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2022 FCA 141

GEMAK TRUST by its Trustees Gerald Thomas Hinton and Elizabeth Jane Hinton
(Appellant)

v.

Jempak Corporation, Jempak GK Inc. (Respondents)

INDEXED AS: GEMAK TRUST V. JEMPAK CORPORATION

Federal Court of Appeal, Gleason, Mactavish and Roussel JJ.A.—Toronto, May 12;
Ottawa, August 4, 2022.

Editor's Note: Portions redacted by the Court are indicated by [***].

Patents — Practice — Appeal from Federal Court decision granting summary judgment dismissing appellant's action for patent infringement against respondents — Appellant, owner of two patents claiming dishwasher, laundry detergent compositions — On appeal, alleging that Federal Court committed several errors in finding that case not raising one or more genuine issues for trial — Respondents develop, manufacture, sell dishwashing detergent pod products — Appellant brought action against respondent for infringement of Canadian Letters Patent Nos. 2276428, 2337069 (collectively "patents") — Patents relating to dishwashing, laundry detergent compositions — Asserted claims relating generally to encapsulated percarbonate granule or dishwashing detergent composition with encapsulated percarbonate granules — Respondents brought motion for summary judgment seeking to have appellant's infringement action dismissed based on non-infringement — Respondents stating that, once terms "encapsulating", "encapsulates", "blend" properly construed, there is no infringement of appellant's patents — Provided expert evidence to support position while appellant responded with its own expert evidence — Federal Court concluding that respondents meeting their burden of establishing that their products do not infringe asserted claims of patents, that appellant not demonstrating that there was genuine issue for trial with respect to question of infringement — Whether Federal Court erred in making credibility findings on motion for summary judgment — Federal Court correctly identified principles relating to making of credibility findings in context of motions for summary judgment, noted its general reluctance to grant summary judgment in patent infringement actions because such proceedings depend on assessment of expert evidence, credibility of expert witnesses — Federal Court nevertheless stated that there was no substantial conflict of opinion evidence in this case, that respondents' expert was only witness to provide informed, purposive claim construction of terms at issue from perspective of POSITA (person of skill in the art) — Federal Court found evidence of respondents' expert uncontested while finding evidence of appellant's evidence wanting, problematic — Thus concluded that appellant's expert witness failed to provide fair, objective, non-partisan opinions, which ended up tainting her

entire evidence, with result that Federal Court ascribed little or no weight to her testimony — Federal Court completely rejected appellant’s evidence; was therefore left only with opinion evidence of respondents’ expert witness — Its decision was accordingly based on that evidence — There were several problems with Federal Court’s assessment of credibility of appellant’s expert witness, its wholesale rejection of her evidence — Federal Court making palpable, overriding errors in making negative credibility findings it did respecting evidence of appellant’s expert witness based on transcript of her testimony, then deciding case in reliance on those findings — Federal Court also erring in other ways, notably with respect to the common general knowledge and with respect to the testing evidence — Appeal allowed.

Patents — Infringement — Appellant brought action against respondents for infringement of Canadian Letters Patent Nos. 2276428, 2337069 (collectively “patents”) — Federal Court granting summary judgment dismissing appellant’s action for patent infringement against respondents — Appellant alleging that Federal Court committed several errors in finding that case not raising one or more genuine issues for trial — Whether Federal Court erred with respect to common general knowledge; whether Federal Court erred with respect to testing evidence — Federal Court correctly stated that common knowledge is knowledge generally known by skilled person at relevant time; includes what skilled person may reasonably be expected to know, be able to find out — However, Federal Court also stated that Court must assess what knowledge skilled person would have obtained through diligent search conducted using means available at relevant time — Common general knowledge does not include all information in public domain but means knowledge generally known by persons skilled in relevant art at relevant time — With respect to prior art, it is no longer required that prior art be available to person of skill in art (POSITA) through reasonably diligent search for it to be potentially relevant for purpose of obviousness or anticipation analyses — That said, knowledge that is only discoverable through reasonably diligent search is not, has never been, considered to be part of common general knowledge — Federal Court thus erred in finding otherwise — Regarding testing evidence, Federal Court making palpable, overriding errors, in particular on findings concerning evidence provided by appellant’s expert witness, which tainted Federal Court’s analysis of such testing evidence.

This was an appeal from a Federal Court decision granting summary judgment dismissing the appellant’s action for patent infringement against the respondents. The appellant is the owner of two patents claiming dishwasher and laundry detergent compositions. It appealed from that judgment, alleging that the Federal Court committed a number of errors in finding that the case did not raise one or more genuine issues for trial. The appellant stated that the Federal Court erred by construing a claim to a composition of matter as containing implicit process limitations and by arriving at its construction by relying on information contained in other patents. It also argued that the Federal Court erred in making findings of credibility that should not have been made on a motion for summary judgment and that the Federal Court erred in its understanding of what constitutes common general knowledge.

The respondents develop, manufacture and sell dishwashing detergent pod products. The appellant brought an action against the respondent in the Federal Court for infringement of Canadian Letters Patent Nos. 2276428 and 2337069 (collectively “the patents”). The patents relate to dishwashing and laundry detergent compositions capable of incorporation into a single compartment water-soluble film sachet, otherwise referred to as a monodose detergent pod. The asserted claims relate generally to an encapsulated percarbonate granule or a dishwashing detergent composition with encapsulated percarbonate granules. Percarbonate is a bleaching agent that oxidizes in water. Two independent asserted claims require that the percarbonate be “encapsulated” by a “blend” comprising carboxymethyl cellulose (CMC) and two other ingredients. The respondents brought a motion for summary judgment seeking to have the appellant’s infringement action dismissed based on non-infringement. In the alternative, they sought an order directing a summary trial on the infringement issue. According to the respondents, once the terms “encapsulating” or “encapsulates” and “blend” are properly construed, there is no infringement of the appellant’s patents as the respondents’ products do not contain CMC in the blend that encapsulates the percarbonate granules. In support of their position, the respondents provided expert evidence. The appellant responded to the respondents’ motion with its own expert evidence.

The Federal Court identified the issues for determination on the motion for summary judgment as being, first, what meaning is to be ascribed to the terms “a blend which encapsulates the percarbonate” and “a blend encapsulating the percarbonate”, and second, whether there was a genuine issue for trial as to whether a blend containing CMC encapsulates the percarbonate granules employed in the respondents’ detergent products. It acknowledged that it has generally been reluctant to grant summary judgment in patent infringement actions, largely because such proceedings depend on the assessment of expert evidence and the credibility of the expert witnesses. It found, however, that there was no substantial conflict in the opinion evidence in this case. The Federal Court found that the “person of skill in the art” (POSITA) would understand from the claims that the presence of CMC in the encapsulating blend is an essential element of the asserted independent claims. The Federal Court concluded that the respondents had met their burden of establishing, on a balance of probabilities, that their products do not infringe the asserted claims of the patents, and that the appellant had not demonstrated that there was a genuine issue for trial with respect to the question of infringement. Consequently, the respondents’ motion for summary judgment was granted and the appellant’s action was dismissed, with costs.

The issues were whether the Federal Court erred in making credibility findings on a motion for summary judgment [heading V above para. 75]; whether the Federal Court erred with respect to the common general knowledge [heading VI, above para. 92]; and whether the Federal Court erred with respect to the testing evidence. [heading VII, above para. 101]

Held, the appeal should be allowed.

A review of the principles governing motions for summary judgment was made, [heading IV above para. 61] including issues of credibility of expert witnesses on such motions. [paras. 68, 69] Case law has established that issues regarding the credibility of witnesses should not be decided on motions for summary judgment.

