

United States Court of Appeals
For the Eighth Circuit

No. 17-2630

Jo Levitt

Plaintiff - Appellant

v.

Merck & Company, Inc.

Defendant - Appellee

Appeal from United States District Court
for the Western District of Missouri - Kansas City

Submitted: September 27, 2018

Filed: February 4, 2019

Before COLLOTON, GRUENDER, and GRASZ, Circuit Judges.

GRUENDER, Circuit Judge.

Merck & Company, Inc. (“Merck”) manufactured and distributed Vioxx as a medication to relieve pain and inflammation between 1999 and 2004. Plaintiff Jo Levitt began taking Vioxx during the summer of 1999. She suffered cardiovascular injuries in March and May of 2000 while taking the medication. Her doctor continued to prescribe her Vioxx until 2002, around the time Merck changed its label

to disclose a risk of cardiovascular injuries associated with the use of Vioxx. Merck removed Vioxx from the market in 2004.

Levitt filed a personal injury lawsuit against Merck on September 29, 2006. Merck filed a motion for judgment on the pleadings, arguing that Levitt's claims were barred by Missouri's five-year statute of limitations. The district court granted Merck's motion and determined as a matter of law that, because "Plaintiff's claims accrued prior to September 2001," her September 29, 2006 suit was time-barred. Levitt appealed.

We review a district court's grant of judgment on the pleadings *de novo*. *Clemons v. Crawford*, 585 F.3d 1119, 1124 (8th Cir. 2009). The movant has the burden of "clearly establish[ing] that there are no material issues of fact and that it is entitled to judgment as a matter of law." *Porous Media Corp. v. Pall Corp.*, 186 F.3d 1077, 1079 (8th Cir. 1999). At this stage of the proceedings, we view all facts pleaded by Levitt as true and grant her all reasonable inferences. *See Clemons*, 585 F.3d at 1124.

Judgment on the pleadings may be granted "on the basis that the governing . . . statute of limitations expired." *Thach v. Tiger Corp.*, 609 F.3d 955, 960 (8th Cir. 2010). The parties agree that Missouri's statute of limitations applies, and we review the district court's determinations of Missouri law *de novo*. *See Jurrens v. Hartford Life Ins. Co.*, 190 F.3d 919, 922 (8th Cir. 1999). "The party asserting the affirmative defense of the running of the applicable statute of limitations has the burden of not only pleading but proving it." *Lomax v. Sewell*, 1 S.W.3d 548, 552 (Mo. Ct. App. 1999). In Missouri, the statute of limitations for personal injury claims is five years after the cause of action accrues. Mo. Ann. Stat. § 516.120. "[T]he cause of action shall not be deemed to accrue when the wrong is done or the technical breach of contract or duty occurs, but when the damage resulting therefrom is sustained and is capable of ascertainment." Mo. Ann. Stat. § 516.100.

The Missouri Supreme Court defined “capable of ascertainment” as when “the evidence [is] such to place a reasonably prudent person on notice of a potentially actionable injury.” *Powel v. Chaminade Coll. Preparatory, Inc.*, 197 S.W.3d 576, 582 (Mo. 2006) (emphasis removed). This “objective” test is from the standpoint of a “reasonable person in [plaintiff’s] situation.” *Id.* at 584, 586. Both the “character of the condition . . . and its cause” must be capable of ascertainment. *Elmore v. Owens-Illinois, Inc.*, 673 S.W.2d 434, 436 (Mo. 1984). “[W]hen contradictory or different conclusions may be drawn from the evidence as to whether the statute of limitations has run, it is a question of fact for the jury to decide.” *Powel*, 197 S.W.3d at 585.

