Citation : Société Des Produits Nestlé S.A. (Re), 2022 CACP 19

Commissioner's Decision #1626

Décision du Commissaire nº 1626

Date: 2022-10-12

ɔ: G00 Utility

Γ: G00 Utilité

Application No. : 2,776,950

Demande nº 2 776 950

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2,776,950, having been rejected under subsection 30(3) of the *Patent Rules* (SOR/96–423) as they read immediately before October 30, 2019, has consequently been reviewed in accordance with paragraph 199(3)(c) of the *Patent Rules* (SOR/2019-251). The recommendation of the Patent Appeal Board and the decision of the Commissioner are to withdraw the rejection and allow the application.

Agent for the Applicant:

BORDEN LADNER GERVAIS LLP

World Exchange Plaza
100 Queen Street, Suite 1300 Ottawa, Ontario
K1P 1J9

INTRODUCTION

[1] This recommendation concerns the review of rejected Canadian patent application number 2,776,950, which is entitled “Use of isoflavones in the prevention or treatment of sarcopenia and muscle atrophy” and is owned by Société Des Produits Nestlé S. A. (the Applicant).

[2] A review of the rejected application has been conducted by the Patent Appeal Board (the Board) pursuant to paragraph 199(3)(c) of the *Patent Rules* (SOR/2019-251) (the *Patent Rules*). As explained in more detail below, our recommendation is that the Commissioner of Patents allow the application.

BACKGROUND

The application

[3] The application has a filing date of October 8, 2010, and was laid open to public inspection on April 14, 2011.

[4] The application relates to using naturally occurring isoflavones or their metabolites in the prevention or treatment of sarcopenia and muscle atrophy, two diseases that involve the loss of skeletal muscle mass.

[5] The claims under review are claims 1 to 23 on file, dated December 18, 2017 (the claims on file).

Prosecution history

[6] On October 11, 2019, a Final Action (FA) rejecting the claims on file was issued pursuant to subsection 30(4) of the *Patent Rules* (SOR/96–423) as they read immediately before October 30, 2019. The FA stated that the claims on file were rejected for encompassing embodiments that have not been established by demonstration or sound prediction to have the utility that is required by section 2 of the *Patent Act*.

[7] On March 12, 2020, a response to the FA (RFA) was filed by the Applicant. In the RFA, the Applicant presented a number of arguments in support of the patentability of the claims on file.

[8] The Examiner was not persuaded by the arguments provided in the RFA and so the application was forwarded to the Board, along with a Summary of Reasons (SOR) on July 20, 2020.

[9] The SOR was forwarded to the Applicant on July 23, 2020. In a letter dated October 13, 2020, the Applicant expressed continued interest in having the application reviewed by the Board.

[10] This Panel was formed to review the rejected application and make a recommendation to the Commissioner as to its disposition. Our conclusions are set out below.

ISSUE

[11] This review will consider whether the utility of the subject-matter of claims 1 to 23 on file was established as of the Canadian filing date, as required by section 2 of the *Patent Act*.

LEGAL PRINCIPLES AND OFFICE PRACTICE

Purposive construction

[12] In accordance with *Free World Trust v Électro Santé Inc*, 2000 SCC 66, and *Whirlpool Corp v Camco Inc*, 2000 SCC 67, purposive construction is performed from the point of view of the person skilled in the art in light of the relevant common general knowledge (CGK), considering the whole of the disclosure including the specification and drawings. In addition to interpreting the meaning of the terms of a claim, purposive construction distinguishes the essential elements of the claim from the non-essential elements. Whether or not an element is essential depends on the intent expressed in or inferred from the claim, and on whether it would have been obvious to the skilled person that a variant has a material effect upon the way the invention works.

[13] We consider that all elements set out in a claim are presumed essential unless it is established otherwise or such presumption is contrary to the claim language.

Utility

[14] Utility is required by section 2 of the *Patent Act*:

> "invention" means any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in any art, process, machine, manufacture or composition of matter

[15] In *AstraZeneca Canada Inc v Apotex Inc*, 2017 SCC 36 at para 53 [*AstraZeneca*], the Supreme Court of Canada stated that the "[u]tility will differ based on the subject-matter of the invention as identified by claims construction" and outlined the approach that should be undertaken to determine whether a patent discloses an invention with sufficient utility under section 2 of the *Patent Act*:

> [54] To determine whether a patent discloses an invention with sufficient utility under s. 2, courts should undertake the following analysis. First, courts must identify the subject-matter of the invention as claimed in the patent. Second, courts must ask whether that subject-matter is useful—is it capable of a practical purpose (i.e. an actual result)?
> [55] The Act does not prescribe the degree or quantum of usefulness required, or that every potential use be realized—a scintilla of utility will do. A single use related to the nature of the subject-matter is sufficient, and the utility must be established by either demonstration or sound prediction as of the filing date (*AZT,* at para 56).

