

Cour fédérale



Federal Court

**Date : 20171025**

**Dossier : T-1064-13**

**Référence : 2017 CF 951**

[TRADUCTION FRANÇAISE]

**Ottawa (Ontario), le 15 octobre 2017**

**En présence de monsieur le juge MANSON**

**ENTRE :**

**APOTEX INC.**

**demanderesse**

**et**

**PFIZER CANADA INC.**

**défenderesse /  
demanderesse  
reconventionnelle**

**et**

**PHARMACIA AKTIEBOLAG**

**demanderesse reconventionnelle**

**ORDONNANCE ET MOTIFS**

[1] La Cour est saisie de la requête présentée par Apotex Inc. aux termes du paragraphe 75(1) des *Règles des Cours fédérales*, DORS/98-106 [Règles des Cours fédérales] en modification de sa réponse et défense reconventionnelle modifiée.

I. Faits

[2] Apotex Inc. (« Apotex ») est une société ontarienne qui fabrique des médicaments « génériques », qui sont semblables à des médicaments déjà commercialisés sous des marques nominales.

[3] Pfizer Canada Inc. (« Pfizer ») est une société canadienne et Aktiebolag, une société suédoise. Ce sont des filiales de Pfizer Inc., une société pharmaceutique établie aux États-Unis.

[4] Pfizer détient le brevet canadien numéro 1 339 132 (le « brevet 132 »). Le brevet 132 vise le latanoprost, un médicament servant au traitement du glaucome et de l'hypertension oculaire.

[5] Apotex soutient que, le 20 juin 2007, sa solution solution « apo-latanoprost », qui est semblable au latanoprost, est devenue admissible à l'approbation aux termes du *Règlement sur les aliments et drogues*, CRC, ch 870. Apotex ne pouvait toutefois pas obtenir d'avis de conformité (AC) parce que Pfizer détenait le brevet 132 pour le latanoprost.

[6] Le 4 mars 2008, Pfizer a reçu un avis d'allégation d'Apotex. Dans cet avis, Apotex alléguait que le brevet 132 était invalide pour plusieurs raisons et que la solution

« apo-latanoprost » ne contrefaisait pas ce brevet.

[7] Bien que Pfizer ait défendu avec succès le brevet 132 devant notre Cour le 26 avril 2010, la Cour d'appel fédérale (CAF), en appel, a conclu à l'absence de prédiction valable que le latanoprost peut être utilisé de façon chronique dans le traitement du glaucome ou de l'hypertension oculaire sans effets secondaires indésirables (*Apotex Inc. c Pfizer Canada Inc.*, 2011 CAF 236 [jugement *Latanoprost*]).

[8] Le 9 août 2011, Apotex a obtenu un AC pour l'apo-latanoprost.

[9] Le 14 juin 2013, Apotex a déposé une déclaration dans laquelle elle demandait des dommages-intérêts pour la période au cours de laquelle l'apo-latanoprost était admissible à l'approbation, mais qu'un AC ne pouvait être obtenu.

[10] En réponse, Pfizer a déposé une défense et demande reconventionnelle dans laquelle elle soutenait la validité du brevet 132 du fait qu'une instance relative à un AC ne règle pas les questions touchant la contrefaçon et la validité, qu'Apotex l'aurait contrefait si elle était entrée sur le marché avant que le jugement *Latanoprost* ne soit rendu, et qu'Apotex l'avait contrefait depuis son introduction de l'apo-latanoprost sur le marché.

[11] Apotex a déposé une réponse selon laquelle le brevet 132 était invalide ou avait été contrefait. Les allégations d'invalidité visaient notamment le non-paiement d'une taxe

applicable, le double brevet, l'antériorité, l'absence d'utilité, l'évidence, les revendications excessives et la divulgation insuffisante.

[12] Le 30 juin 2017, la Cour suprême du Canada (CSC) a rendu son jugement dans *AstraZeneca Canada Inc. c Apotex Inc.*, 2017 CSC 36 [*Esomeprazole*], dans lequel elle a conclu que la doctrine de la « promesse de brevet » (la « doctrine de la promesse ») est sans fondement dans son application à l'utilité d'une invention brevetée aux termes de l'article 2 de la *Loi sur les brevets*, LRC 1985, ch P-4 [*Loi sur les brevets*].

[13] La CSC a conclu que, bien que la formulation de promesses excessives constitue un méfait, c'est à tort que l'on importe les préoccupations liées à la suffisance de l'utilité applicables au paragraphe 27(3), qui peuvent comprendre les problèmes de formulation de promesses excessives, dans la condition d'utilité énoncée à l'article 2.

[14] Aux paragraphes 44, 46 et 51 de l'arrêt *Esomeprazole*, la CSC a écrit :

**44** Dans les faits, la doctrine de la promesse importe à tort le par. 27(3) dans l'art. 2, en exigeant que, pour qu'il soit satisfait à la condition d'utilité énoncée par ce dernier, tout usage divulgué (en application du par. 27(3)) soit démontré ou valablement prédit au moment du dépôt. À défaut d'une telle démonstration ou prédiction, l'ensemble du brevet est invalide, puisqu'il n'a pas été satisfait à la condition préalable à la brevetabilité — soit qu'il existe une invention au sens de l'art. 2 de la Loi.

**46** Le régime de la Loi s'attaque au méfait des promesses excessives de plusieurs façons. Le fait de ne pas divulguer adéquatement l'invention en exagérant, par exemple, la teneur de l'invention entraîne des conséquences. La divulgation qui n'est pas juste et entière, ou qui énonce un fonctionnement ou une utilisation non fondée de l'invention, pourrait ne pas satisfaire aux exigences du par. 27(3). Une revendication excessive peut être déclarée invalide; cependant, sous l'effet de l'art. 58 de la *Loi sur les*

*brevets*, il peut être donné effet aux revendications valides restantes. De plus, suivant l'art. 53 de la Loi, ce méfait peut entraîner la nullité du brevet, lorsque les promesses excessives contenues dans un mémoire descriptif équivalent à une omission ou à une addition « volontairement faite pour induire en erreur ».

**51** Le fait que la doctrine de la promesse ait pour effet de priver une telle invention de la protection conférée par un brevet même si une seule des utilisations « promises » n'a pas été valablement prédite ou démontrée est punitif et n'a aucun fondement dans la Loi. De plus, une telle conséquence est contraire au pacte sur lequel est fondé le droit des brevets et selon lequel les inventeurs doivent faire une divulgation complète en échange d'un monopole limité : *British United Shoe Machinery Co. c. A. Fussell & Sons Ltd.* (1908), 25 R.P.C 631 (C.A.), p. 650. Le fait d'invalider un brevet uniquement en raison de l'exagération non intentionnelle même d'une seule utilisation découragera le breveté de faire une divulgation complète, alors qu'une telle divulgation est à l'avantage du public. La doctrine de la promesse, dans son application, est incompatible avec l'objet du par. 27(3) de la Loi, qui oblige les inventeurs à « décrire d'une façon [. . .] complète l'invention et son application ou exploitation ». Ainsi, la doctrine de la promesse mine un élément clé du régime établi par la Loi; ce n'est pas une règle de droit valide.

[15] Le 5 juillet 2017, Apotex a informé Pfizer de son intention de modifier ses actes de procédure en raison de la modification du droit découlant de l'arrêt *Esomeprazole*. Pfizer a demandé de recevoir les modifications le plus tôt possible, étant donné que les rapports des experts devaient être fournis dans un délai de trois semaines. Pfizer a également exprimé des réserves quant à la perte possible des dates de procès fixées à partir du mois de janvier 2018.

[16] Le 18 juillet 2017, Apotex a fourni à Pfizer ses modifications proposées, qui étaient nombreuses.

[17] Le 19 juillet 2017, à une conférence de gestion de l'instance, la Cour a suspendu le délai dont disposaient les parties pour fournir les rapports des experts.

[18] Le 25 juillet 2017, Pfizer a informé Apotex qu'elle s'opposait à la plupart des modifications et a étayé sa thèse.

[19] Le 26 juillet 2017, à une conférence de gestion de l'instance, la date du procès a été annulée et la nouvelle date du 5 novembre 2018 a été fixée pour la tenue du procès.

[20] Le 22 septembre 2017, Apotex a présenté ses nouvelles modifications. Bien que Pfizer ne s'oppose pas à la plupart des modifications proposées, Pfizer conteste trois des nouveaux moyens proposés invoqués par Apotex :

- i. au paragraphe 10B, Apotex allègue que, dans l'environnement « n'eût été » qui a existé de 2007 à 2011, la Cour aurait jugé le brevet de Pfizer invalide en se fondant sur la « doctrine de la promesse », qui constituait le droit applicable au cours de cette période, plutôt que sur le droit actuel énoncé par la CSC dans l'arrêt *Esomeprazole*. Pfizer soutient qu'Apotex allègue qu'elle aurait pu invalider le brevet de Pfizer en recourant à une doctrine juridique sans fondement, ce qui constitue un moyen vexatoire et ultimement absurde (moyen fondé sur l'« invalidité hypothétique »); Pfizer affirme qu'en substance Apotex invoque de nouveau la doctrine de la promesse aux paragraphes 136A et 145A et B, en affirmant que le brevet fait des « promesses excessives » parce que les inventeurs n'avaient pas démontré ni valablement prédit l'utilité, ce qui rendait invalides la divulgation et les revendications pour les raisons suivantes :
- ii. insuffisance;
- iii. portée excessive.

Pfizer soutient qu'Apotex tente à tort par ces modifications de reformuler les arguments relatifs à la doctrine de la promesse que la CSC a rejetés dans l'arrêt *Esomeprazole*.

[21] Pfizer demande que lui soient adjugés tous les dépens découlant des modifications et s'oppose aux trois modifications proposées ci-dessus (les « modifications contestées »).

## II. Questions en litige

[22] Les questions en litige sont les suivantes :

- A. Les revendications divulguées dans les modifications contestées révèlent-elles des moyens de défense raisonnables?
- B. Ces modifications causeraient-elles une injustice à Pfizer que des dépens ne pourraient pas réparer et l'autorisation des modifications servirait-elle l'intérêt de la justice?
- C. Pfizer devrait-elle se voir adjuger ses dépens découlant des modifications d'Apotex?

## III. Discussion

- A. *Les revendications divulguées dans les modifications contestées révèlent-elles des moyens de défense raisonnables?*

[23] De façon générale, les parties s'entendent sur le droit encadrant les requêtes en modification d'actes de procédure. L'article 75 des Règles des Cours fédérales dispose que la Cour peut autoriser une partie à modifier un acte de procédure « à tout moment, [...] aux conditions qui permettent de protéger les droits de toutes les parties ».

[24] D'abord, la Cour doit être convaincue qu'il est dans l'intérêt de la justice de le faire. Pour décider si l'intérêt de la justice serait servi en autorisant les modifications, la Cour peut tenir compte notamment des facteurs suivants :

- a) le moment auquel est présentée la requête visant la modification;
- b) la mesure dans laquelle les modifications proposées retarderaient l'instruction expéditive de l'affaire;
- c) la mesure dans laquelle la thèse adoptée à l'origine par une partie a amené une autre partie à suivre dans le litige une ligne de conduite qu'il serait difficile, voire impossible, de modifier;
- d) la mesure dans laquelle les modifications demandées faciliteront l'examen par la Cour du véritable fond du différend.

(*Janssen Inc. c Abbvie Corporation*, 2014 CAF 242, au paragraphe 3, renvoyant à l'affaire *Continental Bank Leasing Corp c La Reine*, [1993] A.C.I. n° 18 (QL)).

[25] Qui plus est, la Cour doit être convaincue que d'autoriser les modifications ne causera pas d'injustice que des dépens ne pourraient réparer. Comme il a été affirmé dans l'affaire *Canderel Ltée c Canada (CA)*, [1994] 1 RCF 3, au paragraphe 10 (mentionnée avec approbation dans *Merck & Co, Inc. c Apotex Inc.*, 2003 CAF 488 [affaire *Lisinopril*], aux paragraphes 30 et 64) :

[...] même s'il est impossible d'énumérer tous les facteurs dont un juge doit tenir compte en décidant s'il est juste, dans une situation donnée, d'autoriser une modification, la règle générale est qu'une modification devrait être autorisée à tout stade de l'action aux fins de déterminer les véritables questions litigieuses entre les parties, pourvu, notamment, que cette autorisation ne cause pas d'injustice à l'autre partie que des dépens ne pourraient réparer, et qu'elle serve les intérêts de la justice [note omise]

[26] Enfin, l'absence de possibilité raisonnable de succès constitue un motif reconnu pour lequel la Cour peut rejeter une requête en modification (*Teva Canada Limitée c Gilead Sciences Inc.*, 2016 CAF 176 [affaire *Gilead*], au paragraphe 29). La Cour ne se penche sur d'autres questions, comme le préjudice dont pourrait souffrir la partie adverse par suite de la modification, que si la modification a une possibilité raisonnable de succès (affaire *Gilead*, au paragraphe 31).



[27] Pour décider si un moyen offre une possibilité raisonnable de succès, la Cour doit considérer que les faits allégués sont avérés et ne trouver le moyen déraisonnable que si cela est clair et évident, ou qu'il n'existe aucun doute raisonnable, que le moyen ne peut réussir (affaire *Lisinopril*, au paragraphe 43). Il incombe à la partie qui demande la modification de démontrer une telle possibilité raisonnable de succès (affaire *Lisinopril*, au paragraphe 46).

[28] Pfizer soutient qu'aucune des modifications contestées n'a de possibilité raisonnable de succès.

i. Invalidité hypothétique

[29] La modification proposée par Apotex est ainsi libellée :

[TRADUCTION]

**[10B]** Si Pfizer avait intenté une action hypothétique en contrefaçon de brevet dans l'environnement « n'eût été » en réponse à l'introduction sur le marché par Apotex de l'apo-latanoprost le 20 juin 2007, ce qui est explicitement nié, cette action en contrefaçon de brevet aurait été instruite, le jugement de première instance relativement à cette action en contrefaçon de brevet et les jugements rendus sur appel de ce jugement auraient été achevés ou rendus, avant le 16 août 2011 ou, de façon subsidiaire, bien avant que la Cour suprême du Canada ne rende son jugement dans *AstraZeneca c Apotex*, 2017 CSC 36, de sorte que les tribunaux auraient appliqué la « doctrine de la promesse » décrite dans ce jugement dans le cadre de cette action hypothétique en contrefaçon de brevet pour déclarer le brevet 132 invalide. Les tribunaux seraient parvenus à la même conclusion dans le cadre de cette action hypothétique en contrefaçon de brevet que celle à laquelle le dossier de la Cour d'appel fédérale portant le numéro A-206-10 (2011 CAF 236), à savoir que le brevet 132 promet de traiter le glaucome et l'hypertension intraoculaire de façon chronique sans entraîner d'effets secondaires indésirables et qu'il n'y a eu aucune démonstration ni prédiction valable de cette utilité promise avant la date de dépôt, ce qui rend le brevet 132 invalide pour cause d'absence d'utilité. Dans l'environnement

« n'eût été », Apotex n'aurait donc été jugée comme contrefaisant le brevet 132 si elle avait commencé à commercialiser et à vendre l'apo-latanoprost le 20 juin 2007 ou à tout moment antérieur à l'obtention de son AC.

[Soulignement ajouté]

[30] Par conséquent, la thèse d'Apotex porte que, si Pfizer avait intenté une action en contrefaçon de brevet en réponse à l'entrée sur le marché d'Apotex en 2007, avant l'arrêt *Esomeprazole*, la doctrine de la promesse se serait appliquée de façon à invalider le brevet 132.

[31] En réponse, Pfizer soutient que la Cour n'est nullement placée pour appliquer sciemment des principes juridiques erronés pour statuer sur ce qui se serait produit. La validité du brevet 132 est la question qui se pose; le fait qu'il aurait pu être déclaré invalide sur un autre fondement juridique est sans intérêt.

[32] Dans une revendication d'indemnité fondée sur l'article 8 du *Règlement sur les médicaments brevetés (avis de conformité)*, DORS/93-133, la Cour doit examiner un monde hypothétique dans lequel les actions controversées n'ont pas eu lieu (*Pfizer Canada Inc. c Teva Canada Limited*, 2016 CAF 161 [affaire *Venlafaxine*], au paragraphe at para 46). Comme l'a déclaré la Cour dans l'affaire *Venlafaxine*, au paragraphe 50 :

Les deux expressions « aurait eu » et « aurait pu » sont les expressions clés. Les dommages-intérêts compensatoires visent à mettre les demandeurs dans la position où ils auraient été si un tort n'avait pas été commis. Pour le prouver, il faut d'abord démontrer que rien ne les a empêchés d'être dans cette position – c.-à-d., ils *auraient pu* être dans cette position. Et pour prouver que les demandeurs auraient été dans une position donnée, il faut aussi démontrer que les événements auraient eu lieu de telle sorte qu'ils se retrouvent dans cette position – c.-à-d., qu'ils *auraient été* dans cette position.

[33] Les parties n'ont invoqué aucune jurisprudence qui aiderait vraiment à décider si l'action hypothétique en contrefaçon aurait eu autre issue dans le passé qu'à l'heure actuelle, en raison de la modification du droit applicable – en l'espèce, l'arrêt *Esomeprazole* rendu par la CSC.

[34] Apotex soutient que la Cour ne devrait pas « retourner au futur » en vérifiant si la jurisprudence actuelle aurait eu une incidence sur l'issue ou déterminé celle-ci dans le monde hypothétique « n'eût été » d'il y a une décennie, lorsque le droit, dans sa version alors applicable, portant sur l'utilité et la promesse du brevet était bien fondé et aurait été appliqué dans un contexte autre que le contexte actuel.

[35] Pfizer réplique qu'il serait absurde d'agir sauf pour appliquer le droit tel qu'il est actuellement et qu'il aurait dû être à la date antérieure, compte tenu de l'arrêt *Esomeprazole* rendu récemment par la CSC et du fait que les contestations de la validité fondées sur l'absence d'utilité ont été mal traitées par les tribunaux au cours de la période en cause.

[36] Même si l'argument peut être difficile pour Apotex à avancer en première instance, il ne s'agit pas d'une question assez simple à trancher dans le cadre d'une requête en modification. Il convient que la Cour dispose d'un dossier complet afin de statuer sur ce qui est nul doute une question juridique importante, dont les répercussions seront étendues et de longue durée pour les parties et pour ceux qui sont confrontés à la même question. Elle devrait être laissée à l'appréciation d'un juge de première instance après une plaidoirie finale et dans le contexte des faits et du droit pertinents (*Merck & Co, Inc. c Apotex*, 2012 CF 454, aux paragraphes 30 et 31, mentionnant l'arrêt *Hunt c Carey Canada Inc.*, [1990] 1 RCS 959, à la page 980;

affaire *Fallowka c Whitford*, 1996 CanLII 10199 (CA TNO), au paragraphe 22; et arrêt *R c Imperial Tobacco Ltée*, 2011 CSC 42, au paragraphe 21).

[37] Le paragraphe 10(B) est autorisé.

ii. Insuffisance

[38] Les modifications proposées par Apotex sont ainsi libellées :

[TRADUCTION]

**[145A]** Étant donné que le brevet 132 fait des promesses excessives, il contient une divulgation qui n'est pas correcte et complète et énonce un fonctionnement ou une utilisation non fondé de l'invention alléguée, ce qui constitue un défaut de satisfaire aux exigences du paragraphe 27(3) de la *Loi sur les brevets* (ou de l'article 36 de la *Loi sur les brevets* dans sa version antérieure à 1989, ou de ces deux dispositions) et rend ainsi le brevet 132 et chaque revendication invalides.

