No. 03-1237

In The

Supreme Court of the United States

MERCK KGAA,

Petitioner,

v.

INTEGRA LIFESCIENCES I, LTD. and THE BURNHAM INSTITUTE, and TELIOS PHARMACEUTICALS, INC.,

Respondents.

On Writ of Certiorari
to the United States Court of Appeals
for the Federal Circuit

BRIEF OF *AMICI CURIAE*
ELI LILLY AND COMPANY, WYETH, AND PFIZER INC
IN SUPPORT OF PETITIONER

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QUESTION PRESENTED

To expedite the marketing of new drugs upon expiration of relevant patents, Congress created a safe harbor in the patent laws to shelter new drug development from patent infringement liability when the development is "reasonably related to the development and submission of information" under the Federal Food, Drug, and Cosmetic Act. Does this safe harbor shelter non-clinical activities of the sort that innovative drug developers typically conduct?

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I. INTEREST OF *AMICI CURIAE* [1]

Amici curiae Eli Lilly and Company, Wyeth, and Pfizer Inc ("*Amici*") are among the world's large, research-based pharmaceutical and health care companies. *Amici* develop innovative products and services enabling people to live longer, healthier, and more active lives. As part of their respective businesses, *Amici* have spent many tens of billions of dollars on developing new drugs, tested literally millions of potential new drugs, submitted hundreds of applications to the Food and Drug Administration ("FDA") for investigational uses of new drugs ("INDs") and many new drug applications ("NDAs"), and obtained thousands of patents on the inventions that their scientists and engineers have made, including compounds, methods of making and using them, and research tools.

If non-clinical activities that *all* innovative new drug developers, including *Amici*, regularly undertake to discover and test potential new drugs do not fall within the safe harbor of the § 271(e)(1) exemption, then development of some drugs will be substantially delayed or will never occur. Without sufficient freedom to conduct all non-clinical activities reasonably related to creating and testing potential new drugs, clinical testing and approval of many new drugs will not occur. This Court's interpretation of the scope of § 271(e)(1) therefore will have a direct impact on the ability of innovative drug developers, such as *Amici*, to continue to develop new drugs in the 21st century.

Amici have no financial interest in the parties to this litigation or in the outcome of this specific case, other than

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[1] This brief was not authored, in whole or in part, by counsel for either party. No person or entity other than *amici curiae* and their counsel made a monetary contribution to the preparation or submission of this brief. The parties consented to the filing of the brief and copies of their letters of consent have been lodged with the Clerk of the Court.

their interest in seeking a correct and consistent interpretation of § 271(e)(1) that achieves the policy goal for the 1984 Amendments of assuring timely development and marketing of new, safer, and more effective drugs, and of lower cost generic equivalents thereof.

Mr. Robert A. Armitage was an expert for Petitioner Merck KGaA, and he is now General Counsel of *Amicus Curiae* Eli Lilly and Company. Mr. Armitage did not contribute to drafting or reviewing this brief.

II. INTRODUCTION

The development of innovative new drugs is lengthy, risky and costly. It can take up to 10 – 15 years and an average of $800 million to bring a new drug to market. Tufts Center for the Study of Drug Development, *Outlook 2002, at* http://csdd.tufts.edu/infoservices/outlookpdfs/outlook2002.pdf (last visited Feb. 16, 2005). Innovative drug developers such as *Amici* account for over 90% of the innovative new drugs that enable people to live longer, healthier, and more active lives.

Because the length, risks and costs of innovative drug development are so great, every activity in the development process has a purpose and a clear rationale. Each is designed to generate information that ultimately goes into the decision of whether a potential new drug will progress to the next hurdle. Each is aimed at the same ultimate goal: to gain FDA approval.

Along the way, many potential new drugs must be created and tested for their ability to treat a disease without undue harm to the patient. Before testing any new drug in humans, laboratory tests are conducted *in vitro* (studies conducted outside of animals) and *in vivo* (studies conducted in animals). The laboratory stage takes many years, and

winnows the pool of potential new drugs to hopefully one or a few that have a suitable balance between safety and effectiveness to warrant the risk and cost of testing in humans. In many cases, the winnowing process eliminates all potential new drugs and a different approach has to be tried. This process is the standard approach for new drug development in the early 21st century – no better way has been invented to identify promising, potential new drugs.