[16] Therefore, utility must be established either by demonstration or sound prediction as of the Canadian filing date. Utility cannot be supported by evidence and knowledge that only became available after this date (see also *Apotex Inc v Wellcome Foundation Ltd*, 2002 SCC 77 at para 56 [*AZT*], cited in the passage above).

[17] The doctrine of sound prediction allows the establishment of asserted utility even where that utility had not been fully verified as of the filing date. However, a patent application must provide a "solid teaching" of the claimed invention as opposed to "mere speculation" (*AZT* at para 69).

[18] The soundness of a prediction is a question of fact (*AZT* at para 71). Analysis of that soundness should consider three elements (*AZT* at para 70):

- there must be a factual basis for the prediction;
- the inventor must have, at the date of the patent, an articulable and sound line of reasoning from which the desired result can be inferred from the factual basis; and
- there must be proper disclosure of the factual basis and line of reasoning.

[19] These elements are assessed from the perspective of the skilled person to whom the patent is directed, taking into account their CGK. Further, with the exception of

the CGK, the factual basis and line of reasoning must be included in the patent application (See *Bell Helicopter Textron Canada Ltée v Eurocopter SAS*, 2013 FCA 219 at paras 152–153 [*Bell Helicopter*]).

[20] Although a prediction does not need to amount to a certainty to be sound, there must be a *prima facie* reasonable inference of utility (*Gilead Sciences Inc v Idenix Pharmaceuticals Inc*, 2015 FC 1156 at para 251; *Mylan Pharmaceuticals ULC v Eli Lilly Canada Inc*, 2016 FCA 119 at para 55).

ANALYSIS

Purposive construction

[21] There are twenty-three claims on file. Claims 1, 10, 14 and 20 are the only independent claims. Claims 1 and 10 are representative:

> Claim 1. Use of equol, daidzein, or daidzin for treating sarcopenia in an animal, wherein the equol, daidzein, or daidzin is formulated for administration to the animal in an amount sufficient to treat the sarcopenia, wherein the animal is a dog.
>
> Claim 10. A composition for treating sarcopenia in an animal, wherein: the composition comprises equol, daidzein, or daidzin, and a diluent or carrier suitable for use in a dietary supplement or a food composition; the composition is formulated for administering a sufficient amount of equol, daidzein, or daidzin to treat the sarcopenia; and the animal is a dog.

[22] Independent claim 14 is identical to claim 1 except that the recited use is for treating muscle atrophy instead of sarcopenia. Similarly, independent claim 20 is identical to claim 10 except that the recited composition is for treating muscle atrophy and the active ingredient is limited to only equol.

[23] Dependent claims 2-9, 11-13, 15-19 and 21-23 define further limitations on the product or composition such as including further isoflavones (claims 2, 3, 11, 12, 15, 16, 21, 22), formulating the product as a food composition or dietary supplement (claims 5-7, 17, 18), the source of the equol, daidzein or daidzin (claims 9, 13, 19, 23) and further limitations on the dog (claims 4, 8).

The person skilled in the art and their common general knowledge

[24] The FA did not formally characterize the skilled person and neither did the RFA. Based on the specification as a whole, our view is that the skilled person would be a person or team with knowledge and expertise relating to diseases or conditions involving muscle breakdown, such as sarcopenia and muscle atrophy; the medicinal uses of phytochemicals such as isoflavones; and metabonomics which studies the body's metabolic response to external factors, such as diet.

[25] Even though the skilled person was not identified, the following documents were cited in the FA for the purposes of establishing that certain elements of knowledge would have been CGK, although the FA and RFA did not agree that these documents or the information they disclosed were CGK:

D1: Aubertin-Leheudre et al., "Six months of isoflavone supplement increases fat- free mass in obese-sarcopenic postmenopausal women: a randomized double- blind controlled trial" (February 2007) 61 Eur J Clin Nutri pages 1442-1444

D2: WO 2005/089567 A1 Pan 29 September 2005

D3: Cesari et al., "Biomarkers of sarcopenia in clinical trials- recommendations from the International Working Group on Sarcopenia" (August 2012) 3 J Cachexia Sarcopenia Muscle pages 181-190

