

MASSACHUSETTS SUPREME JUDICIAL COURT

LightLab Imaging, Inc. v. Axsun Technologies, Inc.

469 Mass. 181 (2014) · No. SJC-11374 · Decided July 28, 2014

SUMMARY

The Supreme Judicial Court of Massachusetts reviewed a judgment involving breach of contract, trade secret misappropriation, tortious interference, unjust enrichment, and G. L. c. 93A violations arising from the development and disclosure of tunable lasers for optical coherence tomography systems. The court affirmed the exclusion of speculative expert testimony concerning future lost profits and the denial of permanent injunctive relief absent proof of likely recurrence. It directed that the final judgment include an additional declaration concerning the parties' contractual sales restrictions.

CASE DETAILS

COURT	Massachusetts Supreme Judicial Court
WRITING FOR THE COURT	Spina, J.; Ireland, C.J.; Cordy, J.; Botsford, J.; Gants, J.; Duffly, J.; Lenk, J.
JURISDICTION	Massachusetts
DECIDED	July 28, 2014
DOCKET	SJC-11374
DISPOSITION	affirmed
PROCEDURAL POSTURE	LightLab appealed from three aspects of the amended final judgment of the Suffolk Superior Court concerning expert testimony on future lost profits, denial of permanent injunctive relief against future trade-secret misappropriation, and omission of a requested contract-rights declaration. The Supreme Judicial Court granted direct appellate review.
STANDARD OF REVIEW	Abuse of discretion for exclusion of expert testimony and denial of permanent injunctive relief; the court reviewed the declaratory-relief issue based on LightLab's entitlement to a declaration after prevailing on contract interpretation.
PRECEDENTIAL VALUE	Published and precedential opinion of the Massachusetts Supreme Judicial Court
PARTIES	LightLab Imaging, Inc. v. Axsun Technologies, Inc., Volcano Corporation

TOPICS

trade secrets

contract interpretation

expert testimony

equitable relief

appellate procedure

PRACTICE AREAS

contracts

trade secrets

damages

evidence

injunctive relief

appellate procedure

consumer protection

QUESTIONS PRESENTED

1. Whether the trial judge abused her discretion by excluding expert testimony concerning lost profits after the expiration of the parties' contract because the methodology was unreliable under the Daubert-Lanigan standard and the opinion was speculative.
2. Whether the trial judge abused her discretion by denying permanent injunctive relief against future use or disclosure of alleged trade secrets where LightLab proved past misappropriation but did not show a reasonable likelihood of recurrence.
3. Whether LightLab was entitled to a declaration reflecting the contract-interpretation ruling that Axsun's exclusivity provision barred supplying tunable lasers to Volcano in all fields of use during the period of LightLab's exclusive right.

HOLDINGS

1. The trial judge did not abuse her discretion by excluding the expert's opinion concerning lost profits after April 28, 2014. General acceptance of the discounted-cash-flow method did not end the Daubert-Lanigan inquiry, and the opinion was properly excluded because its use of an unvalidated and untestable 'first mover advantage' methodology and its factual assumptions rendered it unreliable and speculative.
2. The trial judge properly denied permanent injunctive relief because LightLab relied on past misconduct but failed to prove a reasonable likelihood that the defendants would use or disclose the claimed trade secrets in the future.
3. Because LightLab requested declaratory relief and prevailed on its motion for summary judgment concerning contract interpretation, it was entitled to a declaration that Section 3 of the agreement barred Axsun from supplying tunable lasers to Volcano in all fields of use, not only human coronary artery imaging, during the period of LightLab's exclusive right.

KEY QUOTATIONS

"Faced with a proffer of expert testimony, the trial judge "must rule first on any challenge to the validity of any process or theory underlying a proffered opinion. This entails a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue."" (slip op. at 15)

"A permanent injunction should not be granted to prohibit acts that there is no reasonable basis to fear will occur." (slip op. at 23)

“It is further ORDERED, ADJUDGED, and DECLARED that Section 3 of the Axsun-LightLab Tunable Laser Development and Supply Agreement (First Amendment), dated April 29, 2008 (the Agreement), bars Axsun Technologies, Inc., from supplying tunable lasers to Volcano Corporation in all fields of use, and not just in the field of human coronary artery imaging, during such periods of time that LightLab Imaging, Inc.’s exclusive right described in Section 3(i) of the Agreement is in effect.” (slip op. at 24)

FACTUAL BACKGROUND

LightLab and Axsun entered into a joint development relationship for tunable lasers used in optical coherence tomography and executed confidentiality and supply agreements giving LightLab exclusive rights to certain lasers and restricting sales to Volcano. Axsun disclosed LightLab's laser specifications and prototype to Volcano during Volcano's acquisition of Axsun, and the jury found misappropriation of trade secrets, breach of contract and the implied covenant of good faith and fair dealing, and tortious interference. LightLab sought damages based on projected lost profits from future products, permanent injunctions against future use or disclosure of additional alleged trade secrets, and a declaration that the exclusivity provision barred sales of tunable lasers to Volcano in all fields of use.

