

Samuel Morse 150 years ago to preempt all future developments using electromagnetism in the field of telegraphy, attempts to assert patent claims of this scope have been judicially disfavored. *See, e.g., O'Reilly v. Morse*, 56 U.S. 62, 112-13 (1853).

Having chosen to pick up the sword of overly broad patent claims, the patentees must now perish by that same sword. While they have surely swept into the scope of their claim every conceivable future development in this field, they have also swept into the scope of their claim a whole variety of naturally-occurring processes that cannot lawfully be patented under 35 U.S.C. § 101. Moreover, these claims are so broad that they would encompass any previous use of any previously known drug, chemical, pesticide, food stuff, cosmetic, or any method or other material that has since been found inherently to achieve the claimed result. *See, e.g., Schering Corp. v. Geneva Pharms., Inc.*, 339 F.3d 1373, 1377-78 (Fed. Cir. 2003) (discussing doctrine of “inherent anticipation”). Information bearing on the possibility of such “inherent anticipation” events were, therefore, highly material to a proper examination of these claims. Although such information was well known to persons associated with the patent, it was not reported to the PTO in violation of their duty of disclosure.

Finally, the PTO steadfastly refused to allow claims of this scope for more than a decade. Yet, rather than appeal any of those rejections in order to obtain a timely resolution of the issue, the applicants repeatedly refiled the application and reargued the same points until they finally found an examiner who was willing to allow the claims. This tactic unreasonably and inequitably delayed issuance of the patent. The issues to be tried, therefore, are invalidity under 35 U.S.C. § 101, unenforceability arising from a culpable breach of the duty of disclosure, and unenforceability for prosecution laches.

II. The Asserted Claims Are Invalid Under 35 U.S.C. § 101

The legal and economic problem posed by patents directed to the discovery of naturally-occurring correlations and phenomena was recently before the Supreme Court but escaped review for procedural reasons. *See, e.g., Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc.*, 126 S. Ct. 2921 (2006). Justice Breyer’s dissent from the dismissal of the writ of certiorari in that case eloquently explains why such patents should be invalid under 35 U.S.C. § 101. *Id.* at 2928-29. The inventors named in the ’516 patent purportedly discovered and partially explained just such a natural correlation between NF- κ B activity and the expression of certain genes in cells. Specifically, they purport to have discovered the natural process by which inhibition of NF- κ B activity reduced or prevented expression of certain genes. However important it may have been, this discovery simply elucidated a fundamental natural phenomenon that 35 U.S.C. § 101 does not allow to be patented.

A. Reduction of NF- κ B Activity is a Natural Phenomenon

There are many natural phenomena in which NF- κ B activity is naturally inhibited. Indeed, several disease states are naturally kept in check or ameliorated by the action of various naturally occurring estrogens. The symptoms of conditions like rheumatoid arthritis and multiple sclerosis, for example, have long been recognized as abating in many women when estrogen concentrations are elevated during pregnancy. Some of these estrogenic effects are due to inhibition of NF- κ B binding and concomitant reduction of expression of some inflammatory proteins. Beyond the foregoing, however, there is one natural phenomenon, which is always at work in cells where NF- κ B activity can be induced, that acts naturally to inhibit NF- κ B activity—the so-called “autoregulatory loop.”

While not described in the ’516 patent, it is now well established that when a stimulus outside the cell induces NF- κ B activity, one of the genes that is “turned on” is the gene for the

natural inhibitor of NF- κ B, referred to in the patent as “I κ B.” Newly produced I κ B removes NF- κ B from the nucleus of the cell, prevents it from reentering the nucleus, and reduces or terminates the expression of genes that would otherwise continue to be activated by binding of NF- κ B to DNA. This system is called the “autoregulatory loop” and, even in the presence of continued inducement, it acts to reduce the amount of active NF- κ B and corresponding levels of gene expression to levels below those that would otherwise be present. Indeed, this is the way in which induced responses are naturally terminated. Whether the inducer is “LPS” from a bacterial infection, or sunlight, or some other stimulus, the natural instrumentalities present in human cells act to regulate the NF- κ B signaling pathway, inhibiting binding of the induced NF- κ B to DNA and, as soon as the inducing event stops, reducing or terminating the induced gene expression. Natural processes like this fully meet all of the limitations of the asserted claims, thereby demonstrating that the claims must be found invalid under 35 U.S.C. § 101 as encompassing natural phenomena within their scope.¹