[26] To preface what is said in relation to these documents in the FA and RFA, we will first review the principles governing the assessment of CGK stated in *Eli Lilly & Co v Apotex Inc*, 2009 FC 991 at para 97, upheld by 2010 FCA 240, citing *General Tire & Rubber Co v Firestone Tyre & Rubber Co Ltd*, [1972] RPC 457, [1971] FSR 417 (UKCA) at pages 482 and 483 (of RPC):

> The common general knowledge imputed to such an addressee must, of course, be carefully distinguished from what in the patent law is regarded as public knowledge. This distinction is well explained in Halsbury's Law of England, Vol. 29, para 63. As regards patent specifications, it is the somewhat artificial (see per Lord Reid in the *Technograph* case, [1971] F.S.R. 188 at 193) concept of patent law that each and every specification, of the last 50 years, however unlikely to be looked at and in whatever language written, is part of the relevant public knowledge if it is resting anywhere in the shelves of the Patent Office. On the other hand, common general knowledge is a different concept derived from a common sense approach to the practical question of what would in fact be known to an appropriately skilled addressee—the sort of man, good at his job, that could be found in real life.

The two classes of documents which call for consideration in relation to common general knowledge in the instant case were individual patent specifications and "widely read publications".

As to the former, it is clear that individual patent specifications and their contents do not normally form part of the relevant common general knowledge, though there may be specifications which are so well known amongst those versed in the art that upon evidence of that state of affairs they form part of such knowledge, and also there may occasionally be particular industries (such as that of colour photography) in which the evidence may show that all specifications form part of the relevant knowledge.

As regards scientific papers generally, it was said by Luxmoore, J. in *British Acoustic Films* (53 R.P.C. 221, at 250):

"In my judgment it is not sufficient to prove common general knowledge that a particular disclosure is made in an article, or series of articles, in a scientific journal, no matter how wide the circulation of that journal may be, in the absence of any evidence that the disclosure is accepted generally by those who are engaged in the art to which the disclosure relates. A piece of particular knowledge as disclosed in a scientific paper does not become common general knowledge merely because it is widely read, and still less because it is widely circulated. Such a piece of knowledge only becomes general knowledge when it is generally known and accepted without question by the bulk of those who are engaged in the particular art; in other words, when it becomes part of their common stock of knowledge relating to the art." And a little later, distinguishing between what has been written and what has been used, he said:

"It is certainly difficult to appreciate how the use of something which has in fact never been used in a particular art can ever be held to be common general knowledge in the art."

Those passages have often been quoted, and there has not been cited to us any case in which they have been criticised. We accept them as correctly stating in general the law on this point, though reserving for further consideration whether the words "accepted without question" may not be putting the position rather high: for the purposes of this case we are disposed, without wishing to put forward any full definition, to substitute the words "generally regarded as a good basis for further action".

[27] Having in mind the principles above, it is our view that the relevant question is whether a given piece of knowledge was generally known and accepted without question by the bulk of those who are engaged in the particular fields relating to

diseases or conditions involving muscle breakdown, the medicinal uses of phytochemicals and/or metabonomics at the relevant time.

[28] Established reference works (such as textbooks, review articles, handbooks, etc.) or demonstrated commonality of certain knowledge in a number of disclosures in the field are therefore relevant to the inquiry. The common general knowledge at a certain date can be confirmed by subsequent publications, or by showing that the knowledge had been accepted in the field over a period of time (see *Manual of Patent Office Practice* (CIPO) at § 12.02.02c).

[29] D1 is a "short communication" style journal article cited in the FA that discloses a study of the effect of isoflavones on fat-free mass in women that makes no mention of measuring amino acid levels in the blood as a way of detecting muscle breakdown. The RFA opposed this citation, arguing that there was no evidence that D1 or the study it discloses would have been CGK. Since D1 is not a review article and is not corroborated by other disclosures in the field, we agree that there is no evidence or reasoning that supports that D1 or any of the specific information it contains would have been part of the skilled person's CGK.

[30] D2 is a patent application disclosing studies of the effect of supplementing diet with soy germ meal in overweight dogs. D2 was submitted by the Applicant in the letter of September 12, 2018 as evidence that the Inventor—not the skilled person—was aware that the major metabolite of soy germ meal in dogs is equol. On page 8, in relying solely on D2, the RFA submits that equol was "known" to be the predominant isoflavone metabolite in the blood of dogs fed soy germ meal and that daidzein and daidzin were "known" to metabolize to equol. However, there is no evidence or reasoning to support that this patent application or the results of those studies would have been part of the skilled person's CGK.