Innovative new drug development, thus, resembles a funnel. Just as a funnel is widest at the top, so too the early phases of drug development involve many more potential drugs than eventually emerge. The narrowing of the funnel represents the winnowing of less attractive potential new drugs. Blocking the funnel at any point cuts off the entire flow of new drugs.

The decision of the Court of Appeals in *Integra LifeSciences I Ltd., et al. v. Merck KGaA*, 2003 U.S. App. LEXIS 27796 (Fed. Cir.), *reh'g denied, reh'g en banc denied*, (Fed. Cir. Dec. 3, 2003), has blocked the funnel. The majority's decision below is a radical departure from twenty years of jurisprudence and from reason. By determining that non-clinical activities are not exempt from infringement liability, the opinion effectively restricts the ambit of § 271(e)(1) to institutions that do not conduct innovative drug development as it is now universally conducted. Such a restriction is inconsistent with this Court's precedent and the plain meaning of the statute. Additionally, it reopens a door that Congress thought it had closed and locked by enacting the Drug Price Competition and Patent Term Restoration Act of 1984, Pub. L. No. 98-417, 98 Stat. 1585 (1984) ("the 1984 Amendments"), namely, *de facto* patent term extension. Finally, the decision also frustrates another objective for the 1984 Amendments – timely market entry of innovative new drug products.

Thus, the tangible benefits of the safe harbor have been

rendered ephemeral, providing protections from infringement actions only for clinical activities, but leaving exposed the prerequisite development work necessary to get to that stage. The decision enables patent holders to prevent others from entering, or moving down the funnel. As a result, drug development will slow and its costs will mount in what is already a lengthy, high risk, high cost process; patients will be deprived of timely access to new, safer, more effective drugs; the entry of generic equivalents will be delayed; promising drugs to treat unmet medical needs will never be developed; and drug development activities along with valuable American jobs will be exported to countries having more favorable legal environments.

Therefore, the decision below should be reversed. However, in doing so, this Court should not draw bright lines regarding qualification for exemption under § 271(e)(1). Line-drawing with respect to the status or intentions of the actor, the timing or character of the activity, such as whether the activity is non-clinical or clinical or whether it is required for drug approval or not, the number of compounds involved, or the type of patented invention involved will cause improper extension of market exclusivity and restriction of the benefit of § 271(e)(1) to non-innovative companies. Congress could not have intended these outcomes, which ultimately harm patients.

III. ARGUMENT

A. 21st Century Drug Development Under the "Federal Law Which Regulates the Manufacture, Use, or Sale of Drugs"

The funnel-shaped process of innovative drug development begins many years before the FDA finally approves a drug for sale. No new drug can be approved for sale unless tested in humans, and found to both provide effective treatment for the disease under study and to be safe enough to administer to patients. 21 U.S.C. 355(a) (2004). No new drug can be tested in humans unless, on balance, very extensive testing of the new drug outside of humans provides sufficient confidence that the risks of testing in humans are warranted. 21 CFR 312.40(d) (2004). No new drug will be subjected to such extensive testing unless it has first been created, and preliminarily found to have a reasonable potential to be a new drug for a particular disease.

Advances in science and technology over the last twenty years have markedly altered the way in which potential new drugs are created and their potential evaluated. Today, much of drug development begins with the identification of one or more molecular components of a biological pathway of the body (a "target"), and the establishment of its (or their) association with a disease of interest. These activities are near the opening at the top of the funnel.

Once the association between a target and a disease is reasonably well validated, all subsequent efforts using the target are directed toward developing a new drug that will affect the target in a way that will treat the disease. These efforts begin by testing the ability of potential new drugs to bind to the target in a way consistent with treating the disease.