B. The Patent Claims Are Legally Defective

The validity problem arises directly from the unprecedented breadth of the asserted ’516 patent claims. Claim 95, combined with claim 9 from which it depends, illustrates the point and reads as follows:

A method for reducing, in [human] cells, the level of expression of genes which are activated by extracellular influences which induce

¹ Operation of the autoregulatory loop is elucidated in experiments described in A. Hoffmann, A. Levchenko, M. L. Scott, and D. Baltimore, “The I κ B-NF- κ B Signaling Module: Temporal Control and Selective Gene Activation,” *Science*, 298:1241-1245 (Nov. 8, 2002). (Exh. A (DTX 469) (PTX 231) (also submitted by Ariad as Exhibit 11 in its opposition to Lilly’s pending summary judgment motion on this issue (D.I. 198)).) The experiments described in Hoffmann, Scott, and Baltimore were commented on and analyzed in Ting and Endy, “Decoding NF- κ B Signaling,” *Science*, 298:1189-1190 (Nov. 8, 2002). (Exh. B (DTX 667) (also submitted by Ariad as Exhibit 31 in its opposition to Lilly’s summary judgment motion).)

NF- κ B-mediated intracellular signaling, the method comprising reducing NF- κ B activity in the cells such that expression of said genes is reduced.²

It is no accident that the patent claims are so broad. For years, the plaintiffs sought claims to the use of any “agent” that reduced NF- κ B activity. The PTO repeatedly refused to allow such claims for lack of a written description of such “agents.” The claims were allowed only after all reference to use of such agents was removed from the rejected claims, whereby they came to encompass all possible ways of attaining the specified result.

There are three fundamental legal problems arising from claims of such scope. First, while presented in the abstract language of patent claims, the claims are nothing more than an attempt to preempt “every substantial application” of a natural phenomenon—the correlation between binding or inhibition of binding of NF- κ B and the expression of genes that it controls. *See, e.g. Gottschalk v. Benson*, 409 U.S. 63, 71 (1972). Justice Breyer’s dissent in *Lab. Corp.*, 126 S. Ct. at 2928-29 (Breyer, J. dissenting from dismissal of certiorari). Such claims are improper regardless of how deftly the art of the patent draftsman has been practiced.

Second, the claims are not directed to processes patentable under 35 U.S.C. § 101 because they fail to recite any manipulative steps. A statutory process “is an *act or a series of acts*, performed upon the subject-matter to be transformed and reduced to a different state or thing The process requires that *certain things should be done with certain substances*, and in a certain order.” *Diamond v. Diehr*, 450 U.S. 175, 183-84 (1981), quoting *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1877) (emphasis added). No series of acts is specified in the claims—only a circular recitation of the result to be obtained. *See, e.g., O’Reilly v. Morse*, 56

² The remaining asserted claims merely specify the inherent consequences that flow from reducing NF- κ B activity.

U.S. at 112-13 (striking down a claim directed to any and all means of printing intelligible characters at a distance by means of an electric current); *Lab. Corp.*, 126 S. Ct. at 2922 (Breyer, J. dissenting) (citing *O'Reilly v. Morse* as illustrating the principle that the patent law excludes from patent protection laws of nature, natural phenomena, and abstract ideas).