**[145B]** Selon la description fournie ci-dessus, le brevet 132 énonce que le latanoprost peut être utile lorsqu'il est administré de façon chronique pour traiter le glaucome et l'hypertension oculaire sans entraîner d'effets secondaires importants. Pour les motifs exposés sous les rubriques « Absence d'utilité » et « Aucune utilité démontrée / absence de prédiction valable », cependant, il n'y a eu aucune démonstration ni prédiction valable de ces revendications avant la date du dépôt du brevet 132 et celles-ci ne se sont en fait jamais matérialisées. Le brevet 132 énonce donc un fonctionnement ou une utilisation non fondé de l'invention, ce qui constitue le méfait des promesses excessives et rend chaque revendication invalide en raison de leur défaut de satisfaire aux exigences du paragraphe 27(3) de la *Loi sur les brevets* (ou de l'article 36 de la *Loi sur les brevets* dans sa version existante avant 1989, ou de ces deux dispositions).

[Soulignement ajouté]

[39] Le paragraphe 27(3) de la Loi sur les brevets dispose que le mémoire descriptif doit notamment :

- a. décrire d'une façon exacte et complète l'invention et son application ou exploitation, telles que les a conçues son inventeur;
- b. exposer clairement les diverses phases d'un procédé, ou le mode de construction, de confection, de composition ou d'utilisation d'une machine, d'un objet manufacturé ou d'un composé de matières, dans des termes complets, clairs, concis et exacts qui permettent à toute personne versée dans l'art ou la science dont relève l'invention, ou dans l'art ou la science qui s'en rapproche le plus, de confectionner, construire, composer ou utiliser l'invention;

[40] Selon la thèse d'Apotex, le brevet 132 faisant des promesses excessives, il contient une divulgation qui n'est pas correcte et complète et énonce un fonctionnement ou une utilisation non fondé de l'invention, ce qui constitue le défaut de satisfaire aux exigences de divulgation énoncées au paragraphe 27(3) de la Loi sur les brevets.

[41] Pfizer soutient qu'Apotex tente à tort d'intégrer la doctrine de la promesse à l'examen de la suffisance de la divulgation, argument qui a été rejeté dans l'arrêt *Esomeprazole*. Les tribunaux ont toujours reconnu la distinction entre l'exigence de divulgation énoncée à l'article 27 de la Loi sur les brevets et la condition d'utilité énoncée à l'article 2 de la Loi sur les brevets. Les deux notions juridiques ne peuvent pas être fusionnées.

[42] Le juge Brown a récemment conclu dans l'affaire *Pfizer Canada Iréalisé nc c Apotex Inc*, 2017 CF 774 [affaire *Pfizer*] que, non seulement la doctrine de la promesse n'est-elle pas valable en droit en ce qui a trait à l'utilité, mais la portée excessive des revendications et l'insuffisance des mémoires descriptifs de brevets ne le sont pas non plus, puisque la CSC n'a pas

explicitement adopté la doctrine de la promesse relativement à l'interprétation du paragraphe 27(3) de la Loi sur les brevets et qu'elle l'aurait fait si telle avait été son intention.

[43] Dans l'affaire *Pfizer*, le juge Brown a tiré les conclusions ci-après aux paragraphes 359, 360, 363 et 365 :

[TRADUCTION]

**359** Même si je ne saurais blâmer Apotex pour avoir invoqué sa doctrine des « promesses excessives » compte tenu de l'invitation donnée de présenter d'autres observations sur l'arrêt *AstraZeneca*, je remarque qu'Apotex n'a pas demandé d'invoquer les « promesses excessives » dans sa lettre du 4 juillet 2017, dans laquelle elle a demandé que l'élargissement des observations postérieures à l'audience : sa demande visait uniquement l'antériorité et l'évidence. Ainsi, bien qu'Apotex ait invoqué l'évidence dans les documents qu'elle a produits après l'audience, elle a été muette sur l'antériorité, en invoquant plutôt le nouvel argument des « promesses excessives ».

**360** Je constate également que les prétendues promesses excessives s'apparentent aux arguments fondés sur les promesses avancés par Apotex, qui ne sont plus valables eu égard à l'arrêt *AstraZeneca*. Si la Cour suprême du Canada avait en fait voulu déclarer que la doctrine de la promesse n'était pas valable en droit en ce qui a trait à l'examen de l'utilité effectué à l'article 2, mais qu'elle l'était en ce qui a trait aux mémoires descriptifs aux termes du paragraphe 27(3), elle l'aurait fait; elle ne l'a pas fait.

**363** [...] Je ne peux déceler de justification de l'argument selon lequel la Cour suprême a retiré la doctrine de la promesse de l'examen de l'utilité, mais a simultanément exigé qu'elle soit prise en compte, de la manière proposée par Apotex, lors de l'examen du mémoire descriptif. Si tel était le cas, l'un des principaux problèmes sous-jacents relevés par la Cour suprême persisterait, à savoir que « [l]es brevetés seraient ainsi dissuadés d'affirmer que l'invention peut être utilisée à des fins qui ne sont pas suffisamment établies au moment du dépôt si cela risquait d'invalider le brevet dans son ensemble ». Voir l'arrêt *AstraZeneca*, au paragraphe 45.

**365** Je ne vois rien dans l'arrêt *AstraZeneca* qui modifie ce que je retiens de ce qui précède, à savoir que l'examen des mémoires

descriptifs effectué aux termes du paragraphe 27(3) exige que les brevets définissent la portée exacte et précise de la propriété et du privilège exclusifs revendiqués. De plus, rien dans l'arrêt ne s'écarte du principe selon lequel, aux termes du paragraphe 27(3), « [l]e demandeur doit divulguer tout ce qui est essentiel au bon fonctionnement de l'invention. Afin d'être complète, [la divulgation] doit remplir deux conditions : l'invention doit y être décrite et la façon de la produire ou de la construire définie [...] Le demandeur doit définir la nature de l'invention et décrire la façon de la mettre en opération. Un manquement à la première condition invaliderait la demande parce qu'ambiguë alors qu'un manquement à la seconde l'invaliderait parce que non suffisamment décrite ». Voir l'arrêt *Teva*, au paragraphe 51, citant l'arrêt *Pioneer Hi-Bred Ltd c Canada (Commissaires des brevets)*, [1989] 1 RCS 1623, aux pages 1637 et 1638.

[44] Apotex soutient que, dans la mesure où les motifs de l'affaire *Pfizer* étayaient la thèse selon laquelle la CSC a retiré les promesses excessives comme fondement pour conclure à l'insuffisance ou à la portée excessive parce qu'elle n'a pas mentionné explicitement que l'argument peut être valablement soutenu relativement à ces questions, l'affaire *Pfizer* exagère le résultat concret de l'arrêt *Esomeprazole* de la CSC.

[45] Il est évident que la CSC n'a pas assimilé l'application de la doctrine de la promesse à l'utilité en envisageant que les promesses excessives puissent être un élément déterminant de la validité quant à la divulgation insuffisante aux termes du paragraphe 27(3) ou en raison de la portée excessive de la revendication.

[46] Apotex affirme que c'est particulièrement vrai lorsque l'on tient raisonnablement compte des observations de la CSC dans l'arrêt *Esomeprazole*, au paragraphe 46 :

Le régime de la Loi s'attaque au méfait des promesses excessives de plusieurs façons. Le fait de ne pas divulguer adéquatement l'invention en exagérant, par exemple, la teneur de l'invention

entraîne des conséquences. La divulgation qui n'est pas juste et entière, ou qui énonce un fonctionnement ou une utilisation non fondée de l'invention, pourrait ne pas satisfaire aux exigences du par. 27(3). Une revendication excessive peut être déclarée invalide; cependant, sous l'effet de l'art. 58 de la *Loi sur les brevets*, il peut être donné effet aux revendications valides restantes. De plus, suivant l'art. 53 de la Loi, ce méfait peut entraîner la nullité du brevet, lorsque les promesses excessives contenues dans un mémoire descriptif équivalent à une omission ou à une addition « volontairement faite pour induire en erreur ».

[47] Apotex soutient également que rien dans l'arrêt *Esomeprazole* de la CSC n'empêche que les « promesses excessives » soient invoquées pour étayer un argument fondé sur l'insuffisance ou la portée excessive des revendications, comme fonctionnement ou utilisation non fondé de l'invention alléguée, même que cela constitue une « reformulation » de la contestation fondée sur l'inutilité sous une autre forme juridique. Il s'agit d'un moyen de contestation distinct – et d'une question juridique suffisamment importante pour qu'elle ne soit pas radiée sur requête en modification – sur lequel il convient qu'un juge de première instance statue en disposant d'un fondement juridique et factuel complet. Ce n'est pas, Apotex soutient-elle, une modification qui n'a aucune possibilité raisonnable de succès.

[48] La modification contestée relative à l'insuffisance dans les moyens invoqués par Apotex repose toutefois entièrement sur le même fondement factuel que le moyen fondé sur l'inutilité qui est jugé non valable selon l'arrêt *Esomeprazole* de la CSC et sur lequel Apotex s'est fondée dans ses moyens déjà invoqués. La modification ne vise pas, en fonction d'un autre fondement factuel, la question de savoir si la divulgation a permis à une personne possédant des connaissances générales et ordinaires dans la science ou le domaine de l'invention de la



construire à partir des seules instructions contenues dans la divulgation (*Pioneer Hi-Bred Ltd c Canada (Commissaire des brevets)*, [1989] 1 RCS 1623, au paragraphe 1628).

[49] Comme la CSC l'a déclaré dans les extraits ci-après des paragraphes 49 à 52 de l'arrêt *Teva Canada Ltée c Pfizer Canada Inc*, 2012 CSC 60 :

**49** Dans l'arrêt *Consolboard*, notre Cour examine les exigences légales de divulgation qui, au moment des faits considérés, figuraient à l'art. 36. Malgré des différences de formulation entre cette disposition et l'actuel par. 27(3), l'obligation de divulgation demeure substantiellement la même.

**50** Le juge Dickson se penche sur le contenu du mémoire descriptif qui satisfait aux exigences de divulgation. Il affirme clairement que la nature de l'invention doit y être exposée et qu'il faut examiner le mémoire en entier, revendications comprises, pour établir la nature de l'invention et déterminer si la divulgation est suffisante :

[...]

Le paragraphe 36(1) [maintenant l'article 27] cherche à répondre aux questions suivantes : « En quoi consiste votre invention? Comment fonctionne-t-elle? » Quant à chacune de ces questions, la description doit être exacte et complète de sorte que, comme l'exprime le président Thorson dans *Minerals Separation North American Corporation c. Noranda Mines, Limited* [[1947] R.C. de l'É. 306] :

[TRADUCTION] ... une fois la période de monopole terminée, le public puisse, en n'ayant que le mémoire descriptif, utiliser l'invention avec le même succès que l'inventeur, à l'époque de la demande [à la p. 316].

[...]

Depuis cet arrêt, notre Cour continue d'appliquer les principes énoncés par le juge Dickson, ce qui témoigne de la justesse de son analyse : voir, p. ex., *Monsanto Canada Inc. c. Schmeiser*,

2004 CSC 34, [2004] 1 R.C.S. 902, par. 18; *Whirlpool Corp. c. Camco Inc.*, 2000 CSC 67, [2000] 2 R.C.S. 1067, par. 52; *Pioneer Hi-Bred Ltd. c. Canada (Commissaire des brevets)*, [1989] 1 R.C.S. 1623 (« *Pioneer Hi-Bred* »), p. 1636.

**52** Dans les arrêts *Consolboard* et *Pioneer Hi-Bred*, la Cour analyse correctement les exigences de divulgation énoncées au par. 27(3) de la Loi. Il convient de confirmer le raisonnement qu'elle tient dans ces arrêts et de l'appliquer en l'espèce.

[50] Je suis d'accord avec les propos du juge Pelletier de la CAF dans l'affaire *Bristol-Myers Squibb Canada Co. c Teva Canada Ltée*, 2017 CAF 76, au paragraphe 68, selon lesquels [TRADUCTION] « [...] la Cour suprême ne modifie pas le droit substantif par simple implication, surtout lorsqu'elle a fait preuve de prudence à l'égard de la modification dans le même contexte : voir l'affaire *Apotex inc. c Eli Lilly Canada Inc.*, 2016 CAF 267, au paragraphe 37 ».

[51] Cette approche trouve un écho surtout lorsque l'historique du paragraphe 27(3) de la Loi sur les brevets et l'interprétation téléologique qu'il a reçue sont pris en compte.

[52] En l'espèce, le moyen contesté fondé sur l'insuffisance n'offre pas de possibilité raisonnable de succès. Il n'a pas été allégué que Pfizer n'avait pas suffisamment divulgué la teneur de l'invention et son mode d'utilisation possible. Rien n'a modifié le critère applicable à la suffisance d'une divulgation, et il convient de rejeter le moyen contesté invoqué par Apotex.

[53] La modification contestée relative à l'insuffisance n'est pas autorisée.

iii. Portée excessive

[54] La modification proposée par Apotex est ainsi libellée :

**[136A]** Comme il a été décrit ci-dessus, le brevet 132 énonce que le latanoprost peut être administré de façon chronique pour traiter le glaucome ou l'hypertension oculaire sans irritation oculaire importante. Pour les motifs exposés sous les rubriques « Absence d'utilité » et « Aucune utilité démontrée / absence de prédiction valable », il n'y a eu aucune démonstration ni prédiction valable de ces revendications avant la date du dépôt du brevet 132 et ces revendications ne se sont jamais matérialisées. Le brevet 132 énonce donc un fonctionnement ou une utilisation non fondé de l'invention, ce qui constitue le méfait des promesses excessives et rend chaque revendication invalide en raison de sa portée excessive :

a) la revendication 12 (qui vise une composition ophtalmologique thérapeutique contenant du latanoprost destinée au traitement du glaucome ou de l'hypertension oculaire d'une quantité suffisante pour réduire la tension intraoculaire sans irritation oculaire importante) est invalide en raison de sa portée excessive du fait que le glaucome et l'hypertension oculaire sont des maladies chroniques dont le traitement nécessite l'administration chronique d'un médicament, ce qui dépasse la teneur de l'invention réalisée par les inventeurs nommés du brevet 132 parce qu'ils n'avaient pas démontré ni valablement prédit que l'objet de la revendication 12 n'entraînerait pas d'irritation oculaire importante à la suite de l'administration chronique requise pour traiter le glaucome ou l'hypertension oculaire. Le brevet 132 énonce à tort que la composition revendiquée peut être utile de façon chronique dans le traitement du glaucome ou de l'hypertension oculaire sans entraîner d'effets secondaires importants;

b) la revendication 19 (qui vise le latanoprost) est invalide pour cause de portée excessive du fait que le brevet 132 énonce que le latanoprost peut être utile de façon chronique dans le traitement du glaucome ou de l'hypertension oculaire sans entraîner d'effets secondaires importants, ce qui dépasse la teneur de l'invention réalisée par les inventeurs nommés du brevet 132 parce qu'ils n'avaient pas démontré ni valablement prédit que le latanoprost n'entraînerait pas d'irritation oculaire importante ni d'hyperémie conjonctivale à la suite de l'administration chronique requise pour traiter le glaucome ou l'hypertension oculaire. Un composé à l'égard duquel il n'a pas été démontré ni prédit valablement qu'il éviterait ces effets secondaires importants à la suite de l'administration chronique ne peut être utile de façon chronique dans le traitement du glaucome ou de l'hypertension oculaire. De plus, bien que le brevet 132 énonce que la portée de son invention se limite aux composés qui peuvent être utiles de façon chronique

dans le traitement du glaucome ou de l'hypertension oculaire sans entraîner d'effets secondaires importants, la revendication 19 revendique un composé sans en limiter les propriétés et sa portée est donc nécessairement excessive relativement à l'invention réalisée ou divulguée;

c) la revendication 31 (qui vise l'utilisation du latanoprost dans le traitement du glaucome et de l'hypertension oculaire) est invalide en raison de sa portée excessive parce que le glaucome et l'hypertension oculaire sont des maladies chroniques dont le traitement nécessite l'administration chronique d'un médicament, ce qui dépasse la teneur de l'invention réalisée par les inventeurs nommés du brevet 132 parce qu'ils n'avaient pas démontré ni valablement prédit que le latanoprost serait utile à la suite de l'administration chronique requise pour traiter le glaucome ou l'hypertension oculaire. Le brevet 132 énonce à tort que le latanoprost peut être utile de façon chronique dans le traitement du glaucome ou de l'hypertension oculaire sans entraîner d'effets secondaires importants;

d) la revendication 38 (qui vise l'utilisation du latanoprost pour traiter le glaucome ou l'hypertension oculaire) est invalide pour cause de portée excessive pour les mêmes motifs qui s'appliquent à la revendication 31.

[Soulignement ajouté]

[55] Apotex soutient donc que plusieurs revendications faites dans le brevet 132 portent que le latanoprost peut être administré de façon chronique sans irritation oculaire importante, mais qu'il n'y a eu aucune démonstration ni prédiction valable de cet avantage.

[56] Pfizer soutient qu'il s'agit d'une autre tentative de contourner le raisonnement de la CSC dans l'arrêt *Esomeprazole* et d'une fusion incorrecte de la portée excessive et de l'utilité, ce qu'Apotex a fait en invoquant les moyens contestés relatifs à l'insuffisance aux termes du paragraphe 27(3). Les thèses qui reposent sur l'utilité comme fondement d'un argument fondé sur la portée excessive sont erronées en droit.

[57] Selon la jurisprudence constante de la CAF, on jugera qu'une revendication a une portée excessive et qu'elle est donc invalide si elle revendique une propriété ou un privilège exclusif à l'égard de quelque chose que l'inventeur n'a pas réellement inventé, ou à l'égard de quelque chose que l'inventeur n'a pas complètement divulgué dans le brevet (voir, par exemple, l'affaire *Pfizer Canada Inc c Canada (Santé)*, 2007 CAF 209, au paragraphe 116).

[58] L'allégation de portée excessive formulée par Apotex offre une possibilité raisonnable de succès. Les revendications faites dans le brevet 132 rapprochent plusieurs fois le latanoprost au [TRADUCTION] « traitement du glaucome ou de l'hypertension oculaire sans irritation oculaire importante » et à [TRADUCTION] « l'utilisation [...] dans le traitement du glaucome ou de l'hypertension oculaire ». Apotex soutient que le latanoprost ne peut être utilisé dans le traitement du glaucome ou de l'hypertension oculaire. Lorsqu'une utilisation revendiquée n'est pas fondée, une allégation de portée excessive peut être accueillie.

[59] Bien qu'il incombe à Apotex de prouver ce moyen d'invalidité en première instance, ce qui peut être difficile, elle a une possibilité raisonnable de succès. La modification est autorisée.

B. *Ces modifications causeraient-elles une injustice à Pfizer que des dépens ne pourraient pas réparer et l'autorisation des modifications servirait-elle l'intérêt de la justice?*

[60] Ayant statué sur les questions ci-dessus relatives aux modifications contestées, je conclus que les modifications autorisées ne causeront pas une injustice que des dépens ne pourraient pas réparer et qu'il est dans l'intérêt de la justice d'autoriser les modifications.

[61] Comme Apotex l'a fait remarquer, n'est pas un préjudice non réparable le préjudice découlant du succès possible du moyen proposé ou du fait que le moyen modifié peut accroître la durée et la complexité du procès. Les parties ont consenti à l'ajournement du procès jusqu'au mois de novembre 2018, de sorte que les délais ne sont plus en cause.

