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No Implied Effect: The 'Safe' FCC Cell Phone Radiation Standard and Tort Immunity by Implied Conflict Preemption

Sean M. Sherman

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By Sean M. Sherman*

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I. INTRODUCTION

[1] Cell phones emit low-level radiation.[1] Constantly.[2]

[2] From 1992 to 1998, Dr. Christopher Newman used his cell phone for nearly 350 hours—about ten minutes per day.[3] When he developed a tumor on the side of his head where he used his cell phone, Dr. Newman sued various cell phone manufacturers, claiming that his exposure to

* J.D., The George Washington University Law School, 2012; B.A., University of Pennsylvania, 2009. Law Clerk to the Honorable John G. Koeltl, United States District Judge for the Southern District of New York. Many thanks to my family and friends, without whose love and support I would be lost; to Professors Alan Morrison and Roger Schechter for providing invaluable advice on life, and on this article; and to Rachel Lockwood, for her constant support and for helping me to realize that my worrying over the effects of cell phones could be harnessed constructively.

[1] *See* Guidelines for Evaluating the Envtl. Effects of Radiofrequency Radiation, 11 FCC Rcd. 15123, 15135, 15146–47 (1996) [hereinafter FCC First Order].

[2] *See* Tara Parker-Pope, *How Much Radiation Does Your Phone Emit?*, WELL N.Y. TIMES (June 11, 2008, 3:31 PM), http://well.blogs.nytimes.com/2008/06/11/how-much-radiation-does-your-phone-emit/.

[3] Newman v. Motorola, Inc., 78 F. App'x 292, 293 (4th Cir. 2003).

consistent low-level radiation had caused his brain cancer.[4] Although his case was dismissed for an inability to prove that his cell phone exposure had caused his tumor,[5] had Dr. Newman attempted his lawsuit today, it is unlikely that his case would have progressed past the initial complaint.[6] So long as Dr. Newman's cell phone complied with the Federal Communication Commission's ("FCC") standard for a "safe" level of radiation, he would have been barred from claiming that the cell phone caused or contributed to his injury.[7] However, it is far from clear that the FCC standard is actually safe.[8]

[3] In the past decade, people claiming to have been injured from prolonged exposure to cell phones have brought tort suits alleging that cell phone manufacturers are not adequately warning or protecting customers from the dangerous side effects of their products.[9] While the scientific community is divided over whether cell phones are safe,[10] two out of the three appeals courts that have addressed the issue have held that so long as cell phones comply with the FCC's standard, tort suits against cell phone companies are barred by implied conflict preemption.[11] Alternatively, one

[4] *See id.* at 293-94.

[5] *See id.*

[6] *See* Murray v. Motorola, Inc., 982 A.2d 764, 768 (D.C. 2009); Farina v. Nokia, Inc., 625 F.3d 97, 104 (3d Cir. 2010).

[7] *See Murray*, 982 A.2d at 777-78; *Farina*, 625 F.3d at 125.

[8] *See infra* Part II.C.

[9] *See infra* Part III.B.

[10] *See infra* Part II.C.

[11] *See infra* Part III.B.2 When federal law and state law conflict, the Supremacy Clause requires that the state law be superseded. *See* U.S. CONST. art. VI, § 2.

court of appeals has held that such suits are not barred by the FCC standard.[12]

[4] This Article argues that under the proper application of the doctrine of implied conflict preemption, state tort lawsuits against cell phone makers should not be barred by the FCC standard.[13] Lower courts should allow these suits to advance in accordance with Supreme Court precedent, or if necessary, the Supreme Court should grant certiorari and resolve the current circuit split.[14] Allowing these suits to proceed will lead to safer phones because cell phone manufacturers will adopt an efficient level of precaution to avoid liability, rather than continuing to hide behind the "safe" FCC standard.[15] While there should be a presumption of safety for phones that abide by the FCC standard, that presumption should be tested in litigation, especially as the evidence indicating serious health risks continues to grow.[16]

[5] Part II of this Article will provide the factual background underlying the current scientific debate over cell phone radiation and the FCC response. Part III will discuss the legal framework for the conflict preemption of state tort suits and the current circuit split over preempting tort suits against cell phone makers. Part IV will argue that according to the legislative history, Supreme Court doctrine, and policy rationales, state tort suits against cell phone manufacturers should not be barred by the

[12] Pinney v. Nokia, Inc., 402 F.3d 430, 439 (4th Cir. 2005); *See infra* Part III.B.1.

[13] *See infra* Part IV.

[14] The Supreme Court denied the *Farina* plaintiff's petition for a writ of certiorari. *See* Farina v. Nokia, Inc., 132 S. Ct. 365 (2011).

[15] *See infra* Part IV.

[16] *See infra* Part II.C.

FCC standard. Part V will address potential counterarguments against allowing the suits to go forward.

II. CELL PHONE RADIATION, THE INTERNATIONAL RESPONSE, AND THE RISE OF THE FCC STANDARD

[6] Worldwide, scientists vigorously debate whether long-term exposure to low-level radiation from cell phones increases health risks in humans.[17] In 1996, the FCC adopted a standard to govern the maximum level of admissible radiation called the specific absorption rate ("SAR")—the rate at which radiation is absorbed into tissue.[18] While the SAR standard took into account the "thermal effects" of cell phones (literally the amount of heat they give off to avoid burning), the FCC purposely excluded from its SAR calculations the potential non-thermal effects from prolonged exposure (cancer, tumors, etc.) due to a lack of scientific evidence.

[7] This section details the rise of the FCC's regulation of cell phone radiation, culminating in the reaffirmation of the 1996 FCC SAR standard in 1997.[19] Although cell phone makers and the FCC now claim that the SAR standard bars tort suits, the FCC itself explicitly and repeatedly decried any preemptive power of the SAR standard when the FCC first promulgated it.[20]

[8] While the SAR standard has remained unchanged since 1996, research into the non-thermal biological effects of cell phone radiation has

[17] *See id.*

[18] *See* FCC First Order, *supra* note 1, at 15147.

[19] Radiofrequency Radiation Exposure Evaluation: Portable Devices, 47 C.F.R. § 2.1093(d) (2012).

[20] *See infra* Part II.A.2.

grown exponentially.[21] In response to the mounting evidence of the risks associated with prolonged exposure, a handful of developed countries have taken significant action to curb the potential adverse effects of cell phone radiation, especially on children.[22] The United States has not only kept its SAR standard at the 1996 level, but the courts, at the urging of the FCC, have barred plaintiffs from addressing the possibility of non-thermal effects through the invocation of implied conflict preemption.[23]

A. The Rise of the FCC SAR Standard

[9] In 1993, when there were only approximately thirteen million cell phone users in the United States,[24] worries emerged about the dangers of phone radiation exposure.[25] In response, the FCC claimed the authority, pursuant to its interpretation of both the National Environmental Policy Act of 1969 ("NEPA")[26] and the Telecommunications Act of 1996 ("TCA"), to regulate cell phone radiation.[27] Despite promulgating

[21] *See infra* Part II.B.