PROCEDURAL HISTORY

LightLab commenced the civil action in the Superior Court in January 2009. After a jury found liability on several contract, tort, trade-secret, unjust-enrichment, and consumer-protection claims, the trial judge excluded proposed expert testimony concerning future lost profits, denied permanent injunctions for trade secrets for which no likely future use or disclosure was shown, and entered summary judgment on certain contract-interpretation issues. The amended final judgment awarded damages, attorney's fees, and other relief, but omitted a requested declaration concerning the scope of Axsun's exclusivity obligation. The Supreme Judicial Court affirmed the judgment as modified to include that declaration.

DISPOSITION

affirmed

REMAND INSTRUCTIONS

The amended final judgment must be modified to include a declaration that Section 3 of the Axsun-LightLab Tunable Laser Development and Supply Agreement, as amended April 29, 2008, barred Axsun from supplying tunable lasers to Volcano Corporation in all fields of use, and not only human coronary artery imaging, during the periods when LightLab's exclusive right under Section 3(i) was in effect.

CASES CITED

- Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993)
- Commonwealth v. Lanigan, 419 Mass. 15 (1994)
- Canavan's Case, 432 Mass. 304 (2000)
- Kumho Tire Co. v. Carmichael, 526 U.S. 137 (1999)
- Sevigny's Case, 337 Mass. 747 (1958)

- Van Brode Group, Inc. v. Bowditch & Dewey, 36 Mass. App. Ct. 509 (1994)
- Northern Associates, Inc. v. Kiley, 57 Mass. App. Ct. 874 (2003)
- DSC Communications Corp. v. Next Level Communications, 107 F.3d 322 (5th Cir. 1997)
- Johnson v. Martignetti, 374 Mass. 784 (1978)
- Curtiss-Wright Corp. v. Edel-Brown Tool & Die Co., 381 Mass. 1 (1980)
- Lydia E. Pinkham Medicine Co. v. Gove, 303 Mass. 1 (1939)
- Shaw v. Harding, 306 Mass. 441 (1940)
- Boston v. Massachusetts Bay Transportation Authority, 373 Mass. 819 (1977)
- Bilsky v. Kappos, 130 S. Ct. 3218 (2010)

OPINION

SPINA, J.

NOTICE: All slip opinions and orders are subject to formal revision and are superseded by the advance sheets and bound volumes of the Official Reports. If you find a typographical error or other formal error, please notify the Reporter of Decisions, Supreme Judicial Court, John Adams Courthouse, 1 Pemberton Square, Suite 2500, Boston, MA, 02108-1750; (617) 557- 1030; SJCReporter@sjc.state.ma.us SJC-11374 LIGHTLAB IMAGING, INC. vs. AXSUN TECHNOLOGIES, INC., & another.

1 Suffolk. December 2, 2013. - July 28, 2014. Present: Ireland, C.J., Spina, Cordy, Botsford, Gants, Duffly, & Lenk, JJ. Contract, Performance and breach, Implied covenant of good faith and fair dealing, Interference with contractual relations, Construction of contract. Unlawful Interference. Trade Secret. Unjust Enrichment. Consumer Protection Act, Unfair act or practice.

Evidence, Expert opinion. Witness, Expert. Damages, Future damages, Loss of profits. Declaratory Relief. Injunction. Practice, Civil, Injunctive relief. Civil action commenced in the Superior Court Department on January 7, 2009.

The case was tried before Margaret R. Hinkle, J.; a motion for summary judgement was heard by her; and entry of final judgment was ordered by Peter M. Lauriat, J. The Supreme Judicial Court granted an application for direct appellate review. Kenneth R. Berman (Cynthia M. Guizzetti with him) for the plaintiff. William F. Lee (Felicia H. Ellsworth & Laurence A. Schoen with him) for the defendants.