The Federal Court was aware of, and correctly identified the principles relating to the making of credibility findings in the context of motions for summary judgment. Indeed, it noted that it has generally been reluctant to grant summary judgment in patent infringement actions, largely because such proceedings depend on the assessment of expert evidence and the credibility of the expert witnesses. The Federal Court nevertheless went on to state that there was no substantial conflict of opinion evidence in this case, and that the respondents’ expert was the only witness to provide an informed and purposive claim construction of the terms at issue from the perspective of the POSITA. The Federal Court further stated that the evidence of the respondents’ expert with respect to the common general knowledge was uncontested. It held that the same could not be said about the evidence of the appellant’s expert witness. Despite the witness’ strong background and expertise, the Federal Court found her evidence to “be wanting and problematic in many respects”. The Federal Court thus concluded that the appellant’s expert witness failed to provide fair, objective and non-partisan opinions, which ended up tainting her entire evidence, with the result that the Federal Court ascribed little or no weight to her testimony. Given its wholesale rejection of the appellant’s evidence, it stated that it was therefore left only with the opinion evidence of the respondents’ expert witness and its decision was accordingly based on that evidence. There were a number of problems with the Federal Court’s assessment of the credibility of the appellant’s expert witness and its wholesale rejection of her evidence. It made observations about the witness having to attend twice for cross-examination and that the appellant’s counsel objected repeatedly when the respondents’ counsel tried to cross-examine the witness. While the Federal Court accurately summarized what took place at that time, it did not establish how the conduct of the appellant’s counsel should reflect negatively on the expert witness’ credibility. Moreover, the Federal Court’s finding that the appellant’s expert witness misapprehended her role as an independent witness and conducted herself like an advocate instead of a neutral objective expert appeared to have been based, to some extent, on the combative stance taken by the appellant’s counsel on the first day of the expert witness’ cross-examination. A review of the transcript of her cross-examination suggested other possible interpretations of her evidence. Indeed, it is very difficult to infer a hostile attitude on the part of a witness from a bare review of a transcript, in the absence of an ability to evaluate his or her *viva voce* testimony. It was thus a palpable and overriding error on the part of the Federal Court to make the negative credibility findings that it did with respect to the evidence of the appellant’s expert

witness based on a transcript of her testimony and to decide the case in reliance on those findings. While patent infringement issues are not by definition excluded from the ambit of the summary judgment process, they tend to raise complex issues of fact and law that are usually better left for trial. This was determinative of the appeal but other errors were also made.

With respect to the common general knowledge [heading VI above para. 92], the Federal Court stated that it is the knowledge generally known by the skilled person at the relevant time and includes what the skilled person may reasonably be expected to know and be able to find out. This was a correct statement of the law, at least to the extent that the common general knowledge includes what the skilled person may reasonably be expected to know. However, the Federal Court then went on to state that the Court must assess *what knowledge the skilled person would have obtained through a diligent search conducted using the means available at the relevant time*. Common general knowledge does not include all of the information in the public domain but means knowledge generally known by persons skilled in the relevant art at the relevant time. Insofar as the state of the prior art is concerned, the Court previously stated that prior art is the collection of learning in the field of the patent at issue. It comprises any publically available teaching, however obscure or not generally accepted. Prior art is used for specific purposes in patent law whereas common general knowledge informs the way in which the claims and specifications are read by the POSITA. The requirement of the reasonably diligent search has been applied—not with respect to the identification of the common general knowledge of the POSITA—but rather with respect to the discoverability of prior art relevant for the purpose of the obviousness or anticipation analyses, an approach that has been called into question. Thus, it is no longer required that prior art be available to the POSITA through a reasonably diligent search for it to be potentially relevant for the purpose of the obviousness or anticipation analyses. That said, knowledge that is only discoverable through a reasonably diligent search is not, and has never been, considered to be part of the common general knowledge. The Federal Court thus erred in finding otherwise.

Regarding the testing evidence [heading VII above para. 101], there was a palpable and overriding error in the Federal Court's analysis of it. The expert witness of the respondents provided evidence concerning the anthrone testing she had caused to be carried out in order to determine whether there was CMC in the percarbonate raw material supplied to the respondents by third parties and in the blend that encapsulates the percarbonate in the respondents' detergent compositions. The respondents' expert witness stated that these tests demonstrated that the percarbonate raw material supplied to the respondents by third parties does not have any CMC in its encapsulating coating. This evidence was challenged by one of the appellant's expert witnesses who was highly critical of the use by the respondents' expert witness of the anthrone testing method and her conclusion that there was no detectable CMC in the coated percarbonate raw materials sourced by the respondents. According to the appellant's expert witness, the anthrone method used by the respondents' expert witness was out-of-date and had largely been replaced by more specific and sensitive techniques that could detect lower levels of CMC in a mixture, a point that was conceded by that expert witness. The Federal Court rejected the evidence of the appellant's other expert witness on the basis that his experience was as an analytical chemist for clients in the pharmaceutical industry, that he had no experience with detergent formulations, and that he thus did not provide an opinion from the perspective of the POSITA respecting the patents. There were several problems with this finding. First, that particular expert witness was not construing the claims of the patent—a task that is undertaken from the perspective of the POSITA. He was providing expert evidence with respect to the question of infringement, which is a question of fact. A second problem with this finding related to the appellant's expert witness' lack of experience in the detergent industry. Although testing in the pharmaceutical industry may be held to a more exacting standard than testing in other industries, there was no evidence before the Federal Court that the analytical chemistry testing processes and methods used in the pharmaceutical industry actually differed from the analytical chemistry testing processes and methods used in the detergent industry. Therefore, there were palpable and overriding errors tainting the Federal Court's analysis of the testing evidence.

In conclusion, the Federal Court's judgment granting summary judgment to the respondents was set aside. Given that there was one or more genuine issues for trial, and making the order that the Federal Court should have made, the respondents' motion for summary judgment was dismissed and the matter was directed to proceed to trial.

STATUTES AND REGULATIONS CITED

Federal Courts Act, R.S.C., 1985, c. F-7.

Federal Courts Rules, SOR/98-106.

Patent Act, R.S.C., 1985, c. P-4, s. 28.3.

Patented Medicines (Notice of Compliance) Regulations, SOR/93-133.

CASES CITED

APPLIED:

Milano Pizza Ltd. v. 6034799 Canada Inc., 2018 FC 1112; *Apotex Inc. v. Sanofi-Synthelabo Canada Inc.*, 2008 SCC 61, [2008] 3 S.C.R. 265; *Mylan Pharmaceuticals ULC v. Eli Lilly Canada Inc.*, 2016 FCA 119, [2017] 2 F.C.R. 280.

CONSIDERED:

Apotex Inc. v. Syntex Pharmaceuticals International Ltd. (1998), 81 C.P.R. (3d) 188, [1998] F.C.J. No. 537 (QL); *Eli Lilly and Company v. Apotex Inc.*, 2009 FC 991; *Hospira Healthcare Corporation v. Kennedy Trust for Rheumatology Research*, 2020 FCA 30.