[22] *See infra* text accompanying notes 91-100.

[23] *See* Farina v. Nokia, Inc., 625 F.3d 97, 105 (3d Cir. 2010); Murray v. Motorola, Inc., 982 A.2d 764, 767 (D.C. 2009); *infra* Part III.B.2.

[24] *Semi-Annual Mid-Year 2012 Wireless Industry Survey*, CTIA: THE WIRELESS ASS'N 2 (2012), http://files.ctia.org/pdf/CTIA_Survey_MY_2012_Graphics-_final.pdf.

[25] *See* Guidelines for Evaluating the Envtl. Effects of Radiofrequency Radiation, 8 FCC Rcd. 2849, 2850–51 (1993).

[26] National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321, 4332(C) (2006).

[27] Telecommunications Act of 1996, Pub. L. No. 104-104 § 704(a), 110 Stat. 151 (1996) (codified as amended at 47 U.S.C. § 332(c) (2006)). While it might seem that the task of regulation of radiation from cell phones would be better suited to the scientific expertise of the Food and Drug Administration, Environmental Protection Agency or the Consumer Product Safety Commission, none of these agencies attempted to regulate cell phone radiation.

regulations in the area of cell phone radiation, the FCC and the statutes granting it regulatory authority explicitly stated that the regulations would not preempt state and local lawsuits.[28] Nonetheless, preemption of state and local lawsuits is exactly what has ensued.[29]

1. The Authority of the FCC Under the NEPA and the TCA to Regulate Cell Phone Radiation Levels

[10] The Federal Communications Act of 1934[30] established the FCC and endowed the agency with broad authority to regulate radio communications.[31] The FCC's regulations of cell phone radiation emissions arose from the combined mandates of the NEPA[32] and the TCA.[33] In 1985, in response to the mandate of the NEPA,[34] the FCC concluded that it was obligated to regulate radiofrequency radiation standards.[35] After seeking input from other federal agencies and interested

[28] *See infra* Part II.A.2.

[29] *See infra* Part III.B.

[30] Federal Communications Act of 1934, 47 U.S.C. § 151 (2006).

[31] *See* Nat'l Broad. Co. v. United States, 319 U.S. 190, 214–15 (1943).

[32] National Environmental Policy Act of 1969, 42 U.S.C. § 4332(C) (2006).

[33] Telecommunications Act of 1996, Pub. L. No. 104-104 § 704(a), 110 Stat. 151 (1996) (codified as amended at 47 U.S.C. § 332(c) (2006)).

[34] 42 U.S.C. § 4332(C) (requiring that all federal agencies must identify and consider the environmental impact of any "major" action that "significantly affect[s] the quality of the human environment").

[35] The FCC admitted that although it does not possess agency expertise with respect to the development of public health and safety standards, the NEPA obligated it to regulate the radiofrequency radiation standards. *See* Responsibility of the Fed. Commc'ns Comm'n to Consider Biological Effects of Radiofrequency Radiation When Authorizing the Use of Radiofrequency Devices, 100 F.C.C.2d 543, 546, 551 (1985).

parties, the FCC adopted the then current American National Standards Institute Committee ("ANSI") standard governing radiofrequency emissions as its own.[36] These regulations did not extend to cell phones.[37]

[11] In 1993, prompted by ANSI's revision of its standards in collaboration with the Institute of Electrical and Electronic Engineers, Inc. ("IEEE"), the FCC began rulemaking procedures to determine whether it should strengthen its regulations.[38] Among the proposed changes was the extension of radiofrequency regulations to cover cell phones.[39] During the pendency of the notice and comment period, Congress passed the TCA,[40] which directed the FCC to "make effective rules regarding the environmental effects of radiofrequency emissions" within 180 days.[41]

[12] In response to both the TCA's mandate and the NEPA,[42] the FCC adopted a hybrid of the ANSI/IEEE standard[43] and limited radiofrequency emissions from cell phones for the first time.[44] In particular, the 1996

[36] *Id.* at 551.

[37] *See id.* at 561.

[38] *See* Guidelines for Evaluating the Envtl. Effects of Radiofrequency Radiation, 8 FCC Rcd. 2849, 2849–51 (1993).

[39] *Id.* at 2851.

[40] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, (1996) (codified as amended in scattered sections of 47 U.S.C. (2006)).

[41] *See id*. at § 704(b), 110 Stat. 152, (codified as amended at 47 U.S.C. § 332(c)(7)(B)(iv) (2006)).

[42] *See* FCC First Order, *supra* note 1, at 15125.

[43] *See id.* at 15134–35, 15146–47.

[44] *See id.* at 15146–47.

FCC First Order adopted a maximum SAR of 1.6 W/kg.[45] After the FCC announced the 1996 SAR standard, the agency received many petitions for reconsideration.[46] The petitioners alleged that the FCC had not, among other things, considered non-thermal effects of prolonged radiation exposure or the possibly larger impact of the SAR on children's developing nervous systems.[47]

[13] Despite petitions for reconsideration, the FCC reaffirmed the 1.6 W/kg SAR standard in the 1997 *FCC Second Order*.[48] The *FCC Second Order* dismissed criticisms of the FCC methodology in the *FCC First Order*, stating, "the issue of non-thermal effects was explicitly addressed in the 1992 ANSI/IEEE standard, which concluded that no reliable scientific data exist to indicate such effects may be meaningfully related to human health."[49] In adopting the ANSI/IEEE standard as its own, the FCC essentially reasoned that Americans need not be protected against health effects that have not been clearly established.[50] The FCC SAR

[45] *See id.* at 15148.

[46] *See* Procedures for Reviewing Requests for Relief From State and Local Regulations, 12 FCC Rcd. 13494, 13496-98 (1997) [hereinafter FCC Second Order].

[47] *See* Reply Brief for Petitioner Cellular Phone Taskforce, FCC First Order, 11 FCC Rcd. 15123 (1996) (No. 98-4122) 1998 WL 34097633 at *20, *29, *33-34.

[48] FCC Second Order, *supra* note 46, at 13505.

[49] *Id.* (internal quotation marks omitted).