[62] De plus, vu que l'arrêt *Esomeprazole* rendu récemment par la CSC a changé considérablement le droit, et que les modifications contestées autorisées se rapportent à cet arrêt, il convient que notre Cour autorise les modifications.

[63] Qui plus est, l'absence de préjudice allégué pour Pfizer découlant du prétendu « retard » dans la communication des modifications proposées, le « retard » ne suffit pas pour justifier le refus des modifications.

C. *Pfizer devrait-elle se voir adjuger ses dépens découlant des modifications d'Apotex?*

[64] Pfizer demande que lui soient adjugés ses dépens découlant des modifications d'Apotex, tels que la modification des actes de procédure, la révision de sa stratégie et de sa production de documents et l'interrogatoire préalable et l'utilisation complémentaires d'experts.

[65] La modification du droit entraînée par l'arrêt *Esomeprazole* a nécessité la modification des actes de procédure pour faciliter l'examen par notre Cour des questions en litige sur le fond.

[66] Des retards et des frais sont toutefois associés à ces modifications. Les modifications initiales étaient nombreuses et ont ajouté plusieurs pages aux actes de procédures. De plus, ce

n'est qu'en réponse aux oppositions antérieures de Pfizer qu'Apotex a fini par fournir une version des modifications à laquelle Pfizer a consenti en substance, à l'exception des modifications contestées. Pendant ce temps, la date du procès a été annulée. Il n'est pas certain à quel point l'interrogatoire préalable et l'utilisation complémentaire d'experts peuvent être requis, ou quels dépens il est convenable d'imputer à la modification des actes de procédure sur lesquels se fonde maintenant Apotex. Il est également douteux que certaines ou un bon nombre des modifications découlent réellement de l'arrêt *Esomeprazole* de la CSC ou qu'elles n'auraient pas pu être apportées bien avant.

[67] Apotex assumera les dépens de la présente requête et la Cour prendra en considération la possibilité d'adjuger des dépens additionnels pouvant être imputés aux modifications en ce qui a trait aux interrogations préalables et à l'utilisation complémentaire d'experts après les plaidoiries finales lors de l'instruction.

**ORDONNANCE dans le dossier portant le numéro T-1064-13**

**LA COUR ORDONNE ce qui suit :**

1. La requête d'Apotex en vue de modifier de nouveau sa réponse et défense reconventionnelle modifiée étant la formule jointe en annexe « A » à la présente ordonnance est accueillie, à l'exception du paragraphe 10B, lequel est radié;
2. Pfizer disposera de 30 jours suivant la date de la présente ordonnance pour signifier et déposer une autre réponse et défense reconventionnelle modifiée;
3. Les dépens sont adjugés en faveur de Pfizer dans tous les cas au montant qui sera fixé par le juge de première instance après les plaidoiries finales de l'instruction.

« Michael D. Manson »

---

Juge



SCHEDULE A

**Table of Contents: Apotex's Further Amended Reply and Defence to Counterclaim**

<b>Section</b>	<b>Page</b>	<b>Paragraph</b>
<b><u>Further Amended Reply</u></b>	<b>1</b>	<b>1</b>
I. The Apotex Claim (paras. 11 to 14 of the Defence)	2	3
II. Assessment of Damages (paras. 15 to 20 of the Defence)	2	4
III. Infringement irrelevant (paras. 21 to 35 of the Defence)	4	9
<b>Defence to Counterclaim</b>	<b>8</b>	<b>11</b>
I. Pharmacia Aktiebolag ("Pharmacia") has No Standing and is not a proper Party	8	13
II. Pfizer Canada Inc. ("Pfizer Canada") has No Standing	9	15
III. No Entitlement to the Relief Sought	9	16
IV. The 132 Patent	12	20
V. No Infringement of the 132 Patent	18	33
VI. The 132 Patent and Its Claims are Invalid, Void and of No Force or Effect	23	47
a. Failure to Pay the Prescribed Final Fee	24	49
b. Double Patenting	30	69
c. Lack of Novelty/Anticipation	35	81
d. Obviousness	37	82B
e. Inutility	43	82L
Lack of Utility In Fact	45	83
No Demonstrated Utility / Lack of Sound Prediction	50	94
f. Claims Broader than the Invention	62	128
g. Insufficient Disclosure	68	138
h. Place of Trial	71	146

Court File No. T-1064-13

**FEDERAL COURT**

BETWEEN:

**APOTEX INC.**

Plaintiff  
(Defendant by Counterclaim)

- and -

**PFIZER CANADA INC.**

Defendant  
(Plaintiff by Counterclaim)

- and -

**PHARMACIA AKTIEBOLAG**

Plaintiff by Counterclaim

**FURTHER AMENDED REPLY AND DEFENCE TO COUNTERCLAIM**  
**(dated September 15, 2017)**

1. By way of reply, save and except as may be hereinafter expressly admitted and save and except as to admissions, the Plaintiff and Defendant by Counterclaim, Apotex Inc. ("Apotex"), denies each and every allegation set out in the Further Amended Statement of Defence and Counterclaim dated <sup>^</sup> April 4, 2014 (the "Defence") and puts the Defendant to the strict proof thereof.

- 2 -

2. Apotex further repeats and relies upon the allegations set forth in its Statement of Claim (the "Claim").

**I. The Apotex Claim (paras. 11 to 14 of the Defence)**

3. Apotex denies the allegations made in paragraphs 11 through 14 of the Defence and further states that it has properly pleaded all facts relevant to a claim for damages made pursuant to section 8 of the *Patent Regulations*, as that term is defined in the Claim, which is intended to redress a claimant's inability to come to market at a particular time, namely, the date upon which, in the absence of the *Patent Regulations*, the Minister would have issued an NOC. Accordingly, Apotex denies that the Claim fails to particularize the necessary facts relevant to the Claim. Indeed, the alleged particulars sought are not material facts but, to the extent relevant, constitute advanced discovery disclosure of evidentiary issues which will be addressed during the course of the proceeding and at trial.

**II. Assessment of Damages (paras. 15 to 20 of the Defence)**

4. With respect to paragraphs 15, 16 and 18 of the Defence, Apotex states that these allegations fail to plead any facts, material or otherwise, relevant to the issues in dispute. Issues of burden and assertions as to the evidence which must be lead at trial are not matters of fact, but are argument. Accordingly, these paragraphs are irrelevant, embarrassing and frivolous and ought to be struck.

- 3 -

5. With respect to paragraph 17 of the Defence, Apotex again states that same fails to plead any fact, material or otherwise, relevant to the issues in dispute. Setting out a laundry list of the documents which may be sought by way of disclosure is not a matter of fact, but again of argument or, at best, advanced discovery disclosure of evidentiary issues. Accordingly, paragraph 17 of the Defence is irrelevant, embarrassing and frivolous and ought to be struck.

6. With respect to subparagraph 18(c) and paragraph 19 of the Defence, Apotex denies that the principle of mitigation has any application to the circumstances at bar. In the alternative, to the extent that the Defendant's allegations in respect of mitigation are in any way relevant, Apotex pleads that it acted reasonably throughout.

7. With respect to paragraph 19 of the Defence and the Defendant's assertion that Apotex is only entitled to a reduced period of liability due to a purported delay in Apotex sending its notice of allegation ("NOA"), Apotex states that such allegation stems from a fundamental misinterpretation of the terms of the *Patent Regulations* and their application to the losses suffered by Apotex.

8. The liability period under section 8 of the *Patent Regulations* is the period commencing upon the date that the Minister was to have issued the NOC in the absence of the *Patent Regulations*. There is no obligation under the *Patent Regulations* to serve an NOA at any particular time, nor is any such perceived "obligation" referable to any period of liability under the *Patent Regulations*. Accordingly, Apotex states that the Defendant's allegations insofar as Apotex's NOA are concerned fail to raise a cognizable defence. Accordingly, Apotex denies the

- 4 -

allegation made at paragraph 19 of the Defence that “a more appropriate date” for the commencement of the damage period is March 6, 2008.

**III. Infringement irrelevant (paras. 21 to 35 of the Defence)**

9. In paragraphs 21 to 35 of the Defence, and in the Counterclaim, the Defendant pleads a series of irrelevant and groundless allegations. More particularly:

- (a) The Defendant is precluded from alleging hypothetical infringement during the period asserted in the Claim as same seeks to reverse the decision of the Court in Federal Court File No. A-206-10, and is therefore an improper collateral attack thereupon and is otherwise an abuse of the Court’s process. The Defendant is estopped from so doing;
- (b) To permit a defendant to defend a claim for compensation as a consequence of the wrongful invocation of the *Patent Regulations* by asserting hypothetical infringement would undermine the intent of the *Patent Regulations* and would provide an unmitigated incentive to patentees and their privies to prosecute a proceeding under the *Patent Regulations* in every instance since there would be absolutely no consequence to the wrongful prosecution of such a proceeding;
- (c) Without admitting that Apotex infringes Canadian Letters Patent No. 1,339,132 (the “132 Patent”), which it does not, any question of infringement is irrelevant to a claim pursued by a second person such as Apotex consequent upon the

- 5 -

dismissal or withdrawal of a prohibition application brought under the *Patent Regulations*;

- (d) As outlined above, the relevant query for any section 8 analysis is as to events which would have taken place upon market entry at the time of approvability (in this case, June 2007). Accordingly, any question of infringement in respect of the product currently being marketed and sold is irrelevant; and
- (e) Subsection 8(3) of the *Patent Regulations* expressly provides that the Court may make an order under section 8 “without regard to whether the first person has commenced an action for the infringement of a patent that is the subject matter of the application”.

10. In any event, for the reasons set forth in the Defence to Counterclaim below, Apotex denies the allegations made in paragraphs 21 to 35 of the Defence that it would have infringed the 132 Patent had it commenced marketing and sale of its Apo-Latanoprost solution on June 20, 2007 or at any time prior to the grant of its NOC.

10A. Apotex denies that Pfizer could have and/or would have commenced a hypothetical patent infringement action against Apotex relating to Apo-latanoprost in the but-for world and puts Pfizer to the strict proof thereof. In the real world, when Apotex launched Apo-latanoprost in 2011, Pfizer did not commence a patent infringement action against Apotex and Pfizer has never commenced a patent infringement action against Apotex relating to Apo-latanoprost. In the real world, Pfizer merely counterclaimed for patent infringement against

- 6 -

Apotex in response to Apotex's section 8 claim in 2013. In the real world, in the absence of the section 8 claim commenced by Apotex, Pfizer never could have and/or would have commenced a patent infringement action against Apotex relating to Apo-latanoprost. In the but-for world, Apotex could not have and/or would not have commenced a section 8 action and Pfizer never could have and/or would have commenced a patent infringement action against Apotex relating to Apo-latanoprost.

10B. Had Pfizer commenced a hypothetical patent infringement action in the but-for world in response to Apotex's market entry with Apo-latanoprost on June 20, 2007, which is expressly denied, the trial of that patent infringement action, the trial decision in that patent infringement action and the decisions on any appeals therefrom would have been completed or rendered before August 16, 2011, and, in the alternative, long before the release of the Supreme Court of Canada's decision in *AstraZeneca v. Apotex*, 2017 SCC 36, such that the "promise doctrine" described in that decision would have been applied by the Court(s) in that hypothetical patent infringement action to invalidate the 132 Patent. The Court(s) would have arrived at the same conclusion in that hypothetical patent infringement action that the Federal Court of Appeal arrived at in Federal Court File No. A-206-10 (2011 FCA 236), namely, that the promise of the 132 Patent is to treat glaucoma and intraocular hypertension on a chronic basis without causing substantial side effects, and that there was no demonstration or sound prediction of that promised utility by the filing date, rendering the 132 Patent invalid for lack of utility. In the but-for world, Apotex thus would not have been held to infringe the 132 Patent

- 7 -

had it commenced marketing and selling Apo-Latanoprost on June 20, 2007 or at any time prior to the grant of its NOC.



- 8 -

#### DEFENCE TO COUNTERCLAIM

11. Apotex repeats and adopts the allegations set out in its Reply and in its Claim, and denies that Pfizer Canada or Pharmacia Aktiebolag is entitled to any of the relief sought in the Counterclaim.

12. Save and except as hereinafter may be admitted, Apotex denies each and every allegation contained in the Counterclaim.

**I. Pharmacia Aktiebolag ("Pharmacia") has No Standing and is not a proper Party**

13. Apotex pleads that Pharmacia is not a proper party to the Counterclaim and has no standing.

14. Apotex further states that there is no provision in the *Federal Courts Rules* for adding a party as a plaintiff to a counterclaim where that party is not a defendant to the claim. A party may only be made a defendant to a counterclaim. Accordingly, Apotex states that the claim by Pharmacia is nugatory and of no force and effect. Apotex reserves its right to move to strike same.

14A. Apotex further denies the allegations contained in paragraph 23 and 38 of the Further Amended Statement of Defence and Counterclaim to the effect that Pfizer Health AB has acquired rights in and to the 132 Patent. As of March 13, 2014, neither the 132 Patent nor the documents on file with the Canadian Patent Office reflected the acquisition of any such rights.

- 9 -

**II. Pfizer Canada Inc. (“Pfizer Canada”) has No Standing**

15. Contrary to what is alleged at paragraphs 23, 39 and 40 of the Further Amended Statement of Defence and Counterclaim <sup>Δ</sup>, Apotex states that Pfizer Canada has not been licensed or otherwise received any rights in respect of the 132 Patent (either with respect to Xalatan Solution, Xalacom Solution or otherwise) which would allow it to assert the within claim for infringement, and denies that Pfizer Canada has standing as a person claiming under the patentee within the meaning of subsection 55(1) of the *Patent Act* to make such a claim. More particularly, Pfizer Canada has not suffered nor will it suffer any damage that is independent of any alleged damage that could have been suffered by the patentee in respect of any act of infringement within the jurisdiction of this Honourable Court.

**III. No Entitlement to the Relief Sought**

16. Apotex denies that Pfizer Canada or Pharmacia are entitled to any of the relief sought in paragraph 36 of the Counterclaim and puts both to the strict proof thereof. In particular, Apotex denies that it has infringed any of the claims of the 132 Patent, including specifically the claims asserted in the Counterclaim, namely, 12, 19, 31, 37 and 38 (collectively, the “Asserted Claims”), and Apotex asserts that the Asserted Claims and the 132 Patent as a whole are and always have been invalid, void and of no force and effect for the reasons set out below.

- 10 -

17. With respect to paragraphs ^ 42 and 43 of the Counterclaim, Apotex admits that it received a Notice of Compliance for its Apo-Latanoprost solution on August 19, 2011 and a Notice of Compliance for its Apo-Latanoprost-Timop Solution on October 23, 2010.

18. With respect to paragraph ^ 44, 45 and 46 of the Counterclaim, Apotex admits only that it has offered for sale and sold its Apo-Latanoprost solution in Canada, and that its Apo-Latanoprost solution and its Apo-Latanoprost-Timop Solution^ contain latanoprost, but denies the remainder of the allegations therein.

19. Apotex denies the remainder of the allegations in paragraphs ^47 to 51 of the Counterclaim. The 132 Patent and each of the claims of the 132 Patent are invalid, void and of no force or effect and thus cannot be infringed by Apotex. Apotex denies that it is prohibited from alleging non-infringement of the 132 Patent as is alleged in paragraph 31 of the Defence.

19A. On May 4, 2017, Pfizer advised Apotex that it intends to elect an accounting of Apotex's profits as the only remedy in respect of the alleged infringement. On June 7, 2017, Apotex advised Pfizer that it continues to deny that Pfizer has the right to elect an accounting of Apotex's profits.

19B. In any event, in the event that there is a finding of infringement in respect of Apo-latanoprost and/or Apo-latanoprost-timolol sold (to any jurisdiction) after the expiration of the 132 Patent, which is expressly denied, in respect of an accounting of Apotex's profits, no (or reduced) profits are attributable to the alleged infringement and/or the use of the purported invention of the 132 Patent after said patent expired on July 29, 2014 because, in the absence

- 11 -

of the alleged infringement, Apotex could have and would have acquired the latanoprost active pharmaceutical ingredient ("API") from Chirogate International Inc. after the expiration of the 132 Patent, manufactured Apo-latanoprost and/or Apo-latanoprost-timolol after the expiration of the 132 Patent using this post-expiry API and sold non-infringing Apo-latanoprost and/or Apo-latanoprost-timolol (to any jurisdiction) after the expiration of the 132 Patent.

19C. Consequently, in the absence of the alleged infringement and/or in the absence of the alleged use of the purported invention of the 132 Patent, Apotex could have and would have earned substantial profits from the sale of non-infringing Apo-latanoprost and Apo-latanoprost-timolol after the expiration of the 132 Patent such that none (or not all) of the profits that Apotex actually earned on the sale of the allegedly infringing Apo-latanoprost and/or Apo-latanoprost-timolol sold (to any jurisdiction) after the expiration of the 132 Patent are attributable to the alleged infringement and/or to the alleged use of the purported invention of the 132 Patent.

19D. In the event that there is a finding of infringement in respect of Apo-latanoprost and/or Apo-latanoprost-timolol sold (to any jurisdiction) after the expiration of the 132 Patent, which is expressly denied, and in the event that Pfizer is entitled to elect an accounting of Apotex's profits, which is also expressly denied, then Pfizer is only entitled to the difference, if any, between (a) the profits that Apotex earned on the actual allegedly infringing Apo-latanoprost and/or Apo-latanoprost-timolol sold (to any jurisdiction) after the expiration of the 132 Patent; and (b) the hypothetical profits that Apotex could have and would have earned on

- 12 -

non-infringing Apo-latanoprost and/or Apo-latanoprost-timolol sold (to any jurisdiction) after the expiration of the 132 Patent.

19E. It has always been and continues to be Pfizer's burden to prove that, in the absence of the alleged infringement, Apotex could not have and would not have sold any non-infringing Apo-latanoprost and/or Apo-latanoprost-timolol after the expiration of the 132 Patent.

#### IV. The 132 Patent

20. The 132 Patent, entitled *Prostaglandin Derivatives for the Treatment of Glaucoma or Ocular Hypertension*, was filed, without priority, on September 12, 1989.

21. The patentee also filed a supplementary disclosure on January 11, 1991 adding specific additional information to the disclosure and claim set of the '132 Patent which would have the corresponding filing date of January 11, 1991 and not September 12, 1989.

22. Further the patentee filed for correction of an alleged clerical error in claim 1 on June 14, 2002 to add to claim 1 the phrase "a derivative of "just before prostaglandin.

23. The 132 Patent is entitled "Prostaglandin Derivatives for the Treatment of Glaucoma or Ocular Hypertension" and relates to ophthalmological compositions of certain prostaglandin derivatives for use in the topical treatment of glaucoma or ocular hypertension without causing substantial ocular irritation (including feelings of grittiness in the eye and

- 13 -

increased tearing), an irritant effect on the sensory nerves of the cornea and conjunctival hyperemia.

24. The 132 Patent further references a class of compounds, smaller classes of compounds, and specific compounds including latanoprost.

25. The 132 Patent further relates to ophthalmic compositions containing said prostaglandin derivatives (both classes and compounds) and their manufacture and use.

26. The 132 Patent acknowledges the prior disclosure of prostaglandins as treatments for ocular hypertension and glaucoma, but asserts that the usefulness of “some” of those old compounds are is limited by their tendency to cause irritation (including feelings of grittiness in the eye and increased tearing), an irritant effect on the sensory nerves of the cornea, and conjunctival hyperemia. ~~The 132 Patent promises that its compounds, including latanoprost, avoid these problems.~~ Indeed, the 132 Patent concedes that prostaglandins that cause superficial irritation and vasodilation in the conjunctiva lack any “practical usefulness” as they are unsuitable drugs for treating glaucoma or ocular hypertension (132 Patent, p. 3). The purported invention of the 132 Patent is the identification of a subset of previously disclosed prostaglandins, including latanoprost, which are able to treat glaucoma and ocular hypertension because they are physiologically acceptable on account of the fact that they do not cause substantial side effects when administered on a chronic basis.