Finally, the invalidity of the claims under 35 U.S.C. § 101 is established by the fact that they literally encompass naturally-occurring processes in violation of the patent law. Simply discovering how naturally-occurring biological systems work has never entitled the discoverer to a patent. “[P]atents cannot issue for the discovery of the phenomena of nature.” *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948). *See also Gottschalk v. Benson*, 409 U.S. 63, 67 (1972); *Parker v. Flook*, 437 U.S. 584, 591 (1978); *Diamond v. Diehr*, 450 U.S. at 185. “He who discovers a hitherto unknown phenomenon of nature has no claim to a monopoly of it which the law recognizes.” *Funk Bros.*, 333 U.S. at 130. Whether a claim is directed to statutory subject matter under 35 U.S.C. § 101 is a question of law. *Arrhythmia Research Tech., Inv. v. Corazonix Corp.*, 958 F.2d 1053, 1055 (Fed. Cir. 1992).

If a patent claim is so broad as to encompass within its scope a naturally-occurring product or process, it grants an exclusive right over something not lawfully protectable under the patent law and is invalid under 35 U.S.C. § 101. This is precisely the same rule that applies to every other substantive patentability requirement. *See In re Hyatt*, 708 F.2d 712, 714-15 (Fed. Cir. 1983) (claim broad enough to encompass old or non-enabled subject matter unpatentable under 35 U.S.C. §§ 102 or 112, respectively). The Federal Circuit’s predecessor has confirmed that this common-sense analysis applies in evaluating the prohibition against patenting naturally-occurring processes under 35 U.S.C. § 101. The court has indicated that an invention that is “claimed sufficiently broadly to encompass . . . what has previously existed in fact in nature’s

storehouse, albeit unknown,” is unpatentable. *In re Bergstrom*, 427 F.2d 1394, 1401 (C.C.P.A. 1970). That this has been the law for more than a century is apparent from the Supreme Court’s observation in the *Telephone Cases*, 126 U.S. 1, 270-71 (1888):

In one of the cases on appeal . . . the court says: “There can be no patent for a mere principle. The discoverer of a natural force or a scientific fact cannot have a patent for that.” But it proceeds to make this exception nugatory by confounding the natural process (or scientific fact) with the invented process for working the apparatus; sustaining the patent for the last upon a construction which blindly sweeps in the first.

The series of biochemical reactions involved in regulation of gene expression by NF-κB is a naturally-occurring process. “Though every set of steps, of whatever nature, may properly be labeled a ‘process,’ § 101 (‘Whoever invents’) limits the patent system to invented processes. Sets of steps conducted entirely by nature are not subject to patenting; they are not invented by man.” *In re Sarkar*, 588 F.2d 1330, 1333 (C.C.P.A. 1978).

Patent practitioners in this field have long understood the need to exclude naturally-occurring products and processes from the scope of their patent claims. The words needed to do so are well known to patent drafters. *See, e.g., Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1329 (Fed. Cir. 2003) (claiming “non-naturally occurring” erythropoietin). In their rush to preempt all possible uses of the natural phenomenon they discovered, the owners of the ’516 patent strayed across that line and must now suffer the consequences.

C. The Plaintiffs Cannot Rewrite Their Patent Claims in this Court to Avoid Invalidity

Now recognizing the consequences of having claimed their invention too broadly, the plaintiffs have attempted to avoid invalidity under 35 U.S.C. § 101 by reading limitations into their patent claims that simply are not there. This they may not do, particularly where this Court has previously construed the patent claims and noted no such limitations. Importing limitations

from the written description has been termed “one of the cardinal sins of patent law”

SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1340 (Fed. Cir. 2001); *see also McCarty v. Lehigh Valley R.R. Co.*, 160 U.S. 110, 116 (1895).