[31] In contrast to the first two documents, D3 cited in the FA is a review article which can be accepted as an established reference work setting out CGK of the skilled person since it relates to sarcopenia and the use of biomarkers in to evaluate changes in skeletal muscle. However, the RFA opposed this citation, arguing that it is incorrect to suggest that this document reflected the CGK as of the filing date because it was published nearly two years later (pages 7-9). The RFA argued that the conclusions in D3 could have been drawn based on developments in the art that occurred in the period between the filing date and when D3 was published. Further, the Applicant pointed to statements on page 186 of D3 indicating that the field was in an apparent state of flux and so the state of the CGK in 2012 cannot be assumed to have been the same as what would have been accepted as of the

filing date nearly two years earlier. While the *MOPOP* guidance does indicate that CGK can be confirmed by subsequent publications in some cases, we agree with the RFA that D3 indicates that the field was in a state of flux during the period leading up to its publication. For this reason, we agree with the RFA that review articles or other authorities that were published before the relevant date are more appropriately considered in the present case.

[32] In addition to the information provided in the description, which was limited in some material respects, we further reviewed the relevant scientific literature for the purpose of understanding the state of the art and identifying the relevant CGK. We identified the following four review articles and one textbook chapter:

> T Lang et al, “Sarcopenia : etiology, clinical consequences, intervention, and assessment” (2010) 21:4 Osteoporos Int pages 543-559
>
> William Evans, “Skeletal muscle loss: cachexia, sarcopenia, and inactivity” (2010) 91:4 Supplement Am J Clin Nutr pages 1123S-1127S
>
> Anton Wagenmakers, “Protein and amino acid metabolism in human muscle” (1998) In: E.A. Richter et al., eds, *Skeletal muscle metabolism in exercise and diabetes. Advances in Experimental Medicine and Biology* (Boston: Springer)
>
> Kenneth Setchell et al., “Equol: History, Chemistry, and Formation” (June 2010) 140:7 Supplement J Nutri pages 1355S-1362S
>
> Serge Rezzi et al., “Nutritional metabonomics: applications and perspectives” (2007) 6 :2 J Proteome Res pages 513-525

[33] In our view, the disclosure of the above documents and the instant description support that the following elements of knowledge were generally known and accepted without question by the bulk of those who are engaged in the particular fields relating to diseases or conditions involving muscle breakdown, the medicinal uses of phytochemicals and/or metabonomics:

> ● skeletal muscle is characterized by a dynamic balance between the synthesis of muscle protein from free amino acids and the degradation or dissociation of muscle protein into free amino acids (Lang, page 546);
> ● loss of skeletal muscle mass results from an imbalance between the rate of synthesis and the rate of degradation (Evans, page 1123S; Lang, page 546);

● skeletal muscle protein imbalance occurs during aging (sarcopenia), disease (cachexia) and inactivity (muscle atrophy) as a result of a metabolic adaptations that either i) increase the rate of degradation (cachexia), ii) decrease the rate of synthesis (atrophy from inactivity) or iii) both (sarcopenia) (Evans, page 1123S);
● while some tissues, such as liver tissues, can metabolize all twenty of the amino acids involved in body protein synthesis, skeletal muscle tissue can only metabolize six: leucine, valine, isoleucine, asparagine, aspartate and glutamate (Wagenmakers, page 307);
● unlike the other seventeen body proteins, leucine, valine and isoleucine— which are the only branched-chain essential amino acids— are metabolized primarily by skeletal muscle tissue (Wagenmakers, page 307);
● isoflavones are naturally occurring phytochemicals found in soy that mimic the effects of estrogen by regulating hormone balance and reducing the risk of osteoporosis and several other diseases (description, para 0003);
● the two isoflavones found in highest amounts in soybean are daidzein and genistein, but the soy germ is preferentially high in daidzein (Setchell, pages 1356S, 1359S);
● equol is not itself found in soy, it is produced from other isoflavones metabolically (Setchell, page 1358S)
● the metabolic conversion of daidzein to equol (and the conversion of daidzin to daidzein to equol) is effected exclusively by intestinal bacteria (Setchell, pages 1356S-1357S);
● animals metabolize daidzein and daidzin into equol but the extent and efficiency depends on their intestinal bacteria, which vary between species, e.g., rodents convert daidzein/daidzin to equol very efficiently, whereas pigs do this less efficiently (Setchell, page 1358S);
● equol has been found in the urine of dogs (Setchell, page 1355S);
● equol has been synthesized or produced commercially from equol-producing bacteria for use in nutraceuticals (Setchell, pages 1357S-1358S);
● metabonomics studies the body's response to external stimuli, such as diet, by detecting and analyzing metabolites and is uniquely suited to assessing metabolic responses to deficiencies or excesses of nutrients and bioactive components (Rezzi, page 513); and
● metabonomics focuses on detecting changes in the distribution and concentration of metabolites over time in cells and tissues that have a direct connection between protein activity and metabolic activity (Rezzi, page 514).