We conclude that there remains such “a question of fact for the jury to decide” because “contradictory or different conclusions may be drawn” as to whether “the evidence was such to place a reasonably prudent person on notice of a potentially actionable injury” before September 29, 2001. *See id.* at 584-85. Between 1999 and 2004, scientists became increasingly confident that the use of Vioxx entailed a risk of cardiovascular injuries. Beginning in early 2000, the media covered reports of a possible link between Vioxx and cardiovascular incidents. *See, e.g.*, Edward R. Silverman, *Merck Shares Fall on Vioxx Study*, *Star-Ledger (Newark, N.J.)*, April 29, 2000, at 17; Rita Rubin, *Data: Vioxx Might Raise Heart Risk*, *USA Today*, February 9, 2001; *Could Vioxx and Celebrex Increase Heart Risk?*, *Wash. Post*, March 13, 2001, at T6. In late 2000, the Vioxx Gastrointestinal Outcomes Research (VIGOR) study indicated a potential risk of myocardial infarction associated with the use of Vioxx. *See Claire Bombardier et al., Comparison of Upper Gastrointestinal Toxicity of Rofecoxib and Naproxen in Patients with Rheumatoid Arthritis*, 343 *New Eng. J. Med.* 1520, 1523 (2000).

But the scientific community’s analysis remained tentative. In August 2001, a peer-reviewed article in the *Journal of the American Medical Association* analyzed “all published, English-language, randomized, double-blind trials of COX-2

inhibitors [like Vioxx] from January 1998 to February 2001” and concluded that “the available data raise[d] a cautionary flag about the risk of cardiovascular events with COX-2 inhibitors” such as Vioxx. Debabrata Mukherjee *et al.*, *Risk of Cardiovascular Events Associated with Selective COX-2 Inhibitors*, 286 *JAMA* 954, 954-955 (2001). But this comprehensive analysis recognized “significant limitations”:

There remains considerable uncertainty in any post hoc analysis. The patient populations in these trials . . . with rheumatoid arthritis have a higher risk of MI [myocardial infarction]. . . . Currently, no data exist on cardiovascular safety for the sporadic, intermittent use of these agents by individuals for musculoskeletal pain, which appears to be the most frequent pattern of use. . . . [D]efinitive evidence of [a cardiovascular] adverse effect will require a prospective randomized clinical trial.

Id. at 958. And Merck publicly argued at that time that no sound conclusions relating to cardiovascular risks could be drawn from the available studies. *See* Thomas M. Burton & Gardiner Harris, *Note of Caution: Study Raises Specter of Cardiovascular Risk For Hot Arthritis Pills—Vioxx and Celebrex Marketers Dispute the Research, Sought to Downplay It—A Spurned Appeal to JAMA*, *Wall St. J.*, August 22, 2001, at A1.

The Missouri Supreme Court has not addressed how *Powel*’s “reasonably prudent person” test applies where an injury was only beginning to be linked to a certain cause by developing science. Therefore, “we must attempt to predict what the court would decide if it were to address the issue” based on “relevant state precedent, analogous decisions, considered dicta, . . . and any other reliable data.” *Jurrens v. Hartford Life Ins. Co.*, 190 F.3d 919, 922 (8th Cir. 1999).

The Missouri Court of Appeals’s recent decision in *Giles v. Carmi Flavor & Fragrance Co., Inc.* is most instructive. 475 S.W.3d 184 (Mo. Ct. App. 2015). *Giles* involved a worker at a food facility who was exposed to diacetyl, a chemical used in

butter flavoring. In 1999 Giles began to experience lung problems, including difficulty breathing, shortness of breath, coughing, and wheezing. *Id.* at 185. Around 2001 and 2002, Giles and his primary care physician had actual knowledge about “the possible connection between butter flavoring and certain lung diseases,” but his doctor did not make a diagnosis on this basis. *Id.* at 185. In 2004, Giles switched primary care physicians, and between 2004 and 2011 his new doctor diagnosed Giles with dyspnea (shortness of breath) and asthma. *Id.* at 186-87. Finally, in 2011, he was referred to a third doctor who diagnosed Giles with bronchiolitis obliterans caused by diacetyl. *Id.* at 187.

The trial court in *Giles* granted summary judgment based on Missouri’s five-year statute of limitations. The Missouri Court of Appeals reversed, finding that there was a question of fact as to whether the cause of Giles’s lung condition was capable of ascertainment when “the scientific community [was] only beginning to piece together a connection between the bronchiolitis obliterans and diacetyl.” *Id.* at 194.