1 Volcano Corporation. 2 SPINA, J. The plaintiff, Lightlab Imaging, Inc. (LightLab), prevailed in much of the litigation below, which involved claims of breach of contract and the covenant of good faith and fair dealing, tortious interference with contractual and advantageous business relations, misappropriation of trade secrets and confidential information, unjust enrichment, and violations of G. L. c. 93A.

LightLab appeals from three aspects of the judgment pertaining to relief. First, the judge excluded opinion testimony from LightLab's expert economist on the question of future lost profits for twenty years beyond the term of the parties' contract based on yet-to-be conceived future products.

Second, the judge denied permanent injunctive relief that LightLab sought for protection against future misappropriation of its trade secrets where, although LightLab had established past misappropriation, it offered no proof of a likely reoccurrence.

Third, the judge who entered the amended final judgment declined to include in that judgment a declaration of LightLab's contract rights that mirrored the language of the order for summary judgment concerning contract interpretation.

We affirm, but order the inclusion of the declaration sought by LightLab. 1. Background. The trial of this action was conducted in multiple phases. We summarize the various phases. 3 a. Liability phase. The liability claims, except for the G. L. c. 93A claim and certain of the trade secret claims, were tried to a jury.

The jury could have found the following facts at the liability phase. LightLab has manufactured and sold optical coherence tomography (OCT) systems since 2001, and until recently it was the only company to do so. OCT technology is used to image human coronary arteries for diagnosis and treatment. OCT systems are based on computer analysis of images produced by reflections generated by specialized lasers.

Volcano Corporation (Volcano) is a competitor of LightLab, but it relies on an imaging system based on intra vascular ultrasound (IVUS) technology. IVUS systems have dominated the market because of limitations in OCT laser technology, notwithstanding the poorer image quality of ultrasound systems.

The limitations in early OCT laser systems were due to the occlusion of blood vessels during imaging, which presented certain risks to patients. Axsun Technologies, Inc. (Axsun), is a leading manufacturer of industrial lasers.

In early 2007, LightLab and Axsun entered into a joint development relationship to develop a tunable laser that would overcome the limitations in existing OCT technology. LightLab shared with Axsun, pursuant to an October 12, 2007, confidentiality agreement, its specifications, techniques to adapt lasers for OCT use, OCT laser performance testing methods, and other confidential information about OCT technology.

By April, 2008, they had developed the Version 5 laser, giving rise to a second confidentiality agreement, dated April 29, 2008. The second agreement gave LightLab exclusive rights (conditioned on LightLab's fulfilment of its Minimum Purchase Volume obligation) to Axsun's

OCT lasers together with a specific ban on sales of all lasers to Volcano, for six years until April 29, 2014, with nonexclusive supply rights thereafter.

By December, 2008, the Version 6 laser was developed. On December 24, representatives of Axsun and LightLab orally agreed that the April 29 agreement would be modified in writing by substituting the Version 6 laser for the Version 5 laser. These developments were technological breakthroughs that overcame the earlier limitations in OCT technology and gave LightLab a valuable competitive edge in the field of imaging human coronary arteries.

In the meantime, Volcano perceived OCT technology as a significant threat to its IVUS business. It was trying to develop an OCT system but lacked an adequate laser. In mid- 2008, after the Version 5 laser was developed, Axsun sought to be acquired.

Having learned from LightLab of Volcano's desire to develop an OCT system, Axsun secretly offered itself for sale to Volcano in August, 2008. Volcano recognized this as an opportunity to "leap-frog" LightLab. It developed a plan to "stall" LightLab. During negotiations with Axsun, Volcano insisted on examining LightLab's laser specifications. Axsun initially resisted, citing its confidentiality agreements with LightLab, but relented after Volcano agreed to indemnify Axsun against liability to LightLab.

Following due diligence, Axsun divulged LightLab's specifications for the Version 5 and Version 6 lasers to Volcano, and provided Volcano with a tunable laser prototype called "Alpha 6." Volcano's head of OCT development viewed the specifications and tested the Alpha 6 laser. LightLab first learned of Axsun's involvement with Volcano on December 23, 2008, when Volcano publicly announced its acquisition of Axsun.

Volcano stated in its announcement that it could leverage Axsun's advanced tunable laser technology know-how to accelerate its OCT product development and gain a competitive advantage in the field of invasive imaging. Volcano intended to use the same Axsun engineers who worked with LightLab to develop a tunable laser for its OCT systems. Shortly after making its public announcement Volcano threatened to terminate LightLab's laser supply.