The ability of potential new drugs to bind to a target of

interest and affect the disease are first typically, though not uniformly, tested outside of animals in *in vitro* tests, also called "assays." Such assays employ the target, often a protein, which may be a "receptor" or an "enzyme," or a piece of genetic material such as DNA, that has been shown to be associated with the disease sought to be treated. The objective is to find potential new drugs that modulate the target, and thereby potentially reduce or eliminate the disease. The occurrence of such a desired interaction in a target assay or in an animal model of the disease may be referred to as a "hit." Other potential new drugs having molecular structures similar to the one(s) that caused the hit are made and tested for their relative potential efficacy in treating the disease. Many compounds will fail these tests and not be considered to be good prospects for continued development. In this manner, the funnel has narrowed.

Once a number of potential new drugs that have sufficiently high efficacy for treating the disease is obtained, they may then be tested against "counter-targets." Counter-targets are other targets that, for one reason or another, the potential new drug should not interact with because such interaction may cause safety concerns. Although this counter-testing is often conducted *in vitro*, some of this type of safety testing may also be carried out using animals. These tests further narrow the funnel.

While the activities described above do not require FDA approval in advance, they are all nonetheless conducted with the objective of finding a safe, effective, and approvable drug. The criteria for success are those established under the FFDCA, including primarily safety and efficacy, and also dose, mechanism of action, and pharmacology, among others.

Development continues in this fashion until hopefully one or a few compounds of high drug potential are left. Very expensive and time consuming studies continue on these few

compounds to develop more information about their pharmacology (study of the chemistry, composition, identification, biological and physiological effects, uses and manufacture of drugs), pharmacokinetics (study of the processes of drug absorption, transformation, distribution to tissues, duration of action, and elimination), mechanism of action (study of the way a drug affects the target and disease), dose and formulation, routes of administration, and toxicology (study of adverse effects *in vitro* and in animals).

Scientific, moral, and legal norms properly prevent the initial use of human beings for the activities described above. Science has not yet provided complete predictability between the results of such activities and safety and efficacy in humans. If it had, human testing would not be required. Such concerns cause drug developers to employ every reasonable way, though difficult and costly, to acquire information upon which to base a decision to test a potential new drug in humans.

The goal of innovative drug development is to identify safe and effective new drugs that contain an active ingredient that had never before been developed or approved (a "new molecular entity"). Congress clearly recognized the great value and also the great difficulty and investment involved in developing a new molecular entity. It did this by preventing the FDA from approving generic versions of such drugs for five years. 21 U.S.C. §§ 355(c)(3)(D)(ii) and 355(j)(4)(D)(ii). By comparison, drugs that do not contain a new molecular entity can, at most, qualify for three years of such exclusivity. 21 U.S.C. §§ 355(c)(3)(D)(iii) and 355(j)(4)(D)(iii).

This two year differential is a part of Congress' incentives and rewards for the ardors of drug development described above. Congress knew in 1984 that these very special new molecular entities do not materialize out of thin air, but rather that it took long years of non-clinical

development work, often fraught with frustration and without any assurance of success in getting to the clinic. Congress specifically provided incentive to create them in the same act that provided the § 271(e)(1) safe harbor provision at issue in this case.

B. The Court of Appeals' Holding Conflicts With the Plain Meaning of, and Purpose For, § 271(e)(1) and With This Court's Precedent.

Amici are seriously concerned that the holding of the Court of Appeals' majority, despite the errata that attempts to remedy the clear errors in the original opinion, will nevertheless recreate *de facto* patent term extensions and effectively restrict the protection of the safe harbor to non-innovative generic drug companies. These results are clearly contrary to Congressional intent, to this Court's precedent, and to the plain meaning of 35 U.S.C. § 271(e)(1), which states:

> It shall not be an act of infringement to make, use, offer to sell, or sell within the United States or import into the United States a patented invention . . . solely for uses reasonably related to the development and submission of information under a Federal law which regulates the manufacture, use, or sale of drugs or veterinary biological products.

For example, the Court of Appeals stated that one of two "reasons" for the 1984 Amendments "sought to ensure that a patentee's rights did not *de facto* extend past the expiration of the patent term because a *generic* competitor also could not enter the market without regulatory approval." *Integra*, 2003 U.S. App. LEXIS 27796 at *10 (emphasis added) (calling attention to the Court's decision in *Eli Lilly & Co. v. Medtronic, Inc.*, 496 U.S. 661 (1990)).