In dismissing Levitt’s claims, the district court relied on two pre-*Powel* cases. In *Ahearn v. Lafayette Pharmacal, Inc.*, the plaintiff exhibited symptoms of a back condition in 1975 but “did not learn of the causal relationship between the drug and the disease until 1983.” 729 S.W.2d 501, 503 (Mo. Ct. App. 1987). She filed her lawsuit in 1984. *Id.* The Missouri Court of Appeals determined that the statute of limitations barred her lawsuit because “the medical community, as early as the 1940’s, was aware of the possible causation link” and “[t]here was considerable literature available to the medical community which suggested this causal connection.” *Id.* Likewise, in *Buttice v. G.D. Searle & Co.*, the plaintiff had an intrauterine device (IUD) inserted in 1976 and removed a year later. 938 F. Supp. 561, 564 (E.D. Mo. 1996). Between 1976 and 1983, she suffered from a pelvic infection, blocked fallopian tubes, and infertility. *Id.* at 565. In 1995 she filed a lawsuit alleging that her IUD had caused these injuries. *Id.* The court determined that her injuries were “capable of ascertainment more than five years before” in part

because “[b]y the early to mid 1980’s, medical texts regularly referenced the reported association between IUD use and pelvic inflammatory disease . . . and the resulting possibility of infertility.” *Id.* at 565, 567.

Relying on *Buttice* and *Ahearn*, the district court concluded that the “case law . . . *only* requires knowledge of ‘a possible link’ between the injury and product.” *Levitt v. Merck Sharp & Dohme Corp.*, 250 F. Supp. 3d 383, 387-88 (W.D. Mo. 2017) (emphasis added) (quoting *Buttice*, 938 F. Supp at 567). Such a standard was not specifically discussed in *Powel*, and it was rejected in *Giles*. 475 S.W.3d at 193 (“[W]e reject the argument that summary judgment should be affirmed because the medical community was aware of the potential that diacetyl exposure could cause lung disease in 2001 and thus that *Giles* was on notice of a potentially actionable claim at that time.”). *Giles* distinguished *Ahearn* and *Buttice* as cases where “the science had long provided a causal connection between the diagnosis and the alleged wrong” (*Ahearn*) and where a “causal theory [for plaintiff’s injury] was capable of ascertainment” about a decade before the cause of action was filed (*Buttice*).² *Giles*, 475 S.W.3d at 193-94.

But here, as in *Giles*, the causal theory linking Vioxx to heart problems was only beginning to emerge in the scientific community before September 29, 2001. Therefore, we predict that the Missouri Supreme Court would conclude that mere knowledge in the medical community of a possible link does not *as a matter of law* place “a reasonably prudent person in [Levitt’s] position . . . on notice of a potentially actionable injury.” *See Giles*, 475 S.W.3d at 193. *Powel* focuses on when “the evidence was such to place a reasonably prudent person on notice of a potentially

²*Giles* also cites a federal district court opinion that questioned *Ahearn*’s viability and concluded “that medical community knowledge of possible causation is inconclusive” for statute of limitations purposes. *Giles*, 475 S.W.3d at 194 n.9 (quoting *Miller v. Mobay Corp.*, 741 F. Supp. 177, 178 (W.D. Mo. 1990)).

actionable injury.”³ *Powel*, 197 S.W.3d at 582 (emphasis added). As *Giles* and *Powel* indicate, Missouri law treats this as “a question of fact for the jury to decide” when “contradictory or different conclusions may be drawn” concerning the implications of the scientific evidence for a reasonable plaintiff. *Giles*, 475 S.W.3d at 194 (quoting *Powel*, 197 S.W.3d at 585).