After Axsun agreed orally with LightLab on December 24 to modify their April 29, 2008, agreement to cover sales of Version 6 lasers, Volcano directed Axsun not to communicate with LightLab. Axsun thereafter refused to discuss with LightLab further joint development or tell LightLab how it would protect LightLab's confidential information. LightLab filed the instant action on January 7, 2009.

On January 8, Volcano instructed Axsun to download its technology and make recommendations on OCT laser specifications to Volcano. LightLab obtained a preliminary injunction on January 8, that prevented Axsun from doing so. Volcano employees gained access to a university research

laboratory and, unbeknownst to LightLab, downloaded data from a LightLab OCT system that was being used in a clinical trial.

Volcano also moved its OCT development staff to Axsun's facility and appointed Axsun's chief laser engineer, who had worked closely with LightLab, to oversee Volcano's laser development program. Volcano induced Axsun to supply Version 5 lasers to LightLab during 2009, rather than Version 6 lasers.

In response to special questions the jury found that: a. the Alpha 6 laser, and the Version 5 and Version 6 laser specifications, were LightLab trade secrets that Axsun and Volcano had misappropriated and used; b. Axsun committed a breach of the confidentiality clause in its contract with LightLab by giving the Alpha 6 laser and the Version 5 and Version 6 laser specifications to Volcano; c. Axsun committed a breach of the exclusivity provision of its contract with LightLab by giving the Alpha 6 laser to Volcano; d. Volcano tortiously interfered with LightLab's contract with Axsun; e. Volcano tortiously interfered with LightLab's advantageous business relationship with Axsun; f. the April 29, 2008, contract between LightLab and Axsun, as orally modified on December 24, 2008, required Axsun to deliver Version 6 lasers rather than Version 5 lasers to LightLab; g. Volcano was unjustly enriched by LightLab's trade secret information; h. Axsun committed a breach of the implied covenant of good faith and fair dealing it owed to LightLab. b. Damages phase.

After the jury returned its verdict on February 4, 2010, in favor of LightLab on issues of liability, the damages phase of the trial was scheduled to begin on April 7, 2010. The judge conducted a three-day voir dire of Roy Weinstein, LightLab's designated expert on the issue of lost profits damages.

After the hearing, she excluded Weinstein's opinion of lost profits beyond April 28, 2014 (the expiration date of the April 29, 2008, agreement between LightLab and Axsun), as well as Weinstein's opinion on LightLab's lost profits for any future generation (post Version 6) LightLab product containing an Axsun laser. She did not preclude his opinion as to other aspects of lost profits, but cautioned that a proper foundation would be required as to his use of so-called "Revenue Reduction Percentage Factors" and related matters.

She also indicated that she would have to be satisfied as to the reliability of information provided by Warren Clark, III, LightLab's chief financial officer, before such information could be used as a basis for Weinstein's opinion.

The judge explained that she excluded Weinstein's opinion as to lost profits after April 28, 2014, because it was not based on a demonstrated reliable methodology capable of being validated and tested, particularly as to quantification of a "first mover" advantage. She also concluded that his opinion was too speculative and conjectural as a matter of law. She based this on (1) the absence of

approval of LightLab's product by any regulators in the United States, Japan, South Korea, or China; (2) the purely speculative assumption that LightLab would be the market leader in OCT technology through 2038; (3) LightLab's lack of success in obtaining financing; (4) the absence of evidence that the defendants' conduct caused a loss of sales for LightLab anywhere in the world; and (5) LightLab's inability to identify with precision the nature of any new product for which it sought future lost profits damages.

In light of this ruling, LightLab determined that it could not proceed with evidence of lost profits at the damages trial, but that it would proceed with evidence of other damages. It made an offer of proof as to lost profits damages to preserve its appellate rights.

On April 7, 2010, the parties stipulated that LightLab was entitled to nonlost profits damages in the amount of \$200,000 for sixty 9 nonconforming (non-Version 6) lasers supplied by Axsun during 2009. These developments obviated the need for a damages trial. c. Injunctive relief phase.

The judge next conducted a jury-waived trial to determine whether LightLab was entitled to permanent injunctive relief to prevent use or disclosure by Axsun and Volcano of asserted trade secrets and confidential methods and documents described in items 1-5 of its thirty-item "trade secret list." This list was distinct from the trade secrets presented to the jury during the liability phase, namely, the Version 5 and Version 6 specifications and the Alpha 6 prototype.