In a similar vein, relying primarily on selected portions of the legislative history and presumptions about the "purpose" for the statute, the majority limited the meaning of "reasonably related" to activities not far beyond those required to gain approval for a generic version of a drug already on the market. *Integra*, 2003 U.S. App. LEXIS 27796 at *16-17.

In *Lilly*, this Court held that § 271(e)(1) broadly applies to the entire scheme of regulation under the Federal Food, Drug, and Cosmetic Act ("FFDCA"), not merely a narrow portion of it. "Taking the action 'under a Federal law' suggests taking it in furtherance of or compliance with a *comprehensive scheme of regulation*." *Lilly*, 496 U.S. at 667 (emphasis added). In concluding that medical devices – although not specifically mentioned in § 271(e)(1) – qualify for the protections of the statute, this Court focused on the broad language and purposes of the statute itself, which clearly encompass more than activities related to the filing of applications for approval of generic drugs. *Id*. Under this Court's interpretation in *Lilly*, there can be no doubt that the entire FDA regulatory scheme for new drugs constitutes a "Federal law which regulates the manufacture, use, or sale of drugs . . .." 35 U.S.C. § 271(e)(1).

The Court of Appeals erred, in part, because it failed to consider the FDA's "comprehensive scheme of regulation," as this Court's precedent in *Lilly* requires. In particular, it ignored the provisions of that scheme that are pertinent to an IND. *See* 21 CFR § 312. Rather, the lower court fixated on clinical trials and ultimate approval, which are important aspects of new drug development, to be sure. However, these occur only after successfully completing antecedent, non-clinical activities, which are reasonably related to developing information upon which to base a decision whether to test a potential new drug in humans.

The Court of Appeals' opinion also creates the untenable

position that § 271(e)(1) does not apply when some or all of the information that is developed is not actually submitted to the FDA, based on the patently flawed premise that "[t]he FDA has no interest in the hunt for drugs that may or may not later undergo clinical testing or FDA approval." *Integra*, 2003 U.S. App. LEXIS 27796 at *15. Such a premise finds no support in the statute or the facts, which show beyond doubt that Congress and thus the FDA are keenly interested in the hunt for new drugs. *See, e.g.*, 21 U.S.C. §§ 355(c)(3)(D)(ii) and 355(j)(4)(D)(ii).

The statute does not mention anything about the FDA's interest, but instead commands inquiry into whether the use of the patented invention was "reasonably related to the development and submission of information" under the FFDCA's comprehensive regulatory scheme. The word "submission" in the statute does not mean that information has to be submitted in order to qualify for the exemption. Congress did not intend that failure to submit such information would negate the protection of § 271(e)(1).

The Court of Appeals restricted the benefits of the § 271(e)(1) safe harbor to generic drug companies, and therefore the decision is also directly at odds with this Court's holding in *Lilly*. This Court stated that § 271(e)(1) "allows competitors, prior to the expiration of a patent, to engage in otherwise infringing activities necessary to obtain regulatory approval." *Lilly*, 496 U.S. at 671. In so stating, this Court did not limit the type of competitor to a generic drug competitor, nor the activities to those related to clinical trials or to obtaining marketing approval.

This Court's statement about the infringing activities being "necessary to obtain regulatory approval" does not mean that the only activities exempted are those directly involved in obtaining regulatory approval. The defendant in *Lilly* had conducted an extensive development program to create a new, competing device, prior to clinical testing. All

such antecedent development activities must be viewed as "necessary to obtain regulatory approval" of an innovative new product. In *Lilly*, this Court did not limit § 271(e)(1) based on the types of activities or the status or intentions of the actor, but rather, it countenanced all activities congruent with obtaining regulatory approval. The *Lilly* precedent has well served the interests of patients and the public. It should be followed in the present case.

C. Non-Clinical Activities Are Exempt from Patent Infringement When They Are Reasonably Related to the Development and Submission of Information Under the FFDCA.

