist being an anti-VEGF antibody.

JP3957765B
Claim 1: A humanized anti-VEGF antibody having a heavy-chain variable domain containing a hypervariable region amino-acid sequence of … and a light-chain variable domain containing a hypervariable region amino-acid sequence of …, wherein said antibody binds to a human vascular endothelial growth factor (VEGF) at a K_d value of not exceeding $1x10^{-8}$ M.”

The plaintiff obtained a first group of regulatory approvals (preceding regulatory approvals) for previously-approved drugs (“*Avastin 400mg/16mL*” and “*… 100mg/4mL*”), which contain bevacizumab (anti-VEGF antibody) as an active ingredient. Later, the plaintiff obtained a second group of regulatory approvals (present regulatory approvals) for newly-approved drugs which are the same in the active ingredient (bevacizumab) and the efficacy/effect (for

colon/rectum cancer) as the previously-approved drugs, but are different in the **dosage** (7.5 kg/weight each time) and the **regimen** (3weeks or more intervals) from the preceding drugs. The plaintiff filed PTE applications for the present patents based on the present regulatory approvals (see Table 5 below).

Since these patents recite neither the dosage nor the regimen of the claimed antibody drug in the generic claims, both the preceding and present drugs were included in the technical scope of the patented inventions, unlike the "*Pacif capsule*" cases mentioned above. However, the "*Avastin*" cases and the "*Pacif capsule*" cases share the same situation in that the drug subject to the present dispositions have the same "active ingredient" and the same "efficacy/effect" as those of the earlier dispositions.

3. JPO's Trial Decisions

The JPO (the collegial body of trial examiners) made trial decisions to reject these PTE applications, in which decisions the JPO judged that since the first and second groups of regulatory approvals share the same "active ingredient" and the same "efficacy/effect", it is deemed that the scope of the patented inventions defined by the "elements falling under the matters to define the invention" of the drug subject to the second group of regulatory approvals was already made workable by the first group of regulatory approvals, and that obtaining the second group of regulatory approvals was therefore no longer necessary for working the patented inventions.

4. IPHC-GP Decisions

The plaintiff, dissatisfied with the JPO's trial decisions, filed litigations to rescind the trial decisions at the IPHC, which examined the litigations by the Grand Panel (GP) and finally reached decisions to rescind the JPO's trial decisions, and overrule the JPO's examination practice based on the 2011-revised guidelines, as follows:

(a) Error in judgment in compliance with Article 67-3(1)(i) of the Patent Law (Ground 1)

The IPHC-GP first ruled that Article 67-3(1)(i) of the Patent Law should not be interpreted in light of Article 68-2, but should be construed in view of the gist of the Patent Law. Based on this principle, the IPHC-GP ruled that in order to reject a PTE application under Article 67-3(1)(i) of the Patent Law, the examiner or the collegial body of trial examiners shall prove at least either (i) that there is no act that was made workable for the first time by obtaining the disposition (regulatory approval) subject to the PTE application (1st requirement); or (ii) that if there is any act made workable for the first time by obtaining the disposition subject to the PTE application, the act is not included in the scope of the working of the patented invention (2nd requirement). The IPHC-GP further ruled that for a patent relating to a pharmaceutical drug[2], it should be deemed that the scope of the "working of the patented invention" enabled by obtaining a regulatory approval shall be limited to acts of manufacturing, distributions, etc., of a

[2] Patents directed to processes and patents defined by product-by-process claims were excluded from the subject of the ruling made in the decisions.

drug defined by the "ingredients, structure, regimen, dosage" and the "efficacy/effect" of the drug, as prescribed in Article 14(1) or (9) of the Pharmaceutical Affairs Law.

Based on these rulings, the IPHC-GP judged that neither the 1st nor the 2nd requirement is satisfied for the present cases, and concluded that the present PTE applications do not involve a reason for rejection under Article 67-3(1)(i) of the Patent Law.

(b) Scope of the extended patent right under Article 68-2 of the Patent Law (Ground 2)

The IPHC-GP also mentioned, just for confirmation, on the technical scope of an extended patent right prescribed in Article 68-2 of the Patent Law, that the effect of the extended patent right shall cover the scope of the working of the patented invention limited by the authorized product, which is specified by the "ingredient (not limited to the active ingredient)" of the drug, for the authorized use, which is specified by the "efficacy/effect", "dosage", and "regimen" of the drug.

5. SCJ Decisions

The JPO appealed these cases to the SCJ, which made decisions to dismiss the appeals.