For example, the fact that the preambles of the asserted claims call for “[a] method” does not exclude natural phenomena. The word “method” in patent law is a ubiquitous term of art synonymous with the word “process” used in § 101. *See, e.g.*, 35 U.S.C. § 100(b); *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1376 (Fed. Cir. 2001) (referring to the claimed method as “the claimed process”). Indeed, the principal drafter of the 1952 Patent Act, P.J. Federico, stated in his contemporaneous “Commentary on the New Patent Act,” that “the definition of process in Section 100(b) states that the word ‘process’ means process or method, as these words have long been interchangeably used in patent law” P.J. Federico, *Commentary on the New Patent Act*, 75 J. Patent & Trademark Office Soc’y 161, 176 (1993) (reprinted from 35 U.S.C.A. 1954 ed.). Federico’s Commentary, which has been cited hundreds of times by Federal Courts, has been characterized by the Federal Circuit as “an invaluable insight into the intentions of the drafters of the [Patent] Act.” *Symbol Techs., Inc. v. Lemelson Med., Educ. & Research Found. LP*, 277 F.3d 1361, 1366 (Fed. Cir. 2002). Plaintiffs cite no authority in support of their contention that the word “method” in a patent claim has ever been held to mean anything other than “process.” Lilly strongly suspects there is none.

There is no special definition of the word “method” in the specification of the patent in suit. There was no argument during patent procurement that the word “method” limited the scope of the claim in any way. It is clear from *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972), that simply using the word “method” does not confine the claim to subject matter patentable under 35 U.S.C. § 101. There, a claim to a “method” was found invalid under 35 U.S.C. § 101

because it was in practical effect a patent on a mathematical principle. 409 U.S. at 71-72. More importantly, the meaning of the word in patent law and in these claims is a question of law for the Court. It does not turn on lawyer's argument, irrelevant dictionary definitions, or extrinsic scientific opinion. *Phillips v. AWH Corp.*, 415 F.3d 1303,1332 (Fed. Cir. 2005).

Plaintiffs have also contended, without support in their expert reports, that the action of I κ B in reducing the amount of active NF- κ B might not actually reduce gene expression *in the continued presence of an inducing substance*. The contention is utterly immaterial, however, because none of the asserted claims require the *continued* presence of an inducing substance. They require only a response induced by some stimulus and an attenuation of the induced response. This is exactly what the autoregulatory loop does when it terminates a previously induced response.

Plaintiffs' assertion in this regard is also at odds with the text of the patent. The patent in suit says that reduction of gene expression, so-called "negative regulation," results from events that either "reduce or eliminate" NF- κ B binding. (Col. 37, lines 43-46.) Even in the continued presence of inducing substances, the autoregulatory loop unquestionably reduces the amount of active NF- κ B. If something more than reducing of the amount of active NF- κ B is required to reduce NF- κ B binding and concomitant gene expression, the patent in suit does not tell you what it is or how to do it. Natural processes (*i.e.*, the inhibition and release of NF- κ B by I κ B) naturally yield the specified results—increasing and decreasing NF- κ B activity in order to meet the changing needs of the organism.

III. The Patent Is Unenforceable for Inequitable Conduct

Many of the important issues relating to the validity of the '516 patent were simply not considered during the 16-year pendency of the applications leading to that patent. This resulted directly from the failure of those associated with procurement of the patent to call material

information to the attention of the patent examiner. PTO Rule 56, 37 C.F.R. § 1.56, imposes a duty of disclosure on patent applicants, their assignees, and those involved in procurement of the patent. The duty requires the disclosure of material information known to such persons.

Material information is not limited to information that invalidates the patent. The Federal Circuit has recently made clear that information is material if there is a substantial likelihood that a reasonable examiner would consider the information important in deciding whether to allow the application to issue as a patent, regardless of whether the information ultimately establishes that the claims are unpatentable. *See Digital Control Inc. v. Charles Mach. Works*, 437 F.3d 1309, 1315 (Fed. Cir. 2006).

Intentional failure to comply with the duty of disclosure renders the patent unenforceable. *Id.* at 1321. Procurement of *any claim* of the issued patent through such inequitable conduct renders the entire patent unenforceable. *JP Stevens Co. v. Lex Tex Ltd.*, 747 F.2d 1553, 1561-62 (Fed. Cir. 1984).