The essential elements

[34] As mentioned above, we consider that all elements set out in a claim are presumed essential unless it is established otherwise or such presumption is contrary to the claim language. In our view, the skilled person reading claims 1-23 in the context of the specification as a whole and the CGK would understand that there is no use of language in the claims indicating that any of the elements are optional, preferred or were otherwise intended as being non-essential. Our view is therefore that all of the elements of claims 1-23 are essential.

Utility

[35] On page 2, the FA contends that the subject-matter of claims 1-23 on file does not fall within the definition of “invention” in section 2 of the *Patent Act* because utility was not established by demonstration or sound prediction. Specifically, there was no evidence supporting that utility had been established by demonstration before the filing date and, based on the facts, the analysis in the FA concluded that utility was not established by sound prediction.

[36] The RFA disputed that the claimed subject-matter lacked utility and presented a number of arguments, including that that there is nothing in sections 2 or 27(3) of the *Patent Act* that requires an applicant to disclose the utility of an invention or test data relating to the invention’s utility within a patent application. The RFA also implies that extrinsic evidence of demonstrated utility may have existed but this was not explicitly stated. In any event, the RFA argues that there was sufficient evidence disclosed within the application to soundly predict utility as of the filing date.

[37] We agree with the RFA that there is no statutory obligation for an applicant to disclose an invention’s utility or to provide experimental test data in their patent application. In our view, however, this point is moot because the application under review was explicit in its disclosure of both utility and test data in the description which it expressly links to a specific utility that is asserted in the claims on file.

[38] The first steps of a utility analysis are to identify the subject-matter of the invention as claimed in the patent application and to ask whether that subject-matter is useful—if it is capable of a practical purpose, i.e. an actual result (*AstraZeneca*, at paras 54-55). On page 4, the FA identifies the utility as the uses that are clearly asserted in the claims: treating sarcopenia or muscle atrophy in dogs using equol, daidzein or daidzin. In response, the RFA agreed on page 7, section 7, that the utility that had to be established is that same utility identified in the claims. We also

agree that the utility of equol, daidzein or daidzin in treating sarcopenia or muscle atrophy asserted in the claims is the actual result that had to be established as of the filing date.

[39] With respect to the example on pages 7-10 and the test data provided in Table 1 and Figures 1-2, this is not data demonstrating the treatment of sarcopenia or muscle atrophy in dogs, or the results of administering equol, daidzein or daidzin to dogs. Rather, the experiment monitored changes in the levels of biomarkers and metabolic trajectories over time in healthy dogs that were overfed and additionally provided a soy germ meal supplement. Conclusions are drawn from that data and are extended to the muscle breakdown and wasting that is characteristic of sarcopenia and muscle atrophy. In our view, the skilled person reading the application would understand from that discussion and from the conclusions drawn that the actual result asserted in the claims was based on a prediction from that data.

Was the utility soundly predicted as of the filing date?

Factual basis and sound line of reasoning

[40] On page 4, the FA characterized the factual basis in terms of the data obtained from the dog trial outlined in Example 1. Specifically, the effects of a diet supplemented with 5% soy germ meal on thirty lean Labrador retrievers was studied using metabonomics to monitor the changes in the levels of various blood plasma metabolites over time compared to baseline. All dogs were fed the same control food (which notably contains a 25% excess of their maintenance energy requirements) for nine months and half of the dogs further received a supplement of isoflavones from 5% soy germ meal. Blood plasma samples were collected at baseline and every three months during the nine month trial. The example explains that the distinct metabolite plasma levels between groups indicates a physiological response of the animals to isoflavones from the soy germ meal, and that (using multivariate statistics) the data show distinct metabolic trajectories in the animals receiving isoflavones compared to the control group over time, as shown in Figure 2. With respect to the amino acid levels specifically, the description says the following (emphasis added):

> Referring to Table 1, the data show that **an increase in muscle breakdown is prevented** in animals that received the isoflavones. There was no increase in plasma circulating concentrations of leucine, valine, threonine, histidine, methionine, and 3-methyl-histidine. The results show that isoflavones are useful for preventing or treating

> muscle breakdown and wasting characteristic of sarcopenia and muscle atrophy caused by disease or other conditions.