LightLab's claims for permanent injunctive relief were based in common law and G. L. c. 93, § 42. Without expressly deciding whether items 1-5 were trade secrets or confidential information, the judge determined that "[t]here is no direct evidence that either defendant has threatened to use or disclose any trade secret set forth in [i]tems 1-5. Instead, LightLab primarily relies upon the jury's findings on misappropriation [Version 5 and Version 6 specifications and the Alpha 6 prototype -- not included here] and the defendants' prelitigation conduct as circumstantial evidence that Axsun and Volcano intended to commit 'further wrongs.'

However, that evidence falls short of meeting LightLab's burden of proof. The circumstances surrounding [the prelitigation conduct] were materially different. The inference which LightLab urges be 10 drawn that the defendants intend to use alleged trade secrets in [i]tems 1-5... is essentially conjecture."

The judge concluded her written decision on this phase of the litigation by saying "LightLab has not proven by a preponderance of the credible evidence that the defendants have used or disclosed or presently intend to use or disclose the purported trade secrets and confidential information in [i]tems 1-5 so as to warrant permanent injunctions." Consideration of the remaining items on the Trade Secret List arose on the defendants' renewed motion for summary judgment, which was decided after the trial on items 1-5.

Although the judge acknowledged that in the earlier motion for summary judgment she had ruled that "use" is an essential element of trade secret misappropriation claims under Massachusetts law, she considered evidence of the defendants' intent to use the alleged trade secrets in deciding the renewed motion for summary judgment. She addressed the items in four groupings, some of which overlapped.

The judge concluded, as she did in her ruling after the jury-waived trial on items 1-5, that any evidence of the defendants' prelitigation use of items in the first and third groups, alone, did not warrant an inference of likely further use of the items.

To infer otherwise, she reasoned, would be mere conjecture. 11 LightLab relied on an Axsun patent application as proof of use of the items in the second group. The judge determined that there was insufficient credible evidence that Axsun used or disclosed LightLab's alleged trade secrets in its patent application. She relied in part on her findings as to a similar argument raised in the trial on items 1-5.

In that proceeding she had credited the testimony of Axsun's director of advanced products and technology to the effect that Axsun had not used information obtained from LightLab in its patent application but instead relied on its own concepts.

The judge thus concluded that there was insufficient evidence of use of the items in the second group to establish misappropriation. Addressing the items in the fourth group, which LightLab argued should be protected because of Volcano's stated intent to use all the confidential information and trade secrets LightLab gave to Axsun, the judge noted that the argument was not supported by affidavit, and LightLab's unsworn assertions could not support an inference that LightLab either gave Axsun these alleged trade secrets or that Axsun's OCT know-how was informed by the alleged trade secrets.

Finally, the judge determined that Volcano's stated intent to leverage Axsun's OCT technical knowledge, alone, was not sufficient to support a reasonable inference that it in fact acted on that intent. The judge thus 12 allowed the defendants' renewed motion for summary judgment as to the remaining items on LightLab's trade secret list. d. General Laws c. 93A phase.

The final phase of the litigation concerned issues arising under G. L. c. 93A, § 11. After a hearing, the judge adopted the findings of the jury from the liability phase. She further found that both Axsun and Volcano had committed wilful or knowing violations of G. L. c. 93A, § 2. She assessed pursuant to G. L. c. 93A, § 11, double damages against each defendant based on the parties' stipulation of monetary damages in the amount of \$200,000, for total damages of \$600,000, with interest, plus reasonable attorney's fees and costs.

The parties stipulated to the amount of \$4.5 million in attorney's fees and costs. These amounts have been paid. e. Amended final judgment. The amended final judgment reflected the jury's

verdict on LightLab's claims and the stipulation as to damages, together with statutory interest thereon. It also reflected the decision on the G. L. c. 93A claim and order for punitive damages, together with the award of attorney's fees and costs.

The amended final judgment awarded LightLab permanent injunctive relief for the trade secrets the jury found had been misappropriated, namely, specifications for the Version 5 and Version 6 lasers, and the Alpha 6 prototype.

In addition, Axsun 13 and Volcano were enjoined from merging before certain prescribed dates contained in the exclusivity and confidentiality provisions of the April 29, 2008, agreement between Axsun and LightLab; and both defendants were ordered to return or destroy all documents Axsun received from LightLab containing alleged trade secrets.

The amended final judgment included a declaration that: "1. Under the Axsun-LightLab Tunable Laser Development and Supply Agreement, First Amendment, dated April 29, 2008 (the 'Contract'), as modified, Axsun is to deliver to LightLab tunable lasers conforming to LightLab Purchase Order No. 209-1009, dated January 6, 2009, and the Version 6.0 specification referenced therein.