REFERRED TO:

Apotex Inc. v. AstraZeneca Canada Inc., 2017 FCA 9; *ViiV Healthcare Company v. Gilead Sciences Canada, Inc.*, 2021 FCA 122, [2021] 4 F.C.R. 289; *CanMar Foods Ltd. v. TA Foods Ltd.*, 2021 FCA 7, [2021] 1 F.C.R. 799; *Hryniak v. Mauldin*, 2014 SCC 7, [2014] 1 S.C.R. 87; *Manitoba v. Canada*, 2015 FCA 57; *F. Von Langsdorff Licensing Ltd. v. S.F. Concrete Technology, Inc.* (1999), 165 F.T.R. 74, 1 C.P.R. (4th) 88 (T.D.); *Kirkbi Ag v. Ritvik Holdings Inc.* (1998), 150 F.T.R. 205, 81 C.P.R. (3d) 289; *TPG Technology Consulting Ltd v. Canada*, 2013 FCA 183, [2014] 1 F.C.R. D-8; *Sanofi-Aventis Canada v. Apotex Inc.*, 2009 FC 676; *Lundbeck Canada Inc. v. Canada (Health)*, 2009 FC 146; *Teva Canada Innovation v. Apotex Inc.*, 2014 FC 1070; *Apotex Inc. v. Shire LLC*, 2017 FC 139; *Amgen Canada Inc. v. Apotex Inc.*, 2015 FC 1261; *Novartis Pharmaceuticals Canada Inc. v. Apotex Inc.*, 2013 FC 142; *AB Hassle v. Apotex Inc.*, 2002 F.C.T. 931, 223 F.T.R. 43 (T.D.); *AB Hassle v. Apotex Inc.*, 2001 FCT 530, 204 F.T.R. 248 (T.D.); *Pfizer Canada Inc. v. Amgen Inc.*, 2019 FCA 249, [2019] 3 F.C.R. D-13; *Newman v. Canada*, 2016 FCA 213, [2017] 2 F.C.R. D-3; *Suntec Environmental Inc. v. Trojan Technologies Inc.*, 2004 FCA 140, [2005] 1 F.C.R. D-46; *MacNeil v. Canada*, 2004 FCA 50, [2004] 3 F.C.R. 3; *Granville Shipping Co. v. Pegasus Lines Ltd.*, [1996] 2 F.C. 853, 111 F.T.R. 189 (T.D.); *Apotex Inc. v. Merck & Co. Inc.*, 2004 FC 314, [2005] 1 F.C.R. D-13, aff'd 2004 FCA 298, [2005] 4 F.C.R. D-6; *Housen v. Nikolaisen*, 2002 SCC 33, [2002] 2 S.C.R. 235; *Uponor AB v. Heatlink Group Inc.*, 2016 FC 320; *Bell Helicopter Textron Canada Limitée v. Eurocopter, société par actions simplifiée*, 2013 FCA 219; *Leo Pharma Inc. v. Teva Canada Limited*, 2015 FC 1237, aff'd 2017 FCA 50; *General Tire & Rubber Co. v. Firestone Tyre & Rubber Co. Ltd.*, [1972] R.P.C. 457; *British Acoustic Films Ltd. v. Nettlefold Productions Ltd.* (1936), 53 R.P.C. 221; *E. Mishan & Sons, Inc. v. Supertek Canada Inc.*, 2015 FCA 163; *Consolboard Inc. v. MacMillan Bloedel (Sask.) Ltd.*, [1981] 1 S.C.R. 504, 122 D.L.R. (3d) 203.

AUTHORS CITED

Regulatory Impact Analysis Statement. *Regulations Amending the Patented Medicines (Notice of Compliance) Regulations*, 2017, C. Gaz., 2017.I.3316.

APPEAL from a Federal Court decision (2020 FC 644) granting summary judgment dismissing the appellant's action for patent infringement against the respondents.
Appeal allowed.

APPEARANCES

Andrew R. Brodtkin and Jordan Scopa for appellant.

Ronald E. Dimock, Laurent Massam and Harvey Lim for respondents.

SOLICITORS OF RECORD

Goodmans LLP, Toronto, for appellant.

Gowling WLG (Canada) LLP, Toronto, for respondents.

The following are the reasons for judgment rendered in English by

[1] MACTAVISH J.A.: GEMAK TRUST (GEMAK) is the owner of two patents claiming dishwasher and laundry detergent compositions. In a decision reported as 2020 FC 644, the Federal Court granted summary judgment dismissing GEMAK's action for patent infringement against Jempak Corporation and Jempak GK Inc. (collectively "Jempak"). GEMAK appeals from that judgment, alleging that the Federal Court committed a number of errors in finding that the case did not raise one or more genuine issues for trial.

[2] Amongst other things, GEMAK states that the Federal Court erred by construing a claim to a composition of matter as containing implicit process limitations, and by arriving at its construction by relying on information contained in other patents.

[3] GEMAK also says that the Federal Court erred in making findings of credibility that should not have been made on a motion for summary judgment.

[4] GEMAK further submits that the Federal Court erred in its understanding of what constitutes common general knowledge, and by rejecting the evidence that GEMAK had tendered to rebut testing evidence adduced by Jempak to demonstrate non-infringement. The Court rejected GEMAK's evidence on the basis that it was not proffered by a witness who matched the description of the skilled person to whom the patents-in-suit were addressed.

[5] GEMAK also appeals from the Federal Court's award of costs in favour of Jempak.

[6] It is not necessary to address all of GEMAK's arguments, although the Court's silence on these issues should not be taken as either acceptance or rejection of them. For the reasons that follow, I have concluded that the Federal Court did in fact err in making credibility findings that were not open to it on a motion for summary judgment. These findings affected the Court's appreciation of the evidence before it, in particular, evidence with respect to the construction of the term "blend encapsulating" on which the Federal Court's non-infringement finding rests. This Court's finding on this issue is thus determinative of the appeal.

[7] However, the Federal Court also erred in its understanding of what constitutes "common general knowledge", and in assessing the evidence relating to the testing of Jempak's detergent products. Consequently, I would allow the appeal, set aside the judgment of the Federal Court, and direct that the matter proceed to trial.

[8] Given the proposed result with respect to the main appeal, I would further allow the appeal from the Federal Court's costs award, and award GEMAK its costs in this Court and in the Federal Court, together with interest on the monies paid by GEMAK to Jempak in satisfaction of the Federal Court's costs award.

I. Background

[9] Jempak develops, manufactures and sells dishwashing detergent pod products. GEMAK is the owner of two patents claiming dishwasher and laundry detergent compositions.

[10] In July of 2018, GEMAK brought an action against Jempak in the Federal Court for infringement of Canadian Letters Patent Nos. 2276428 and 2337069 (collectively "the patents"). The patents relate to dishwashing and laundry detergent compositions capable of incorporation into a single compartment water-soluble film sachet, otherwise referred to as a monodose detergent pod. The asserted claims relate generally to an encapsulated percarbonate granule or a dishwashing detergent composition with encapsulated percarbonate granules. Percarbonate is a bleaching agent that oxidizes in water.

[11] Two independent asserted claims require that the percarbonate be "encapsulated" by a "blend" comprising carboxymethyl cellulose (CMC) and two other ingredients. Specifically, claim I of the '069 Patent claims [at paragraph 13]:

A detergent composition comprising a granulated percarbonate and a blend which encapsulates the percarbonate, the blend comprising a sulphate, carboxymethyl cellulose and a nonionic surfactant, wherein the composition comprises between 1% and 15% percarbonate, and wherein the detergent composition further comprises sodium metasilicate and does not include a zeolite, a perborate or a phosphate, said composition formulated for storage in a water soluble PVA film packaging for at least nine months (my emphasis).

[12] Claim 10 of the '428 Patent claims [at paragraph 14]:

An encapsulated percarbonate granule for use in detergent products storeable in PVA film packaging, the granule comprising a percarbonate and a blend encapsulating the percarbonate, wherein the blend comprises a sulphate, carboxymethyl cellulose and a non-ionic surfactant (my emphasis).

II. Jempak's Motion for Summary Judgment

[13] Jempak brought a motion for summary judgment seeking to have GEMAK's infringement action dismissed based on non-infringement. In the alternative, it sought an order directing a summary trial on the infringement issue.

[14] According to Jempak, once the terms "encapsulating" or "encapsulates" and "blend" are properly construed, there is no infringement of GEMAK's patents as Jempak's products do not contain CMC in the blend that encapsulates the percarbonate granules.

[15] In support of its position, Jempak provided expert evidence from Dr. Heliana Kola, a consultant in the area of detergent formulation and chemistry. Dr. Kola has a Ph.D. in Chemistry, and 20 years of experience in the field of detergents.

[16] GEMAK responded to Jempak's motion with expert evidence from Drs. Patrick Tishmack, Gayle Frankenbach and Colin Nuckolls. Dr. Tishmack has a Ph.D. in Chemistry and Biochemistry, and he oversees all operations at AMRI, an analytical chemistry testing facility. Dr. Frankenbach has a Ph.D. in physical-organic chemistry and worked as a scientist on the research and development of detergents at Procter & Gamble for more than 27 years. Dr. Nuckolls has a Ph.D. in Chemistry and is a Professor at Columbia University, where he has served as Chair of the Department of Chemistry.