Specifically, the SCJ ruled that obtaining a present disposition on which a PTE application is based is not deemed to have been necessary for working the patented invention if the act of manufacturing and/or marketing a previously-approved drug **includes** an act of manufacturing and/or marketing the newly-approved drug subject to the present disposition. The SCJ also ruled that whether this inclusion relationship exists should be determined by comparing both dispositions in terms of the **"***matters directly related to the substantial identity as a pharmaceutical product*", in light of the type and the subject matter of the patented invention, and that the "*matters directly related to the substantial identity as a pharmaceutical*" include "*ingredients, amount, dosage, regimen, efficacy and effect*".

Based on the above criteria, the SCJ judged that for the present case, the previously-approved drugs differ from the newly-approved drugs in dosage and regimen, and that the act of manufacturing and/or marketing the previously-approved drugs therefore **does not include** an act of manufacturing and/or marketing the newly-approved drugs due to the difference in dosage and regimen. The SCJ also judged that since the act of manufacturing and/or marketing the present drugs was not allowed yet by obtaining the first group of regulatory approvals (preceding depositions), but allowed for the first time by obtaining the second group of regulatory approvals (present dispositions), it was deemed that obtaining the second group of regulatory approvals was necessary for the plaintiff to work the patented inventions.

IV. Further Revisions to the JPO's Examination Guidelines

After the SCJ decisions on the "*Avastin*" cases, the JPO revised the examination guidelines again, and started examination based on the newly-revised guidelines (2016-revised guidelines) from April 1, 2016. According to the 2016-revised guidelines, in examining whether a PTE application involves a reason for rejection under Article 67-3(1)(i) of the Patent Law, whether

"*obtaining the disposition was not necessary for working the patented invention*" should not be determined based on the "*elements falling under the matters to define the invention*". Instead, it is determined that "*obtaining the disposition was not necessary for working the patented invention*" if either criterion (1) or (2) below is satisfied.

(1) When the act of manufacturing and/or selling the drug subject to the present disposition on which the PTE application is based (i.e., newly-approved drug) does not correspond to an act of working of the patented invention.

(2) When both the act of manufacturing and/or selling the drug subject to the present disposition (i.e., newly-approved drug) and the act of manufacturing and/or selling the drug subject to the preceding disposition (i.e., previously-approved drug) does not correspond to an act of working of the patented invention, and when the act of manufacturing and/or selling a drug subject to a prior disposition (i.e., previously-approved drug) shall include an act of manufacturing and/or selling the drug subject to the present disposition (i.e., newly-approved drug).

If either criterion (1) or (2) above is satisfied, then a PTE application is deemed to involve a reason for rejection under Article 67-3(1)(i) of the Patent Law.

1. What does the term "include" in criterion (2) mean?

The SCJ decisions on the "*Avastin*" cases ruled that if the act of manufacturing and/or selling a previously-approved drug ***includes*** an act of manufacturing and/or selling a newly-approved drug, it should not be deemed that obtaining the later disposition for the newly-approved drug was necessary for working the patented inventions. The criterion (2) of the JPO's 2016-revised guidelines is based on this ruling by the SCJ. Then, a question arises as to how the term "*include*" in this criterion should be interpreted.

According to the 2016-revised guidelines, the act of manufacturing and/or selling a previously-approved drug is deemed to ***include*** an act of manufacturing and/or selling a newly-approved drug when there is at least some overlap between the preceding deposition (regulatory approval) and the later, present deposition (regulatory approval). In other words, the "inclusion" relationship is found not only when the preceding deposition completely encompasses the present disposition, but also when the depositions overlap at least partially with each other. In both cases, it is deemed that obtaining the later disposition was not necessary for working the patented invention at least for the overlapping part between the depositions, and the PTE application is therefore rejected under Article 67-3(1)(i) of the Patent Law.

2. What do the "*matters directly related to the substantial identity as a drug product*" mean?

The 2016-revised guidelines recite that in principle, comparison between the preceding deposition (regulatory approval) and the later, present deposition (regulatory approval) should be made in terms of the "*matters directly related to the substantial identity as a pharmaceutical* product", in light of the type and the subject matter of the patented invention. According to the

guidelines, the "*matters directly related to the substantial identity as a pharmaceutical product*" include[3]:

(1) Where the regulatory approval is made for **a pharmaceutical product** while the patented invention is directed to **a product**, the "*matters directly related to the substantial identity*" include the "*ingredients, amount, dosage, regimen, efficacy and effect*" of the product.
(2) Where the regulatory approval is made for **a pharmaceutical product** while the patented invention is directed to **a process of manufacturing a product**, the "*matters directly related to the substantial identity*" include the "*ingredients, amount, dosage, regimen, efficacy and effect*" of the product and, if necessary, matters related to the manufacturing process.
(3) Where the regulatory approval is made for **a pharmaceutical product** while the patented invention is directed to **a drug formulation**, the "*matters directly related to the substantial identity*" include the "*ingredients, amount, dosage, regimen, efficacy and effect*" of the product and, if necessary, matters related to the drug formulation.
(4) Where the regulatory approval is made for **an *in vitro* diagnostic pharmaceutical product** while the patented invention is directed to **a product**, the "*matters directly related to the substantial identity*" include the "ingredients, amount, structure, method of use and efficacy (performance)" of the product.
(5) Where the regulatory approval is made for a **regeneration medicine product** while the patented invention is directed to **a product**, the "*matters directly related to the substantial identity*" include the "constituent cells, transgene, structure, dosage, regimen, method of use and efficacy (performance)" of the product.

PAL	Name, ingredients, amount, structure, dosage, regimen, method of use, efficacy, effect, side-effects, and other matters relating to the quality, effectiveness and safety
JPO	Ingredients, amount, dosage, regimen, efficacy and effect

Table 3: Elements identifying drugs to be considered in the examination of regulatory approvals under the PAL v. elements to be considered in the examination of PTE applications under the JPO's 2016-revised guidelines
(provided that the regulatory approval is made for a pharmaceutical product while the invention is directed to a product)

3. Matters that can be stated in the application

The 2016-revised guidelines also recite that when filing a PTE application, the applicant may clarify the difference between the present disposition and any preceding disposition by explicitly indicating the dosage and/or regimen at the "usage" column of the application form, at the applicant's discretion.

V. Discussion

[3] These examples are focused on pharmaceutical drugs, not on agricultural chemicals.

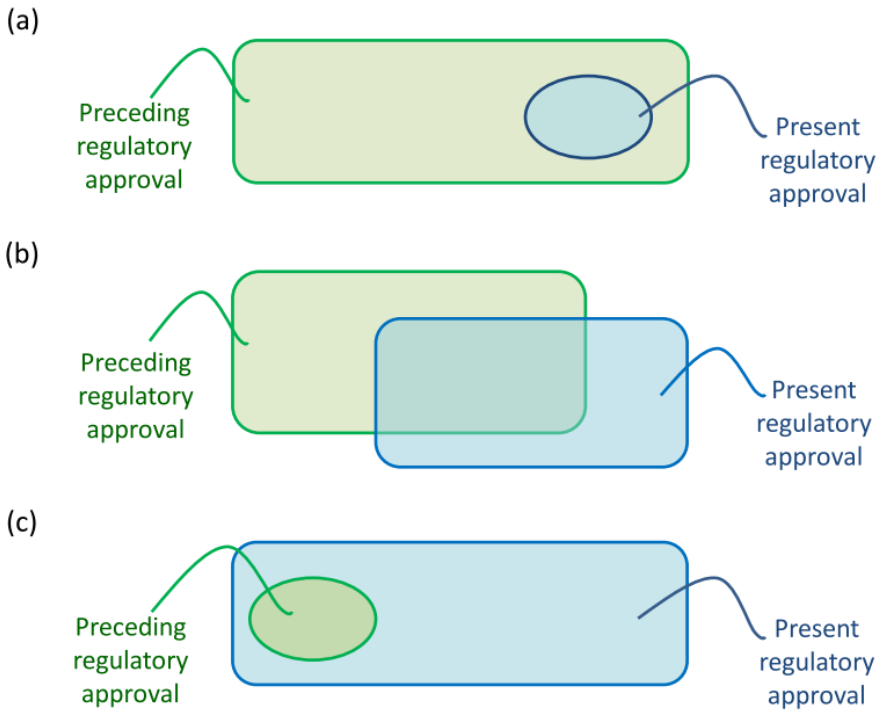
According to the 2016-revised guidelines, from which the provisions relating to the "elements falling under the matters to define the invention" were deleted, comparison between the present deposition (regulatory approval) and any preceding deposition (regulatory approval) shall be made in terms of the "*matters directly related to the substantial identity as a pharmaceutical* product", in light of the type and subject matter of the patented invention. In this regard, it is deemed that the 2016-revised guidelines generally conform to the SCJ decisions made on the "*Avastin*" cases.

Nevertheless, the 2016-revised guidelines still involve some problems in relation not only to the prosecution stage but also to the litigation stage.