"2. The term 'Laser' as used in the Contract means all Axsun's tunable lasers for use in optical coherence tomography imaging systems." The judge who entered final judgment denied LightLab's motion requesting that the amended final judgment include a declaration that paragraph 3 (ii) of the agreement dated April 29, 2008, bars sales of "Lasers" to Volcano Corporation and Terumo Corporation, regardless of the field of use for which the "Lasers" are intended, consistent with the earlier decision on a motion for summary judgment concerning contract interpretation.

2. Exclusion of expert testimony. The plaintiffs argue that the judge erred in excluding Weinstein's opinion testimony as to lost profits after April 28, 2014, because the methodology he used did not meet the requirements of *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993), and *Commonwealth v. Lanigan*, 14 419 Mass. 15 (1994). 2 Specifically, they assert that Weinstein used the discounted cash flow (DCF) method to calculate lost profits, "probably the most common method used to calculate a plaintiff's lost profits."

R.F. Reilly & R.P. Schweihs, *Handbook of Advanced Business Valuation* 274 (2000). They argue that because Weinstein's opinion was based on a generally accepted methodology, the judge's gatekeeping role should have ended, and the matter given to the jury to weigh upon consideration of the opinion after being subjected to cross-examination, contrary evidence, and instruction on the burden of proof.

See *Daubert*, 509 U.S. at 596. The defendants also contend that the judge erred in her ruling that Weinstein's opinion is too speculative as a matter of law. We review the judge's decision to exclude

Weinstein's opinion as to lost profits after April 28, 2014, under the abuse of discretion standard. See *Canavan's Case*, 432 Mass. 304, 311-312 (2000).

The defendant asserts that a *Daubert-Lanigan* inquiry should end once a determination has been made that an expert's methodology is generally accepted. This is not entirely correct. Faced with a proffer of expert 3 testimony, the trial 2 In *Commonwealth v. Lanigan*, 419 Mass. 15, 26 (1994), "[w]e accept[ed] the basic reasoning of the *Daubert* [*v. Merrill Dow Pharms., Inc.*, 509 U.S. 579 (1993),] opinion because it is consistent with our test of demonstrated reliability."

3 The principle in *Daubert* is not limited to expert scientific knowledge, but applies to all technical or 15 judge "must rule first on any challenge to the validity of any process or theory underlying a proffered opinion. 'This entails a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue'" (emphasis added).

Lanigan, 419 Mass. at 26, quoting *Daubert*, 509 U.S. at 592-593. "[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the ipse dixit of the expert." *Canavan's Case*, 432 Mass. at 315, quoting *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 157 (1999). Indeed, the United States Supreme Court noted that "scientists typically distinguish between 'validity' (does the principle support what it purports to show?) and 'reliability' (does application of the principle produce consistent results?)....

Although 'the difference between accuracy, validity, and reliability may be such that each is distinct from the other by no more than a hen's kick,' our reference here is to evidentiary reliability -- that is, trustworthiness." (Citations omitted.) *Daubert*, 509 U.S. at 590 n.9.

Thus, reliability is as much a part of the broader determination of admissibility of the expert's opinion as it is of the determination as to the reliability of the methodology specialized knowledge appropriate for expert testimony. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147 (1999). 16 employed, and trial judges "have considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable."

Kumho Tire Co., 526 U.S. at 152. Here, the aspect of Weinstein's opinion that the judge singled out as lacking a demonstrated reliable methodology capable of being validated and tested was quantification of the "first mover advantage." *LightLab* argues that first mover advantage is not a loss-quantifying methodology, but an assumption about market behavior, supported by Weinstein's professional observations and scholarly articles that he drew on to evaluate the reasonableness of Clark's projections.

The only support cited by *LightLab* is *Bilsky v. Kappos*, 130 S. Ct. 3218, 3254 (2010) (Stevens, J., concurring in the judgment), a patent application case, where Justice Stevens said in a concurring

opinion that "firms that innovate often capture long-term benefits from doing so, thanks to various first mover advantages." That case did not involve lost profits, and Justice Stevens also observed, "Concededly, there may be some methods of doing business that do not confer sufficient first-mover advantages."

Id. at 3254 n.51 (Stevens, J., concurring in the judgment). Significantly, Weinstein acknowledged that nothing in the economic literature supports quantifying lost profits based on first mover advantage. Weinstein gave 17 conflicting and inconsistent testimony on this point, including statements in his affidavit, about whether "first mover advantage" was part of the economic theory he used to arrive at his opinion on lost profits, or whether it was an assumption he used to evaluate the reasonableness of Clark's projections.