[50] *See* Carol R. Goforth, *A Bad Call: Preemption of State and Local Authority to Regulate Wireless Communication Facilities on the Basis of Radiofrequency Emissions*, 44 N.Y.L. SCH. L. REV. 311, 357 (2001).

standard has not changed since 1997.[51] All cell phones sold in the United States today must comply with the 1997 FCC SAR standard.[52]

2. The Preemptive Effects of the FCC's SAR Standard

[14] Today in some circuits, tort suits against cell phone manufacturers are barred by preemption.[53] The FCC did not originally intend for its 1996 *FCC First Order* or 1997 *FCC Second Order* to preempt state laws regarding radiofrequency radiation.[54] In contrast, the Federal Communications Act of 1934, the TCA, the *FCC First Order*, and the *FCC Second Order* each specifically disclaimed preemptive power over state laws.[55]

[15] The Federal Communications Act contains a saving clause[56] which provides that "[n]othing contained in this chapter shall in any way abridge or alter the remedies now existing at common law or by statute . . . ."[57]

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[51] *Compare* Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, 62 Fed. Reg. 47960, 47967 (Sept. 12, 1997), *with* Radiofrequency Radiation Exposure Evaluation: Portable Devices, 47 C.F.R. § 2.1093(d) (2013).

[52] *See* Marketing of Radio Frequency Devices Prior to Equipment Authorization, 47 C.F.R. §§ 2.803(a)(1); Equipment Authorization, 47 C.F.R. §§ 24.51–.52 (2013).

[53] *See infra* Part III.A-B.

[54] *See* FCC Second Order, *supra* note 46, at 13529.

[55] *See infra* text accompanying notes 56-71.

[56] A "saving clause" in the preemption context is a clause in a statute that qualifies the breadth of the statute. The clause is meant to signal the legislature's intent to prevent the statute from preempting areas of state law that it is not intended to supersede. Nonetheless, the Supreme Court has stated that "the saving clause (like the express pre-emption provision) does *not* bar the ordinary working of conflict preemption principles." Geier v. Am. Honda Motor Co., 529 U.S. 861, 869 (2000).

[57] Federal Communications Act of 1934, 47 U.S.C. § 414 (2006).

Similarly, although the TCA included express preemption provisions that expanded the FCC's authority to preempt certain state and local regulations regarding the placement of wireless service *facilities*,[58] it did not preempt state tort suits stemming from radiofrequency radiation exposure or state laws regarding health and safety.[59]

[16] The TCA's preemption of state laws regarding the placement of "facilities" paralleled one of the premier goals of the statute: to ensure the development and availability of a nationwide infrastructure for wireless services.[60] The TCA saving clause, entitled "[n]o implied effect," makes it clear that the legislation does not preempt any state legislation except those state laws explicitly regarding "facilities."[61]

[17] The FCC specifically addressed whether its radiation standards had preemptive effects under the TCA in the 1996 *FCC First Order* and confirmed that the preemption clause only applied to those laws regulating the placement of wireless facilities.[62] Explaining its decision not to preempt state laws regarding radiofrequency exposure, the FCC noted that "[w]e have traditionally been reluctant to preempt state or local regulations enacted to promote bona fide health and safety objectives."[63]

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[58] *See* Telecommunications Act of 1996, 47 U.S.C. § 332(c)(7)(A) (2006).

[59] *See id.* at § 332(c)(7)(B)(iv-v).

[60] *See id.* § 151; *see also* Pinney v. Nokia, Inc., 402 F.3d 430, 457 (4th Cir. 2005).

[61] Telecommunications Act of 1996, Pub. L. No. 104-104 § 601(c)(1), 110 Stat. 143-44 (1996) (codified at 47 U.S.C. § 152 (2006)) (stating that the statute "shall not be construed to modify, impair, or supersede Federal, State, or local law unless expressly so provided ").

[62] See FCC First Order, *supra* note 1, at 15183-84.

[63] *Id.*

[18] The 1996 *FCC First Order* pointed to the TCA's preemption of only state and local regulations regarding "facilities" to support the FCC's decision not to preempt state regulations outside of the "facilities" context.[64] Finally, the FCC indicated in the *FCC First Order* that if in the future cell phone manufacturers felt that state radiofrequency laws should be preempted the proper approach to obtain such preemption would be to petition the FCC for a rule change.[65] Thus, in the *FCC First Order*, the FCC not only refused to preempt state laws regarding radiofrequency exposure limits, but also laid out a specific mechanistic approach to how such preemption should be adopted in the future if necessary.[66]

[19] In the 1997 *FCC Second Order*, the agency addressed the preemption argument a second time and again refused to preempt outside of the specific "facilities" confine of the TCA.[67] Proponents of preemption argued that the FCC should preempt state laws regarding all radiofrequency transmitters,[68] or in the alternative, "establish a federal 'rule of liability' for torts related to the environmental effects of radiofrequency emissions so that licensees can avoid 'unnecessary and conflicting' lawsuits."[69] The FCC denied both requests and reaffirmed its

[64] *See id.* at 15183.

[65] *See id.* at 15184 (stating that, "should FCC licensees encounter a pattern of state or local activities which constitute an obstacle to the scheme of federal control of radio facilities set forth in the Communications Act, they should present us with such evidence as well as their view of the legal basis which could justify FCC preemption of state and local ordinances. At this time however, we deny the petitions . . . requesting a broad-based preemption policy to cover all transmitting sources").

[66] *See id.*

[67] *See* FCC Second Order, *supra* note 46, at 13529.

[68] *See id.* at 13525-26.

[69] *See id.* at 13527.

FCC First Order.[70] The FCC refused to preempt state tort suits because of the language in the TCA and disregarded requests for a federal rule of liability because tellingly, it questioned "whether such an action, which would preempt too broad a scope of legal actions, would otherwise be appropriate."[71] Since the 1997 FCC Second Order, the FCC has not officially addressed the preemption question, nor have any licensees taken up the FCC's proffered official process for requesting preemption of state laws.[72]

B. The Scientific Debate Over Non-Thermal Biological Effects

[20] While there is no dispositive data on whether cell phones cause long-term health problems, the evidence of adverse effects has steadily increased since the first enactment of the SAR standard. In 1997, when the SAR standard was last reaffirmed, cell phones were a relatively new phenomenon.[73] Because cell phones had not been in common usage for a long period of time, the research into the non-thermal biological effects of low levels of radiation was based primarily on short-term data.[74] In the

[70] *See id.* at 13529.

[71] *See id.*

[72] The FCC filed an amicus brief in *Murray v. Motorola, Inc.*, however it did not follow its procedures for preemption as outlined in the *FCC First Order* and it is debatable whether an official agency position can first be asserted in an amicus brief. *See infra* Part IV.B. *Compare* FCC First Order, *supra* note 1, at 15183-84, *with* Brief of the United States and the FCC as Amicus Curiae in Support of Appellees, Murray v. Motorola, Inc., 982 A.2d 764 (D.C. 2009) (No. 07-cv-1074) 2008 WL 7825518 at *15-18.

[73] *See* DEVRA DAVIS, DISCONNECT: THE TRUTH ABOUT CELL PHONE RADIATION, WHAT THE INDUSTRY HAS DONE TO HIDE IT, AND HOW TO PROTECT YOUR FAMILY 74, 78-79 (2010).