Here, the state of the scientific literature connecting Vioxx to cardiovascular injuries before September 29, 2001 was more akin to *Giles* than to *Ahearn* and *Buttice* because at that time science was only “beginning to piece together” a causal theory. *See id.* at 194. Most compellingly, only one month before September 29, 2001, the American Medical Association’s flagship journal found that “considerable uncertainty” remained as to the apparent connection between Vioxx and cardiovascular injuries, “no data” existed on whether “the most frequent pattern of use” of Vioxx caused any heart problems at all, and more studies were needed. *See Mukherjee et al., supra*, at 958. In addition, in the month prior to September 29, 2001, Merck’s representatives and scientists were publicly contesting the validity of the scientific claims suggesting a possible heart risk from the use of Vioxx, and Merck had yet to add any warnings of cardiovascular risks to Vioxx’s label.

To be sure, the national news media covered reports of potential heart risks from taking Vioxx starting in 2000, and some plaintiffs filed cases in the months before September 2001 alleging that Vioxx caused heart problems. *See, e.g.*, J.A. 931, *Reid v. Merck & Co.*, No. BC254630 (Cal. Super. Ct. July 23, 2001). Such publicly available information is relevant to whether “notice of a potentially

³As *Giles* emphasizes, the “test to determine when a cause of action has accrued is to ascertain the time when plaintiff could have first maintained the action to a successful result.” 475 S.W.3d at 194 (quoting *Ahearn*, 729 S.W.2d at 503).

actionable injury” existed, but in this case it is not determinative *as a matter of law*.⁴ See *Giles*, 475 S.W.3d at 193-94 (“The record simply does not bear out, as a matter of law, that Giles could have maintained the action to a successful result prior to 2007, unlike in *Ahearn* . . .”). Thus, Merck failed to “clearly establish[] that there are no material issues of fact,” *Porous Media Corp.*, 186 F.3d at 1079, as to “whether the statute of limitations has run,” *Powel*, 197 S.W.3d at 585.

We do not require definitive proof of causation, a consensus in the scientific community, or an admission by the putative defendant for the statute of limitations to begin to run. But with all reasonable inferences given to Levitt, and following the most recent and “relevant state precedent, analogous decisions, considered dicta, . . . and any other reliable data” to predict what the Missouri Supreme Court would decide after *Powel*, we conclude that judgment on the pleadings was improper. See *Jurrens*, 190 F.3d at 922. As *Giles* emphasizes, “[a]lthough it may be the case that a reasonably prudent person in [plaintiff’s] position would have been on notice of a potentially actionable injury . . . , this conclusion does not follow as a matter of law.” *Giles*, 475 S.W.3d at 193. We thus reverse the district court’s dismissal on this basis and remand the case for further proceedings consistent with this opinion.

⁴The dissent argues that this is a question of law because the “the standard ‘is an objective one’” and “[t]here is no dispute about the scientific literature, media reports, corporate annual reports, and publicly-filed lawsuits that were in the public domain before September 2001.” *Post*, at 12-13. We agree that the existence of such materials is undisputed, as it was undisputed *Giles*. But *Giles* shows that the *import* of such materials can be reasonably disputed. In such a scenario, *Powel* and *Giles* call upon the jury to decide whether a “reasonably prudent person” in plaintiff’s position—as opposed to Levitt herself—was on “notice of a potentially actionable injury.” *Giles*, 475 S.W.3d at 189 (quoting *Powel*, 197 S.W.3d at 582).

COLLTON, Circuit Judge, dissenting.

I conclude that the district court correctly applied Missouri law in ruling that Jo Levitt's claim against Merck & Company was barred by the statute of limitations. I would therefore affirm the judgment.

Missouri applies an "inquiry notice" standard to begin the running of a statute of limitations. *Powel v. Chaminade Coll. Preparatory, Inc.*, 197 S.W.3d 576, 583 (Mo. 2006). There is no requirement that the plaintiff have actual knowledge of her injury and its cause. *Wheeler v. Eftink*, 507 S.W.3d 598, 604 (Mo. Ct. App. 2016). A cause of action accrues when the "evidence was such to place a reasonably prudent person on notice of a potentially actionable injury." *Powel*, 197 S.W.3d at 582.