In support of its holding that Petitioner Merck's sponsored non-clinical activities were not exempt from infringement under § 271(e)(1), the Court of Appeals stated that such activities were "not 'solely for uses reasonably related' to *clinical tests for the FDA*." *Integra*, 2003 U.S. App. LEXIS 27796 at *14 (emphasis added). This is an erroneous reading of the statute. There is no requirement that the "information under a Federal law" be clinical data or that the uses conducted to develop the information be those carried out immediately precedent to conducting clinical trials, such as, for example, manufacturing the drug that is to be tested in the clinic.

Non-clinical laboratory tests, both *in vivo* and *in vitro*, are necessarily part of the comprehensive regulatory scheme, which includes the FFDCA, the regulations authorized under the FFDCA, and guidance documents. For example, to protect human subjects, the comprehensive scheme of regulation under the FFDCA provides that clinical studies on a new drug in humans cannot be conducted until an IND is submitted to the FDA and becomes effective. 21 CFR 312.40(d). The FDA will not allow an IND to become

effective unless it is convinced that the drug does not pose a significant health risk to humans. 21 CFR 312.42(b). Non-clinical laboratory tests are necessary predicates to conducting human clinical trials. 21 CFR 312.23(a)(8), and FDA relies on information submitted in an IND to decide whether human testing may proceed. 21 CFR 312.20(c).

FDA regulations require an IND to include, among much other non-clinical information: the drug's pharmacological class and structural formula; the formulation of the dosage form(s) to be used; the route of administration; the dose; the rationale for the drug or research study; pharmacokinetics information; description of the drug substance and of its method of manufacture, including its physical, chemical, or biological characteristics; pharmacology and toxicology information obtained from laboratory animals or *in vitro* testing "on the basis of which the sponsor has concluded that it is reasonably safe to conduct the proposed clinical investigations;" description of possible risks and side effects anticipated on the basis of prior experience with the drug or with related drugs; and "other information that would aid in the evaluation of the proposed clinical trials with respect to safety or their design." 21 CFR 312.23(a).

Clearly, extensive non-clinical testing is contemplated under the comprehensive scheme of regulation of the FFDCA, and therefore use of patented inventions to develop the information must be considered to be "reasonably related to the development and submission of information." Given this Court's decision in *Lilly*, there is no justification for excluding non-clinical testing from the protection of § 271(e)(1). To uniformly exclude all non-clinical laboratory tests from protection under the safe harbor provision because they are drug development activities far beyond those necessary to acquire information for FDA approval of a patented pioneer drug already on the market, as the Court of Appeals did, is therefore clearly improper.

To be sure, the application of § 271(e)(1) is not limited to just those uses that generate information that is submitted to the FDA. The statute provides an exemption from infringement for uses of patented inventions that are *reasonably related* to the development and submission of information under the FFDCA. Whether the results of such activities are submitted is not determinative as to whether the exemption under § 271(e)(1) applies.

D. Sharply Drawing the Boundaries of the § 271(e)(1) Safe Harbor Is Inconsistent With 21st Century Drug Development, and Will Scuttle Congressional Intent.

Before the 1984 Amendments, would-be drug developers were prevented from performing activities that were reasonably related to developing and submitting information under the FFDCA to obtain approval of a competing product until all patents expired. *See Roche Prods., Inc. v. Bolar Pharm. Co.,* 733 F.2d 858 (Fed. Cir. 1984). This had the effect of delaying the launch of competing products for years beyond patent expiration, creating *de facto* patent term extensions.

With the 1984 Amendments, Congress extensively amended the FFDCA and added § 271(e)(1) to the patent laws. Congress sought to end *de facto* patent term extensions and provide timely introduction of new drugs by enacting § 271(e)(1). Subsequent judicial rulings, including this Court's ruling in *Lilly*, thwarted attempts to return to the old regime (*Intermedics, Inc. v. Ventritex, Inc*., 775 F. Supp. 1269 (N. D. Cal. 1991), *aff'd* 991 F.2d 808 (Fed. Cir. 1993); *Telectronics Pacing Sys., Inc. v. Ventritex, Inc.,* 982 F.2d 1520 (Fed. Cir. 1992); *Abtox, Inc. v. Exitron Corp*., 122 F.3d 1019 (Fed. Cir. 1997), *amended by* 131 F.3d 109 (Fed. Cir. 1997); *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, 3 F. Supp. 2d 104 (D. Mass. 1998).