26A. The 132 Patent in fact disavows and carves out from its purported invention any prostaglandins that are not therapeutically effective (for the treatment of glaucoma or ocular

- 14 -

hypertension) and physiologically acceptable on account of irritation and adverse effects on the eye (132 Patent, p. 7, 19 and 22) on the basis that such compounds lack any “practical usefulness” but nevertheless proceeds to claim prostaglandins, including latanoprost, for which there was no demonstration or sound prediction of therapeutic efficacy and/or physiological acceptability by the filing date and which in fact lack therapeutic efficacy and/or physiological acceptability, contrary to the 132 Patent’s clear and unequivocal assertions.

26B. \_\_\_\_\_ The 132 Patent thus improperly:

(a) \_\_\_\_\_ claims that the named inventors invented more than they in fact did;

(b) \_\_\_\_\_ contains a disclosure that is not correct and full;

(c) \_\_\_\_\_ states unsubstantiated uses or operations of the invention, contrary to subsection 27(3) of the *Patent Act* (and/or section 36 of the *Patent Act* as it existed before 1989); and

(d) \_\_\_\_\_ claims overly broadly.

26C. \_\_\_\_\_ The 132 Patent thus suffers from the mischief of “overpromising”.

27. The 132 Patent purports to describe studies the inventors performed to demonstrate the properties of the compounds of the 132 Patent, including latanoprost. The patent gives certain results for single dose tests for ocular discomfort in cats, for single dose tests for conjunctival hyperemia in rabbits, and for single dose tests for IOP reduction in monkeys and healthy human volunteers. The 132 Patent contains no test results in any animal or human

- 15 -

subject involving the chronic administration of a test compound, and no test results on animals or humans having ocular hypertension or suffering from glaucoma.

28. The 132 Patent did not pioneer the use of prostaglandins, or even latanoprost, as treatments for glaucoma and ocular hypertension. In the 1970s, Drs. Laszlo Bito and Carl Camras reported that prostaglandins of the PGF<sub>2α</sub> subtype had an ocular hypotensive effect when applied topically to the eye. By September 1989, numerous prostaglandin derivatives had been synthesized and tested for use as general and ocular hypotensives in the treatment of glaucoma among other pharmacological and therapeutic uses. Commercial chemical companies were formed which synthesized and sold synthetic prostaglandins derivatives for research and therapeutic purposes. By 1986, Canadian Letters Patent No. 1,208,560 (the "560 Patent") had disclosed and claimed a group of prostaglandins, including latanoprost, as treatments for IOP and glaucoma.

28A. Given that the 560 Patent discloses and claims a group of prostaglandins, including latanoprost, as treatments for IOP and glaucoma, the 132 Patent is, by definition, a selection patent. The asserted invention of the 132 Patent is the selection of particular prostaglandins from the genus of the 560 Patent that "introduce[] completely new, unexpected and advantageous qualities...in that the irritating effect in the conjunctiva and cornea is abolished...[and] in that they cause[] considerably less conjunctival hyperemia" (132 Patent, p. 19-20). Without these asserted advantages, the selected prostaglandins of the 132 Patent, including latanoprost, necessarily lack novelty and inventiveness in view of the 560 Patent. However, Apotex alleges that the selected prostaglandins, including latanoprost:



- 16 -

- (a) lack a substantial advantage to be secured or disadvantage to be avoided relative to the unselected members of the genus of the 560 Patent;
- (b) do not possess the asserted advantages; and /or
- (c) do not possess advantages of a special character peculiar to the selected group;

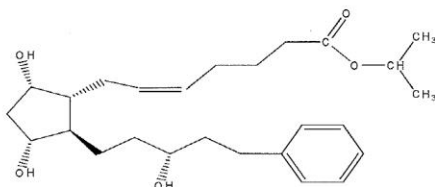
such that the 132 Patent fails to satisfy the three conditions that must be satisfied for a selection patent to be valid.

29. The 132 Patent contains 38 claims, including compound claims, composition claims and use claims for the treatment of glaucoma and ocular hypertension.

30. Latanoprost is known by the following chemical names:

- (a) Isopropyl-(Z)-7-[(1R,2R,3R,5S)3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-5-heptenoate
- (b) 13,14-dihydro-17-phenyl-18,19,20-trinor-PGF<sub>2</sub> α-isopropyl ester
- (c) [1R-[1α(Z),2β(R\*),3α,5α]]-7-[3,5-Dihydroxy-2-(3-hydroxy-5-phenyl- pentyl) cyclopentyl]-5-heptenoic acid 1-methylethyl ester
- (d) 5-Heptenoic acid,7[3,5-dihydroxy-2-(3-hydroxy-5-phenyl- pentyl)cyclopentyl]-1-methylethyl ester, [1R-[1α(Z),2β(R\*),3α ,5α ]]-

31. Latanoprost has the following structural formula:



- 17 -

32. Apotex states that latanoprost is included within claims 1 - 9, claims 11 and 12 when dependent on claims 1 - 4, 7 and 9, and, claims 18-28, 30-31 and 36-38 of the 132 Patent.

32A. The subject matter of the Asserted Claims of the 132 Patent is as follows:

- (a) Claim 12 claims a therapeutic ophthalmological composition containing latanoprost for treatment of glaucoma or ocular hypertension in an amount sufficient to reduce intraocular pressure without causing substantial ocular irritation;
- (b) Claim 19 claims latanoprost; and
- (c) Claims 31 and 38 claim the use of latanoprost in the treatment of glaucoma or ocular hypertension.

32B. As described above, the problem in the prior art identified by the 132 Patent is that previously disclosed prostaglandins were not useful as treatments for ocular hypertension and glaucoma because of their tendency to cause substantial side effects, including irritation (including feelings of grittiness in the eye and increased tearing), an irritant effect on the sensory nerves of the cornea, and conjunctival hyperemia.

32C. The purported solution provided by the 132 Patent to this problem in the prior art is the identification of prostaglandins (including latanoprost) wherein the omega chain is modified to include a ring structure such that the lowering of IOP is maintained without causing substantial side effects so as to permit the treatment of glaucoma and ocular hypertension on a chronic basis.

- 18 -

32D. Hence, as described above, the subject matter of the invention of the 132 Patent, as claimed, is a subset of previously disclosed prostaglandins, including latanoprost, which are able to treat glaucoma and ocular hypertension because they are physiologically acceptable on account of the fact that they do not cause substantial side effects when administered on a chronic basis (the "invention of the 132 Patent").

**V. No Infringement of the 132 Patent**

33. For the reasons set out below, Apotex denies that the making, using and selling in Canada of its Apo-Latanoprost solution infringes the 132 Patent, and particularly the Asserted Claims, and puts Pfizer Canada and Pharmacia to the strict proof thereof.

34. Apotex states that its Apo-Latanoprost solution and its use in treating patients for the reduction of intraocular pressure in patients with open-angle glaucoma or ocular hypertension are in accordance with the teachings of the prior art and/or uninventive (obvious) variations thereof.

35. The 560 Patent taught the skilled addressee to use isopropyl esters of  $\text{PGF}_{2\alpha}$  to treat glaucoma and ocular hypertension.

36. Latanoprost is a derivative of a lower alkyl ester of  $\text{PGF}_{2\alpha}$  as taught and claimed in the '560 Patent.

37. By the filing date of the 132 Patent, the preparation and esterification of  $\text{PGF}_{2\alpha}$  compounds was taught in the art and was regarded as part of the common knowledge of the

- 19 -

person skilled in the art. Esterification was regarded as the most appropriate method for delivery.

38. With the consent, authority and agreement of, *inter alia*, Pharmacia, Pfizer Canada listed the 560 Patent on the Patent Register on June 17, 2003 in respect of XALATAN®. Clearly, in listing the 560 Patent on the Patent List (Document #80) in respect of latanoprost, Pfizer Canada and Pharmacia must have concluded that the subject matter of the claims would be understood by the person skilled in the art in view of his/her common knowledge, to include PGF<sub>2α</sub> and their derivatives, including latanoprost and compositions containing latanoprost for use to treat glaucoma and hypertension.

39. Apotex asserts that the claims of the 560 Patent, as would be understood by persons skilled in the art, include not only derivatives of PGF<sub>2α</sub> but also 13,14-dihydro-17-phenyl-18,19,20-trinor-PGF<sub>2α</sub>-isopropylester and thus the patentee of the 132 Patent has clearly admitted that latanoprost is within the teachings and claims of the 560 Patent as a suitable PGF<sub>2α</sub> derivative.

40. Apo-Latanoprost and its use for treatment of glaucoma and ocular hypertension are all in accordance with the teachings of the prior art and uninventive (obvious) variants (non-patentable variations) thereof, having regard to the common knowledge of the person skilled in the art.

41. A valid patent cannot be infringed by a person who practises the prior art in a manner consistent with how a skilled addressee would have done so based on the prior art. Thus,

- 20 -

Apotex cannot infringe the 132 Patent in accordance with the principles enunciated in *Gillette Safety Razor Company v. Anglo Trading Company Ltd.* (1913), 30 R.P.C. 465 (H.L.) known as the “Gillette Defence”. This *Gillette* defence ensures that any member of the public can use processes in the public domain without fear of trespassing on the patent rights of another.

42. Otherwise, each of the Asserted Claims of the 132 Patent as well as each of the remaining claims, including claims 1-9, claims 11-12 (dependent on claims 1-4, 7 and 9), claims 18-28, 30-31 and 36-38 of the 132 Patent, is invalid as being anticipated and obvious, as discussed below.

43. Apotex will not directly or indirectly infringe any of the remaining claims for the same reasons.

44. Further Apotex will not infringe any of the remaining claims, claims 10, 13, 14, 15, 29, and 32 to 35 since, when properly construed each of these claims does not include latanoprost, namely each does not include 13,14-dihydro-17-phenyl-18,19,20-trinor-PGF<sub>2α</sub>-isopropylester, within the scope thereof.

45. To the extent that any of the claims of the 132 Patent are valid, which is not admitted but expressly denied, and they are found to include within their scope any bulk chemical compound or formulation used by Apotex, and Pharmacia and/or Pfizer Canada are not disentitled from seeking any relief under the 132 Patent, Apotex pleads and relies upon the common law “experimental use” exception to infringement. Apotex also pleads and relies upon subsections 55.2(1) and (6) of the *Patent Act*, as they read at all material times, dealing

- 21 -

with the manufacture, construction, use or sale (collectively, for the purposes of paragraph 38 “use”) of a patented invention relating to the development of regulatory submissions, private use and experimental use.

46. In this respect, Apotex states that one or more of the foregoing exceptions would exempt from infringement the following uses of latanoprost solution:

- (a) use of latanoprost solution for research and development purposes including:
  - (i) determining the suitability of latanoprost solution;
  - (ii) the development of formulations containing latanoprost solution;
  - (iii) the preparation and carrying out of pre-clinical and clinical studies; and
  - (iv) the preparation and carrying out of bioequivalence testing;
- (b) use of latanoprost solution for internal and external quality control purposes;  
and
- (c) use of latanoprost solution in compliance with regulatory requirements specified in the *Food and Drug Regulations* (Canada) (as listed below), as well as the provincial regulatory requirements (section 6 of Regulation 935, *Drug Interchangeability and Dispensing Fee Act* (Ontario)), which requirements relate to:

- 22 -

- (v) materials used to generate bioequivalence and safety data for submission (subsection C.08.002.1(2));
- (vi) materials used to generate supplemental ANDS data (subsection C.08.004(2));
- (vii) retained samples for ANDS (subsection C.08.002.1(3));
- (viii) information which may be required by the Director of Health Canada (subsections C.08.002.1 (2)-(3) and section C.08.008);
- (ix) materials consumed in raw material testing (section C.02.009);
- (x) initial testing (subsection C.02.009 (1) and (2));
- (xi) updated testing (C.02.009 (4));
- (xii) retained samples (subsection C.02.025 (2));
- (xiii) materials consumed in specification development (subsection C.02.011 (1));
- (xiv) materials retained for or used in testing specification compliance (subsection C.02.011 (2) and section C.02.020);
- (xv) materials retained for ongoing information control (sections C.02.012 and C.02.020);

- 23 -

- (xvi) materials consumed in quality control process development (section C.02.015 (1));
- (xvii) materials retained for ongoing quality control (section C.02.014 and subsection C.02.015 (3));
- (xviii) materials rejected by quality control (section C.02.014);
- (xix) materials consumed in specification development (section C.02.018);
- (xx) materials retained for or used in testing specification compliance (section C.02.019);
- (xxi) materials rejected for non-compliance with specification (subsection C.02.018 (2); and
- (xxii) retained samples for stability testing (section C.02.028)

**VI. The 132 Patent and Its Claims are Invalid, Void and of No Force or Effect**

47. In the alternative, if the argument that Apo-Latanoprost solution infringes one or more of the Claims in Issue is pertinent, and if Apotex's Apo-Latanoprost solution is found to be within the scope of any one of the claims of the 132 Patent, including specifically the Asserted Claims, all of which is specifically denied, Apotex's Apo-Latanoprost solution could not infringe any of these claims because the 132 Patent, and all of its claims, is invalid, void and of no force



- 24 -

or effect. Documents relevant to Apotex's invalidity pleading are listed in Schedule "A" attached hereto.

48. In particular, each of the claims of the 132 Patent is invalid for the reasons that follow (in addition to what was asserted above).

**a. Failure to Pay the Prescribed Final Fee**

49. The 132 Patent issued on July 29, 1997 from an application that was filed in the Canadian Patent Office ("CPO") on September 12, 1989 and was assigned serial number 611,003 ("003 Application").

50. Apotex states that the 132 Patent is, and has always been, invalid, void and of no force or effect because the 003 Application from which the 132 Patent issued was forfeited by the applicant and was deemed abandoned for failure to pay the prescribed final fee, and the forfeited and abandoned application were not at any material time restored or reinstated by the applicant or made the subject of any rectifying payment pursuant to section 78.6 of the *Patent Act*.

51. At the time of filing of the 003 Application on September 12, 1989, the applicant submitted the following documents to CPO:

- (a) a cover letter dated September 12, 1989 from the agents appointed by the applicant;

- 25 -

- (b) a Petition dated September 7, 1989 that named Johan W. Stjernschantz and Bahram Resul as inventors, and Pharmacia AB as applicant. The Petition was signed by the applicant;
- (c) a specification, including claims (together with a second copy of the claims);
- (d) two copies of an Abstract;
- (e) an Assignment dated September 11, 1989 from the inventors to the applicant; and
- (f) a cheque in the amount of \$400.00.

52. The cover letter indicated that a "Petition Supplementary Sheet claiming small entity status" was not included in the application, and the Petition did not include an indication that the applicant claimed small entity status. The cheque for \$400.00 covered the payment of the assignment recordal fee of \$100.00 and the filing fee for a large entity of \$300.00. At the time of filing the 003 Application, the applicant did not claim to be, nor was it in fact, a small entity within the meaning of the *Patent Act* and *Patent Rules* then in force.

53. Between September 12, 1989 and November 19, 1996, the 003 Application was subject to examination by CPO, and was in fact examined. The applicant, on various occasions during this period, amended the specification and/or claims of the 003 Application, either voluntarily or in response to a requisition by the examiner. The 003 Application was eventually allowed and a Notice of Allowance dated November 19, 1996 was sent to the applicant.

- 26 -

54. During the period between September 12, 1989 and November 19, 1996, the applicant Pharmacia AB underwent several corporate reorganizations, including mergers with other entities. As a result, the applicant of the 003 Application filed with CPO certain merger documents and assignments. At all material times, the applicant was not in fact, nor did the applicant claim to be, a small entity or a small business concern within the meaning of the *Patent Act* and *Patent Rules* then in force.

55. The Notice of Allowance dated November 19, 1996 advised the applicant of the following:

- (a) "The above application for patent has been found allowable."
- (b) "The final fee of THREE HUNDRED AND FIFTY DOLLARS (\$350.00) or SEVEN HUNDRED DOLLARS (\$700.00) depending upon small entity status, must be paid no later than SIX MONTHS of the date of this notice."

56. As a result of the issuance of the Notice of Allowance dated November 19, 1996 and of the provisions of section 73 of the *Patent Act*, the applicant had 6 months (until May 19, 1997) within which to pay the prescribed final fee of \$350.00 or \$700.00 depending on whether the applicant qualified as a small entity.

57. In response to the Notice of Allowance and prior to the deadline of May 19, 1997, the applicant filed two letters with CPO, as follows:

- (a) a letter dated March 17, 1997 in which the applicant purported to pay the final fee, and stated:

- 27 -

"The sum of \$300.00 is included in our cheque No. 12650 of today's date in payment of the final fee for the above application."

- (b) a letter dated April 18, 1997 in which the applicant purported to pay an additional amount in respect of the final fee, and stated:

"Further to our letter of March 17, 1997 responding to the Notice of Allowance, we advise that our Cheque No. 12708 of today's date includes the sum of \$50.00 in payment of the balance owing on the final fee for the above application.

Due to a purely clerical oversight, payment of only \$300.00 was made on March 17 (our Cheque No. 12650 of that date). We apologize for the inconvenience and look forward to the issuance of the patent in due course."

58. No further payments in response to the Notice of Allowance were made by the applicant prior to May 19, 1997, so that the applicant paid the total amount of \$350.00 as the final fee. CPO accepted the applicant's payment of \$350.00 as the final fee and the 132 Patent issued on July 29, 1997.

59. At all material times from September 12, 1989 (when the 003 Application was filed) through to February 1, 2007 (when rectifying payments pursuant to section 78.6 of the *Patent Act* could be made), the applicant of the 003 Application and the patentee of the 132 Patent did not claim to be, nor did they qualify as small business concerns or small entities within the meaning of the *Patent Act* and *Patent Rules* then in force.

60. Accordingly, in response to the Notice of Allowance, the applicant was required to pay the prescribed final fee as a large entity. Subsections 30(1) and 30(5) and Schedule II of the *Patent Rules*, SOR/96-423 required the applicant, as a large entity, to pay the prescribed

- 28 -

final fee of \$700.00. The applicant, however, only paid \$350.00 as the final fee prior to the deadline of May 19, 1997. The applicant and patentee did not make any further payments of any kind in respect of the Notice of Allowance and the prescribed final fee at any time thereafter, up to and including February 1, 2007.

61. By reason of the foregoing, Apotex alleges that the applicant of the 003 Application failed to pay the prescribed final fee of \$700.00, as required of a large entity, contrary to section 73 of the *Patent Act*, as amended, and sections 3 and 30 of the *Patent Rules*, SOR/96-423. Pursuant to subsection 73(1) of the *Patent Act*, as amended, and subsection 78.2(2) of the *Patent Act*, the failure of the applicant to pay the prescribed fee within six months of the date of the Notice of Allowance resulted in the 003 Application becoming forfeited as of May 20, 1997.

62. An application that is forfeited in accordance with subsection 73(1) of the *Patent Act* can only be restored if the applicant complies with the requirements of subsection 73(2) of the *Patent Act*. At no time has the applicant for the 003 Application filed an application to restore the forfeited 003 Application and paid the prescribed further fee as required by subsection 73(2) of the *Patent Act*.