Intent to deceive the PTO need not be shown by direct evidence. *Bruno Indep. Living Aids, Inc. v. Acorn Mobility Servs., Ltd.*, 394 F.3d 1348, 1354 (Fed. Cir. 2005) (“Intent need not, and rarely can, be proven by direct evidence.’ Rather, in the absence of a credible explanation, intent to deceive is generally inferred from the facts and circumstances surrounding a knowing failure to disclose material information.”) quoting *Merck & Co. v. Danbury Pharmacal, Inc.*, 873 F.2d 1418, 1422 (Fed. Cir. 1989); *Ulead Sys., Inc. v. Lex Computer & Mgmt. Corp.*, 351 F.3d 1139, 1146 (Fed. Cir. 2003) (“Direct evidence of deceptive intent is not required; rather it is usually inferred from the patentee’s overall conduct.”). “Where an applicant knows of information the materiality of which may so readily be determined, he or she cannot intentionally

avoid learning of its materiality, even through gross negligence.” *Brasseler, U.S.A., I, L.P. v. Stryker Sales Corp.*, 267 F.3d 1370, 1380 (Fed. Cir. 2001).

A. The Fact That Figure 43 Did Not Disclose Mammalian IκBα Was Concealed

The patent applicants, their assignees, and those involved in procurement of the patent did not disclose to the patent examiner in connection with examination of the application for the '516 patent that Figure 43 of the patent was not what it purported to be. Figure 43 purported to describe the DNA and amino acid sequences for the mammalian IκBα referred to in experiments described in the patent. It was not that DNA, it did not encode that protein, and persons associated with procurement of the patent knew it. This was an egregious violation of the duty of disclosure.

Reading the text of the patent leading up to the identification of Figure 43 as the DNA and amino acid sequence for IκBα, (col. 27, line 10-col. 28, line 17), the reader of ordinary skill is led inexorably to the conclusion that the materials described in Figure 43 are *mammalian*, specifically murine, IκBα DNA and IκBα protein. By at least May of 1998, the lawyers who ultimately procured the '516 patent and their client knew that Figure 43 did *not* represent the DNA or protein sequence for murine IκBα or any other mammalian IκBα. Rather, the prosecuting attorneys had received information from their client indicating that the Figure 43 sequence was wrong and instead contained sequence information from a chicken protein called pp40. Significantly, the plaintiffs in this action have also admitted that the amino acid sequence in Figure 43 is incomplete. In short, the Figure 43 sequence is not only not a mammalian IκBα, it is not even the correct sequence for pp40.

This error was highly material to examination of the '516 patent. During procurement of the '516 patent, the availability of IκBα and particularly the DNA for IκBα was relied upon in numerous arguments advanced to support the adequacy of the patent disclosure. Indeed, the

specification proclaimed “As a result of the work described herein, the IκB gene is now available . . .” (Col. 31, l. 57-58). All of these arguments were made well after the Federal Circuit’s decision in the landmark case of *Fiers v. Revel*, 984 F.2d 1164 (Fed. Cir. 1993), holding that “[a]n adequate written description of a DNA requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it; what is required is a description of the DNA itself.” *Id.* at 1170. *See also Regents of the Univ. of Cal. v. Eli Lilly & Co.*, 119 F.3d 1559, 1568 (Fed. Cir. 1997) (confirming *Fiers* and provoking the adoption by the PTO of the “written description” guidelines that figured so prominently in the repeated rejections of the ’516 patent claims). The representation in the patent text that DNA encoding mammalian IκBα gene had actually been obtained and was described by structure in the patent application was, therefore, critical to the PTO’s evaluation of patentability arguments based on the availability of that DNA.

The attorneys prosecuting the ’516 patent and their client waited until they had secured Notices of Allowance and prosecution on the merits had been closed in two co-pending applications sharing the identical specification with the ’516 patent before deleting Figure 43 and all reference to it from those patent applications. The actions were taken by Dr. Isabelle Clauss, who at the time was working under the supervision of Dr. Matthew Vincent. The supervision by Dr. Vincent was not merely a matter of administrative convenience. Rather, Dr. Clauss had received only limited recognition from the PTO to practice before it, specifically conditioned on another lawyer—specifically Dr. Vincent—being the attorney of record in the application.