1. Re: Prosecution Stage

1.1 Determination of "inclusion" relationship

According to the 2016-revised guidelines, if a preceding disposition made on a previously-approved drug ***overlaps*** completely or partly with a present deposition made on a newly-approved drug on which a PTE application is based, then it is deemed that the act of manufacturing and/or selling the previously-approved drug ***include*** an act of manufacturing and/or selling the newly-approved drug. Examples of such "overlap" are cases (a) to (c) below.



In cases (b) and (c), a part of the present regulatory approval does not overlap with the preceding regulatory approval. It is deemed that for such a non-overlap part of the present approval with the preceding approval, the act of manufacturing and/or selling the previously-approved drug ***does not include*** an act of manufacturing and/or selling the newly-approved drug. Thus, it is deemed that a PTE application based on the present approval may be allowed at least

for the non-overlap part of the present approval with the preceding approval. However, it will be difficult to clearly determine the boundary between the overlap part and the non-overlap part of the present approval with the preceding approval in some cases, for example, when the difference between the preceding approval and the present approval resides only in formulation, dosage, or regimen.

1.2 Selection of "examination *matters directly related to the substantial identity*"

Although the 2016-revised guidelines mention examples of the "*matters directly related to the substantial identity as a pharmaceutical product*" for several cases, it is still not clear as to how these examples will be applied to actual determination of the "*matters directly related to the substantial identity as a pharmaceutical product*" during examination.

In addition, the 2016-revised guidelines prescribe that the applicant may clarify the difference between the present disposition (regulatory approval) and any preceding disposition (regulatory approval) by explicitly indicating the dosage and/or regimen at the "usage" column of the PTE application form, at the applicant's discretion. However, it is still not clear as to how such an indication of the dosage and/or regimen should be made in the application form.

It would therefore be important to keep an eye on how the JPO will be examining PTE applications based on the 2016-revised guidelines.

2. Re: Litigation Stage

Furthermore, a number of questions remain in relation to the litigation stage.

If a PTE application is filed with specifying more elements identifying the drug, such as ingredients of the drug, the PTE application will likely be allowed more easily, but the scope of the extended patent right based on the granted PTE will likely be interpreted as being narrower.

The IPHC-GP decisions on the "*Avastin*" cases ruled that the extended patent right covers an act of working of the patented invention limited by the "*ingredients (not limited to the active ingredient)*", "*efficacy/effect*", "*dosage*", and "*regimen*".

After the IPHC decisions, the Japan Pharmaceutical Manufacturers Association (JPMA) submitted opinion briefs, one of which states:

> *"R&D for obtaining an approval of a new drug is quite time- and cost-consuming, while the success rate of such R&D is very low. The purpose of the PTE system is to provide an incentive to compensate for the high risk involved in the R&D of new drugs. Thus, we expect that in litigation, the scope of an extended patent right should be determined on a case-by-case basis, fully taking into consideration the type of the patented invention and the contents of the disposition, in accordance with the purpose."*[4]

[4] "Opinion brief on Avastin case IPHC decisions for PTE system" submitted by JPAA on Jan 5, 2015

Another opinion brief subsequently submitted by the JPMA states:

"Interpretation to limit the scope of an extended patent right by the dosage and regimen of the drug subject to the disposition is in no way acceptable, since such interpretation will negate the purpose of the PTE system as an incentive for new drug discovery."[5]

Irrespective of these opinions, the SCJ decisions were silent as to the scope of an extended patent right, and therefore did not settle the controversies caused by the IPHC decisions.

If the criteria for examining PTE applications and for determining the scopes of extended patent rights continue to be ambiguous and complicated, then both the innovator companies and the generic companies will have to keep watching the timing and the scopes of extended patent rights carefully. Such a situation will negatively affect the business plans for both types of drug companies. In addition, there is a possibility that the number of litigation cases may increase and the litigation proceedings may take more time and become more complicated, thereby causing a significant damage on the pharmaceutical industries.

As mentioned above, the main purpose of the PTE system is to compensate for the period lost for obtaining a regulatory approval and to thereby protect and utilize the invention so as to develop the industry in accordance with the gist of the Patent Law. Therefore, the PTE system should work in a way to fulfill the purpose.