63. In addition, Apotex alleges that the failure of the applicant to pay the prescribed final fee of \$700.00, as required of a large entity, contrary to section 73 of the *Patent Act*, resulted in the 003 Application being deemed abandoned as of May 20, 1997 pursuant to subsection 30(1) of the *Patent Act* and subsection 78.2(2) of the *Patent Act*.

- 29 -

64. An application that is deemed abandoned in accordance with subsection 30(1) of the *Patent Act* can only be reinstated if the applicant complies with the requirements of subsection 30(2) of the *Patent Act*. At no time has the applicant for the 003 Application petitioned CPO to reinstate the abandoned 003 Application and paid the prescribed further fee as required by subsection 30(2) of the *Patent Act*.

65. Moreover, at no time prior to or on February 1, 2007 has the applicant for the 003 Application or the patentee of the 132 Patent submitted to CPO any further payments, including a further payment of \$350.00, pursuant to section 78.6 of the *Patent Act*. Instead, the patentee, by letter dated October 23, 2006, advised CPO that:

“Pursuant to Section 78.6 of the *Patent Act*, we advise that the entity status of this patent is large.”

66. Although the patentee referred to section 78.6 of the *Patent Act*, the patentee did not avail itself of the right pursuant to section 78.6 to make a further payment of \$350.00. As a result, the amount paid by the applicant as the final fee was only \$350.00 instead of the prescribed amount of \$700.00.

67. At all material times, the Commissioner of Patents and CPO had no authority under the *Patent Act* or *Patent Rules* in force to waive or reduce the prescribed final fee, nor did the Commissioner of Patents or CPO have any authority to extend the deadline for paying the prescribed final fee in the required amount or to accept any further payment, or for seeking

- 30 -

restoration or reinstatement, none of which was requested or done by the applicant or patentee in any event.

68. As a result of the foregoing, the 003 Application was forfeited and was deemed to be abandoned as of May 19, 1997 on the basis that the applicant failed to pay the prescribed final fee of \$700.00 as a large entity. The forfeited and abandoned application was never restored or reinstated as required by the *Patent Act*, and applicant for the 003 Application or the patentee of the 132 Patent never made any further payments pursuant to section 78.6 of the *Patent Act*. Because the 003 Application was, by operation of the *Patent Act*, forfeited and abandoned, the 132 Patent could not have validly been issued and granted. Consequently, the 132 Patent is and has always been invalid, void and of no force or effect.

**b. Double Patenting**

69. Apotex states that the claims of the 132 Patent, including specifically the Asserted Claims, is invalid, void and of no effect for claiming the same invention as previously claimed in the 560 Patent or a non-inventive variant thereof.

70. The claims of the 560 patent cover, among other things, a "composition for the topical treatment of glaucoma in the eye of a primate subject comprising an effective amount of a lower alkyl ester of  $\text{PGF}_{2\alpha}$  or derivative thereof and an ophthalmically compatible carrier" (claim 1); wherein the  $\text{PGF}_{2\alpha}$  derivative is a C1 to C5 alkyl ester of  $\text{PGF}_{2\alpha}$  (claim 2); wherein the  $\text{PGF}_{2\alpha}$  derivative is, among other things, a  $\text{PGF}_{2\alpha}$  isopropyl ester (claim 3); and wherein the composition contains about 0.01% to about 2.0% of a C1 to C5 alkyl ester of  $\text{PGF}_{2\alpha}$  derivative

- 31 -

(claim 4). A skilled addressee would recognize that latanoprost is among the compounds claimed for inclusion in a topical composition for treatment of glaucoma in primates (i.e. including humans).

71. As noted, the Asserted Claims of the 132 Patent cover this same subject matter. While claim 12 specifies that its composition function “without causing ocular irritation,” this is a property inherent in the composition that would be immediately apparent upon its use. Further, and as noted above, the 560 patent taught that its compositions would be without significant side effects and also taught that the lid-closure response of PGF<sub>2α</sub> esters was not noticeable in monkeys. A skilled addressee looking at the claims of the 560 Patent would have arrived at the subject matter of the claims of the 132 Patent without invention. There is thus no patentable distinction between the claims of the 560 Patent and the impugned claims of the 132 Patent.

72. To Apotex’s present knowledge, one or more of Pharmacia or Pfizer Canada, their related companies or their predecessors in title had the following interactions with the Minister in relation to XALATAN:

- (a) On a date unknown to Apotex but known to the Defendants, Pharmacia & Upjohn Inc. filed a new drug submission (“NDS”) under the FDA Regulations (“NDS #1”) with respect to XALATAN;



- 31 -

(claim 4). A skilled addressee would recognize that latanoprost is among the compounds claimed for inclusion in a topical composition for treatment of glaucoma in primates (i.e. including humans).

71. As noted, the Asserted Claims of the 132 Patent cover this same subject matter. While claim 12 specifies that its composition function “without causing ocular irritation,” this is a property inherent in the composition that would be immediately apparent upon its use. Further, and as noted above, the 560 patent taught that its compositions would be without significant side effects and also taught that the lid-closure response of PGF<sub>2α</sub> esters was not noticeable in monkeys. A skilled addressee looking at the claims of the 560 Patent would have arrived at the subject matter of the claims of the 132 Patent without invention. There is thus no patentable distinction between the claims of the 560 Patent and the impugned claims of the 132 Patent.

72. To Apotex’s present knowledge, one or more of Pharmacia or Pfizer Canada, their related companies or their predecessors in title had the following interactions with the Minister in relation to XALATAN:

- (a) On a date unknown to Apotex but known to the Defendants, Pharmacia & Upjohn Inc. filed a new drug submission (“NDS”) under the FDA Regulations (“NDS #1”) with respect to XALATAN;

- 32 -

- (b) On or about July 26, 1995, Robert J. Little, on behalf of Pharmacia Inc., filed a Form IV patent list under the *PMNOC Regulations* ("Form IV #1") in respect of NDS #1. In the Form IV #1, Pharmacia Inc., among other things:
  - (i) Indicated "Latanoprost" as the active medicinal ingredient;
  - (ii) Indicated the '560 Patent as the relevant patent;
  - (iii) Indicated that it held an exclusive license under the '560 Patent; and
  - (iv) Certified that the information in the patent list was accurate.
- (c) On or about June 16, 1997, the Minister issued an NOC to Pharmacia & Upjohn Inc. in respect of NDS #1 ("NOC #1");
- (d) On a date unknown to Apotex but known to the Defendants, Pharmacia Inc. filed an NDS under the *FDA Regulations* ("NDS #2") with respect to XALATAN;
- (e) On or about February 13, 2001, the Minister issued an NOC to Pharmacia Inc. in respect of NDS #2 ("NOC #2");
- (f) On a date unknown to Apotex but known to the Defendants, Pharmacia Canada Inc. filed a supplement to a new drug submission ("SNDS") under the *FDA Regulations* ("SNDS #1") with respect to XALATAN;

- 33 -

- (g) On or about January 28, 2002, Pharmacia Canada Inc. filed a Form IV patent list under the *PMNOC Regulations* ("Form IV #2") in respect of SNDS #1. In the Form IV #2, Pharmacia Canada Inc., among other things:
  - (i) Indicated "Latanoprost" as the active medicinal ingredient;
  - (ii) Indicated "XALATAN" as the brand name;
  - (iii) Indicated the '560 Patent as the relevant patent;
  - (iv) Indicated that it held an exclusive licence under the '560 Patent; and
  - (v) Certified that the information in the patent list was accurate;
- (h) On or about April 25, 2003, the Minister issued an NOC to Pharmacia Canada Inc. in respect of SNDS #1 ("NOC #2").

73. Apotex states that all of the foregoing interactions with the Minister were taken with the consent, authority and agreement of the Defendants herein and/or their predecessors in title.

74. Apotex further states that, in filing and/or in consenting, authorizing and agreeing to file Form IV #1 and Form IV #2, Pfizer Canada and Pharmacia publicly certified that the information therein was accurate and that the 560 Patent met the eligibility requirements under subsections 4(2) and 4(3) of the *Patent Regulations*, all of which require, among other

- 34 -

things, that the patent contain, in some respect, a claim to the medicinal ingredient indicated in the Form IV patent list in question.

75. In this instance, by filing Form IV #1 and Form IV #2, Pfizer Canada and Pharmacia publicly certified, among other things, that the 560 Patent claims (and, therefore, encompasses) latanoprost.

76. Apotex states that, in making these certifications and filing Form IV #1 and Form IV #2, Pfizer Canada and Pharmacia elected to take advantage of the machinery of the *Patent Regulations* and benefited thereby.

77. Having publicly certified that the 560 Patent claims latanoprost and having enjoyed the benefits of the *Patent Regulations* in relation thereto, it would be inequitable for Pfizer Canada and Pharmacia to be able to take the position in this case that the 560 Patent does not disclose and claim latanoprost.

78. Stated alternatively, Apotex states that Pfizer Canada and Pharmacia are estopped from denying that the 560 Patent does cover and claim latanoprost.

79. Apotex also states that Pfizer Canada's and Pharmacia's inclusion of the 560 Patent on its Patent List for latanoprost is an admission upon which the public and Apotex are able to rely and thus that the 560 Patent contains a claim for latanoprost as being a derivative of a PGF<sub>2α</sub>.

- 35 -

80. The purportedly novel compounds claimed in the 132 Patent are for the same invention and use as was previously known and would be previously known by the person skilled in the art, *i.e.*, the treatment of glaucoma and ocular hypertension and thus constitute same invention double patenting or obvious-type double patenting, constituting an obvious variant of the subject matter of the claims of the 560 Patent.

**c. Lack of Novelty/Anticipation**

81. Apotex asserts that each of the claims of the 132 Patent, including specifically the Asserted Claims, is anticipated and thus invalid, void and of no effect in view of the teachings of each of the following:

- (a) E. Granstörn, Vol. 9, No. 1, "Metabolism of 17-Phenyl-18,19,20-Trinor Prostaglandin F<sub>2α</sub> In The Cynomolgus Monkey And The Human Female", Prostaglandins, teaches the preparation of prostaglandin derivatives. Especially it teaches the preparation of 13,14 Dihydro -17- phenyl-18,19,20- trinor- PGF<sub>2α</sub>;
- (b) E. Granstörn, Vol. 1, "Effect of Chemical Modifications On The Metabolic Transformation of Prostaglandins", Advances in Prostaglandin and Thromboxane Research teaches the preparation of prostaglandin derivatives. Specifically it teaches the preparation of 13,14 Dihydro -17- phenyl-18,19,20- trinor- PGF<sub>2α</sub>;
- (c) M. Ross Johnson, Thomas K. Schaaf, Jay W. Constantine and Hans-Jurgen Hess, Vol. 20, No. 3, "Structure Activity Studies Leading To A Tissue-Selective

- 36 -

Hypotensive Prostaglandin Analog, 13,14-Dihydro-16-Phenyl- $\omega$ -Tetranor PGE2”, Prostaglandin, teaches the preparation of prostaglandin derivatives substituted with phenyl ring on the  $\omega$ -chain. It also teaches the relation between the position of the phenyl ring and the hypotensive activity of the prostaglandins;

- (d) The 560 Patent teaches a composition for the topical treatment of glaucoma by administration of isopropyl ester of the PGF<sub>2 $\alpha$</sub>  derivatives including latanoprost by Pfizer’s own admission; and
- (e) US patent 4,131,738 “6-Hydroxy-PGE1 Compounds” published on December 26, 1978, teaches prostaglandins substituted with a phenyl ring on the  $\omega$ -chain. It also teaches use of those compounds for reduction of intraocular pressure without localized side effects such as irritation.

82. All the information needed by one skilled in the art to produce the alleged claimed invention of the 132 Patent is available to one skilled in the art in the teachings of each of these documents without the exercise of any inventive skill.

82A. Should Pfizer assert that the 132 Patent is not a selection patent (from the genus of the 560 Patent), then Pfizer is precluded from relying on any of the asserted “new, unexpected and advantageous qualities” (132 Patent, p. 19) of the compounds described and claimed in the 132 Patent such that the 132 Patent and all of the Asserted Claims are necessarily anticipated by the 560 Patent.

- 37 -

**d. Obviousness**

~~83.~~ Apotex further asserts that the subject matter, invention and/or inventive concept of the 132 Patent, including specifically the Asserted Claims, is obvious and thus invalid, void and of no effect.

~~82B.~~ Apotex further asserts that the invention of the 132 Patent, as defined above, was obvious.

~~82C.~~ Should Pfizer take the position that the invention is something other than the invention of the 132 Patent, as defined above, including, but not limited to (i) the identification of prostaglandins that lower IOP; and/or (ii) the identification of prostaglandins that treat glaucoma and ocular hypertension without eliminating the substantial side effects caused by previously disclosed prostaglandins, then Apotex alleges that Pfizer's purported invention was also necessarily obvious at all material times.

~~120.~~ ~~82D.~~ Apotex relies on the state of the art and common knowledge of a person skilled in the art set out herein including the teachings of those documents which were previously referenced above and the teachings of all of the prior art documents listed in Schedule "A", all of which teachings comprise part of the common knowledge of the person skilled in the art.

~~121.~~ ~~82E.~~ The teachings of the documents referred to in Schedule "A" form part of the common knowledge of the person skilled in the art and set out the common knowledge of

- 38 -

persons skilled in the art prior to September 12, 1989, the Canadian filing date of the 132 Patent.

~~122.~~ 82F. \_\_\_\_\_ Persons skilled in the art would therefore be led directly and without difficulty to the subject matter of the 132 Patent, including specifically the Asserted Claims, without the exercise of any inventive ingenuity whatsoever based on the common knowledge of the person skilled in the art as exemplified by the teachings of the documents of Schedule "A".

~~123.~~ 82G. \_\_\_\_\_ The common knowledge in the art with respect to the use of prostaglandins and derivatives for ophthalmic uses including glaucoma treatment and ocular hypertension included, but were not limited:

- (a) PGA, PGB, PGD, PGE and PGF<sub>2α</sub> were known;
- (b) Derivatives thereof having the alpha chain including alkyl esters including isopropyl esters for use to treat glaucoma and ocular hypertension were known;
- (c) PGF<sub>2α</sub> methyl esters when administered to the eye resulted in hydrolysis thereof producing small amounts of undesired methanol thus requiring the skilled person to use, as part of the common knowledge. Thus PGF<sub>2α</sub> and derivatives thereof with an ethyl or isopropyl ester with the isopropyl ester were preferred;
- (d) All known PGA, PGB, PGD, PGE and PGF<sub>2α</sub> and derivatives known prior to the issue of the 560 Patent would be known by the person skilled in the art to be



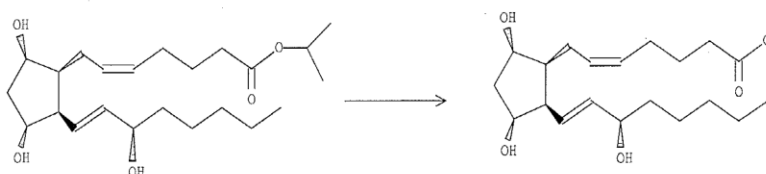
- 39 -

useful for the treatment of glaucoma and ocular hypertension given the teachings of the 560 Patent whose teachings formed part of the common knowledge of the person skilled in the art;

- (e) All known PGA, PGB, PGD, PGE and  $\text{PGF}_{2\alpha}$  and derivatives known subsequent to the issue of the 560 Patent but prior to the filing of the 132 Patent in Canada, would be known by the person skilled in the art to be useful for the treatment of glaucoma and ocular hypertension given the teachings of the 560 Patent whose teachings formed part of the common knowledge of the person skilled in the art;
- (f)  $\text{PGF}_{2\alpha}$  esters and derivatives of  $\text{PGF}_{2\alpha}$  as esters including the isopropyl ester comprised the most suitable agents for the topical treatment of glaucoma. Latanoprost was known;
- (g)  $\text{PGF}_{2\alpha}$  and isopropyl esters of  $\text{PGF}_{2\alpha}$  were preferred to lower IOP and treat glaucoma;
- (h) Esterification of the carboxyl group of  $\text{PGF}_{2\alpha}$  enhanced ocular hypotensive potency;
- (i) Reduction of the double bond to single bond at Carbons 13 and 14 was known;
- (j) 17-phenyl-18,19,20-trinor- $\text{PGF}_{2\alpha}$  and 13,14-dihydro-17-phenyl-18,19,20-trinor-PGF analogues were known;

- 40 -

- (k) The ocular irritation test, lid-closure response in respect of ocular discomfort, was known;
- (l) It was known that prostaglandin esters would hydrolyze *in vivo* to release the free acid form as illustrated below:



- (m) Prostaglandins and specifically  $\text{PGF}_{2\alpha}$  and derivatives were taught and known to reduce intraocular pressure and to be used for treatment of glaucoma;
- (n) Irritation to the eye as a result of administration of prostaglandins and its derivatives was known;
- (o) Substitutions of a phenyl ring at the 16 and 17 position of the  $\omega$ -chain were known for prostaglandin derivatives;
- (p) Prostaglandin compounds with the omega chain containing "13-14-dihydro-17 phenyl -18, 19-20 trinor" and specifically  $\text{PGF}_{2\alpha}$  were known;
- (q)  $\text{PGF}_{2\alpha}$  and its derivatives were the preferable agents for reduction of intraocular pressure, in relation to other PGs, for example as taught in the 560 Patent;

- 41 -

- (r) The esters of prostaglandin resulted in PG analogs more soluble in lipids and thus these analogs had better solubility in ophthalmic vehicles and better penetration into the eye, improving the potency for intraocular pressure reduction;
- (s) Isopropyl esters were the most preferred derivatives of the prostaglandins for long term ocular use;
- (t) Prostaglandins and their derivatives especially  $\text{PGF}_{2\alpha}$  derivatives were successfully tested for the reduction of intraocular pressure in cats, monkeys, and humans;
- (u) Prostaglandin esters are more readily absorbed into the eye due to higher lipophilicity;
- (v) The isopropyl ester was found to be the preferred prostaglandin derivative and particularly  $\text{PGF}_{2\alpha}$  isopropyl esters and derivatives of  $\text{PGF}_{2\alpha}$  isopropyl esters;
- (w) Prostaglandins substituted with a phenyl ring are more potent than natural prostaglandins especially substitution of the phenyl ring at the 17 position for the treatment of glaucoma and ocular hypertension;
- (x) It was known to administer  $\text{PGF}_2$  isopropyl esters and derivatives (including known derivatives in the art including a phenyl ring in the 16 and 17 positions) to the eyes of those suffering from glaucoma caused by high intraocular pressure;

- 42 -

- (y) It was known that some prostaglandins have more severe side effects than others, while other prostaglandin derivatives did not have significant side effects at all;
- (z) Prostaglandin derivatives with 13-14-dihydro-17 phenyl -18,19-20 trinor substitution on the omega chain and particularly  $\text{PGF}_{2\alpha}$  with those substitutions were known;
- (aa) The saturation of the double bond at the 13-14 position of a prostaglandin was a well known procedure as well as a naturally occurring procedure; and
- (bb) Techniques for production of prostaglandin derivatives with or without double bonds at the 13-14 position were known.

~~124.~~ 82H. \_\_\_\_\_ The compounds referenced above included the omega chain of these prostaglandins and their derivatives, with a phenyl ring at the 17-position prior to September 12, 1989, namely the filing date. These compounds were known to have reduced side effects when compared to those prostaglandins lacking the phenyl ring.

~~125.~~ 82I. \_\_\_\_\_ As demonstrated by the above teachings, persons skilled in the art would be aware (a) that prostaglandins produce side effects in the eye; (b) that isopropyl ester derivatives of prostaglandins produced less side effects than natural prostaglandins; (c) prostaglandins substituted with a phenyl ring did not produce side effects; and (d) prostacyclins substituted with a phenyl ring did not produce side effects. Persons skilled in the art would

- 43 -

select a prostaglandin derivative substituted on the omega chain with a phenyl ring and on the alpha chain with an isopropyl ester such as those known in the art and were part of the common knowledge of the person skilled in the art or obvious variants thereof.