[74] *See Cell Phone Radiation: Science Review on Cancer Risks and Children's Health*, ENVTL. WORKING GRP. 8 (2009), http://static.ewg.org/reports/2012/cellphones/2009-cellphoneradiation-fullreport.pdf.

fourteen years since, a large amount of evidence has emerged that supports the hypothesis that long-term exposure to low levels of radiation from cell phones may cause serious deleterious health effects.[75] While this data is not significant enough to cause a national panic, it should be more than sufficient to unseat the FCC's position that it should disregard non-thermal effects entirely when calculating the SAR standard.

[21] A result emblematic of the ongoing debate is The INTERPHONE Study.[76] Following expert recommendations and a feasibility study from the late 1990s, the International Agency for Research on Cancer developed The INTERPHONE Study.[77] INTERPHONE was a multinational case-control study involving thirteen countries, designed to definitively resolve the question of whether cell phones caused brain tumors.[78]

[22] Notwithstanding its ambitious size and scope, the conclusions of INTERPHONE were ambiguous.[79] Reporting of the conclusions was delayed for years as the INTERPHONE scientists battled over the

[75] *See infra* text accompanying notes 78-86.

[76] *INTERPHONE Study*, INT'L AGENCY FOR RESEARCH ON CANCER, http://interphone.iarc.fr/ (last visited Mar. 1, 2013).

[77] Christopher Wild, WORLD HEALTH ORGANIZATION, INTERNATIONAL AGENCY FOR RESEARCH ON CANCER, IARC REPORT TO THE UNION FOR INTERNATIONAL CANCER CONTROL ON THE INTERPHONE STUDY 1 (2011), *available at* http://interphone.iarc.fr/UICC_Report_Final_03102011.pdf.

[78] *See id.*

[79] *See Mobile Madness*, THE ECONOMIST (Sept. 25, 2008), http://www.economist.com/node/12295222?story_id=12295222.

meaning of their results.[80] As described *The Economist*'s article in September 2008:

> The Interphone researchers are split into three camps. One believes any increased incidence of tumours shown in the study is purely the result of the biases. Another thinks it really has found increased risks of certain tumours and wants to call for precautionary measures. A third group is just keeping quiet. One person who knows many of the scientists, but prefers not to be named, describes the relations between members of the three groups as "strained"—harsh language in the world of scientific research.[81]

[23] Aside from brain tumors, however, much research has been conducted regarding other non-thermal biological effects of cell phone radiation. Among them, a recent Danish study noted an increased risk for neurological symptoms, such as migraine and vertigo for cell phone users.[82] A study from the University of California, Los Angeles, found a correlation between prenatal exposure to cell phone radiation and behavioral problems in children.[83] Studies from the United States, Japan, Australia, and Europe reported that exposure to cell phone radiation has an

[80] *See* Ian Sample, *Mobile Phone Study Finds No Solid Link to Brain Tumours*, THE GUARDIAN (May 14, 2010, 14:15), http://www.guardian.co.uk/science/2010/may/17/mobile-phones-brain-cancer-study.

[81] *Mobile Madness*, *supra* note 83.

[82] *See generally* Joachim Schüz et al., *Risks for Central Nervous System Diseases Among Mobile Phone Subscribers: A Danish Retrospective Cohort Study*, 4 PLOS ONE e4389 (2009), http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0004389.

[83] *See generally* Hozefa A. Divan et al., *Prenatal and Postnatal Exposure to Cell Phone Use and Behavioral Problems in Children*, 19 EPIDEMIOLOGY 523, 523-29 (2008).

adverse effect on sperm count, motility, and vitality.[84] Studies also reported increased risk of salivary gland tumors among cell phone users.[85]

[24] Although the evidence has not demonstrated a "smoking gun" link between cell phone radiation and negative health impacts, it strongly suggests that at a minimum, a precautionary approach should be adopted. Nonetheless, since 1997 the FCC has not changed its stance that the SAR standard should ignore the possibility of non-thermal effects on the human body.[86] With the body of data growing, many other nations have taken precautionary actions in contrast to the United States.[87]

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[84] *See generally* Alaa J. Hamada et al., *Cell Phones and Their Impact on Male Fertility: Fact or Fiction*, 5 OPEN REPRODUCTIVE SCI. J. 125, 125-37 (2011); Nader Salama et al., *Effects of Exposure to a Mobile Phone on Testicular Function and Structure in Adult Rabbit*, 33 INT'L J. ANDROLOGY 88, 88-94 (2010); Ashok Agarwal et al., *Effects of Radiofrequency Electromagnetic Waves from Cellular Phones on Human Ejaculated Semen: An In Vitro Pilot Study*, 92 J. FERTIL. STERIL. 1318, 1318-25 (2009); Geoffry De Iuliis et al., *Mobile Phone Radiation Induces Reactive Oxygen Species Production and DNA Damage in Human Spermatozoa In Vitro* (2009), 4 PLOS ONE e6446, http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0006446; ; Osman Erogul et al., *Effects of Electromagnetic Radiation from a Cellular Phone on Human Sperm Motility: An In Vitro Study*. 37 ARCH. MED. RES. 840, 840-43 (2006); Imre Fejes et al., *Is There a Relationship Between Cell Phone Use and Semen Quality?*, 51 ARCHIVE ANDROLOGY 285, 385-93 (2005).

[85] *See, e.g.*, Siegal Sadetzki et al., C*ellular Phone Use and Risk of Benign and Malignant Parotid Gland Tumors-A Nationwide Case-Control Study*, 167 AM. J. EPIDEMIOLOGY 457, 457-67 (2008). *But see* Lonn et al., *Mobile Phone Use and Risk of Parotid Gland Tumor*, 164 AM. J. EPIDEMIOLOGY 637, 637–43 (2006) (finding, after conducting a study, that the evidence does not support this hypothesis).

[86] *See supra* Part II.A.

[87] *See Worldwide Cell Phone Safety Recommendations and Policies*, SAFER PHONE ZONE (Oct. 8, 2011), http://www.saferphonezone.com/worldwide-cell-phone-safety-recommendations-and-policies/.

C. The National and International Response to the Scientific Debate

[25] The United States has not taken any further preventative actions to protect the public from the potential dangers of prolonged cell phone exposure. The FCC and the cell phone lobby, the CTIA, have both taken the position that the SAR of a phone is immaterial so long as it is within the FCC standard.[88] The FCC formerly counseled potential cell phone purchasers to buy phones with lower SAR as a precautionary measure; however, that warning was recently removed from the FCC website.[89] The vice president of the CTIA has argued against consumers buying lower SAR phones, analogizing that "[w]hat science tells us is, 'If the sign on the highway says safe clearance is 12 feet,' it doesn't matter if your vehicle is 4 feet, 6 feet or 10 feet tall; you're going to pass through safely. The same theory applies to SAR values and wireless devices."[90]

[26] The international response to recent data is at odds with the United States and the position of the FCC and CTIA. France has banned the advertising of cell phones to children because of evidence that children, who have thinner skulls and developing nervous systems, are more

[88] *See EWG's Guide to Safer Cell Phone Use: FCC Dropped Cell Phone Caution Opposed by Industry*, ENVTL. WORKING GRP. (June 15, 2012), http://www.ewg.org/fcc-dropped-cell-phone-caution-opposed-industry; Randall Stross, *Should You be Snuggling With Your Cellphone?*, N.Y. TIMES (Nov. 13, 2010), http://www.nytimes.com/2010/11/14/business/14digi.html.