[17] Dr. Kola and Dr. Frankenbach each provided evidence with respect to the construction of the patent claims at issue in this proceeding, the characteristics of the person of skill in the art (the "POSITA"), and the common general knowledge of the POSITA.

[18] There was no meaningful dispute between the experts as to characteristics of the POSITA. While Dr. Frankenbach did not entirely agree with Dr. Kola's description of the POSITA, she stated that her opinion would not change if Dr. Kola's description were adopted. As found by the Federal Court, the POSITA "is a person with at least a B.Sc. in Chemistry and two to three years of practical experience in detergent formulations, or a person with at least eight years of experience with detergent formulations" [at paragraph 96].

[19] The two experts were also in substantial agreement with respect to the common general knowledge of the POSITA. In this regard, Dr. Kola stated that the common general knowledge of the POSITA included background knowledge of surfactants, builders, bleaching agents, enzymes, and fillers—all ingredients used in automatic dishwashing detergents.

[20] Dr. Kola further acknowledged that percarbonate is a common bleaching agent used in dishwashing detergents, and that it was known to be susceptible to decomposition by moisture. She also acknowledged that tetraacetyl ethylene diamine (or "TAED") is a common activator used in dishwashing detergents, and that it is very sensitive and degrades rapidly when mixed with the solid ingredients of a detergent. Dr. Kola further noted that Jempak's [***] is sourced with a coating that contains CMC.

[21] Finally, Dr. Kola stated that enzymes are a common component of dishwashing detergents that speed up and enhance the cleaning process, but that they degrade over time, especially when they are in contact with detergent ingredients.

[22] In Dr. Kola's opinion, the POSITA would also understand that encapsulating the percarbonate in the manner described by the patents requires an encapsulating process, and could not be achieved by merely dry-mixing the percarbonate and encapsulating ingredients. Encapsulation of an ingredient requires a physical reaction enabled by binders or wetting agents, performed in the presence of the encapsulating blend and the ingredient to be encapsulated only.

[23] Dr. Frankenbach agreed "in general" with Dr. Kola's summary of the common general knowledge of the POSITA. However, she disagreed with Dr. Kola's claim that encapsulating percarbonate in the manner contemplated by the patents required an encapsulating process, and could not be achieved through the dry-mixing of raw ingredients.

[24] Dr. Frankenbach noted that it was generally known that both TAED particles and encapsulated percarbonate granules have a rough, uneven texture that includes pores, which renders them susceptible to moisture (*i.e.*, humidity from the air or added water). This moisture causes the particles to become adhesive, sticking to or leaving residue on material that comes into contact with the particles, and that the agitation of the mixture occurring during the manufacturing process can increase the likelihood of this adhesive behaviour.

[25] Dr. Frankenbach further stated that TAED particles are friable, meaning that they are susceptible to falling apart during processing, exposing CMC to be picked up by other particles such as percarbonate granules.

[26] Insofar as the construction of claim 1 of the '069 patent and claim 10 of the '428 patent was concerned, the only terms appearing in the asserted claims that required construction were "a blend encapsulating a percarbonate" and "a blend which encapsulates the percarbonate".

[27] Drs. Kola and Frankenbach agreed that the POSITA would understand the terms "a blend encapsulating a percarbonate" and "a blend which encapsulates the percarbonate" (terms that have the same meaning and are used interchangeably), to refer to a blend that protects the percarbonate and prevents it from breaking down before it is activated in the dishwasher. The parties further agreed that the relevant claims of the patents related to compositions rather than processes.

[28] Where Drs. Kola and Frankenbach disagreed was with respect to whether the "blend encapsulating a percarbonate" and the "blend which encapsulates the percarbonate" requires that the coating on the percarbonate beads be a "uniform, full coverage barrier around the sodium percarbonate" [at paragraph 117]. To the extent that Dr. Frankenbach understood Dr. Kola to be saying this, Dr. Frankenbach disagreed with that opinion.

[29] Dr. Kola stated that the CMC in the blend encapsulating the percarbonate was essential to the working of the inventions in the patents, and was an essential element of the asserted claims. While Dr. Frankenbach did not expressly agree with this proposition, she was prepared to accept it for the purposes of the motion.

[30] In addition, Dr. Kola opined that "encapsulation ... ensures the stability of the percarbonate and that it does not decompose prematurely before use", and that "encapsulation compounds are usually highly water-soluble, so that the active ingredient can be rapidly activated when it comes into contact with water during automatic dishwashing". Dr. Kola further stated "the CMC that is present in the blend encapsulating the percarbonate acts as a selective barrier to detergent moisture and prevents water from making contact with the percarbonate".

[31] According to Dr. Frankenbach, the word "blend" refers to a "mixture", and, as noted earlier, she stated that the encapsulating mixture need not be a "uniform, full-coverage barrier around the sodium percarbonate".

[32] Dr. Frankenbach also stated that the language of the claims "does not require any particular amounts or functions of the required blend components", including the CMC. In Dr. Frankenbach's opinion, an "encapsulated" granule is "one where non-percarbonate surrounds and protects the percarbonate". Dr. Frankenbach further stated

that, in her view, “a blend encapsulating the percarbonate” could include material transferred to the encapsulating blend after the percarbonate is added to the detergent composition.

[33] In cross-examination, Dr. Frankenbach rejected counsel for the respondents’ suggestion that the POSITA would understand that the components of the blend encapsulating the percarbonate granules had to be incorporated into the blend by a particular process at a particular time. Dr. Frankenbach asserted that the patents do not require that the components of the encapsulating blend be incorporated before the percarbonate granules are added to the detergent composition.

[34] The two experts also disagreed with respect to the question of infringement, specifically as to whether the sodium percarbonate granules in Jempak’s detergent products are encapsulated in an encapsulating blend that includes CMC.

[35] Dr. Kola stated that even if the coating on the [***] was to become degraded during the manufacturing process or after the detergent product was packaged, any CMC that was present in these coatings would not be incorporated into the pre-existing coating on the percarbonate granules. Instead, the ingredients from the degraded coating would remain in the bulk detergent in powder form.

[36] Dr. Frankenbach disagreed with Dr. Kola’s conclusion, asserting that Dr. Kola failed to account for several steps in the manufacturing process that would introduce [***] into Jempak’s products and cause the coatings on the percarbonate and the [***] to become adhesive. Dr. Frankenbach also stated that Dr. Kola additionally failed to consider the friability of the [***].

[37] According to Dr. Frankenbach, the CMC from the [***] contained in Jempak’s products or from some other source transfers to the percarbonate beads during the manufacturing process, becoming part of the blend that encapsulates the percarbonate. As a consequence, it was Dr. Frankenbach’s opinion that Jempak’s detergent products contain an encapsulating blend that contains CMC.

[38] Dr. Kola was asked to develop a test methodology, and to direct tests based on that methodology, to determine whether Jempak’s percarbonate sourced materials and its detergent formulations include a “blend which encapsulates the percarbonate” that comprises CMC as claimed in the ’428 and ’069 patents.

[39] Dr. Kola provided evidence with respect to the anthrone testing she had carried out to determine whether there was CMC in the blend that encapsulates the percarbonate beads in Jempak’s detergent compositions or in its sourced materials. Dr. Kola stated that these tests demonstrated that the percarbonate raw material supplied to Jempak by third parties does not have any detectable CMC in its coating. An officer of Jempak’s percarbonate supplier confirmed that the encapsulated percarbonate sold to Jempak does not have CMC in its formula, including in its protective coating.

[40] While acknowledging that Jempak’s marketed detergent compositions do in fact contain CMC, Dr. Kola stated that the CMC in Jempak’s detergent compositions comes from the coating on the [***] and from [***], rather than from the coating on the percarbonate. As noted earlier, TAED is a bleaching agent that is activated by moisture.