At the time the ’516 patent was ultimately allowed, there remained serious issues relating to whether or not the patent specification satisfied the written description and enabling disclosure requirements of 35 U.S.C. § 112. Those issues had prevented issuance of method claims like

those contained in the '516 patent for 10 years. Had those rejections not been overcome when they were, the patent applicants would have been required to refile the patent application, whereby the term of any ultimately issued patent would have expired in January 2006 (20 years from the earliest filed priority application) instead of 2019 (17 years from the date of issue) due to amendments to the statute. Indeed, the patent applicants pled with the examiner not to force them to refile the application precisely in order to avoid this loss of patent term. The extensive reliance during prosecution on the availability of I κ B α and I κ B α DNA compels the conclusion that had the PTO been informed that what appeared to be disclosure of that material information in the patent application was in fact incorrect, it would at a minimum have resulted in continued rejection of the application and a requirement that it be refiled. Non-disclosure of the errors in Figure 43 constitutes inequitable patent procurement rendering the entire patent unenforceable.

An allegation of innocent mistake simply cannot be accepted under these circumstances. The information that the Figure 43 sequence was wrong came from the client, not the attorneys, and at least the client, therefore, had an obligation to correct the record in the '516 patent. The attorneys involved—Dr. Clauss and Dr. Vincent—both had Ph.D.s and were technically sophisticated. The information came to the attention of Dr. Clauss not once but twice at a time when she was required to be and was operating under the supervision of the attorney of record—Dr. Vincent. Dr. Clauss discussed the issue of Figure 43 with Dr. Vincent. There was an overpowering incentive not to raise new issues during the procurement of the '516 patent for fear of being required to refile the application and losing at least 13 years of patent term.

Nor can the non-disclosure of the error in Figure 43 be excused by virtue of acknowledging that the figure was wrong and cancelling it in other applications. The cancellation of the figure in other applications was not made during substantive examination of

those applications, but was instead withheld in both cases until the applications had safely been allowed and prosecution on the merits had been closed. Far from exculpating the conduct in procuring the '516 patent, this suggests a pattern of ineffective disclosure in all three cases.

More significantly, the PTO and the courts have long recognized that “it is unfair to a busy examiner, no matter how diligent or well informed he may be, to assume that he retains details of every pending file in his mind” *Armour & Co. v. Swift & Co.*, 466 F.2d 767, 779 (7th Cir. 1972); M.P.E.P. § 2001.06(b). The law required then, as it does now, that a complete record have been made in the application for the '516 patent itself. *Id.*

The fact that the jury in this case may have found the '516 patent to have an effective filing date in 1989, before Figure 43 was included, does not negate materiality. The examiner was examining the claims on the basis of the information disclosed in the 1991 application. In pending reexamination proceedings, the PTO has accorded the patent a filing date no earlier than 1991, thereby confirming that a reasonable examiner would have regarded deficiencies in that 1991 disclosure as important.

B. Evidence Raising Issues of Inherent Anticipation Was Concealed

A similar failure to disclose material information resulted in the failure of the PTO to consider the inherent anticipation issues, which were the subject of extensive evidentiary presentation in the jury trial. As time passed, it became apparent that the processes regulated by NF- κ B were ubiquitous, involved a large number of cell types, and involved a large number of gene products. Indeed, the ubiquity of the NF- κ B pathway rapidly came to explain hitherto unexplained mechanisms of action of a large variety of prior art drugs and chemical compounds, ranging from resveratrol (found in red wine), through aspirin, to glucocorticoid drugs. Far from remaining ignorant of these developments, the inventors embraced and reveled in the ability of their discovery to explain the action of these old materials. For example, co-inventor Dr.