~~126.~~ 82J. \_\_\_\_\_ The person skilled in the art as part of his/her common knowledge in the art would know that, in order to treat glaucoma and minimize side effects, ~~knew~~ to choose to administer derivatives of PGF<sub>2α</sub> isopropyl esters including the isopropyl ester (and including a phenyl ring in the 16 and 17 position), to the eyes of those suffering from glaucoma caused by high intraocular pressure without the exercise of any inventive ingenuity whatsoever.

~~127.~~ 82K. \_\_\_\_\_ As a result of the foregoing, Apotex states that the subject matter of the claims of the 132 Patent was obvious to a person skilled in the art contrary to the provisions of sections 2 and 28.3 of the *Patent Act* having regard to the common general knowledge of a person skilled in the art and to the state of the art at the relevant time. Apotex relies on the documents listed in Schedule "A" hereto as evidencing the common general knowledge of a person skilled in the art and the state of the art at the relevant time. Each of the Schedule "A" documents was publicly available as at the relevant time and would have been located by the person skilled in the art performing a diligent search.

e. Inutility

82L. \_\_\_\_\_ In the alternative to Apotex's allegation that the invention of the 132 Patent, as defined above, was obvious, Apotex asserts that the invention of the 132 Patent was not demonstrated or soundly predicted by the filing date and was also never achieved. Thus, all of

- 44 -

the Asserted Claims of the 132 Patent are invalid for lack of utility at the filing date and lack of utility in fact.

82M. As admitted by the 132 Patent, there can be no practical usefulness for prostaglandins that merely lower intraocular pressure without being capable of treating glaucoma or ocular hypertension without causing substantial side effects.

82N. Thus, the only potential practical purpose and/or potential relevant use is the chronic administration of latanoprost for the treatment of glaucoma and elevated intraocular pressure, without causing substantial side effects.

82O. All of the Asserted Claims are invalid due to (i) the fact that, by the filing date, it had not been demonstrated or soundly predicted that latanoprost could be chronically administered for the treatment of glaucoma and elevated intraocular pressure, without causing substantial side effects; and/or (ii) the fact that latanoprost cannot be chronically administered for the treatment of glaucoma and elevated intraocular pressure, without causing substantial side effects.

82P. While not admitted and expressly denied, at most, the inventors of the 132 Patent achieved a laboratory curiosity whose only possible claim to utility is as a starting material for further research. Should Pfizer assert any use other than chronic administration for the treatment of glaucoma and elevated intraocular pressure, without causing substantial side effects, Apotex alleges that said use asserted by Pfizer:

- 45 -

(a) does not amount to a practical purpose;

(b) is not an actual relevant use (i.e., related to the subject matter of the invention, as claimed);

(c) is no more than as a starting material for further research; and/or

(d) renders the Asserted Claims of the 132 Patent both anticipated and obvious.

**Lack of Utility In Fact**

83. The claims of the 132 Patent embrace a number of compounds that ~~do not provide the promised and claimed reduction in side effects purported by the 132 Patent~~ cannot, in fact, be chronically administered for the treatment of glaucoma and elevated intraocular pressure, without causing substantial side effects. Apotex alleges that the claims to omega-chain ring-substituted prostaglandin A, B, D, E, or F derivatives having alleged utility in the treatment of glaucoma or ocular hypertension are without merit.

84. Additionally, some of the claimed derivatives in the 132 Patent are inoperative, having no utility, and do not ~~fulfill the promise of providing~~ a solution to the problem of side effects based on the patentee's own admissions in the 132 Patent and yet the patentee retained these inoperative derivatives in the claims of the 132 Patent, as being appropriate selected members.

85. The 132 Patent admits at page 7, line 8:

- 46 -

The invention thus relates to the use of certain derivatives of PGA, PGB, PGD, PGE and PGF for the treatment of glaucoma or ocular hypertension. Among these derivatives defined above it has been found that some are irritating or otherwise not optimal, and in certain cases not even useful due to adverse effects and these are excluded in that the group of prostaglandin derivatives defined above is limited to therapeutically effective and physiologically acceptable derivatives. So is for instance (1) 16-phenyl-17,18,19,20-tetranor-PGF $2\alpha$ -isopropyl ester irritating while this can be eliminated by substituting the phenyl ring with a methoxy group giving formula (8) which represent a therapeutically more useful compound.

86. Clearly by the patentee's own admission, not all claimed compounds possess ~~the utility promised by the 132 Patent~~ a practical purpose and/or a relevant use. In fact, as stated above, some were still irritating, for instance 16-phenyl-17,18,19,20-tetranor-PGF $2\alpha$ -isopropyl ester.

87. The 132 Patent within its disclosure admits to claiming compounds which ~~do not fulfill the promise of the patent and thus~~ have no utility in the treatment of glaucoma or ocular hypertension.

88. Further, the Product Monograph for XALATAN® (latanoprost), concedes that XALATAN® still possesses many of the disadvantages and substantial side effects ~~promised to be overcome by the 132 Patent~~, including ocular irritation as follows.

89. Further, in a communication from the Patent Department of Kabi Pharmacia to the European Patent Office, dated November 11, 1992, in regards to corresponding European Patent Application 364,417, the applicants sought to overcome a rejection by the examiner by submissions including experimental data. At page 2 of the submissions, it is stated:

*The Examining Division has further rejected certain claims for lack of inventive step and further requested comparative tests which should involve a comparison with the closest state of the art, which, according to the position taken regarding document D3 [EP 308135] (Document #31) which would be a cyclohexyl or cyclopentyl derivative.*



- 47 -

17-cyclohexyl-18,19,20-trinor PGF2 $\alpha$ -IE (IE – isopropylester) was therefore tested in comparison with the corresponding 17-phenyl-18,19,20-trinor PGF2 $\alpha$ -IE, a derivative according to the present claims. The results are presented in Table 1 where the number of experiments (n) is 5-7 in the various groups. Values for unsubstituted PGF2 $\alpha$ -IE, a basic prior art substance, are also given.

The irritative effect was studied in cats using a behavioural model. The intraocular pressure reducing effect was studied in cynomolgus monkeys using pneumatonometry and the conjunctival (surface) hyperemic effect was studied in rabbits eyes. It should be noticed that particularly the monkey model utilized in these tests is very relevant with regard to the selection of drug candidates for human use.

Table 1.

Compound	Dose ( $\mu$ g)	Irritation Score	Reduction in IOP (mm Hg)	Hyperemia Score
17-phenyl PGF2 $\alpha$ -IE	0.5			1.8 $\pm$ 0.3
	1	0.0 $\pm$ 0.0	3.3 $\pm$ 0.8*	
	3	0.2 $\pm$ 0.2	3.9 $\pm$ 0.4*	
	5	0.2 $\pm$ 0.2		
17-cyclohexyl PGF2 $\alpha$ -IE	0.5			1.4 $\pm$ 0.4
	1	0.3 $\pm$ 0.1*		
	3	0.8 $\pm$ 0.4*	1.0 $\pm$ 0.7	
	10	0.7 $\pm$ 0.2*	1.5 $\pm$ 0.2*	
PGF2 $\alpha$ -IE	0.1			2.8 $\pm$ 0.2
	1	2.7 $\pm$ 0.2*	2.5 $\pm$ 0.3*	

\* p&lt;0.05

It can be concluded that 17-phenyl-18,19,20-trinor PGF2 $\alpha$ -IE is unequivocally more potent than 17-cyclohexyl-18,19,20-trinor PGF2 $\alpha$ -IE in reducing intraocular pressure in monkeys, and in addition, which is clinically very important: all doses of 17-cyclohexyl-18,19,20-trinor-PGF2 $\alpha$ -IE used caused statistically significant (p<0.05) ocular irritation, which was not caused by 17-phenyl-18,19,20-trinor-PGF2 $\alpha$ -IE.

Both 17-phenyl-18,19,20-trinor PGF2 $\alpha$ -IE and 17-cyclohexyl-18,19,20-trinor PGF2 $\alpha$ -IE caused slight conjunctival hyperemia as studied in rabbits but this is of minor clinical significance.

- 48 -

*The overall conclusion is that 17-phenyl-18,19,20-trinor PGF<sub>2</sub>α-isopropylester, being more potent and causing no ocular irritation, is superior to the corresponding 17-cyclohexyl-18,19,20-trinor PGF<sub>2</sub>α-isopropylester. [Emphasis provided with underlining]*

90. Thus, even the patentee has admitted the inutility of representative members of the class of omega-chain ring-substituted prostaglandins derivatives (~~failing to meet the promise of the 132 Patent~~), a class promised by the 132 Patent to have utility in the treatment of glaucoma or ocular hypertension in the absence/mitigation of side effects. Thus, the purportedly new properties promised by the 132 Patent, namely the elimination of side effects with retention of ability to lower IOP, is not valid for all omega-chain ring-substituted prostaglandin derivatives.

91. Even the selected 17-phenyl-18,19,20 trinor PGF<sub>2</sub>α isopropyl ester still had side effects, albeit to a lesser degree or extent, ~~contrary to the promise of the patent~~.

92. Furthermore, even in the class of phenyl-substituted prostaglandin derivatives, there are included useless derivatives for the treatment of glaucoma or ocular hypertension.

93. The claims of the 132 Patent are therefore invalid as including variants therein which lack utility and are inoperative ~~and do not yield the promised benefits identified in the disclosure of the 132 Patent~~.

93A. The subject matter of claim 12 (which claims a therapeutic ophthalmological composition containing latanoprost for the treatment of glaucoma or ocular hypertension in an amount sufficient to reduce intraocular pressure without causing substantial ocular irritation) causes substantial ocular irritation and thus cannot be used for the treatment of glaucoma or

- 49 -

ocular hypertension in an amount sufficient to reduce intraocular pressure without causing substantial ocular irritation.

93B. The subject matter of claim 19 (which claims latanoprost) causes substantial ocular irritation and thus cannot be used for the treatment of glaucoma or ocular hypertension in an amount sufficient to reduce intraocular pressure without causing substantial ocular irritation. Should Pfizer assert a use for the subject matter of claim 19 other than chronic administration for the treatment of glaucoma or ocular hypertension in an amount sufficient to reduce intraocular pressure without causing substantial ocular irritation, then the use asserted by Pfizer does not amount to a practical purpose or an actual relevant use such that the subject matter of claim 19 is devoid of utility. As admitted by the 132 Patent, there can be no practical usefulness for prostaglandins that merely lower intraocular pressure without being capable of treating glaucoma or ocular hypertension.

93C. The subject matter of claim 31 (which claims the use of latanoprost in the treatment of glaucoma or ocular hypertension) causes substantial ocular irritation and thus cannot be used for the treatment of glaucoma or ocular hypertension.

93D. The subject matter of claim 38 (which claims the use of latanoprost in the treatment of glaucoma or ocular hypertension) causes substantial ocular irritation and thus cannot be used for the treatment of glaucoma or ocular hypertension.

- 50 -

#### No Demonstrated Utility / Lack of Sound Prediction

94. In order for there to have been an invention, the purported inventors must have, ~~as at the date of invention, demonstrated utility or have soundly predicted the a utility of the subject matter of the claims~~ practical purpose and/or an actual relevant use for the invention as of the filing date.

95. ~~The utility promised by the 132 Patent is chronic use of the compounds described and claimed therein, including latanoprost, for the treatment of a chronic medical condition. More particularly, the 132 Patent promises that latanoprost, when administered on a chronic basis, reduces intraocular pressure without causing substantial side effects.~~

96. Apotex states that, at the time of filing of the 132 Patent application, the purported inventors thereof had not demonstrated ~~this promised a utility~~ practical purpose and/or a relevant use.

97. The inventors attempted to measure ocular discomfort in cats, conjunctival hyperemia in rabbits, and IOP reduction in monkeys and in themselves and two others, all in single dose experiments. Apotex specifically denies that single dose experiments were capable of demonstrating or forming the factual basis for a sound prediction of any practical purpose and/or relevant use. The inventors did not investigate the compounds in animals or patients suffering from ocular hypertension or glaucoma to determine whether the compounds treat these diseases without causing significant ocular irritation or conjunctival hyperemia in humans (i.e., substantial side effects). The inventors did not investigate the compounds on chronic administration. The

- 51 -

only potential practical purpose and/or potential relevant use is administration on a chronic basis for the treatment of glaucoma or ocular hypertension without causing substantial side effects, and there was no demonstration or sound prediction of that practical purpose and/or relevant use before the filing date of the 132 Patent.

98. Apotex further states that, if anything, the ~~promised~~ utility of ~~132 Patent~~ was based on a prediction. However, for the reasons cited below, such prediction was not sound.

99. With respect to the animal studies, there are significant differences between the human eye and those of the cats, rabbits and monkeys tested. These differences preclude the extrapolation of the results obtained to humans suffering from glaucoma ~~of~~ or ocular hypertension.

100. Further, the single dose used in each of the animal and the human studies precludes the possibility of a sound prediction. As noted, ocular hypertension and glaucoma are chronic diseases. Prostaglandin drugs, such as latanoprost, are meant for repeated and prolonged use. The single dose study in the 132 Patent does not provide any information as to the effects of latanoprost after repeated use.

101. Moreover, prolonged use increases the occurrence of side effects, and even if discomfort was mild to start, significant discomfort may nonetheless accompany prolonged use.

102. The ability to predict from the inventors' investigations is also limited by the small number of and identity of the subjects tested. The small sample size would not allow a skilled

- 52 -

person to appreciate any significance for the results. A skilled addressee would not extrapolate the results from 3 or 4 healthy test subjects to the glaucoma population in general. In addition, observations were only made at 4, 6 and 8 hours following administration, and there was no observation at the initial phase. This lack of assessment would miss any initial hypertensive phase or side effect occurring at this stage.

103. In addition, the 132 Patent provides very little information about the experiments themselves, preventing the skilled person from meaningfully assessing their predictive value. The protocol for the evaluation of the animals and/or humans was not provided and there is a lack of critical information on parameters that may influence the data and results obtained such as the age, gender, and breed of the animals; the number of subjects tested; mode of application; the time after administration the observations were recorded; the time of onset and duration of the ocular discomfort or conjunctival hyperemia; whether the same cat(s) or rabbits were used for the different PGF<sub>2α</sub> derivatives, and if so, what wash-out period was used; how the animals were handled during the testing; whether sedation or anaesthesia was employed; the number of handlers and observers involved; the efforts to standardize the assessments; the method and number of IOP readings that were taken at each time point; and the baseline IOP values.

104. Without this information, a skilled addressee would not be able to determine the significance or applicability of the resultant data.

105. Further, the inventors' cat studies were incapable of providing meaningful data. The "signs" of discomfort in cats are uncertain and practically impossible to accurately evaluate.

- 53 -

This is particularly so with respect to the middle scores where there may have been discomfort that was present but not accompanied by "signs" of discomfort as such. It is also unknown whether one or both eyes were tested in each animal and whether there existed any ocular discomfort that occurred after the period of observation.

106. The 132 Patent indicates that the sign of maximal irritation is complete lid closure, but this metric establishes only the minimum threshold for lid closure, not toxicity nor the maximal irritation. No standard or placebo was used and the studies were not blinded to remove evaluator bias. Other, less subjective tests were known and available to evaluate ocular irritation. In sum, because of their deficiencies, the skilled addressee would not view the cat study results as indicative of the discomfort occasioned by the administration of the test compounds, including latanoprost.

107. Similar deficiencies pertain to the ocular hyperemia studies on rabbits. The hyperemia data was collected from photographs of the superior rectus muscle of the rabbit eye, a location having no direct relevance to the human eye. The evaluation of hyperemia also depends on the evaluation of eye colour, which evaluation is based on the review of photographs; however, the skilled person would not know whether the photographs were taken in a standardized manner. No mention is made of what time after administration the observations were made, and the skilled person would recognize that the evaluators may have missed a period of hyperemia.

- 54 -

108. Further, there is no indication that the inventors allowed for biological variation among the individual animals observed. Biological variation is a well-known phenomenon and allows for diverse manifestations of “normal.” Given the subjective nature of the tests and the responses, information as to the biological variation is essential to an interpretation of the data obtained.

109. Side effects increase with increasing dose. The dose of latanoprost administered in Table VI was only 1 µg, a dose below the maximum effective concentration. Other dosages used in the studies were random and generally below the concentrations needed to produce the IOP-lowering effects in humans. In some instances, the doses used were unclear, making it impossible for the skilled person to draw any conclusions as to the side effects of a drug.

110. All of the compounds should have been tested at the same dose to get comparative information about the degree of ocular irritation and hyperemia. However, a lower test dose was chosen for some compounds. It seems that, rather than testing the compounds at the effective doses for side effects, the dosage amount was chosen so as to not show side effects. In addition, a skilled person would expect that each drug to be tested at different drug concentrations, but this was not done for the 132 Patent. In all, the skilled person would recognize that the 132 Patent failed to indicate whether ocular irritation would have been observed at the “effective” doses.

111. Accordingly, the inventors had not determined and had no sound basis to predict that the chronic use of latanoprost would not cause ocular irritation, irritation of the corneal



- 55 -

nerves or conjunctive hyperemia in patients with glaucoma or ocular hypertension. Pfizer's product monograph itself concedes that XALATAN patients do suffer from ocular irritation and conjunctive hyperemia.

112. Apotex states that, as of the filing date of the 132 Patent, there was no basis for predicting that all derivatives of PGA, PGB, PGD, PGE or PGF, characterized only by ring substitution in the omega chain were capable of lowering IOP. In fact PGB and PGD were never addressed in the 132 Patent. Further, the patentee admits that some of the compounds forming part of the invention are not useful ~~and do not fulfill the promise of the 132 Patent.~~ See page 6 of the 132 Patent.

113. There was, consequently, no basis for predicting that all said derivatives were capable of displaying substantially no ocular irritation while retaining an IOP-lowering effect. Although claims are made for "derivatives of" prostaglandins A, B, D, E and F, wherein the omega chain is modified to include a ring, and being capable of lowering IOP and displaying substantially no ocular irritation, only a limited number of prostaglandin derivatives having omega chains comprising a ring were provided by the disclosure of the 132 Patent. Apotex asserts that insufficient disclosure and insufficient examples had been provided to support the scope of the claims in the 132 Patent given the disclosure of the 132 Patent and thus there is no basis for a sound prediction of any practical purpose and/or relevant use.

114. Furthermore, Apotex states that, as of the filing date of the 132 Patent there was no sound basis for predicting that all derivatives of PGA, PGB, PGD, PGE or PGF, characterized

- 56 -

only by ring substitution in the omega chain had no side effects. In fact, the common knowledge of the person skilled in the art teaches to the contrary.

115. Further, there is no sound basis upon which the named inventors could have predicted that use of said derivatives of the prostaglandins specified were actually useful for treatment of glaucoma. Data presented from experiments conducted with rabbits, cats, monkeys, and healthy subjects does not provide a sound basis to predict the utility of the compounds and uses claimed with respect to treatment of glaucoma and ocular hypertension with reduced side effects in human patients suffering from glaucoma, the "promise" of the claimed invention of the 132 Patent.