[41] Dr. Frankenbach reviewed the information provided by Jempak regarding the composition of its percarbonate granules (and detergent compositions) and noted that Jempak's percarbonate consists of [***]. Dr. Frankenbach further noted that Jempak's [***] contains [***] CMC, with the [***] being an agglomeration wherein the CMC acts as a binding agent, and that Jempak's detergent compositions contain [***], which often contain CMC.

[42] Based on her review of the manner in which Jempak manufactures and stores its detergent compositions, and because of the significant exposure of the compositions to [***], Dr. Frankenbach concluded that the CMC in the [***] and/or the [***] transfers and adheres to the encapsulated sodium percarbonate granules in Jempak's detergent compositions.

[43] Dr. Frankenbach directed that a transfer experiment be conducted, which showed that exposing [***] and sodium percarbonate to humidity and mixing the particles together caused a visible transfer of [***] to the sodium percarbonate. Consequently, Dr. Frankenbach had no difficulty in concluding that CMC is transferred from the [***] (or other CMC-containing compounds) to the sodium percarbonate in Jempak's detergent products, thus becoming part of the blend that encapsulates the sodium percarbonate granules, thereby infringing GEMAK's patents.

[44] Dr. Tishmack provided evidence that the testing methods used by Dr. Kola were out-of-date, and that they had largely been replaced by more specific and sensitive techniques that could detect lower levels of CMC in a mixture. Indeed, Dr. Kola acknowledged in cross-examination that there are tests now available that are more sensitive than the tests that she used to detect whether there was CMC in the blend that encapsulates the percarbonate in Jempak's detergent compositions.

[45] Dr. Tishmack also noted that some compounds (such as [***]) that were known to be present in significant quantities in Jempak's detergent products should have displayed a reaction in Dr. Kola's anthrone testing, but had failed to do so. According to Dr. Tishmack, this demonstrated the lack of sensitivity of the tests employed by Dr. Kola, and rendered baseless her conclusions regarding the absence of CMC in Jempak's detergent compositions.

[46] GEMAK asked Dr. Nuckolls to develop a method to identify the percarbonate beads contained in Jempak's dishwasher detergent products, and to analyze them to determine whether CMC surrounded the percarbonate core. Dr. Nuckolls used modern analytical chemistry techniques such as Raman spectroscopy and liquid chromatography-mass spectroscopy to test Jempak's detergent compositions. Based on this testing, Dr. Nuckolls concluded that Jempak's monodose dishwasher detergent products "contain sodium percarbonate beads which have [CMC] surrounding the percarbonate core" [at paragraph 130].

III. The Federal Court's Decision

[47] The Federal Court identified the issues for determination on the motion for summary judgment as being first, what meaning is to be ascribed to the terms "a blend which encapsulates the percarbonate" and "a blend encapsulating the percarbonate", and second, whether there was a genuine issue for trial as to whether a blend containing CMC encapsulates the percarbonate granules employed in Jempak's detergent products.

[48] The Federal Court acknowledged that it has generally been reluctant to grant summary judgment in patent infringement actions, largely because such proceedings depend on the assessment of expert evidence and the credibility of the expert witnesses. It found, however, that there was no substantial conflict in the opinion evidence in this case. According to the Federal Court, Dr. Kola was the only witness to provide an informed and purposive construction of the claim at issue from the perspective of a skilled person, and her evidence with respect to the common general knowledge was uncontested.

[49] The Federal Court found that the POSITA would understand from the claims that the presence of CMC in the encapsulating blend is an essential element of the asserted independent claims. It further found that the patents teach the POSITA to encapsulate the percarbonate *before* adding it to the detergent composition. Although concluding that the timing of the encapsulation of the percarbonate by a blend of ingredients was key, the Federal Court found that none of GEMAK's experts construed the term "encapsulate" or considered the patents in preparing their responding affidavits. According to the Federal Court, GEMAK "chose instead to hide behind arguments about Jempak not meeting its burden" [at paragraph 5].

[50] The Federal Court chose not to address GEMAK's argument that Jempak's proposed construction of the relevant claims required the inclusion of process and time limitations into what are product claims, something GEMAK says it was required to consider: *Apotex Inc. v. AstraZeneca Canada Inc.*, 2017 FCA 9, at paragraph 44.

[51] GEMAK had proposed that the terms at issue be construed as "a mixture of substances that coats and protects the percarbonate and prevents it from breaking down before it is activated in the washer" [at paragraph 120], a construction that would cover the incorporation of CMC into a pre-existing percarbonate coating. In other words, GEMAK submitted that the claims cover a percarbonate granule without any CMC in the protective coating that is subsequently mixed into a detergent formulation with CMC present as a component of other ingredients, where the CMC then combines with, adheres to or surrounds the percarbonate granule.

[52] The Federal Court rejected GEMAK's proposed construction, finding that the language of the claims and the disclosure of the '428 patent suggest that encapsulation of the percarbonate occurs *prior to* the addition of the encapsulated percarbonate to the bulk detergent mixture. The encapsulating blend, is, therefore, a single mixture, rather than ingredients added to protect or coat the percarbonate at various stages in the detergent formulation process.

[53] According to the Federal Court, the POSITA would understand that encapsulating the percarbonate in the manner contemplated by the patents requires thorough blending or mixing of the encapsulating ingredients in an encapsulating process. The POSITA would also understand that encapsulation cannot be achieved through dry-mixing raw ingredients, and requires a physical reaction enabled by binders or wetting agents that is performed only in the presence of the encapsulating blend and the granule to be encapsulated. In other words, encapsulation refers to a protective coating (a blend) that is applied to the percarbonate during its manufacture to maintain the stability of the percarbonate and to prevent it from decomposing prematurely before use.

[54] In coming to this conclusion, the Federal Court rejected the evidence of Dr. Frankenbach in its entirety.

[55] The Federal Court stated that Dr. Frankenbach had acknowledged in cross-examination that she did not take into account the common general knowledge when considering the claim language and only looked at the patents, raising a question as how she would have acquired the knowledge to opine on how the POSITA would understand the claims. It also undermined her opinion that the sodium percarbonate granules in Jempak's detergent products contain an encapsulating blend that includes CMC.

[56] More fundamentally, the Federal Court found that "Dr. Frankenbach misapprehended her role as an independent witness [and that] [s]he conducted herself like an advocate instead of a neutral objective expert attempting to assist the Court" [at paragraph 110]. The Federal Court thus concluded "Dr. Frankenbach failed to provide fair, objective and non-partisan opinions, which ended up tainting her entire evidence" [at paragraph 110]. As a result, the Federal Court ascribed little or no weight to her testimony, leaving the Court with only the evidence of Dr. Kola.

[57] Insofar as the issue of infringement was concerned, the Federal Court found that Dr. Tishmack's critiques of Dr. Kola's methodologies were unfounded, and were based on his "exacting experience" as an analytical chemist working for clients in the pharmaceutical industry. The Federal Court further found that he had no experience with detergent formulations, and that he did not "provide an opinion from the perspective of the skilled person of the Patents" [at paragraph 129].

[58] With respect to Dr. Nuckolls' evidence that Jempak's monodose dishwasher detergent products "contain sodium percarbonate beads which have [CMC] surrounding the percarbonate core" [at paragraph 130], the Federal Court noted that he had conceded in cross-examination that his testing analysis involved dissolving Jempak's percarbonate beads. Once this was done, it could not be determined where any CMC detected in the solution had been positioned on the sample. His evidence thus established only that CMC was present on or around Jempak's percarbonate granules, and did not establish the presence of CMC in the encapsulating blend.

[59] The Federal Court concluded that Jempak had met its burden of establishing, on a balance of probabilities, that its products do not infringe the asserted claims of the patents, and that GEMAK had not demonstrated that there was a genuine issue for trial with respect to the question of infringement. Consequently, Jempak's motion for summary judgment was granted, and GEMAK's action was dismissed, with costs.