Now, the Court of Appeals' ruling recreates *de facto* extensions, directly contrary to the rationale for § 271(e)(1). A competitor developing or selling a drug product and holding rights to patented inventions covering reasonable ways to develop competing products can block development of all such competing products until the expiry of its patents. Because the time required to develop an innovative new drug is so long, this competitor will experience extended market exclusivity for its products – a *de facto extension* at the expense of patients.

The other consequence of the holding below is to, in effect, restrict the benefits of § 271(e)(1) to non-innovative generic drug companies. As described above, innovative new drug development proceeds by a sequence of steps, all taken with the objective of developing safe and effective new drugs. Subsequent steps in this sequence can usually not occur before antecedent activities are completed. In the early steps of drug development, there is a search for suitably effective and safe potential new drugs. If this type of activity cannot be protected under § 271(e)(1), then for all practical purposes, the exemption does not apply to companies that develop innovative new drugs. Thus, the majority's opinion creates a new distortion – effectively restricting the benefits of § 271(e)(1) to non-innovators. This result is directly contrary to this Court's holding in *Lilly*.

Since this Court first addressed § 271(e)(1), courts have been reluctant to limit the scope of activities that are "reasonably related" in the manner that the Court of Appeals suggested in this case. *See, e.g., Lilly*, 496 U.S. 661; *Telectronics*, 982 F.2d 1520; *Intermedics*, 775 F. Supp. 1269, *aff'd*, 991 F.2d 80. It is with good reason that drug developers should be given latitude in making judgments about the nature and extent of the otherwise infringing activities they would engage in as they seek to develop

information under the FFDCA. An IND sponsor is "*expected* to exercise considerable discretion . . . regarding the content of information submitted . . . depending upon the kind of drug being studied and the nature of the information available." 21 CFR 312.22(d) (emphasis added). Flexibility is further warranted because "submitted information varies from drug to drug depending on such factors as the novelty of the drug, the extent to which it has been studied previously, the known or suspected risks and the developmental phase." 21 CFR 312.22(b).

Further, discretion suggests that, in view of evolving technologies and regulatory standards, it would be impractical and impossible to determine with broad pronouncements which non-clinical activities are not exempted, now or in the future. New technologies will change drug development in unpredictable ways. Drug development in the year 2005 occurs in ways and using technologies that would have been unpredictable in 1984. Yet, the overall objective remains exactly the same – to develop safe and effective new drugs under the comprehensive regulatory scheme of the FFDCA. Congress provided flexibility in the application of § 271(e)(1) in 1984 and there is no need to reduce that flexibility in 2005. The determination of whether an activity is "reasonably related" under § 271(e)(1) needs to remain dependent on the facts of each case.

The relationship between the activity and the development and submission of information to the FDA must be objectively reasonable to be exempt from patent infringement under § 271(e)(1). A determination of the objective reasonableness of the relationship between an activity and the development and submission of information under the FFDCA must be made on a case-by-case basis, based on an examination of the facts surrounding each use of a patented invention. Courts facing the issue of whether or

not the safe harbor is applicable will necessarily need to consider a number of factors, including the nature of the patented invention, the extent to which it was used, and the information developed, all in the context of the broad, flexible comprehensive regulatory scheme of the FFDCA.

Amici urge this Court to reverse the Court of Appeals' decision, and its two anomalous effects. In doing so, the Court should preserve the flexibility and objectivity inherent in Congress' choice of the words "reasonably related" in § 271(e)(1) and resist invitations or inclinations to draw bright lines demarcating where the safe harbor applies and does not apply. Inherent in each line is *de facto* patent term extension and/or a restriction of the benefit of § 271(e)(1) to generic drug companies.