[89] *See EWG's Guide to Safer Cell Phone Use*, *supra* note 88. The actions of the FCC to remove the SAR warning have led many critics to believe that the agency has been captured by cell phone industry lobbyists. *See id.*

[90] Stross, *supra* note 88.

susceptible to cell phone radiation.[91] France also requires that all phones be sold with wired headsets to keep radiation away from the brain.[92]

[27] Germany has been advocating a cell phone SAR safety level of 0.6 W/kg (as compared with America's 1.6 W/kg) through its "Blue Angel" Program.[93] The Blue Angel Program grants a special eco-seal of approval to all phones meeting the lower SAR standard and as of 2008, has been somewhat successful, with approximately thirty percent of cell phones in the German market having emissions at or below 0.6 W/kg.[94]

[28] Other nations have issued health warnings and safe usage guidelines. In Israel, the Health Ministry asks parents to limit the cell phone use of their children in order to minimize radiation exposure.[95] The Swiss Federal Office of Public Health advises that all consumers, but especially children, should buy phones with low SAR and keep calls short.[96] The Swiss Public Health Office further counsels that "[w]henever

[91] Geoffrey Lean, *French Government Bans Advertising of Mobiles to Children*, THE INDEPENDENT (Jan. 11, 2009), http://www.independent.co.uk/life-style/gadgets-and-tech/news/french-government-bans-advertising-of-mobiles-to-children-1299673.html.

[92] *Id.*

[93] *See Specific Absorption Rates (SAR) for Mobile Phones*, BUNDESAMT FÜR STRAHLENSCHUTZ, http://www.bfs.de/en/elektro/oekolabel.html (last modified Aug. 31 2012).

[94] *See Blue Angel Goes Mobile*, DER BLAUE ENGEL, Aug. 2007, *available at* http://www.blauer-engel.de/en/blauer_engel/press/newsletter/newsletter_detail.php?we_objectID=121.

[95] *See* Yuval Azoulay & Zafrir Rinat, *Health Ministry Calls for Parents to Limit Kids' Use of Cell Phones*, HAARETZ (July 28, 2008), http://www.haaretz.com/print-edition/news/health-ministry-calls-for-parents-to-limit-kids-use-of-cell-phones-1.250559.

[96] *See Mobile Phones*, FED. OFF. PUB. HEALTH, http://www.bag.admin.ch/themen/strahlung/00053/00673/04265/index.html?lang=en (last updated June 6, 2011).

possible, only use your phone when the *signal quality* is good."[97] This is indicative of the fact that when service is poor, a cell phone emits a larger SAR as it boosts power to gain a better signal.[98]

[29] In the United Kingdom, the Public Health Ministry has required that SAR measurements be displayed at all points of sale and asks consumers to compare SAR values against the exposure limits and buy phones with lower SAR.[99] Contrary to the CTIA's argument, the growing international consensus is that although the highway sign may say "safe clearance is 12 feet," the closer to the ground, the safer you may be.[100]

[30] Today in the United States there are over 300 million cell phone users.[101] Sixty-six percent of children eight to eighteen years old have their own cell phones,[102] and young adults and adolescents will be exposed

[97] *Id.*

[98] *See generally* Lena Hillert et al., *Call-Related Factors Influencing Output Power From Mobile Phones*, 16 J. EXPOSURE SCI. ENVTL. EPIDEMIOLOGY 507, 507-14 (2006) (concluding that urban and rural areas should be weighed in an exposure index for classification of SAR exposure from cell phones)

[99] *See* U.K. DEP'T OF HEALTH, GOVERNMENT RESPONSE TO THE REPORT FROM THE INDEPENDENT EXPERT GROUP ON MOBILE PHONES (2004), *available at* http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/Browsable/DH_4903699.

[100] *See Worldwide Cell Phone Safety Recommendations and Policies*, *supra* note 87 (detailing different countries approaches).

[101] *Semi-Annual Year-End 2012 Wireless Industry Survey*, CTIA: THE WIRELESS ASS'N 2 (2012), http://files.ctia.org/pdf/CTIA_Survey_YE_2012_Graphics-FINAL.pdf.

[102] Victoria J. Rideout et al., KAISER FAMILY FOUND. GENERATION M^2, MEDIA IN THE LIVES OF 8-18-YEAR OLDS 3 (2010), *available at* http://www.kff.org/entmedia/mh012010pkg.cfm.

to low levels of radiation from cell phones for their entire lives.[103] The 1996 FCC SAR standard remains unchanged and unchallenged. While the lack of action by the FCC would not be problematic if injured consumers could resort to the courts for both compensatory damages and to incentivize cell phone manufacturers to take an appropriate level of precaution when designing cell phones, implied conflict preemption has barred such suits from being litigated on the merits.[104]

III. CONFLICT PREEMPTION

[31] Cell phone makers have consistently and successfully relied on the affirmative defense of implied conflict preemption to bar radiation suits from being litigated on the merits.[105] Although one would imagine that the primary hurdle in cell phone litigation amidst scientific uncertainty should be proving causation,[106] cell phone makers have wielded the doctrine of conflict preemption as a firewall to prevent reaching an argument over causation.[107] With courts dismissing cases on grounds of conflict preemption, cell phone makers have limited incentive to lower cell phone radiation emissions. Although the Supreme Court has held that

[103] *See* Hilary Stout, *Toddlers' Favorite Toy: The iPhone*, N.Y. TIMES (Oct. 15, 2010), http://www.nytimes.com/2010/10/17/fashion/17TODDLERS.html?_r=1 (indicating that children are exposed to cell phones at increasingly early ages).

[104] *See infra* Part III.B.

[105] *See, e.g.*, Farina v. Nokia, Inc., 625 F.3d 97, 108, 115-19, 121-22, 133-34 (3d Cir. 2010); Murray v. Motorola, Inc., 982 A.2d 764, 769, 775-78, 785, 789 (D.C. 2009).

[106] *See* Newman v. Motorola, Inc., 78 F. App'x 292, 294 (4th Cir. 2003) (demonstrating the difficulty of getting a causation argument past the trial judge and to the jury in the face of scientific uncertainty). S*ee generally* Benjamin J. Wolf, *"Can You Hear Me Now?": Cellular Phones and Mass Tort Litigation After* Newman v. Motorola, Inc., 14 ALB. L.J. SCI. & TECH. 267 (2003).