[60] Before considering the submissions of the parties as to whether the Federal Court erred in granting summary judgment in this matter, I will first address the principles governing motions for summary judgment in the Federal Courts.

IV. Principles Governing Motions for Summary Judgment

[61] I understand both parties to agree with the summary of the principles governing motions for summary judgment in the Federal Courts that I provided in *Milano Pizza Ltd. v. 6034799 Canada Inc.*, 2018 FC 1112, at paragraphs 24–40, (cited with approval by this Court in *ViiV Healthcare Company v. Gilead Sciences Canada, Inc.*, 2021 FCA 122, [2021] 4 F.C.R. 289, at paragraph 39 (*ViiV Healthcare*)).

[62] As I noted in *Milano*, the purpose of summary judgment is to allow the Court to summarily dispense with actions that ought not to proceed to trial because they do not raise a genuine issue to be tried. This allows for the conservation of scarce judicial resources and improves access to justice: see also *CanMar Foods Ltd. v. TA Foods Ltd.*, 2021 FCA 7, [2021] 1 F.C.R. 799, at paragraph 23.

[63] While summary judgment rules must be interpreted broadly, the process followed must permit the Court to find the facts necessary to resolve the dispute and to apply the relevant legal principles to the facts as found: *Milano*, above at paragraph 29, citing *Hryniak v. Mauldin*, 2014 SCC 7, [2014] 1 S.C.R. 87, at paragraphs 5, 28.

[64] The Supreme Court has stated that there will be no genuine issue for trial if there is no legal basis to the claim, or if the judge has the evidence required to fairly and justly adjudicate the dispute: *Milano*, above at paragraph 31; *Hryniak*, above at paragraph 66; *Manitoba v. Canada*, 2015 FCA 57, at paragraph 15 [*Manitoba*].

[65] The *Federal Courts Rules*, SOR/98-106, contemplate that where there is a genuine issue of fact or law for trial, judges may conduct a summary trial in accordance with the provisions of rule 216. In such cases, judges have greater powers to decide disputed questions of fact: *Milano*, above at paragraph 32; *ViiV Healthcare*, above at paragraph 34; *Manitoba*, above at paragraph 16. However, although Jempak's Notice of Motion indicates that a summary trial was proposed by Jempak in the alternative to its motion for summary judgment, it appears that this request was not pursued and the motion was argued based on a paper record.

[66] The test on a motion for summary judgment is not whether a party cannot possibly succeed at trial; the question is, rather, whether the case is so doubtful that it does not deserve consideration by the Court at a future trial. As a result, the availability of summary judgment is not restricted to the clearest of cases: *Milano*, above at paragraph 33.

[67] While the onus is on the party seeking summary judgment to establish that there is no genuine issue for trial, parties responding to such motions are also required to "put their best foot forward" in their response: *Milano*, above at paragraph 34; *F. Von Langsdorff Licensing Ltd. v. S.F. Concrete Technology, Inc.* (1999), 165 F.T.R. 74, at paragraphs 12, 27, 1 C.P.R. (4th) 88 (T.D.). This has been described as necessitating that a responding party "lead trump or risk losing": *Milano*, above at paragraph 35, citing *Kirkbi Ag v. Ritvik Holdings Inc.* (1998), 150 F.T.R. 205, at paragraph 18, 81 C.P.R. (3d) 289.

[68] The jurisprudence is clear that issues of credibility ought not to be decided on motions for summary judgment. Generally, a judge who hears and observes witnesses giving evidence orally in chief and under cross-examination will be better positioned to assess witnesses' credibility and to draw the necessary inferences than a judge who must depend solely on affidavits and documentary evidence: *Milano*, above at paragraph 37; *TPG Technology Consulting Ltd v. Canada*, 2013 FCA 183, [2014] 1 F.C.R. D-8, at paragraph 3.

[69] As GEMAK points out, the difficulty in assessing the credibility of expert witnesses in complex patent cases on the basis of voluminous paper records was long recognized as a shortcoming of the procedure under the *Patented Medicines (Notice of Compliance) Regulations*, SOR/93-133, as amended (the *NOC Regulations*), and as a

regular source of judicial frustration: *Sanofi-Aventis Canada v. Apotex Inc.*, 2009 FC 676, at paragraph 66; *Lundbeck Canada Inc. v. Canada (Health)*, 2009 FC 146, at paragraph 11; *Teva Canada Innovation v. Apotex Inc.*, 2014 FC 1070, at paragraph 109; *Apotex Inc. v. Shire LLC*, 2017 FC 139, at paragraph 39; *Amgen Canada Inc. v. Apotex Inc.*, 2015 FC 1261, at paragraph 15 (*Amgen*); *Novartis Pharmaceuticals Canada Inc. v. Apotex Inc.*, 2013 FC 142, at paragraph 33; *AB Hassle v. Apotex Inc.*, 2002 F.C.T. 931, at paragraphs 34, 51(5), 223 F.T.R. 43 (T.D.) (*AB Hassle*); *AB Hassle v. Apotex Inc.*, 2001 FCT 530, at paragraphs 68–69, 204 F.T.R. 248 (T.D.).

[70] Indeed, the lack of *viva voce* testimony provided for in the *NOC Regulations* was one of the inadequacies in the old regime that led to the 2017 changes to the *Regulations*: *Pfizer Canada Inc. v. Amgen Inc.*, 2019 FCA 249, [2019] 3 F.C.R. D-13, at paragraph 23; Regulatory Impact Analysis Statement, Canada Gazette, Part I, Vol. 151, No. 28 on July 15, 2017 [at page 3316]. The revised *NOC Regulations* replaced summary prohibition applications conducted on paper records with full actions allowing for *viva voce* testimony to determine, with finality, substantive issues of patent infringement and invalidity.

[71] Cases should therefore go to trial where there are serious issues with respect to the credibility of witnesses: *Milano*, above at paragraph 38; *Newman v. Canada*, 2016 FCA 213, [2017] 2 F.C.R. D-3, at paragraph 57; *Suntec Environmental Inc. v. Trojan Technologies Inc.*, 2004 FCA 140, [2005] 1 F.C.R. D-46, at paragraphs 20, 28–29; *MacNeil v. Canada*, 2004 FCA 50, [2004] 3 F.C.R. 3, at paragraphs 32, 38.

[72] That said, the mere existence of apparent conflict in the evidence does not preclude the granting of summary judgment. The Court has to take a “hard look” at the merits of the case to decide if there are issues of credibility that need to be resolved: *Milano*, above at paragraph 39; *Granville Shipping Co. v. Pegasus Lines Ltd.*, [1996] 2 F.C. 853 (T.D.), at paragraph 7, 111 F.T.R. 189.

[73] The Court must also proceed with care in dealing with motions for summary judgment, as the effect of the granting of summary judgment will be to preclude a party from presenting any evidence at trial with respect to the issue in dispute. In other words, the unsuccessful party will lose its “day in court”: *Milano*, above at paragraph 40; *Apotex Inc. v. Merck & Co. Inc.*, 2004 FC 314, [2005] 1 F.C.R. D-13, at paragraph 12, aff’d 2004 FCA 298, [2005] 4 F.C.R. D-6.

[74] With this understanding of the principles governing motions for summary judgment, I turn now to consider the grounds of appeal raised by GEMAK. As a primary focus of GEMAK’s submissions was its allegation that the Federal Court erred in making credibility findings that should not have been made on a motion for summary judgment, I will deal with that issue first.

V. Did the Federal Court Err in Making Credibility Findings on a Motion for Summary Judgment?

[75] In accordance with the appellate standard of review, questions of law are to be determined on the correctness standard, and questions of fact and questions of mixed fact and law (excluding extricable questions of law) are to be determined on the basis of palpable and overriding error: *Housen v. Nikolaisen*, 2002 SCC 33, [2002] 2 S.C.R. 235.