[41] On page 4, the FA explains that the increase compared to baseline of those six amino acids in the control group is asserted to be significant but that it is not clear why. In brief, the position in the FA is that there are no further facts disclosed linking the changes in the plasma levels of those amino acids to muscle breakdown, nor is there a link between the three compounds claimed (i.e., equol, daidzein and daidzin) and the metabolism of soy germ meal. Further, there was no indication that such information was CGK that could have, in theory, been considered as part of the facts or line of reasoning on that basis.

[42] In response, the RFA submits on page 8 that since the specific plasma levels in Table 1 were not elevated in the group receiving the soy germ supplement, and since that was the only difference between the two groups, it is reasonable to attribute that difference to the supplement. We agree with this statement and would add that it is further reasonable to attribute the difference between metabolic trajectories in the two groups shown in Figure 2 to the soy germ supplement.

[43] However, we agree with the FA that there is an absence of any further facts or information in the specification linking those specific amino acids to the breakdown of skeletal muscle protein. There are many body proteins whose breakdown would result in increased levels of amino acids in plasma if there was an imbalance between protein production and breakdown. Likewise, we agree with the FA that there is an absence of any further facts or information in the specification linking soy germ meal to equol, daidzein and daidzin.

[44] However, as indicated above, facts or elements from the CGK that are relevant to the factual basis and line of reasoning can be considered even if they were not included in the application: *Bell Helicopter* at paras 152–153. A number of such facts were identified above as relevant CGK. It was well known that metabonomics can detect changes in the body's metabolic responses to nutrients and bioactive components (Rezzi at pages 513-514) and that changes in leucine and valine levels are specifically suggestive of an imbalance in skeletal muscle metabolism (Wagenmakers at page 307). Further, the soy germ is highest in daidzein (compared to the other isoflavones), and as is evident from the detection of equol in their urine, dogs possess the intestinal bacteria needed to metabolize daidzein to equol: Setchell at pages 1355S-1359S.

[45] Considering the marked difference in the levels of leucine and valine, which were known in the CGK to be primarily metabolized in skeletal muscle, our view is that the conclusions drawn in the application at para 0038 were not based on mere speculation. Rather, our view is that this was a reasonable inference based on information that the Inventors knew or should have known from the CGK: *Sanofi-Aventis Inc v Laboratoire Riva Inc*, 2007 FC 532 para 47. Further, our view is that it would have been reasonable to infer that agents that are capable of preventing a skeletal muscle protein imbalance would be useful to treat sarcopenia and muscle atrophy because that link was well known to the skilled person (Lang at page 546 and Evans at page 1123S, as set out above).

Proper disclosure

[46] We agree with the Applicant's position in the RFA that there was sufficient evidence disclosed within the application to soundly predict utility as of the filing date. The example and test results were disclosed in the application and there was no need to disclose the remaining facts and information considered above since they were all part of the skilled person's CGK.

[47] For all of the reasons set out above, our conclusion is that the utility that is required by section 2 of the *Patent Act* was soundly predicted at the filing date.

CONCLUSIONS

[48] We have concluded that the utility of claims 1 to 23 on file was established by sound prediction as of the filing date, and the claims are therefore compliant with section 2 of the *Patent Act*.

RECOMMENDATION OF THE BOARD

[49] For the reasons set out above, the Panel is of the view that the rejection is not justified on the basis of the defects indicated in the Final Action notice and we have reasonable grounds to believe that the application complies with the *Patent Act* and *Patent Rules*. We recommend that the Applicant be notified in accordance with subsection 86(10) of the *Patent Rules* that the rejection of the application is withdrawn and that the application has been found allowable.

Cara Weir	Marcel Brisebois	Ryan Jaecques
Member	Member	Member

DECISION OF THE COMMISSIONER

[50] I concur with the conclusions and recommendation of the Board. In accordance with subsection 86(10) of the *Patent Rules*, I hereby notify the Applicant that the rejection of the instant application is withdrawn, the instant application has been found allowable and I will direct my officials to issue a Notice of Allowance in due course.

Konstantinos Georgaras
Commissioner of Patents

Dated at Gatineau, Quebec,
This 12th day of October 2022