[107] *See infra* Part III.B.

there exist situations in which the doctrine of conflict preemption should bar state tort suits, the FCC SAR standard is not among them.[108]

A. Regulatory Conflict Preemption of State Products Liability Claims

[32] In certain narrow circumstances, state law tort suits can be barred because they impliedly conflict with federal agency regulations.[109] Cell phone manufacturers have argued that the FCC SAR standard is a regulation that bars state suits.[110] The Supreme Court has only allowed such agency regulations to have preemptive force over state tort suits in a few cases,[111] none of which are analogous to cases involving the SAR standard.

1. Foundational Preemption Doctrine

[33] Cell phone manufacturers have asserted that state tort lawsuits against their companies are barred by preemption because the success of such suits would interfere with the FCC SAR standard.[112] State laws can be preempted either expressly or impliedly under the Supremacy Clause of the Constitution.[113] Express preemption is confined to those statutory

[108] *See infra* Part III.A.2; *see, e.g.*, Fidelity Fed. Sav. & Loan Ass'n. v. De la Cuesta, 458 U.S. 141, 159 (1982).

[109] *See supra* Part I.A.1.

[110] *See infra* Part III.A.2.

[111] *Id.*

[112] *See infra* Part III.B.

[113] The Supremacy Clause of the Constitution declares that "[t]he Laws of the United States . . . shall be the supreme Law of the Land; . . . anything in the Constitution or Laws of any state to the Contrary notwithstanding." U.S. CONST. art. VI., § 2.

clauses that explicitly declare a federal law to be supreme.[114] Implied preemption requires looking into the meaning and purpose of the statute.[115] Courts have recognized two forms of implied preemption: field and conflict.[116] Courts find field preemption when a federal scheme is so pervasive that it is clear that Congress did not intend state laws to supplement it.[117]

[34] Under the doctrine of implied conflict preemption, federal law supplants state law either where it is impossible for individuals to comply with both federal and state law, or where the state law is a significant obstacle to the accomplishment of a stated federal objective.[118] There is a

[114] *See* Barnett Bank of Marion Cnty. v. Nelson, 517 U.S. 25, 31 (1996) (noting that statutory language "reveals an explicit congressional intent to preempt state law"). In each of the cell phone cases in which the courts barred the suits, the defendants first argued that the cases were barred by express preemption; however, the courts have consistently rejected that argument. *See, e.g.*, Farina v. Nokia, Inc., 625 F.3d 97, 118-20 (3d Cir. 2010); Murray v. Motorola, Inc., 982 A.2d 764, 772–74 (D.C. 2009).

[115] *See* Cipollone v. Liggett Grp., Inc., 505 U.S. 504, 516 (1992).

[116] *Id.*

[117] *Id.* (stating that state law is pre-empted if federal law so thoroughly occupies a legislative field "as to make reasonable the inference that Congress left no room for the States to supplement it"). In each of the cell phone cases in which the courts barred the suits, the defendants second argument was that the TCA so thoroughly occupied the field of telecommunications regulations that the state tort suits against cell phone makers were barred by field preemption. *See Farina*, 625 F.3d at 121; *Murray*, 982 A.2d at 785. The courts rejected these arguments in each case. *See Farina*, 625 F.3d at 121-22; *Murray*, 982 A.2d at 785-88.

[118] *Barnett*, 517 U.S. at 31 ("Compliance with both [federal and state] statutes may be a 'physical impossibility' . . . or, the state law may 'stan[d] as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress." (quoting Fla. Lime & Avocado Growers, Inc. v. Paul, 373 U.S. 132, 142-43; Hines v. Davidowitz, 312 U.S. 52, 67 (1941))*; see also* Geier v. Am. Honda Motor Co., 529 U.S. 861, 873 (2000) (recognizing conflict pre-emption when the state law interferes with congressional intent).

general presumption in preemption cases against finding state laws to be impliedly preempted (largely because of concerns over federalism)[119] and the critical inquiry is whether Congress "clearly" intended federal law to supersede state law.[120]

[35] While state level tort suits among private parties would not seem to conflict with federal legislative goals, the Supreme Court has recognized that if the award of damages in a state tort suit would interfere with a federal objective, federal law can bar state tort liability by implied conflict preemption.[121] The Court explained that tort liability is a powerful government method of controlling conduct and if liability under state law discourages or prevents compliance with federal law, the state tort suit must be barred.[122] Areas of law that are among traditional state police powers, however, such as health and safety, are subject to a somewhat heightened level of conflict preemption scrutiny.[123] Cell phone tort suits typically allege serious health concerns and therefore fall under the rubric

[119] *See e.g.*, CSX Transp. Inc. v. Easterwood, 507 U.S. 658, 664 (1993) (stating that preemption "will not lie unless it is 'the clear and manifest purpose of Congress.'" (quoting Rice v. Santa Fe Elevator Corp., 331 U.S. 218, 230 (1947))).

[120] *See Cipollone*, 505 U.S. at 516 (recognizing the presumption of states' authority unless it contravenes a "'clear and manifest purpose of Congress'") (quoting *Rice*, 331 U.S. at 230)).

[121] *See* Riegel v. Medtronic, Inc., 552 U.S. 312, 323-24 (2008) (discussing federal preemption to damages for certain common-law causes of action).

[122] *See id.* at 324.

[123] *See* Medtronic, Inc. v. Lohr, 518 U.S. 470, 485 (1996) ("[B]ecause the States are independent sovereigns in our federal system, we have long presumed that Congress does not cavalierly pre-empt state-law causes of action."); *CSX Transp., Inc*., 507 U.S. at 663-64 ("In the interest of avoiding unintended encroachment on the authority of the States, however, a court interpreting a federal statute pertaining to a subject traditionally governed by state law will be reluctant to find pre-emption.").

of state laws that ensure the health and safety of their citizens.[124] These suits should not be preempted by federal law under implied conflict preemption unless it is the "clear and manifest purpose of Congress."[125]

2. Leading Cases on Conflict Preemption of State Tort Suits by Federal Regulatory Actions

[36] The Supreme Court has held that agency regulations like the FCC SAR standard can have preemptive force to bar state tort suits in some circumstances.[126] The Court's decisions in *Geier v. American Honda Motor Co.*[127] and *Sprietsma v. Mercury Marine*[128] identify when federal regulatory agency actions may preempt state tort liability suits by conflict preemption. The appellate courts that have assessed the preemptive impact of the FCC SAR standard utilized the reasoning from both *Geier* and *Sprietsma* in their analyses.[129]

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[124] *See* Pinney v. Nokia, 402 F.3d 430, 457 (4th Cir. 2005) (citing *Medtronic*, 518 U.S. at 485) (explaining that cell phone tort cases get "a strong presumption against preemption" because of state interest in health and safety of citizens).