[76] As a matter of principle, the question of whether credibility assessments are permitted on a motion for summary judgment where contested issues of credibility are at stake is a question of law subject to the correctness standard of review: *Housen*, above at paragraph 36. To the extent that such assessments are permitted, the question of whether the Federal Court appropriately exercised its discretion in finding certain witnesses credible or not credible is subject to the more exacting standard of palpable and overriding error.

[77] The Federal Court was aware of, and correctly identified the principles relating to the making of credibility findings in the context of motions for summary judgment. Indeed, the Court noted at paragraph 4 of its decision that it has generally been reluctant to grant summary judgment in patent infringement actions, largely because such proceedings depend on the assessment of expert evidence and the credibility of the expert witnesses.

[78] That said, the Federal Court nevertheless went on in the same paragraph to state that there was no substantial conflict of opinion evidence in this case, and that Jempak's expert was the only witness to provide an informed and purposive claim construction of the terms at issue from the perspective of the POSITA. The Court further stated that the evidence of Jempak's expert with respect to the common general knowledge was uncontested.

[79] Insofar as the evidence of Drs. Kola and Frankenbach was concerned, the Federal Court held that while both witnesses had the necessary background and experience to provide expert opinions to assist the Court, only Dr. Kola did so from the perspective of the POSITA. The Court found that she "provided rational, science-based and helpful evidence as to how a skilled person would understand the asserted claims, as well as what the common general knowledge was available to the skilled person at the date of publication" [at paragraph 102]. The Court noted that "these matters were addressed extensively in Dr. Kola's affidavit and her expert opinion on claim construction was left unchallenged by GEMAK on cross-examination" [at paragraph 102].

[80] The Federal Court held that the same could not be said about Dr. Frankenbach's evidence. Despite her strong background and expertise, the Federal Court found her evidence to "be wanting and problematic in many respects" [at paragraph 103]. In support of this finding, the Court noted that Dr. Frankenbach had to attend for cross-examination on two occasions, and that "[d]uring her first attendance, the ability of Jempak's counsel to conduct an effective cross-examination of Dr. Frankenbach was seriously impaired by numerous and repeated objections from GEMAK's counsel" [at paragraph 104], and by what could "best be described as evasive and defiant responses from Dr. Frankenbach" [at paragraph 104].

[81] The Federal Court observed that Dr. Frankenbach "challenged Jempak's counsel throughout the cross-examination, debating about the form or propriety of questions posed notwithstanding that they were plainly worded and clearly relevant" [at paragraph 105]. As noted earlier, the Court found that "Dr. Frankenbach misapprehended her role as an independent witness [and that] [s]he conducted herself like an advocate instead of a neutral objective expert attempting to assist the Court" [at paragraph 110]. The Federal Court thus concluded "Dr. Frankenbach failed to provide fair, objective and non-

partisan opinions, which ended up tainting her entire evidence”, with the result that the Court ascribed “little or no weight to her testimony” [at paragraph 110].

[82] Given the Federal Court’s wholesale rejection of Dr. Frankenbach’s evidence, it stated that it was “therefore left [only] with the opinion evidence of Dr. Kola” [at paragraph 111], and its decision was accordingly based on that evidence.

[83] There are a number of problems with the Federal Court’s assessment of the credibility of Dr. Frankenbach and its wholesale rejection of her evidence.

[84] As noted earlier, in finding that Dr. Frankenbach was not a credible witness, the Federal Court observed that she had to attend twice for cross-examination, and that “[d]uring her first attendance, the ability of Jempak’s counsel to conduct an effective cross-examination of Dr. Frankenbach was seriously impaired by numerous and repeated objections from GEMAK’s counsel” [at paragraph 104]. While this is an accurate summary of what occurred on the first day of Dr. Frankenbach’s cross-examination, I fail to see how the conduct of GEMAK’s counsel should reflect negatively on Dr. Frankenbach’s credibility.

[85] Moreover, the Federal Court’s finding that Dr. Frankenbach “misapprehended her role as an independent witness” and “conducted herself like an advocate instead of a neutral objective expert attempting to assist the Court” [at paragraph 110] appears to have been based, at least to some extent, on the combative stance taken by counsel for GEMAK on the first day of Dr. Frankenbach’s cross-examination.

[86] It is true that the Federal Court went on to state that the ability of Jempak’s counsel to conduct an effective cross-examination of Dr. Frankenbach was also impaired by what it called “evasive and defiant responses from Dr. Frankenbach” [at paragraph 104]. While the Federal Court found the evidence of Dr. Frankenbach to be “wanting and problematic in many respects” [at paragraph 103], a review of the transcript of her cross-examination suggests other possible interpretations of her evidence. Rather than being “evasive and defiant” [at paragraph 104], the transcript could be read to suggest that Dr. Frankenbach was a careful witness, one who wanted to be sure that she understood questions before answering them, and one who would not allow herself to be pushed around by counsel.

[87] Indeed, it is very difficult to infer a hostile attitude on the part of a witness from a bare review of a transcript, in the absence of an ability to evaluate his or her *viva voce* testimony: *Teva Canada Innovation v. Apotex Inc.*, 2014 FC 1070, at paragraph 109.

[88] The difficulty in assessing the neutrality and objectivity of expert witnesses based on a paper record was also addressed by the Federal Court in *Apotex Inc. v. Syntex Pharmaceuticals International Ltd.*, (1998), 81 C.P.R. (3d) 188, [1998] F.C.J. No. 537 (QL) (*Syntex*). There, the Court observed that, in some cases, the desire or capacity of expert witnesses to objectively inform the Court may be put into question. The Court stated at paragraph 7 of its reasons that when issues of credibility arise in such cases “it is difficult to conceive how the Court could render justice without the benefit of *viva voce* evidence”. The same may be said here. See also *Amgen*, above at paragraph 15.

[89] Indeed, there is a fine line between being an objective, firm expert witness and being an advocate for one’s client, and it is difficult to determine whether a witness has

crossed that line in the absence of *viva voce* evidence tendered in open Court: *AB Hassle*, above, at paragraph 34.

[90] It was thus a palpable and overriding error on the part of the Federal Court to make the negative credibility findings that it did with respect to the evidence of Dr. Frankenbach based on a transcript of her testimony, and to decide the case in reliance on those findings.

[91] Before leaving this issue, I would like to observe that while patent infringement issues are not by definition excluded from the ambit of the summary judgment process, they tend to raise complex issues of fact and law that are usually better left for trial: *Syntex*, above, at paragraph 6. This case is no exception. That said, this is not a hard and fast rule, and there will be cases where use of the summary judgment process is appropriate: see, for example, *ViiV Healthcare*, above.

VI. Did the Federal Court Err with Respect to the Common General Knowledge?

[92] While the above finding is sufficient to dispose of this appeal, there is a second error in the Federal Court's reasons that bears comment in order to ensure that the error not be perpetuated in any further proceedings in this matter. This error relates to the Federal Court's description of what constitutes "common general knowledge" [at paragraph 36]. The question of whether information that can be found through a reasonably diligent search forms part of the common general knowledge is a question of law, subject to review on the correctness standard.

[93] At paragraph 97 of its reasons, the Federal Court stated that common general knowledge "is the knowledge generally known by the skilled person at the relevant time, and includes what the skilled person may reasonably be expected to know and be able to find out". This is a correct statement of the law, at least to the extent that the common general knowledge includes what the skilled person may reasonably be expected to know.

[94] However, the Court then went on to state [at paragraph 97] that "[t]he Court must assess *what knowledge the skilled person would have obtained through a diligent search conducted using the means available at the relevant time*" (my emphasis). The Court cites *Uponor AB v. Heatlink Group Inc.*, 2016 FC 320, at paragraph 46 as authority for this proposition.