Baldwin published a review article in 1996 wherein he demonstrated his knowledge of and rereported the findings that a number of these prior art compounds in fact acted as inhibitors of NF- κ B activity. (Exh. C (DTX 24s), Baldwin, “The NF- κ B and I κ B Proteins: New Discoveries and Insights,” *Annu. Rev. Immunol.*, 14:649-81 (1996).) He published a paper in 2000 himself describing the ability of resveratrol to inhibit NF- κ B.

The concept of inherent anticipation was well established in patent practice long before the conclusion of prosecution of the application for the '516 patent. Indeed, applications in this patent family were repeatedly rejected for inherent anticipation—at least *ten* times between 1988 and 1997. The application for the '516 patent had itself been twice rejected for inherent anticipation prior to October 27, 1997. In rejecting the claims in the '516 patent for inherent anticipation, the examiner clearly and correctly stated that it was not necessary for the anticipating reference to have mentioned or recognized the presence or mode of action of NF- κ B in the system it described. The patent applicants did not appeal that ruling (or any of the prior rulings). Instead, the rejection was avoided in the application for the '516 patent by amending the claims to require the use of an “agent,” alleged to act *within* the cell, which avoided the particular disclosure relied upon by the examiner. The examiner thereafter withdrew the rejections based on inherent anticipation and proceeded repeatedly to reject the claims reciting use of “agents” for failure to comply with the disclosure requirements of 35 U.S.C. § 112.

Having languished unallowable in the PTO for years, the entire transaction resulting in the decision to allow the '516 patent occurred over a two-day period in the immediate aftermath of the September 11, 2001, attack on the neighboring Pentagon. An amendment was filed and alleged to obviate the rejections under 35 U.S.C. § 112 on September 12, 2001, and was inexplicably accepted by a different primary examiner as placing the application in condition for

allowance two days later. That amendment actually *broadened* the previously rejected claims by removing the requirement for the use of an “agent,” thereby recreating the inherent-anticipation problem avoided by amendment four years earlier. That fact was not called to the attention of the patent examiner and the application was allowed.

We need not guess as to whether these inherent-anticipation references known to the inventors during the pendency of the application for the '516 patent would have been regarded as important by a reasonable patent examiner in deciding whether to allow the application to issue as a patent. The reexamination requests filed by Lilly and others in connection with the '516 patent have resulted in PTO determinations (1) that a reasonable patent examiner would regard this information as important in deciding whether to allow the application to issue as a patent and (2) that this information raises a substantial new question of patentability warranting reexamination of the patent.

The nondisclosure of this material information was intentional. Inventor Dr. Baldwin admitted in his deposition that he was aware of his duty of disclosure, that he was aware of a large volume of material indicating or suggesting that a variety of old compounds in fact inhibited NF- κ B activity, and that he nonetheless did not disclose that information to the patent examiner, allegedly based on a reluctance to “inundate” the examiner with this large volume of material. The contention is incredible in view of the fact that the patentees had already inundated the patent examiner with large volumes of materials generated after their filing date believed to support their claims for patentability.

There was ample motivation to conceal the inherent anticipation issue from the PTO. First, concealment of that information again permitted the application to be allowed without refiling, thereby dramatically expanding the enforceable term of the patent. Second, in contrast

to litigation on an issued patent, the examination in the PTO would have proceeded with no presumption of validity and no “clear and convincing” evidence standard. Third, the arguments advanced by Plaintiffs in this Court to avoid the effect of that evidence could not have been advanced in the PTO. Specifically, where the material submitted to the PTO reasonably suggests that processes used in the prior art, albeit described in different words, are inherently the same as the process being claimed, the PTO is authorized to shift the burden to the patent applicant to prove that the prior art techniques do *not* result in practicing the claimed method. *In re Best*, 562 F.2d 1252, 1254-55 (C.C.P.A. 1977). The repeated allegation that the evidence did not clearly and convincingly establish that the processes *were* the same, upon which Plaintiffs extensively relied at trial, would not have sufficed.