The judge determined here that Weinstein's use of the first mover advantage principle was part of his methodology. We defer to that determination. Her conclusion that Weinstein's use of first mover advantage in his methodology rendered that methodology incapable of being validated and tested was well within her discretion. Her conclusion that Weinstein's methodology for determining lost profits failed to satisfy the Daubert-Lanigan analysis was not an abuse of discretion.

The plaintiffs also challenge the judge's separate and distinct conclusion that Weinstein's opinion was "too speculative and conjectural as a matter of law." This part of her analysis is independent of, and different from, the Daubert- Lanigan analysis, as the judge observed. It has long been a part of our common law of evidence that although "courts are not to determine which side of a [technical] dispute is sound where each side is supported by reason and logic[,...] an opinion given by an expert will be disregarded where it amounts to no more than mere speculation or a guess from subordinate facts that do not give adequate support to the conclusion reached."

18 (Citations omitted.) *Sevigny's Case*, 337 Mass. 747, 751 (1958). See *Daubert*, 509 U.S. at 596. A judge's discretion in excluding such opinion testimony "is often applied in the context of expert prediction of profits to be made from startup business ventures." *Van Brode Group, Inc. v. Bowditch & Dewey*, 36 Mass. App. Ct. 509, 520 (1994).

We address the five factors cited by the judge in support of her conclusion that Weinstein's opinion was too speculative. a. The conclusion that Weinstein assumed LightLab would be the market leader in OCT technology through 2038 is erroneous. He did not make that assumption. What he did assume, however, was that LightLab would be growing its customer base only until 2014, when its contract with Axsun expired, at which point it would level off, and profits would decline until 2038, and become negligible.

There are at least two obvious flaws in this assumption. The first is that Weinstein assumed, without foundation, that beginning in 2014 each OCT customer of LightLab would replace the

LightLab OCT product it had acquired with a new LightLab OCT product every six years, until 2038. Weinstein had not conducted a market study to support this assumption, nor did he evaluate likely products of potential future competitors.

This dubious assumption about brand loyalty is further weakened by the fact that Axsun is free to sell lasers to LightLab's coronary imaging competitors after April 28, 2014. Second, from 19 the time LightLab was formed in 1999, until the time of the damages phase of the trial in April 2010, LightLab never turned a profit. It had no track record of profitable sales even of its existing OCT products.

Where there was no profit even during the contract term with Axsun, there is no reason to believe sales would be profitable after the contract ended. b. The judge pointed to the fact that LightLab could identify no lost sales resulting from the defendants' conduct. LightLab counters by saying lost sales had not been anticipated before Weinstein was expected to testify, as the impact of losing the development relationship with Axsun was not expected to be felt until later.

Lost sales can be highly probative of lost profits caused by a party's misconduct, and the absence of lost sales may be highly probative of the speculative nature of a claim of damages. Cf. *Northern Assocs., Inc. v. Kiley*, 57 Mass. App. Ct. 874, 886 (2003) (testimony on lost profits claim correctly excluded as speculative where expert did not identify any lost clients).

Moreover, the implication of damages not being felt until the end of LightLab's development relationship with Axsun is that there can be no damages after 2014 because there is no contractual relationship or guarantee extending such a relationship beyond 2014.

After April 28, 2014, Axsun is free to discontinue any OCT development relationship with LightLab. Absent damages before that date, it makes no sense that there 20 would be damages after that date. Finally, the absence of any evidence of lost sales, together with evidence that LightLab's OCT sales in 2009, after Volcano acquired Axsun, exceeded LightLab's projections, support the judge's reasoning that Weinstein's opinion is grounded in speculation. c. The judge cited the lack of regulatory clearance in the United States, Japan, South Korea, and China for LightLab's latest product as evidence of the speculative nature of Weinstein's opinion.

LightLab argues that, among other witnesses, a former chief counsel of the Food and Drug Administration would have testified that LightLab was positioned to receive the regulatory clearances in the United States for LightLab's current model in 2010 and 2011 and that there were no obstacles to their issuance.

The judge declined to continue the damages trial to await this clearance. Although a jury might have accepted the testimony about the likelihood of LightLab obtaining regulatory clearance in the United States for its current model OCT product, clearances for future products, as yet

undeveloped, remained speculative. They were an important aspect of LightLab's claim for lost profits.

The level of speculation as to regulatory clearances after 2014 is profound. d. LightLab argues that its chief executive officer and chief financial officer would have testified that LightLab had access to sufficient funding from its parent company for its 21 business expansion.