116. In the absence of an actual demonstration of the use of each of the derivatives of prostaglandins of the A, B, D, E and F type as purported in the 132 Patent, there was no sound basis upon which the named inventors could have predicted that use of all of these derivatives of prostaglandin specified in the claims were actually useful for treatment of glaucoma and/or ocular hypertension with reduced side effects in human patients. Data presented from experiments conducted with healthy subjects does not provide a sound basis to predict the utility of these prostaglandin compositions and uses for the treatment of glaucoma and ocular hypertension in patients suffering from glaucoma.

117. In addition to the foregoing grounds and without derogating therefrom, Apotex states that the 132 Patent is and always has been invalid, void and of no force and effect for the reasons set out in the Federal Court of Appeal's decision in A-206-10 reported at 2011 FCA 236.

- 57 -

118. More particularly, Apotex states that the 132 Patent is and always has been invalid for essentially the following reasons, taken from the Federal Court of Appeal's decision (in A-206-10 reported at 2011 FCA 236) and stated by Apotex to be true and relevant for the purposes of the within action.

- (a) The 132 Patent addresses certain prostaglandin derivatives and their use in the treatment of glaucoma or ocular hypertension;
- (b) Prostaglandins are naturally occurring substances found in human and animal tissues.  $\text{PGF}_{2\alpha}$  is a type of prostaglandin that can be esterified into  $\text{PGF}_{2\alpha}$ -isopropyl ester;
- (c) Latanoprost, the compound claimed in the 132 Patent, is a prostaglandin derivative that has the following chemical formula: 13,14-dihydro-17-phenyl-18,19,20-trinor  $\text{PGF}_{2\alpha}$ -isopropyl ester;
- (d) The eye is a closed sphere that produces a clear fluid called aqueous humor. This fluid is essential to the functioning of the eye as it not only conveys nutrients to it, but also removes from it waste products and contaminants. The drainage of aqueous humor assists in avoiding an increase in intraocular pressure, thus reducing the risk factor for disorders of the eye, including glaucoma and ocular hypertension;

- 58 -

- (e) Ocular hypertension describes an intraocular hypertension without damage to the optic nerve. Glaucoma describes a group of disorders characterized by damage to the optic nerve that results in loss of vision if the condition is left untreated. There is no cure for glaucoma but it, as well as ocular hypertension, can be managed by reducing intraocular pressure. This is achieved by use of drugs in one of two ways: reduction in the production of aqueous humor; or, with latanoprost, increase in the outflow of aqueous humor;
- (f) A high level of compliance is needed by patients treating their glaucoma with drugs. Therapies with less frequent doses are preferred because they contribute to patients' compliance, as does the tolerability of the drugs used. The tolerability of the drug is usually measured in terms of side effects, which may be systemic (occurring throughout the body) or localized (around the eye);
- (g) Prior to the advent of latanoprost, other drugs were available for the treatment of glaucoma and ocular hypertension. They, however, caused undesirable effects, ranging from tingling and hyperaemia to emphysema and death. Latanoprost was claimed to "reduce intraocular pressure without causing substantial ocular irritation" (claim 1 of the 132 Patent);
- (h) At the time of filing of the application for the 132 Patent, the person of ordinary skill in the art ("POSITA") would have understood glaucoma to be a chronic condition that required chronic treatment;

- 59 -

- (i) — ~~The promise of the 132 Patent, broadly stated, is the chronic use of a compound (latanoprost) for the effective treatment of a chronic medical condition (glaucoma);~~
- (j) — ~~More specifically, the promised utility of the 132 Patent is that latanoprost, when administered on a chronic basis, reduces intraocular pressure without causing substantial side effects;~~
- (k) — ~~Stated alternatively, the promise of the patent is to treat glaucoma and intraocular hypertension on a chronic basis without causing substantial side effects;~~
- (l) ~~However, a~~ At the time of filing, the inventors had only conducted “single dose” studies on animals and healthy humans and latanoprost had not been tested on patients with glaucoma or on a chronic basis;
- (m) At the time of filing, ~~the~~ a utility of the patent was not demonstrated;
- (n) If anything, the 132 Patent was based on a prediction of utility, i.e., that which was observed in the single dose study could soundly be predicted to apply to chronic use;
- (o) However, any such prediction was not a “sound prediction” under Canadian patent law;

- 60 -

- (p) The inventors of the 132 Patent had no factual underpinning for any prediction that a single dose study could be applied to chronic use or for any other prediction;
- (q) The studies conducted by the inventors consisted of putting a single dose of the compounds in the eye of the animal and human models. The tests were broken down so that the efficacy of the compounds was tested in monkeys and humans, whereas toxicity (irritation and hyperaemia) was tested in rabbit and cat models;
- (r) However, none of these studies were chronic use studies as none of them used multiple doses;
- (s) Because the inventors had no factual underpinnings for any prediction, they had no articulable and “sound” line of reasoning from which to infer their ~~promised~~ result;
- (t) Moreover, any line of reasoning that the inventors might have had is nowhere to be found in the disclosure of the 132 Patent; and
- (u) Accordingly, the 132 Patent is invalid for want of a sound prediction.

118A. Claim 12 (which claims a therapeutic ophthalmological composition containing latanoprost for the treatment of glaucoma or ocular hypertension in an amount sufficient to reduce intraocular pressure without causing substantial ocular irritation) is invalid because there was no demonstration or sound prediction by the filing date that the subject matter of

- 61 -

claim 12 could be used (i) for the treatment of glaucoma or ocular hypertension in an amount sufficient to reduce intraocular pressure without causing substantial ocular irritation; and/or (ii) for any practical purpose and/or relevant use.

118B. Claim 19 (which claims latanoprost) is invalid because there was no demonstration or sound prediction by the filing date that the subject matter of claim 19 could be used (i) for the treatment of glaucoma or ocular hypertension in an amount sufficient to reduce intraocular pressure without causing substantial ocular irritation; and/or (ii) for any practical purpose and/or relevant use. Should Pfizer assert a use for the subject matter of claim 19 other than the treatment of glaucoma or ocular hypertension in an amount sufficient to reduce intraocular pressure without causing substantial ocular irritation, then the use asserted by Pfizer does not amount to a practical purpose or an actual relevant use such that no demonstration or sound prediction was possible for the subject matter of claim 19 as of the filing date. As admitted by the 132 Patent, there can be no practical usefulness for prostaglandins that merely lower intraocular pressure without being capable of treating glaucoma or ocular hypertension.

118C. Claim 31 (which claims the use of latanoprost in the treatment of glaucoma or ocular hypertension) is invalid because there was no demonstration or sound prediction by the filing date that the subject matter of claim 31 could be used (i) for the treatment of glaucoma or ocular hypertension in an amount sufficient to reduce intraocular pressure without causing substantial ocular irritation; and/or (ii) for any practical purpose and/or relevant use. Should Pfizer assert a use for the subject matter of claim 31 other than the treatment of glaucoma or

- 62 -

ocular hypertension in an amount sufficient to reduce intraocular pressure without causing substantial ocular irritation, then that use does not amount to a practical purpose or an actual relevant use such that no demonstration or sound prediction was possible for the subject matter of claim 31 as of the filing date. As admitted by the 132 Patent, there can be no practical usefulness for prostaglandins that merely lower intraocular pressure without being capable of treating glaucoma or ocular hypertension.

118D. Claim 38 (which claims the use of latanoprost in the treatment of glaucoma or ocular hypertension) is invalid for lack of demonstrated utility or sound prediction of utility by the filing date for the same reasons as claim 31.

^

**f. Claims Broader than the Invention**

128. The 132 Patent purports to cover a particularly wide range of compounds, namely derivatives of prostaglandins A, B, D, E and F, wherein the omega chain is modified to include a ring structure. All of these derivatives are generally specified and claimed to lower IOP without causing substantial ocular irritation. This combination of desirable properties functions as a qualifying characteristic of compounds of the purported invention of the 132 Patent.

129. The compounds evaluated to ~~complete this promise~~ are set out at page 6 of the 132 Patent, as summarized in the Table therein. These are:



- 63 -

- (a) 16-phenyl-17,18,19,20-tetranor-PGF<sub>2α</sub>-isopropylester;
- (b) 17-phenyl-18,19,20-trinor- PGF<sub>2α</sub>-isopropylester;
- (c) 15-dehydro-17-phenyl-18,19,20-trinor- PGF<sub>2α</sub>-isopropylester;
- (d) 16-phenoxy-17,18,19,20-tranor- PGF<sub>2α</sub>-isopropylester;
- (e) 17-phenyl-18,19,20-trinor-PGE<sub>2</sub>-isopropylester;
- (f) 13,14-dihydro-17-phenyl-18,19,20-trinor- PGE<sub>2</sub>-isopropylester;
- (g) 15-(R)-17 -phenyl-18,19,20-trinor- PGF<sub>2α</sub>-isopropylester;
- (h) 16-[4-(methoxy)-phenyl]-17,18,19,20-trinor- PGF<sub>2α</sub>-isopropylester;
- (i) 13,14-dihydro-17-phenyl-18,19,20-trinor-PGF<sub>2α</sub>-isopropylester;
- (j) 18-phenyl-19,20-dinor- PGF<sub>2α</sub>-isopropylester; and
- (k) 19-phenyl-20-nor- PGF<sub>2α</sub>-isopropylester.

130. Thus, although claims are made for “derivatives of” prostaglandins A, B, D, E and F, wherein the omega chain is modified to include a ring, and being capable of lowering IOP and displaying substantially no ocular irritation, only a limited number of prostaglandins having omega chains comprising a ring were provided by the disclosure of the 132 Patent. That is to say, insufficient material has been submitted to support the claims in the 132 Patent given the

- 64 -

common knowledge of the person skilled in the art as discussed herein ~~in this NOA~~ and given the statements in the 132 Patent.

131. Thus, no support was ever provided ~~for the claim~~ that prostaglandins of the B or D type, having omega chains comprising a ring structure, were capable of lowering IOP, while displaying substantially no ocular irritation.

132. Thus, of the prostaglandin analogues that were evaluated, only one each of derivatives of PGA and PGE were evaluated, namely, 13,14-dihydro-17-phenyl-18,19,20-trinor-PGA<sub>2</sub>-isopropylester and 17-phenyl-18,19,20-trinor-PGE<sub>2</sub>-isopropylester.

133. No IOP data was provided in the patent for any PGA or PGE derivative, nor has any IOP data ever been published for 13,14-dihydro-17-phenyl-18,19,20-trinor-PGA<sub>2</sub>-isopropylester.

134. The only reference to ever published IOP data for the 17-phenyl-18,19,20-trinor-PGE<sub>2</sub>-isopropylester was not available to the public until nearly 8 years later SE9702706A0 – filed July 11, 1997 and published as PCT WO99/02165 on January 21, 1999 (Document 83). However, even that compound is shown by the 132 Patent to have a degree of hyperemia, no different from that of the prior art compound, PGF<sub>2α</sub>-isopropylester, within experimental error (See Table IV, page 26).

135. In light of the relative uncertainty at the time of filing of the 132 Patent, it is clear the claims purport to cover material substantially broader than that (if any at all)

- 65 -

deserving of protection. Further, not all PGF<sub>2α</sub> derivatives claimed with phenyl rings on the omega chain have no irritation as admitted by the patentee.

136. ~~In spite of the alleged utility of said prostaglandin derivatives,~~ The 132 Patent admits at page 7, line 8:

The invention thus relates to the use of certain derivatives of PGA, PGB, PGD, PGE and PGF for the treatment of glaucoma or ocular hypertension. Among these derivatives defined above it has been found that some are irritating or otherwise not optimal, and in certain cases not even useful due to adverse effects and these are excluded in that the group of prostaglandin derivatives defined above is limited to therapeutically effective and physiologically acceptable derivatives. So is for instance (1) 16-phenyl-17,18,19,20-tetranor-PGF<sub>2α</sub>-isopropyl ester irritating while this can be eliminated by substituting the phenyl ring with a methoxy group giving formula (8) which represent a therapeutically more useful compound.

136A. As described above, the 132 Patent asserts that latanoprost can be chronically administered for the treatment of glaucoma or ocular hypertension without causing substantial ocular irritation. However, for the reasons described under the headings "Lack of Utility" and "No Demonstrated Utility / Lack of Sound Prediction", there was no demonstration or sound prediction of this before the filing date of the 132 Patent and this was never achieved. This constitutes the mischief of overpromising and renders all of the Asserted Claims invalid for overbreadth:

(a) claim 12 (which claims a therapeutic ophthalmological composition containing latanoprost for the treatment of glaucoma or ocular hypertension in an amount sufficient to reduce intraocular pressure without causing substantial ocular

- 66 -

irritation) is invalid for overbreadth because glaucoma and ocular hypertension are chronic disorders that require chronic administration of a medicament for treatment and this is more than what the named inventors of the 132 Patent had invented because they had not demonstrated or soundly predicted that the subject matter of claim 12 would not cause substantial ocular irritation upon the chronic administration required for the treatment of glaucoma or ocular hypertension. The 132 Patent improperly asserts that the claimed composition can be usefully administered on a chronic basis for the treatment of glaucoma or ocular hypertension without causing substantial side effects;

(b) claim 19 (which claims latanoprost) is invalid for overbreadth because the 132 Patent asserts that latanoprost can be usefully administered on a chronic basis for the treatment of glaucoma or ocular hypertension without causing substantial side effects and this is more than what the named inventors of the 132 Patent had invented because they had not demonstrated or soundly predicted that latanoprost would not cause substantial ocular irritation and/or conjunctival hyperemia upon the chronic administration required for the treatment of glaucoma or ocular hypertension. A compound that has not been demonstrated or soundly predicted to avoid these substantial side effects upon chronic administration cannot be useful in the treatment of glaucoma or ocular hypertension. Further, while the 132 Patent asserts that its invention is limited in scope to compounds that can be usefully administered on a chronic basis for

- 67 -

the treatment of glaucoma or ocular hypertension without causing substantial side effects, claim 19 claims a compound without limitation as to its properties and thus is necessarily overly broad relative to the invention made or disclosed;

(c) claim 31 (which claims the use of latanoprost in the treatment of glaucoma or ocular hypertension) is invalid for overbreadth because glaucoma and ocular hypertension are chronic disorders that require chronic administration of a medicament for treatment and this is more than what the named inventors of the 132 Patent had invented because they had not demonstrated or soundly predicted that latanoprost would be useful upon the chronic administration required for the treatment of glaucoma or ocular hypertension. Further, a compound that has not been demonstrated or soundly predicted to avoid substantial side effects upon chronic administration cannot be useful in the treatment of glaucoma or ocular hypertension. The 132 Patent improperly asserts that latanoprost can be usefully administered on a chronic basis for the treatment of glaucoma or ocular hypertension without causing substantial side effects;

(d) claim 38 (which claims the use of latanoprost in the treatment of glaucoma or ocular hypertension) is invalid for overbreadth for the same reasons as claim 31.

137. All the claims of the 132 Patent are invalid, void and of no effect as being broader than any invention made or disclosed therein.

**g. Insufficient Disclosure**

138. Apotex alleges that each of the claims of the 132 Patent is invalid, void and of no effect on the basis that the specification does not comply with subsection 27(3) of the *Patent Act* (and/or section 36 of the *Patent Act* as it existed before 1989) since it does not correctly and fully describe the invention and its operation or use as contemplated by the inventors. Apotex alleges that the specification is insufficient because it does not fully define in clear terms the nature and characteristics of the special attributes or substantial advantages, if any, that are alleged to be possessed by the claimed compounds having regard to the provisions of the *Patent Act*.

139. Apotex alleges that the specification of the 132 Patent fails to correctly and fully describe the purported invention as claimed in each of the claims in issue and the use of such alleged invention.

140. Apotex also alleges that the purported inventors of the 132 Patent did not disclose everything that is essential in order to enable one of ordinary skill in the art to determine which, if any, of the thousands of possible compounds included within the claims of the 132 Patent would work or for which there was a sound prediction.

141. The specification of the 132 Patent discloses that the inventors have discovered new and inventive prostaglandin derivatives for lowering IOP while simultaneously substantially eliminating the ocular irritation expected from the prior art compounds. In describing

- 69 -

preferred derivatives of the invention, the specification of the 132 Patent states at page 6, line

14:

The most preferred derivatives at present are those in which the omega chain of the prostaglandin has the 18,19,20-trinor form, and especially the 17-phenyl analogs, such as the 15-(R)-, 15-dehydro and 13,14-dihydro-17-phenyl-18,19,20-trinor forms. Such derivatives are represented by (3), (6), (7) and (9) in the formulas given in Table 1.

In the formula given above the most preferred structure at present is accordingly obtained when the prostaglandin is a derivative of PGA, PGD, PGE or PGF, especially of PGA<sub>2</sub>, PGD<sub>2</sub>, PGE<sub>2</sub> and PGF<sub>2</sub>α.

B is a single bond or a double bond.

D is a carbon chain with 2-5, especially 3 atoms; 15 having a carbonyl or (S)-OH substituent and C16-19 having lower alkyl substituents, or preferably H.

R<sub>2</sub> is a phenyl ring optionally having substituents selected among alkyl and alkoxy groups.

The invention thus relates to the use of certain derivatives of PGA, PGB, PGD, PGE and PGF for the treatment of glaucoma or ocular hypertension. Among these derivatives defined above it has been found that some are irritating or otherwise not optimal, and in certain cases not even useful due to adverse effects and these are excluded in that the group of prostaglandin derivatives defined above is limited to therapeutically effective and physiologically acceptable derivatives. So is for instance (1) 16-phenyl-17,18,19,20-tetranor-PGF<sub>2</sub>α-isopropyl ester irritating while this can be eliminated by substituting the phenyl ring with a methoxy group giving formula (8) which represents a therapeutically more useful compound. (emphasis added)

142. But these admittedly inoperable derivatives set out above were never omitted and thus disclaimed by the patentee of the 132 Patent.

143. Thus, the 132 Patent teaches that certain derivatives included within the "preferred derivatives" fail to fulfill the promise of the patent due to adverse effects, and are therefore to be excluded from the claims (even though, in fact, they continue to be included).

- 70 -

No further statements are provided as to the identification of these and other compounds ~~that do not fulfill the promise of the 132 Patent~~, other than the broad blanket statement that they are excluded, and the claimed derivatives are allegedly limited only to the group of prostaglandin derivatives having therapeutic efficacy and physiological acceptability. But these inoperative derivatives otherwise remain included in the claims. No qualifying characteristic is further provided in each claim such that said "inoperative" derivatives may be identified or eliminated. In fact, the only guidance to one of ordinary skill in the art is the very general statement that a particularly preferred derivative has inappropriate irritating side effects which are eliminated upon substitution by a methoxy group.

144. Even if guidance had been provided (which is denied) as to identification of those compounds having no particular utility so as to separate those derivatives from those suitable derivatives having an IOP lowering ocular irritative effect, the specification of the 132 Patent would still be insufficient.

145. Apotex therefore, alleges that each of the claims of the 132 Patent is invalid, void and of no effect on the basis that the specification does not comply with section 27(3) of the *Patent Act* (and/or section 36 of the *Patent Act* as it existed before 1989) since it does not correctly and fully describe the invention and its operation or use as contemplated by the inventors. Apotex further alleges that the specification is insufficient because it does not fully define in clear terms the nature and characteristics of the special compounds and their special attributes or substantial advantages, if any, that are alleged to be possessed by each of the claimed compounds or included in the composition and use claims.



- 71 -

145A. Because the 132 Patent over-promises, it contains a disclosure that is not correct and full and it states an unsubstantiated use or operation of the purported invention, which constitutes a failure to fulfill the requirements of subsection 27(3) of the *Patent Act* (and/or section 36 of the *Patent Act* as it existed before 1989), thereby rendering the 132 Patent and all of the Asserted Claims invalid.