[125] *See Cipollone*, 505 U.S. at 516 (quoting *Rice*, 331 U.S. at 230).

[126] *See* Fidelity Fed. Sav. & Loan Ass'n v. De la Cuesta, 458 U.S. 141, 153-54 (1982) (recognizing implied preemption).

[127] Geier v. Am. Honda Motor Co., 529 U.S. 861, 864 (2000).

[128] Sprietsma v. Mercury Marine, 537 U.S. 51, 54 (2002).

[129] *See, e.g.*, Farina v. Nokia, Inc., 625 F.3d 97, 123 (3d Cir. 2010) (citing *Geier*, 529 U.S. at 886). Recent Supreme Court cases such as *Wyeth v. Levine*, 555 U.S. 555 (2009), and *Pliva, Inc., v. Mensing*, 131 S. Ct. 2567 (2011), are not inconsistent with *Geier* and *Sprietsma*. In *Wyeth*, 555 U.S. at 558-60, 572-73 , the Court held that state drug labeling requirements did not conflict with federal drug labeling requirements because name brand drug manufacturers could unilaterally strengthen their labeling to comply with both federal and state standards. The Court in *Wyeth* held that state suits were not preempted notwithstanding an agency amicus brief to the contrary. *Id.* at 580 n.13. In *Pliva*, the Court held that state drug labeling law was preempted because it would be impossible for

[37] *Geier* and *Sprietsma* stand for several key propositions. First, affirmative regulations promulgated by agencies can preempt state tort suits if the success of those suits would impose a duty the regulation expressly does not require.[130] Second, the purposeful failure to regulate in an area should not preempt state tort suits unless the agency, by not regulating, was attempting to deregulate an area (and thus a state tort suit would add regulation to a subject area the federal government was attempting to deregulate).[131] Third, agency amicus briefs explaining the objectives of their regulations are entitled to be given weight for conflict preemption analysis.[132] Fourth, the statutory goal of national uniformity does not necessarily displace state common law tort suits because of the weight given to traditional state concerns for health and safety.[133]

[38] In *Geier v. American Honda Motor Co.*, the Supreme Court held that a state tort suit against a car manufacture conflicted with an agency regulation and was thus barred by implied conflict preemption.[134] *Geier*

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generic drug manufacturers to comply with state laws requiring stronger warning labels and federal law requiring them to replicate exactly the labeling of the name brand drug manufacturers. *Pliva*, 131 S. Ct. at 2577-78. *Pliva* was decided under the "impossibility" branch of implied conflict preemption, not the "significant obstacle" branch, and is therefore distinct from the cell phone radiation cases. *Id.*

[130] *See Geier*, 529 U.S. at 881-82; *Sprietsma*, 537 U.S. at 67-68. Interestingly, the United States has recently flipped sides and argued against the preemptive effect of FMVSS 208, the regulation standard considered in *Geiger*, in *Williamson v. Mazda Motor of America, Inc.*, 131 S. Ct. 1131, 1135-37 (2011) (finding no preemption).

[131] *See Sprietsma*, 537 U.S. at 64-65 (stating "that a Coast Guard decision not to regulate a particular aspect of boating safety is fully consistent with an intent to preserve state regulatory authority pending the adoption of specific federal standards").

[132] *See Geier*, 529 U.S. at 883-84.

[133] *See Spriesma*, 537 U.S. at 70.

[134] *See Geier*, 529 U.S. at 884-85.

confronted a state tort suit that allegedly conflicted with a safety standard under the National Traffic and Motor Safety Act of 1966.[135] Under the Act, the Department of Transportation ("DOT") promulgated Federal Motor Vehicle Safety Standard 208 ("FMVSS 208"), which gave car manufacturers the option of installing either airbags or other types of restraint systems in an effort to give them the flexibility to try different safety methods.[136] The plaintiff in the case, a car accident victim, alleged in part that Honda was negligent for not requiring airbags in its vehicle.[137] The Supreme Court held that the plaintiff's tort suit was barred because of an implied conflict with FMVSS 208.[138]

[39] The Court explained that the plaintiff's suit "depends upon its claim that manufacturers had a duty to install an airbag," and "[i]t thereby would have presented an obstacle to the variety and mix of devices that [FMVSS 208] sought."[139] The Court noted that although the DOT regulations did not specifically address preemption, the DOT's interpretation of the objectives of FMVSS 208 in its amicus brief was persuasive in the preemption analysis.[140] Therefore, *Geier* stands for the proposition that a state tort suit will be barred by conflict preemption if the suit seeks to impose a duty (airbag requirement) that conflicts with a federal regulation (no airbag requirement).[141]

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[135] *Id*. at 864-65.

[136] *See id.* at 879-80.

[137] *See id.* at 881.

[138] *See id*.

[139] *Geiger*, 529 U.S. at 881.

[140] *See id.* at 883-84.

[141] In dissent, Justice Stevens called the Court's ruling an "unprecedented extension of the doctrine of pre-emption." *Id.* at 886 (Stevens, J., dissenting). The recent decision in *Williamson v. Mazda Motor of America* does not alter the preemption landscape. 131 S.

[40] In contrast to *Geier*, in *Sprietsma v. Mercury Marine*, the Court held that a state tort suit was not barred by a federal agency decision not to promulgate a rule requiring a safety device.[142] Under the Federal Boat Safety Act of 1971 ("FBSA"), the Secretary of Transportation delegated authority to the United States Coast Guard to establish minimum safety standards for recreational vessels.[143] The FBSA, like the TCA, had a saving clause which provided that "[c]ompliance with [the FBSA does] not relieve a person from liability at common law or under State law."[144]

[41] In 1988, the Coast Guard launched an investigation into the potential advantages and disadvantages of propeller guards on motorboats, and in 1990 decided not to promulgate a regulation requiring them.[145] In 1995, the plaintiff's wife died when she fell overboard and was struck by a propeller that did not have a propeller guard.[146] The plaintiff sued the motor manufacturer, alleging that the motor was "unreasonably dangerous" because it "was not protected by a propeller guard."[147] The defendant argued that the decision by the Coast Guard not to require

Ct. 1131 (2011). In *Williamson*, the Court held that that a later version of the same regulation as *Geier* did not preempt state tort suits because unlike *Geier*, the objective of the federal regulation was not to encourage a mixture of safety devices. *Id*. at 1137-38. Therefore state law could require the use of one type of restraint system, lap and shoulder belts, without becoming an obstacle to accomplishing a significant federal objective. *Id.* at 1139-40.

[142] *Compare* Sprietsma v. Mercury Marine, 537 U.S. 51, 63 (2002), *with Geier*, 529 U.S. at 881.