[95] Common general knowledge does not include all of the information in the public domain: *Bell Helicopter Textron Canada Limitée v. Eurocopter, société par actions simplifiée*, 2013 FCA 219, at paragraph 64. Rather, as the Supreme Court observed at paragraph 37 of *Apotex Inc. v. Sanofi-Synthelabo Canada Inc.*, 2008 SCC 61, [2008] 3 S.C.R. 265, "[c]ommon general knowledge means knowledge generally known by persons skilled in the relevant art at the relevant time".

[96] Indeed, as Justice Locke noted in *Leo Pharma Inc. v. Teva Canada Limited*, 2015 FC 1237, at paragraph 107, aff'd 2017 FCA 50, not all information available to the skilled person is necessarily common general knowledge. As stated in *Eli Lilly and Company v. Apotex Inc.*, 2009 FC 991, at paragraph 97, quoting from *General Tire & Rubber Co. v. Firestone Tyre & Rubber Co. Ltd.*, [1972] R.P.C. 457, at pages 482–483, itself quoting from *British Acoustic Films Ltd. v. Nettlefold Productions Ltd* (1936), 53 R.P.C. 221, at page 250: "[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”.

[97] Insofar as the state of the prior art is concerned, this Court stated in *Mylan Pharmaceuticals ULC v. Eli Lilly Canada Inc.*, 2016 FCA 119, [2017] 2 F.C.R. 280 that “[p]rior art is the collection of learning in the field of the patent at issue. It comprises any publically available teaching, however obscure or not generally accepted”: at paragraph 23.

[98] Prior art is used for specific purposes in patent law, for example, to show that an invention was anticipated or was obvious. Common general knowledge informs the way in which the claims and specifications are read by the POSITA: *Mylan*, above, at paragraph 25.

[99] The requirement of the reasonably diligent search has been applied—not with respect to the identification of the common general knowledge of the POSITA—but rather with respect to the discoverability of prior art relevant for the purpose of the obviousness or anticipation analyses: see, for example, *E. Mishan & Sons, Inc. v. Supertek Canada Inc.*, 2015 FCA 163, at paragraph 22. This approach has, however, been called into question by this Court’s decision in *Hospira Healthcare Corporation v. Kennedy Trust for Rheumatology Research*, 2020 FCA 30, at paragraphs 83–86. There, this Court stated that in light of the wording of section 28.3 of the *Patent Act*, R.S.C., 1985, c. P-4, it is an error to exclude from consideration prior art that was available to the public at the relevant date simply because it would not have been located through a reasonably diligent search.

[100] Thus, it is no longer required that prior art be available to the POSITA through a reasonably diligent search for it to be potentially relevant for the purpose of the obviousness or anticipation analyses. That said, knowledge that is only discoverable through a reasonably diligent search is not, and has never been, considered to be part of the common general knowledge. The Federal Court thus erred in finding otherwise.

VII. Did the Federal Court Err with Respect to the Testing Evidence?

[101] Finally, there is a palpable and overriding error in the Federal Court’s analysis of the testing evidence.

[102] It will be recalled that Dr. Kola provided evidence with respect to the anthrone testing she had caused to be carried out in order to determine whether there was CMC in the percarbonate raw material supplied to Jempak by third parties and in the blend that encapsulates the percarbonate in Jempak’s detergent compositions.

[103] Dr. Kola stated that these tests demonstrated that the percarbonate raw material supplied to Jempak by third parties does not have any CMC in its encapsulating coating. While acknowledging that Jempak’s detergent compositions do in fact contain CMC, Dr. Kola stated that the CMC in Jempak’s detergent compositions comes from the coating on the [***] and from [***], and not from the coating on the percarbonate. As a result, Jempak says that its detergent compositions do not infringe GEMAK’s patent.

[104] Dr. Kola's evidence on this point was challenged by Dr. Tishmack, who was highly critical of her use of the anthrone testing method, and her conclusion that there was no "detectable CMC in the coated percarbonate raw materials sourced by Jempak" [at paragraph 128]. According to Dr. Tishmack, the anthrone method used by Dr. Kola was out-of-date, and had largely been replaced by more specific and sensitive techniques that could detect lower levels of CMC in a mixture—a point that was conceded by Dr. Kola.

[105] Dr. Tishmack attempted to replicate Dr. Kola's anthrone methodology and performed his own testing, from which he concluded that Dr. Kola's anthrone method was insufficiently sensitive to detect CMC in quantities less than 1 µg/mL. He also concluded that the photometric accuracy limit of the machine used by Dr. Kola was so low to render her testing "meaningless", and the detection limit of Dr. Kola's calibration curves was so low to also render "meaningless" this aspect of her testing.

[106] Dr. Tishmack further noted that some compounds that were known to be present in significant quantities in Jempak's detergent products should have displayed a reaction in Dr. Kola's anthrone testing, but had failed to do so. According to Dr. Tishmack, this demonstrated the lack of sensitivity of the tests employed by Dr. Kola, which further rendered her conclusions "baseless". As a result, Dr. Tishmack says, one cannot conclude that there is no CMC present in the Jempak sodium percarbonate beads tested by Dr. Kola.

[107] The Federal Court rejected the evidence of Dr. Tishmack on the basis that his experience was as an analytical chemist for clients in the pharmaceutical industry, that he had no experience with detergent formulations, and that he thus did not provide an opinion from the perspective of the POSITA with respect to the patents.

[108] There are several problems with this finding. First, Dr. Tishmack was not construing the claims of the patent—a task that is undertaken from the perspective of the POSITA. He was providing expert evidence with respect to the question of infringement. Infringement is a question of fact: *Consolboard Inc. v. MacMillan Bloedel (Sask.) Ltd.*, [1981] 1 S.C.R. 504, 122 D.L.R. (3d) 203. Reviewing courts have, moreover, endorsed the use of analytical chemistry techniques that would not have been available to a POSITA at the relevant time or that would have been beyond the abilities of a POSITA.

[109] A second problem with this finding relates to Dr. Tishmack's lack of experience in the detergent industry. I accept that testing in the pharmaceutical industry may be held to a more exacting standard than testing in other industries, given that pharmaceutical products are intended for human consumption. There was, however, no evidence before the Federal Court that the analytical chemistry testing processes and methods used in the pharmaceutical industry actually differed from the analytical chemistry testing processes and methods used in the detergent industry. Nor was there any evidence that ascertaining the presence or absence of CMC in a dishwasher composition is any more or less exacting than detecting the presence or absence of CMC in a pharmaceutical composition.

[110] The Federal Court's finding also failed to take into account Dr. Kola's acknowledgment that there were more sensitive tests available that could have been

used to determine whether there was CMC in the coating on the percarbonate in Jempak's detergent compositions.

[111] Consequently, I am satisfied that there were palpable and overriding errors tainting the Federal Court's analysis of the testing evidence.

VIII. Conclusion on the Main Appeal

[112] For these reasons, I would allow the main appeal and would set aside the decision of the Federal Court granting summary judgment to Jempak. Given that I am satisfied that there is one or more genuine issues for trial, and making the order that the Federal Court should have made, I would dismiss Jempak's motion for summary judgment and direct that this matter proceed to trial.

IX. Costs

[113] GEMAK also appeals the Federal Court's cost judgment.

[114] The Federal Court awarded Jempak its costs of the motion for summary judgment. Pursuant to an agreement between the parties, the Federal Court fixed these costs at \$463,496.96, inclusive of disbursements, to be paid by July 3, 2020. GEMAK subsequently paid this amount to Jempak in satisfaction of the Federal Court's costs judgment.

[115] Given the result in the main appeal, I would set aside the Federal Court's costs order, and award GEMAK its costs in this Court and in the Federal Court. The amount paid to Jempak by GEMAK in satisfaction of the Federal Court's costs order shall be returned to GEMAK, together with interest thereon calculated in accordance with the *Federal Courts Act*, R.S.C., 1985, c. F-7.

GLEASON J.A.: I agree.

ROUSSEL J.A.: I agree.