145B. As described above, the 132 Patent asserts that latanoprost can be usefully administered on a chronic basis for the treatment of glaucoma or ocular hypertension without causing substantial side effects. However, for the reasons described under the headings "Lack of Utility" and "No Demonstrated Utility / Lack of Sound Prediction", there was no demonstration or sound prediction of this before the filing date of the 132 Patent and this was never in fact achieved. The 132 Patent thus asserts an unsubstantiated use or operation for the invention, which constitutes the mischief of overpromising and renders all of the Asserted Claims invalid for failure to fulfill the requirements of subsection 27(3) of the *Patent Act* (and/or section 36 of the *Patent Act* as it existed before 1989).

**h. Place of Trial**

146. As proposed in the claim, Apotex proposes that the trial of the action, including the counterclaim, take place at Ontario, Canada.

- 72 -

September 15, 2017

---

**GOODMANS LLP**  
Barristers and Solicitors  
Bay Adelaide Center  
Suite 3400  
333 Bay Street  
Toronto, Ontario, M5H 2S7

H.B. Radomski  
Andrew R. Brodtkin

Tel: (416) 979-2211  
Fax: (416) 979-1234

Solicitors for Apotex Inc.

- 73 -

## Schedule "A"

No.	Document	Publication Date
1.	Canadian Patent No. 1,339,132 filed on September 12, 1989, "Prostaglandin Derivatives For The Treatment Of Glaucoma Or Ocular Hypertension".	July 29, 1997
2.	Gordon L. Bundy and F. H. Lincoln, "Synthesis of 17-Phenyl-18,19,20-Trinorprostaglandins", Prostaglandins, pages 1-4.	January 1975
3.	B. J. Magerlein, G. L. Bund, F. H. Lincoln, and G. A. Youngdale, (January 1975), Vol. 9, No. 1, "Synthesis of 17-Phenyl-18,19,20-Trinorprostaglandins", Prostaglandins, pages 5 -8.	January 1975
4.	William L. Miller, James R. Weeks, James W. Lauderdale and Kenneth T. Kirton, Vol. 9, No. 1, "Biological Activities of 17-Phenyl-18,19,20-Trinorprostaglandins", Prostaglandins, pages 9-18.	January 1975
5.	E. Granstörn, Vol. 9, No. 1, "Metabolism of 17-Phenyl-18,19,20-Trinor Prostaglandin F <sub>2</sub> $\alpha$ In The Cynomolgus Monkey And The Human Female", Prostaglandins, pages 19 - 45.	January 1975
6.	E. Granstörn, Vol. 1, "Effect of Chemical Modifications On The Metabolic Transformation of Prostaglandins", Advances in Prostaglandin and Thromboxane Research, pages 215 -219.	December 1 1976
7.	Kenneth E. Eakins, "Prostaglandins and The Eye", Prostaglandins: Physiological, Pharmacological And Pathological Aspects, pages 63 - 81.	1976
8.	United States Patent No. 3,969,396 filed on October 29, 1974 and granted on July 13, 1976 "8 $\beta$ ,11 $\beta$ , 12 $\alpha$ -PGE <sub>2</sub> Compounds".	July 13, 1976
9.	Canadian Patent No. 986926 issued on April 6, 1976, "Cyclopentane Derivatives".	April 6, 1976
10.	United States Patent No. 3,983,165 filed on October 29, 1974 and granted on September 28, 1976, "8 $\beta$ , 12 $\alpha$ ,15 $\beta$ -17-Phenyl-18,19,20-Trinor-PGF <sub>2<math>\alpha</math></sub> Compounds".	September 28, 1976

- 74 -

No.	Document	Publication Date
11.	United States Patent No. 3,987,087 granted on October 19, 1976.	October 19, 1976
12.	United States Patent No. 4,032,561 filed on May 27, 1975 and granted on June 28, 1977, "17-Phenyl-18,19,20-Trinor-CIS-4,5-Didehydro-PGF <sub>1α</sub> Compounds".	June 28, 1977
13.	Australian Patent No. 40.197/78 filed on September 26, 1978 and granted on 3 April 1980, "Prostacyclin Analogs".	April 3, 1980
14.	United States Patent No. 4,128,713, filed on December 15, 1977 and granted on December 5, 1978, "6,7-Didehydro-PG1 Compounds".	December 5, 1978
15.	M. Ross Johnson, Thomas K. Schaaf, Jay W. Constantine and Hans-Jurgen Hess, Vol. 20, No. 3, "Structure Activity Studies Leading To A Tissue-Selective Hypotensive Prostaglandin Analog, 13,14-Dihydro-16-Phenyl-ω-Tetranor PGE <sub>2</sub> ", Prostaglandin, pages 515 - 520.	September 1980
16.	F. A. Stern and L. Z. Bito, "Comparison Of The Hypotensive And Other Ocular Effects Of Prostaglandins E <sub>2</sub> and F <sub>2α</sub> On Cat and Rhesus Monkey Eyes", Prostaglandin-Induced Ocular Hypotension, pages 588-598.	May 1982
17.	Laszlo Z. Bito, (1984), "Comparison Of The Ocular Hypotensive Efficacy Of Eicosanoids And Related Compounds", Ocular Hypotensive Potencies of Eicosanoids, pages 181-194.	February 1984
18.	Laszlo Z. Bito, "Prostaglandins, Other Eicosanoids, And Their Derivatives As Potential Antiglaucoma Agents", Glaucoma: Applied Pharmacology in Medical Treatment, pages 477-505.	July 1, 1984
19.	Giuseppe Giuffre, "The Effects Of Prostaglandin, F <sub>2α</sub> In The Human Eye", Graefe's Archive for Clinical and Experimental Ophthalmology (222), pages 139-141.	January 1985
20.	United States Patent No. 4,599,353 filed on May 3, 1982 and granted on July 8, 1986, "Use of Eicosanoids And Their Derivatives For Treatment Of Ocular Hypertension And Glaucoma".	July 8, 1986
21.	Canadian Patent No. 1,208,560 filed on April 29, 1983 and granted on July 29, 1986, "Use of Eicosanoids And Their Derivatives For	July 29, 1986

No.	Document	Publication Date
	Treatment of Ocular Hypertension And Glaucoma".	
22.	European Patent Application No. 0 170 258 filed on July 30, 1985, "11-Substituted-16-Phenoxy and 16-Substituted Phenoxy-Prostatrienoic Acid Derivatives".	February 5, 1986
23.	Laszlo Z. Bito, Roger A. Baroody and Olivia C. Miranda, "Eicosanoids As A New Class Of Ocular Hypotensive Agents", Experimental Eye Research Vol. 44, pages 825-837.	June 1987
24.	R-F. Wang C.B. Camras, P-Y, Lee, S.M. Podos, and L. Z. Bito (1987), "The Ocular Hypotensive Effects Of Prostaglandins F2 $\alpha$ Isopropyl Ester (PGF <sub>2<math>\alpha</math></sub> -IE) and A2 (PGA2) In Glaucomatous Monkeys", Avro, page 266 par. 5	May 1987
25.	J. Villumsen and A. Alm, (1987), "The Effect Of Prostaglandin F2 $\alpha$ Eye Drops In Open Angle Glaucoma", Avro abstracts, page 378 par. 5	May 1987
26.	Siv F. E. Nilsson, Johan Stjernschantz and Anders Bill, (1987), "Further Studies On Aqueous Humor Flow In Micro-Porous Filters", Avro, page 284 par. 9	May 1987
27.	Mieko Hayashi, Michael E. Yablonski and Laszlo Z. Bitro, (1987), "Eicosanoids As A New Class Of Ocular Hypotensive Agents", Comparison of the IOP Lowering Mechanism of PGA2 and PGF <sub>2<math>\alpha</math></sub> ", Invest Ophthalmol Vis Sci 28, pages 1639-1643.	October 1987
28.	Kathryn Crawford and Paul L. Kaufman, MD, (August 1987), "Pilocarpone Antagonizes Prostaglandin F2 $\alpha$ -Induced Ocular Hypotension In Monkeys", Arch Ophthalmol, pages 1112-1016.	August 1987
29.	J. R. Kerstetter, R. F. Brubaker, M. D., S. E. Wilson, and L. J. Kullerstrand, (January 1988), "Prostaglandin F2 $\alpha$ -1-Isopropylester Lowers Intraocular Pressure Without Decreasing Aqueous Humor Flow", American Journal of Ophthalmology 105, pages 30-34.	January 1988
30.	European Patent No. 0 286 903 filed on March 28, 1988, "Use Of A Prostaglandin In Combination With An Adrenergic Blocking Agent For Reduction Of Intraocular Pressure".	October 19, 1988
31.	European Patent No. 0 308 135 filed September 8, 1988, "Ocular	March 22, 1989

No.	Document	Publication Date
	Hypotensive Agents".	
32.	Carl B. Camras, Alan H. Friedman, Merlyn M. Rodrigues, Brenda J. Tripathi, Ramesh C. Tripathi and Steven M. Podos, (September 1988), "Multiple Dosing Of Prostaglandin F2 $\alpha$ or Epinephrine On Cynomolgus Monkey Eyes", Investigative Ophthalmology & Visual Science, pages 1428-1436.	September 1988
33.	Ping-Yu Lee, Hui Shao, Liang Xu and Chan-Kuei Qu, "The Effect Of Prostaglandin F2 $\alpha$ On Intraocular Pressure In Normotensive Human Subjects", Investigative Ophthalmology & Visual Science, pages 1474-1477.	October 1988
34.	Allan J. Flach and Joseph A. Eliason, "Topical Prostaglandin E2 Effects on Normal Human Intraocular Pressure", Journal of Ocular Pharmacology Volume 4, pages 13-18.	Spring 1988
35.	Jorgen Villumsen and Albert Alm, "Prostaglandin F2 $\alpha$ -Isopropylester Eye Drops: Effects In Normal Human Eyes", British Journal of Ophthalmology Volume 73, pages 419-425.	January 1989
36.	Carl B. Camras, Earlene C. Siebold, Jacqueline S. Lustgarten, Janet G. Serle, Sandford C. Frisch, Steven M. Podos, Laszlo Z. Bito, "Maintained Reduction Of Intraocular Pressure By Prostaglandin F2 $\alpha$ -1-Isopropyl Ester Applied In Multiple Doses In Ocular Hypertensive And Glaucoma Patients", Ophthalmology 96, pages 1329-1337.	September 1989
37.	Miranda and Bito, (1989), "The Putative and Demonstrated Miotic Effects of Prostaglandins In Mammals" The Ocular Effects Of Prostaglandins And Other Eicosanoids, Progress in Clinical and Biological Research, Volume 312, pages 171-195.	June 1989
38.	Albert Alm and Jorgen Villumsen, "Effects Of Topically Applied PGF2 $\alpha$ And Its Isopropylester On Normal And Glaucomatous Human Eyes", The Ocular Effects of Prostaglandins and Other Eicosanoids, pages 447-458.	June 1989
39.	Carl B. Camras, Laszlo Z. Bito, and Kenneth E. Eakins, "Reduction of Intraocular Pressure by Prostaglandins Applied Topically To The Eyes Of Conscious Rabbits", pages 1125-1134	December 1977

- 77 -

No.	Document	Publication Date
40.	Alfred Goodman Gilman, Louis S. Goodman and Alfred Gilman, "The Pharmacological Basis of Therapeutics" Sixth Edition	January 1980
41.	Miller-Keane, "Encyclopedia & Dictionary of Medicine, Nursing, & Allied Health", Fifth Edition	May 1992
42.	XALATAN Product Insert	November 2006
43.	XALATAN Product Monograph	June 2004
44.	EP 364,417 filed on September 6, 1989 "Prostaglandin derivatives for the treatment of glaucoma or ocular hypertension"	April 18, 1990
45.	United States Patent No. 4,131,738 filed on July 5, 1977	December 26, 1978
46.	United States Patent No. 4,147,877 filed on June 23, 1978	April 3, 1979
47.	United States Patent No. 3,983,158 filed on October 23, 1975	September 28, 1976
48.	United States District Court: Pharmacia Corp., et al., vs Par Pharmaceutical, Inc.	March 24, 2004
49.	M. Zajacz, M. Torok and P. Mocsary, "Effect On Human Eye Of Prostaglandin and A Prostaglandin Analogue Used To Induce Abortion" IRCS Journal of Medical Science, Volume 4, page 316	July 1976
50.	Vincent H.L. Lee, Kim W. Morimoto and Robert E. Stratford, Jr. "Esterase Distribution In The Rabbit Cornea And Its Implications In Ocular Drug Bioavailability" Biopharmaceutics and Drug Disposition, Volume 3, pages 291-300	October 1982
51.	Laszlo Z. Bito, "Species Differences In The Responses Of The Eye To Irritation And Trauma: a Hypothesis Of Divergence In Ocular Defense Mechanisms, And The Choice Of Experimental Animals For Eye Research Exp. Eye Res. Volume 39, pages 807-829	December 1984
52.	Ola Camber, Peter Edman, and Lars-Inge Olsson, "Permeability Of Prostaglandin F <sub>2</sub> α and Prostaglandin F <sub>2</sub> α Esters Across Cornea In Vitro", International Journal of Pharmaceutics, Volume 29, pages 259-	April 1986

No.	Document	Publication Date
	266	
53.	Ola Camber and Peter Edman, "Factors Influencing The Corneal Permeability Of Prostaglandin F2 $\alpha$ And Its Isopropyl Ester In Vitro" International Journal of Pharmaceutics, Volume 37, pages 27-32	June 1987
54.	L.D. Waterbury, G. F. Cooper and J. H. Fried, "Ocular Hypotensive Activity of RS-18492 – A Potent Synthetic PGE2 Analog, 187, The Pharmacologist, Volume 29	August 1987
55.	J.A. Burke, L.S. Williams and D.F. Woodward "Prostaglandin F2 $\alpha$ Effects on Rabbit IOP negatively correlate with Classical PGF2 $\alpha$ receptor stimulation", The Association for Research in Vision and Ophthalmology, page 325, abstract 13	May 1988
56.	Jorgen Villumsen, Albert Alm and Mats Soderstrom, "Prostaglandin F2 $\alpha$ -isopropylester eye drops: effect on intraocular pressure in open-angle glaucoma", British Journal of Ophthalmology, Volume 73, pages 975-979	June 1989
57.	Laszlo Z. Bito, Carl B. Camras, "The Ocular Hypotensive Effects And Side Effects Of Prostaglandins On the Eyes Of Experimental Animals", The Ocular Effects of Prostaglandins and Other Eicosanoids, pages 349-368	June 1989
58.	Laszlo Z. Bito, "Prostaglandins, Old Concepts and New Perspectives", Arch Ophthalmol, Vol. 105, pages 1036-1039	August 1987
59.	M. B. Waitzman, "On Prostaglandins And Ocular Fluid Dynamics", Arch Ophthalmol, Volume 106, pages 449-450	April 1988
60.	Product Information, 16-Phenyl Tetranor Prostaglandin F2 $\alpha$ , Cayman Chemical Company	2006
61.	Product Information, Bimatoprost™ (free acid), Cayman Chemical Company	2006
62.	Product Information, 16-Phenoxy Tetranor Prostaglandin F2 $\alpha$ , Cayman Chemical Company	2006
63.	Product Information, 17-Phenyl Trinor Prostaglandin E2, Cayman	2006



- 79 -

No.	Document	Publication Date
	Chemical Company	
64.	Product Information, 17-Phenyl Trinor-13, 14-dihydro Prostaglandin A2, Cayman Chemical Company	2006
65.	United States Patent No. 4,100,355 filed on June 28, 1973	July 11, 1978
66.	Bhattacharjee, P., "Prostaglandins And Inflammatory Reactions In The Eye". Methods and Findings In Experimental and Clinical Pharmacology 2, volume 1, pages 17-31	1980
67.	Camras, C. B., Bito L.Z., "Reduction Of Intraocular pressure in normal and Glaucomatous primate (Aotus trivirgatus) eyes by topically applied prostaglandin F2 $\alpha$ ", Current Eye Research 1 Volume 4 pages 205-209	1981
68.	Dong, Y.J, Jones R.L., "Effects of Prostaglandins and Thromboxane Analogues on Bullock and Dog iris sphincter preparations, British Journal of Pharmacology 76, pages 149-155	1982
69.	Hellberg, M. R. Ke, T.L, Haggard, K. Klimko, P.G. Dean, "The Hydrolysis of the Prostaglandin analog prodrug bimatoprost to 17-phenyl-trinor PGF2 $\alpha$ by Human and Rabbit Ocular Tissue, Journal of Ocular Pharmacology and Therapeutics 19 pages 97-103	2003
70.	L.Z. Bito, A. Drago, J. Bianco, and C. B. Camras, "Long-Term Maintenance of Reduced Intraocular Pressure by Daily Or Twice Daily Topical Application of Prostaglandins to Cat or Rhesus Monkey Eyes, Investigative Ophthalmology and Visual Science Volume 24, pages 312-319	March 1983
71.	Bahram Resul, Johan Stjernschantz, "Phenyl-Substituted Prostaglandins: Potent and Selective Antiglaucoma Agents", Journal of Medical Chemistries, Volume 36,pages 243-248	January 1993
72.	Bahram Resul, et al, "Structure-Activity Relationships and Receptor Profiles of Some Ocular Hypotensive Prostanoids", Survey of Ophthalmology, Volume 41,Supplements 2, pages S47-S52	February 1997
73.	L.Z. Bito and R. A. Baroody, "The Ocular Pharmacokinetics of Eicosanoids And Their Derivatives, Exp. Eye Research, Volume 44	February 1987

Court File No. T-1064-13

**FEDERAL COURT**

---

BETWEEN:

**APOTEX INC.**

Plaintiff  
(Defendant by Counterclaim)

- and -

**PFIZER CANADA INC.**

Defendant  
(Plaintiff by Counterclaim)

- and -

**PHARMACIA AKTIEBOLAG**

Plaintiff by Counterclaim

---

**FURTHER AMENDED REPLY AND DEFENCE TO  
COUNTERCLAIM**

**(dated September 15, 2017)**

---

**GOODMANS LLP**

Bay Adelaide Center  
Suite 3400  
333 Bay Street  
Toronto, Ontario, M5H 2S7

H.B. Radomski  
Andrew R. Brodtkin

Solicitors for Apotex

**COUR FÉDÉRALE**

**AVOCATS INSCRITS AU DOSSIER**

**DOSSIER :** T-1064-13

**INTITULÉ :** APOTEX INC. c PFIZER CANADA INC. ET AUTRES

**LIEU DE L'AUDIENCE :** VANCOUVER (COLOMBIE-BRITANNIQUE)

**DATE DE L'AUDIENCE :** LE 16 OCTOBRE 2017

**ORDONNANCE ET MOTIFS :** LE JUGE MANSON

**DATE DES MOTIFS :** LE 25 OCTOBRE 2017

**COMPARUTIONS :**

M<sup>e</sup> Harry Radomski POUR LA DEMANDERESSE  
M<sup>e</sup> Jordan Scopa

M<sup>e</sup> Jordana Sanft POUR LA DÉFENDERESSE / DEMANDERESSE  
M<sup>e</sup> Tracey Stott RECONVENTIONNELLE

**AVOCATS INSCRITS AU DOSSIER :**

GOODMANS POUR LA DEMANDERESSE  
Toronto (Ontario)

NORTON ROSE FULBRIGHT POUR LA DÉFENDERESSE / DEMANDERESSE  
Toronto (Ontario) RECONVENTIONNELLE,  
PFIZER CANADA INC.

ORESTES PASPARAKIS POUR LA DEMANDERESSE RECONVENTIONNELLE,  
Toronto (Ontario) PHARMACIA AKTIEBOLAG