For these same reasons, the undisclosed information was highly material to the proper examination of the patent application regardless of whether or not it was recognized as invalidating prior art by a lay jury under the different evidentiary standards and limitations applicable in this case. Indeed, the inventors’ admissions regarding the effects of prior art processes would have been highly material to and would have been received for consideration by the PTO, whereas they were excluded from consideration by the jury in this case.

An allegation of immateriality simply cannot be accepted here. While some information touching on inherent anticipation was buried in voluminous submissions made on other issues by the applicants, those materials were submitted to buttress the alleged adequacy of the patent disclosure. They were not cited as bearing on anticipation issues, were not themselves prior art, and were never cited by the examiner. One does not satisfy one’s duty of disclosure by burying important disclosures in a mountain of unrelated material. *See, e.g., Penn Yan Boats, Inc. v. Sea Lark Boats, Inc.*, 359 F. Supp. 948 (S.D. Fla. 1972). *Rohm & Haas Co. v. Crystal Chem. Co.*,

722 F.2d 1556, 1573 (Fed. Cir. 1983) (disclosure of pertinent information in large volume of other material did not exculpate prior misrepresentation).

IV. The '516 Patent Is Unenforceable for Prosecution Laches

The long and tangled prosecution history leading to issuance of the '516 patent demonstrates unreasonable delay on the part of the patent applicants resulting in obvious and material prejudice to entities like Lilly who invested heavily in the development of drugs now alleged to infringe the belatedly issued patent. Applicants are obligated to prosecute applications in a timely manner before the PTO; they cannot seek to unreasonably and unexplainably delay the prosecution of an application. *Symbol Techs., Inc. v. Lemelson Med., Educ. & Research Found., LP*, 422 F.3d 1378, 1384-85 (Fed. Cir. 2005); *Symbol Techs., Inc. v. Lemelson Med., Educ. & Research Found., LP*, 277 F.3d 1361, 1364 (Fed. Cir. 2002). Failure to prosecute the application diligently, with resulting prejudice to litigants and the public, creates the equitable defense of prosecution laches. Prosecution laches must be assessed by an examination of the totality of the circumstances, including the prosecution history of all of a series of related patents and overall delay in issuing claims. *Symbol Techs.*, 422 F.3d at 1386. There is no set time period for prosecution laches to apply. *Crown Cork & Seal Co. v. Ferdinand Gutmann Co.*, 304 U.S. 159, 168 (1938) (finding absence of intervening rights prevented two-year delay from being sufficient).

Viewed in the light most favorable to plaintiffs, they assert entitlement to benefit of an application filed in April of 1989. Claims directed to the invention ultimately claimed in the '516 patent were finally rejected for failure to comply with 35 U.S.C. § 112 no later than April of 1991, whereby the issue was ripe for appeal. The patent applicants did not do so. Instead, they abandoned the application and repeatedly refiled it, pursuing such claims from time to time only to abandon that attempt in the face of continued rejections for lack of an adequate disclosure.

This process continued for a decade, without appeal, until they finally found an examiner who would allow the claims.

Lilly contends this should constitute prosecution laches. It is inequitable to allow a patent applicant to repeatedly refile an application and submit and withdraw claims indiscriminately in the face of steadfast rejection in the hope of wearing down the examiner or waiting for the passage of time to bring a new face and a different patentability standard to the table. There must be an obligation to take a timely appeal.

V. Conclusion

For the foregoing reasons, the evidence previously adduced and to be adduced at this bench trial will amply warrant entry of judgment that the '516 patent is invalid under 35 U.S.C. § 101, is unenforceable due to a culpable breach of the duty of disclosure, and is unenforceable for prosecution laches.

Respectfully submitted,

Date: August 2, 2006

/s/ Charles E. Lipsey_____

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CERTIFICATE OF SERVICE

I hereby certify that this document filed through the ECF system will be sent electronically to the registered participants as identified on the Notice of Electronic Filing and paper copies will be sent to those indicated as non-registered participants on August 2, 2006.

/s/ Charles E. Lipsey