However, it had not received any guarantee that such funding would continue beyond 2010. The record supports the judge's conclusion that availability of needed funding for LightLab's long-term development was speculative, and inasmuch as Weinstein's opinion of lost profits depended on such funding, his opinion was similarly speculative. e. The judge did not err in concluding that Weinstein's inability to identify "precisely the type of hypothetical new product" for which LightLab seeks damages was a factor that contributed to the speculative nature of his opinion.

Weinstein acknowledged that he had not been provided with any information concerning the direction LightLab would have pursued in developing next generation OCT products. Warren Clark, who supplied Weinstein with forecasts of LightLab's profitability through 2014, was similarly uninformed.

Moreover, Weinstein had no information concerning other contingencies, such as whether LightLab's physical plant, sales team, and distribution structure could support a future system. LightLab has cited no case in which an expert was permitted to testify about future lost profits based on an as-yet uninvented product.

The case of DSC Communications Corp. v. Next Level Communications, 107 F.3d 322, 329 (5th Cir. 1997), cited by LightLab, involved expert testimony about a product that had been invented but not yet marketed. In that case the 22 plaintiff had a strong history of profitable sales, and its forecasted profits were supported by "intensive market research." *Id.* Here, there is no history of profitable sales, only losses; and there has been no market research.

Where LightLab had no history of profitable sales and could point to no lost sales, where Weinstein's opinion depended on as-yet undeveloped new products, where LightLab had no regulatory clearance for its future products, and where it had no guaranteed funding needed to launch a sales and marketing infrastructure for its new products, we conclude that the judge did not abuse her discretion in determining that Weinstein's opinion should be excluded as grounded in speculation.

Before leaving this subject, we express our concern that traditional lost profits analysis as a measure of damages may not be an adequate model for analyzing harm caused by misappropriation of the trade secrets of a "start-up" business. Such businesses often operate for years without profit. This fact should not render them "damage proof."

In this case LightLab recovered other significant damages and attorney's fees. We recognize that other theories of damages may lend themselves to misappropriation of trade secret cases and that such theories may be ripe for testing in our courts. See, e.g., Ritchey & McCallum, *Enforcement of Trade Secret Rights and 23 Noncompetition Agreements*, at 23-32 (American Bar Association 2002).

3. Denial of permanent injunctive relief. LightLab argues that the judge erred in declining to issue permanent injunctions to protect its trade secrets. Specifically, LightLab contends that the judge applied a "use" test to each specific secret on its thirty-item trade secret list in deciding whether a permanent injunction should issue.

We are satisfied that the judge in fact considered whether the defendants intended to use or disclose the claimed trade secrets, and that she correctly applied the law. Trial judges have broad discretion to grant or deny injunctive relief, *Johnson v. Martignetti*, 374 Mass. 784, 794 (1978), and we review a judge's decision for an abuse of that discretion. See *Curtiss-Wright Corp. v. Edel-Brown Tool & Die Co.*, 381 Mass. 1, 11 (1980).

A permanent injunction should not be granted to prohibit acts that there is no reasonable basis to fear will occur. See *Lydia E. Pinkham Med. Co. v. Gove*, 303 Mass. 1, 14 (1939). See also *Shaw v. Harding*, 306 Mass. 441, 449-450 (1940).

Here, LightLab relied exclusively on the defendants' past conduct, without showing any likelihood that it would reoccur. Having been stopped in their tracks, it appeared to the judge that the defendants had learned their lesson and probably would not reoffend. This would not have precluded 24 LightLab from returning to court should the need arise again. There has been no showing that the judge abused her discretion.

4. Declaratory relief. Having requested declaratory relief and having prevailed on its motion for summary judgment on the interpretation of its contract with Axsun, LightLab was entitled to a declaration to the same effect. See *Boston v. Massachusetts Bay Transp. Auth.*, 373 Mass. 819, 829 (1977).

Thus, because the rights of the parties were not declared, we order that the amended judgment be modified to include a declaration as follows: "It is further ORDERED, ADJUDGED, and DECLARED that Section 3 of the Asxun-LightLab Tunable Laser Development and Supply Agreement (First Amendment), dated April 29, 2008 (the Agreement), bars Axsun Technologies, Inc., from supplying tunable lasers to Volcano Corporation in all fields of use, and not just in the field of human coronary artery imaging, during such periods of time that LightLab Imaging, Inc.'s exclusive right described in Section 3(i) of the Agreement is in effect."

As so modified, the judgment of the Superior Court is affirmed. So ordered.