In this connection, the Tokyo District Court (hereinafter "the TDC") rendered an interesting decision on March 30, 2016, in an infringement case between Debiopharm v. Towa (Case No. 2015 (wa) 12414). In the decision, the TDC ruled that an extended patent right should cover not only a product identical to the product subject to the deposition, but also "a product which is equivalent to, or can be considered substantially the same as" the product subject to the deposition (hereinafter 'a substantial equivalent')", in light of the type and subject matter of the patented invention. On the other hand, for the present case, the TDC denied infringement by interpreting the scope of an extended patent right (JP3547755B) very narrowly, i.e., to cover only a drug which does not contain an excipient (concentrated glycerin) which is not recited in the patent claims but was contained in the accused product (see Table 6 below), mainly due to very limitative claim language and file-wrapper estoppel. Accordingly, the impact of this TDC decision would be limitative. Nevertheless, we should keep observing the result of appeal of this case, as well as other infringement litigation cases based on extended patent rights.

END

[5] "2nd Opinion brief on Avastin case IPHC decisions for PTE system" submitted by JPAA on Apr 14, 2015

	Active ingredient	Efficacy/Effect	Dosage form	Dosage and regimen	Matters to define the invention
Preceding disposition (Opso oral liquid 5mg, 10mg)	Morphine hydrochloride	Pain relief for cancers accompanied with intermediate to severe pain	**Liquid** 	Not limited	**NOT** included in the technical scope of the patented invention
Present disposition (*Pacif capsule* 30mg)	Morphine hydrochloride	Pain relief for cancers accompanied with intermediate to severe pain	**Capsule** 	Orally administer morphine HCl daily at a dose of 30 to 120 mg	**Included** in the technical scope of the patented invention (except claim 15)
JP3134187B Claim 1	Not limited	Not limited	A controlled-release composition comprising: a core..; a coating... (capsule)	Not limited	

Table 4: Summary of Takeda v. JPO case

	Active ingredient	Efficacy/Effect	Dosage and regimen	Matters to define the invention
Preceding disposition (*Avastin* i.v. infusion 400mg/16mL, 100mg/4mL)	Bevacizumab (genetically-modified)	Incurable/unresectable, progressive/recurrent colon/rectum cancer	Administer bevacizumab to an adult at a dose of **5mg/kg or 10mg/kg** (body weight) each time by drip i.v. infusion in combination with another anticancer drug Interval: **2 weeks** or more	**Included** in the technical scope of the patented invention
Present disposition (*Avastin* i.v. infusion 400mg/16mL, 100mg/4mL)	Bevacizumab (genetically-modified)	Incurable/unresectable, progressive/recurrent colon/rectum cancer	Administer bevacizumab to an adult at a dose of **7.5 mg/kg** (body weight) each time by drip i.v. infusion in combination with another anticancer drug Interval: **3 weeks** or more	**Included** in the technical scope of the patented invention
JP3398382B, Claim 1	..an hVEGF antagonist being an anti-VEGF antibody	A composition for treating cancers…	comprising a therapeutically effective amount of ..an anti-VEGF antibody.	
JP3957765B, Claim 1	A humanized anti-VEGF antibody..	Not limited	Not limited	

Table 5: Summary of Genentech v. JPO case

	Active ingredient **Other ingredient**	Efficacy/Effect	Dosage and regimen	Within the scope of the patented invention?
Plaintiff's product (manufactured and sold by licensee Yakult honsha) Elplat drip i.v. infusion solution 50, 100, and 200mg	Oxaliplatinum	Incurable/unresectable advanced/recurrent colon/rectum cancerand colon cancer	Methods A and B for postoperative adjuvant chemotherapy in intractable and unresectable advanced/recurrent colon/rectum cancer and colon cancer Method A for intractable and unresectable pancreatic cancer	Yes
Defendant's product Oxaliplatindrip i.v. infusion solution 50mg, 100mg, and 200mg	Oxaliplatin (=oxaliplatinum) **Concentrated glycerin**	Incurable/unresectable advanced/recurrent colon/rectum cancerand colon cancer	Methods A and B for postoperative adjuvant chemotherapy in intractable and unresectable advanced/recurrent colon/rectum cancer and colon cancer Method A for intractable and unresectable pancreatic cancer	**Different in containing concentrated glycerin**
JP 3547755B, Claim 1	Oxaliplatinum	Not limited	For administration by the parenteral route	

Table 6: Summary of Debiopharm v. Towa case

Method A: Drip i.v. infusion of 85mg/m^2 of oxaliplatin for two hours once daily, in combination with another anticancer drug, with at least 13 days drug holidays. This administration cycle is repeated.
Method B: Drip i.v. infusion of 130mg /m^2 of oxaliplatin for two hours once daily, in combination with another anticancer drug, with at least 20 days drug holidays. This administration cycle is repeated.
Drip i.v. infusion is performed using 250-500mL solution in mixture with 5% glucose injectable solution in both Methods A and B.