Such sharp delineations could include those that the Court of Appeals drew, namely, between generic and non-generic drug companies, between clinical and non-clinical activities, and between testing a single compound and testing more than one. Others may suggest drawing a line based upon whether the accused infringer had set its sights on FDA submission, as evidenced either by documents describing plans for submitting to the FDA, or on subjective evidence from individuals involved in the accused activity. Still others may suggest that an artificial line could also be drawn between classes of patented inventions required to discover and develop new products, such as between patented compound inventions and patented "research tool" inventions.

Respondents, for example, have argued that a broad and flexible reading of § 271(e)(1) "would deprive all biomedical 'tool patents' useful to the drug research process of legal protection – hardly the *de minimis* effect on patent rights intended by Congress." Respondents Brief in Opposition, p.2. Likewise, the Court of Appeals was also concerned that "expansion of § 271(e)(1) to include the Scripps-Merck

activities would effectively vitiate the exclusive rights of patentees owning biotechnology tool patents." *Integra*, 2003 U.S. App. LEXIS 27796 at *18. However, these concerns derive from failure to understand the rationale for the safe harbor provision, this Court's precedent, the plain meaning of the statute, and the interests of patients.

The problems inherent in drawing a line that excludes all "tool patents" from the ambit of § 271(e)(1) can be seen by considering the patents in this case. One of Respondents' patents is a "compound patent," which Respondents could have used to prevent Petitioner Merck from marketing its product after the FDA approved it. Respondents' other patents-in-suit may be considered "tool patents" that cover a receptor and various methods, used to develop information related to the efficacy and pharmacology of potential new drugs. Thus, in Respondents' case, if a line were to be drawn allowing the § 271(e)(1) exemption to shield from liability under a "compound patent" alone, but not under the "tool patents," an aspiring drug discoverer would be left just as shipwrecked outside the safe harbor as a finding that § 271(e)(1) did not apply to non-generic drug companies or to non-clinical activities.

Respondents' situation is far from unique. Indeed, there are many instances where the same entity holds exclusive rights to a "compound patent" and any number of "tool patents" that could be used to develop competing new drugs. The tool patents may not qualify for patent term restoration under 35 U.S.C. § 156. Nevertheless, such an entity can effectively obtain a *de facto* extension of market exclusivity by refusing to license such patents to would-be drug discoverers. In *Amici's* experience this is the rule rather than the exception. Therefore, a decision from this Court that uniformly shields all tool patents from the ambit of § 271(e)(1) would still permit *de facto*, inappropriate extension of market exclusivity.

In considering whether the *de minimis* nature of the infringement mattered this Court stated, "Even if the competitive injury caused by the noninfringement provision is *de minimis* with respect to most drugs, surely it is substantial with respect to some of them . . .." *Lilly,* 496 at 679 n.7. The desire to speed new drugs and devices to market trumps the magnitude of the infringement in these types of cases. Thus, the Court of Appeals' concerns and interpretation of the § 271(e)(1) exemption is in direct conflict with this Court's controlling precedent.

Section 271(e)(1) contains only one express exception as to its application. It does not apply to "a new animal drug or veterinary biological product (as those terms are used in the Federal Food, Drug, and Cosmetic Act and the Act of March 4, 1913) which is primarily manufactured using recombinant DNA, recombinant RNA, hybridoma technology, or other processes involving site specific genetic manipulation techniques." 35 U.S.C. § 271(e)(1). Congress certainly knew how to draw lines in the statute when it wanted to so do. *See Lilly*, 496 U.S. 661. Classification of patents into categories such as "tools" and prohibiting application of the safe harbor has no basis in the language of § 271(e)(1). Whether the patent can be classified as a "tool" patent or some other category is irrelevant. Thus, this Court should not issue a carte blanche holding that would completely withhold the protections of § 271(e)(1) from certain classes of patented inventions, including so-called "research tool" patents. Neither should it draw any other lines where Congress drew none.

CONCLUSION

The ruling of the Court of Appeals should be reversed, because it conflicts with the plain meaning and purpose of § 271(e)(1) and with this Court's precedent by recreating *de facto* patent term extensions and effectively restricting the benefits of the statute to generic drug companies.

Respectfully submitted,

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