In this case, Levitt suffered cardiovascular injuries in March and May 2000 while taking Vioxx, a medication manufactured by Merck. She underwent double coronary bypass surgery. Around the same time, information in the public domain placed a reasonably prudent person on notice of a causal theory that linked Vioxx to cardiovascular injuries. The district court properly took judicial notice of several peer-reviewed journal articles, media reports, and public court records, some of which were even cited in Levitt's complaint. *See, e.g., Miller v. Redwood Toxicology Lab., Inc.*, 688 F.3d 928, 931 n.3 (8th Cir. 2012); *Levy v. Ohl*, 477 F.3d 988, 991 (8th Cir. 2007); *Kushner v. Beverly Enters.*, 317 F.3d 820, 831 (8th Cir. 2003); *Wash. Post v. Robinson*, 935 F.2d 282, 291-92 (D.C. Cir. 1991).

In 2000, an article in the *New England Journal of Medicine* reported that in a clinical study of 8,076 people taking arthritis drugs, patients using Vioxx suffered more heart attacks than patients using a comparator agent, naproxen. News reports on this study explained that a clinical trial of Vioxx had "detected statistically 'significant' cardiovascular problems," (Newark Star-Ledger, April 2000), that

“patients on Vioxx were more likely to suffer heart attacks and other cardiovascular complications than those on naproxen,” (USA Today, Feb. 2001), that “patients taking Vioxx have a higher risk of heart attack,” (CBS The Early Show, May 2001), and that takers of Vioxx “had significantly more heart attacks” than users of the alternative. (Washington Post, March 2001). See J.A. 639, 898-99, 901, 904.

In August 2001, a review of literature published in the *Journal of the American Medical Association* reiterated that the clinical study showed a “significantly increased risk of cardiovascular event” with use of Vioxx rather than the alternative, and opined that “the available data raise a cautionary flag about the risk of cardiovascular events” with Vioxx. The authors found “a potential increase in cardiovascular event rates” for Vioxx and “urge[d] caution in prescribing” the drug to certain patients.

As early as July 2001, other plaintiffs sued Merck alleging that Vioxx caused serious cardiovascular events. One complaint from July 23, 2001, alleged that Vioxx had “been linked to several severe and life threatening medical disorders,” including heart attack and stroke. J.A. 931, *Reid v. Merck & Co.*, Case No. BC254630 (Cal. Sup. Ct. July 23, 2001). Levitt herself alleged that Merck’s 2001 Annual Report disclosed that a number of federal and state lawsuits had been filed against Merck with respect to Vioxx, alleging gastrointestinal bleeding and cardiovascular events. R. Doc. 1, at 9.

Despite all of this information in the public domain before September 2001, the court holds that a reasonable jury could find that a reasonably prudent person who had suffered cardiovascular injuries while taking Vioxx was *not* on inquiry notice of a potential claim against Merck. The rationale apparently is that the scientific data allowed for uncertainty about whether Vioxx caused cardiovascular injuries, and Merck was disputing the causal link.

In my view, the court’s approach calls for more than the “inquiry notice” required to start the statute of limitations under Missouri law. The Missouri Court of Appeals, Eastern District, long ago ruled that a “possible causation link” based on literature in the medical community that “suggested” a “causal connection” was sufficient as a matter of law to start the limitations period running. *Ahearn v. Lafayette Pharmacal, Inc.*, 729 S.W.2d 501, 503 (Mo. Ct. App. 1987).

The court believes that a recent decision of the Missouri Court of Appeals, Western District, rejected the standard applied in *Ahearn*, but that case involved a different issue. In *Giles v. Carmi Flavor & Fragrance Co.*, 475 S.W.3d 184 (Mo. Ct. App. 2015), the plaintiff was not even diagnosed with his injury outside the limitations period, so the causal link between his injury and the defendant’s product was immaterial to the decision. *See id.* at 193 (“The first two specialists who treated Giles *were unable to diagnose* bronchiolitis obliterans even though they were made aware of the potential occupational hazard. *Under these facts*, we cannot find as a matter of law that Giles’s cause of action accrued prior to 2007.”) (emphases added). *Giles* distinguished *Ahearn* on this basis, and the court never decided whether particular scientific studies or journal articles suggesting a causal link were sufficient to place an injured party on inquiry notice. *Id.* at 194. *Giles* hinged on the fact that “neither of two specialists was able *to diagnose* [the plaintiff] with a lung condition related to [his] exposure” more than five years before his lawsuit. *Id.* at 193 (emphasis added).

Dictum in *Giles* does say that the science in *Ahearn* “had long provided a causal connection between the diagnosis and the alleged wrong,” while the scientific community in *Giles* was “only beginning to piece together a connection between the bronchiolitis obliterans and diacetyl when Giles began showing symptoms of lung disease.” *Id.* This discussion provides little insight, however, because *Giles* says that the plaintiff began showing symptoms in 1999, *id.* at 192, but does not describe what

was known in the scientific community about a causal link at that time. *Ahearn* described only a “possible causation link” based on literature that “suggested” a causal connection, so *Giles* must have been referring to lesser knowledge than that when it contrasted *Ahearn*.

The better view of Missouri law is that studies, articles, and lawsuits in the public domain before September 2001 placed Levitt on notice to inquire further about whether Vioxx caused her cardiovascular injuries. To require definitive proof of causation, a consensus in the scientific community, or an admission by the putative defendant before the claim accrues would swallow the inquiry notice rule. And once the information is available to a reasonably prudent person, it does not matter whether the literature has been published for three weeks or three decades. When a plaintiff should know about an injury and a variety of possible causes, she is on notice to inquire further, and the statute of limitations begins to run, even though the exact cause is yet unknown. *See Ball v. Friese Const. Co.*, 348 S.W.3d 172, 177 (Mo. Ct. App. 2011). As the Iowa Supreme Court explained in an analogous situation, an “inquiry notice” standard does not postpone the beginning of the limitations period until a *successful* completion of the plaintiff’s investigation. *Ranney v. Parawax Co.*, 582 N.W.2d 152, 156 (Iowa 1998). Once the plaintiff knows of a possible causation link, she is on notice to investigate, and she must complete an investigation and file any action within the limitations period. *Id.*

The court says it is merely holding that the limitations issue cannot be decided “as a matter of law,” but the standard “is an objective one,” and “where relevant facts are uncontested, the statute of limitations can be decided by the court as a matter of law.” *Powel*, 197 S.W.3d at 585. In *Giles*, there was a factual issue about whether the plaintiff’s *condition* was capable of ascertainment *before* he was diagnosed. 475 S.W.3d at 194. But here, the relevant facts are uncontested. Levitt’s condition of cardiovascular injury was diagnosed before September 2001. There is no dispute

about the scientific literature, media reports, corporate annual reports, and publicly-filed lawsuits that were in the public domain before September 2001. The only fighting issue is a legal one: whether the publicly-available information placed a reasonably prudent person with cardiovascular injury after taking Vioxx on inquiry notice of a potential claim against Merck. By referring this issue to a jury, and characterizing it as a “question of fact,” the court ironically contemplates a possible ruling *against* Levitt based on scientific literature that the court says was “only beginning to piece together” a connection between Vioxx and cardiovascular injury. In my view, the better conclusion under Missouri law is that the relevant scientific literature, reports, and lawsuits described a “possible causation link” and “suggested” a causal connection, such that the limitations period began to run as a matter of law. *See Ahearn*, 729 S.W.2d at 503.

Levitt was on inquiry notice that she had a potential claim against Merck before September 2001, but she did not file this action until September 2006. The five-year statute of limitations had therefore expired. Levitt argues alternatively that Merck fraudulently concealed her cause of action, but the district court correctly rejected this claim: facts in the public domain placed Levitt on inquiry notice by September 2001, and a putative defendant does not fraudulently conceal by disputing a theory of causation. For these reasons, I would affirm the judgment.