[143] *See Sprietsma*, 537 U.S. at 57.

[144] *Id.* at 59.

[145] *See id.* at 60-61.

[146] *Id*. at 54-55.

[147] *Id.* at 55.

propeller guards meant that the defendant could not be held liable for not putting propeller guards on its motors.[148] Justice Stevens, who had dissented in *Geier*, wrote the majority opinion in *Sprietsma*, reversed the decision of the Illinois Supreme Court, and held that the tort suit was not barred by conflict preemption.[149]

[42] The Court explained that unlike *Geier*, which dealt with an affirmative regulation, the decision by the Coast Guard not to require propeller guards was not the functional equivalent of a regulation that prohibited their use.[150] The Court noted that if an agency's decision not to regulate was, in fact, a conscious deregulation of a field, the decision could bar state suits because state liability would in fact conflict with a federal goal of deregulation.[151] The Court distinguished *Sprietsma* from *Geier* because in *Sprietsma*, the Coast Guard had only decided "the available data did not meet the FBSA's 'stringent' criteria for federal regulation," and not that the field of propeller safety should be deregulated or that propeller guards should be prohibited.[152] The insufficient data to regulate on a federal level did not mean that the states could not fill the gaps.[153]

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[148] *See Sprietsma*, 537 U.S. at 65.

[149] *See id.* at 54, 70.

[150] *Id.* at 65 (stating that "[i]t is quite wrong to view [the decision of the Coast Guard to not require propeller guards] as the functional equivalent of a regulation prohibiting all States . . . from adopting such a regulation").

[151] *See id*. at 66 (quoting Ark. Elec. Coop. Corp. v. Arkansas Pub. Serv. Comm'n, 461 U.S. 375, 384 (1983)).

[152]*See id.* at 66-67.

[153] *See Sprietsma*, 537 U.S. at 66-67.

[43] As in *Geier*, the Court in *Sprietsma* gave substantial weight to the regulating agency's preemption analysis in its amicus brief. While in *Geier* the Secretary of Transportation argued for preemption (and the Court found it),[154] the Coast Guard in *Sprietsma* counseled against preemption (and the Court did not find it).[155]

[44] The defendants had also argued in *Sprietsma* that because one of the main goals of the FBSA was "fostering uniformity in manufacturing regulations," state tort suits should be barred because they could lead to differing standards throughout the country.[156] The majority rejected this uniformity argument, explaining that while uniformity is an important consideration, it "does not justify the displacement of state common-law remedies."[157] The Court emphasized that uniformity arguments will not be enough to override state sovereignty and bar state tort suits by conflict preemption, especially in areas of traditional state police powers like health and safety.[158]

B. Conflict Preemption by the FCC SAR Standard—The Courts of Appeals Split

[45] Since 2000, there have been a handful of suits against cell phone manufacturers alleging, among other things, that wireless telephones emit unsafe levels of radiofrequency radiation and the manufacturers were knowingly and negligently endangering the public by continuing to sell

[154] *See* Geier v. Am. Honda Motor Co., 529 U.S. 861, 883-84 (2000).

[155] *See Sprietsma*, 537 U.S. at 68.

[156] *Id.* at 70.

[157] *Id.*

[158] *See id.*

the phones without warnings or headsets.[159] In each case, the defendants, the cell phone manufacturers, moved to dismiss on grounds of federal preemption.[160] While all of the decisions rejected the defendants' arguments of express preemption and field preemption, the courts disagreed over whether the claims were barred by implied conflict preemption.[161] In *Pinney v. Nokia, Inc.*,[162] the Fourth Circuit Court of Appeals denied the defendants' motion to dismiss and held that the suits were not preempted by the FCC SAR standard.[163] In contrast, in *Murray v. Motorola, Inc.*[164] and *Farina v. Nokia, Inc.*,[165] the District of Columbia Appeals Court and Third Circuit Court of Appeals respectively upheld dismissal of the plaintiffs' claims on the grounds of conflict preemption with the FCC standard. These cases represent a fundamental disagreement over the preemptive effect of the FCC SAR standard.

[159] *See, e.g.*, Farina v. Nokia, Inc., 625 F.3d 97, 104 (3d Cir. 2010); Pinney v. Nokia, Inc., 402 F.3d 430, 439 (4th Cir. 2005); Murray v. Motorola, Inc., 982 A.2d 764, 768 (D.C. 2009).

[160] *See Farina*, 625 F.2d at 121; *Pinney*, 402 F.3d at 442; *Murray*, 982 A.2d at 777.

[161] *See infra* Part III.B.1-2.

[162] *See Pinney*, 402 F.3d at 439.

[163] *See id.* at 451.

[164] *Murray*, 982 A.2d at 777.

[165] *Farina*, 625 F.2d at 121. The *Pinney* and *Farina* cases were actually combined at the Multidistrict Litigation Panel, and in the *Pinney* decision the court dismissed the *Farina* plaintiffs for lack of subject matter jurisdiction prior to the decision that the *Pinney* case was not preempted. *See Pinney*, 402 F.3d at 451. The court in *Farina* had to first decide whether the *Pinney* decision was the "law of the case" with regards to preemption. *See Farina*, 625 F.3d at 117 n.21.

1. *Pinney v. Nokia* – No Conflict Preemption

[46] In *Pinney*, the Fourth Circuit refused to read the TCA objective of creating a national wireless network so broadly as to include the goal of achieving a national radiofrequency radiation standard and therefore refused to find a conflict with state tort claims.[166] The *Pinney* plaintiffs sued under state law, claiming that cell phones emit an unsafe level of radiation and Nokia, in knowing this, had "negligently and fraudulently endangered the consuming public by marketing wireless telephones without headsets" to mitigate the danger.[167]

[47] The defendants raised the affirmative defense that the state law claims were preempted by the FCC SAR standard because the plaintiffs would have to prove that the FCC standard was insufficient in order to prove their claims.[168] The FCC took no part in the case. Although the district court dismissed the case on grounds of preemption, the Fourth Circuit reversed and held that the suit could go forward, notwithstanding the FCC SAR standard.[169]

[48] The court of appeals began its analysis by trumpeting the "strong presumption" against conflict preemption, especially in the traditional state domains of health and safety.[170] The Fourth Circuit went on to reject conflict preemption because it found no "congressional objective" to preempt state radiofrequency radiation standards for cell phones.[171]

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[166] *See Pinney*, 402 F.3d at 458.

[167] *Id.* at 440.

[168] *See id.* at 447.

[169] *See id.* at 455, 456-57.

[170] *Id.* at 457 (citing Medtronic, Inc. v. Lohr, 518 U.S. 470, 485 (1996)).

[171] *Pinney*, 402 F.3d at 457-58.

[49] The court's reasoning rested on three fundamental premises. First, the court rejected the defendants' "national uniformity" argument that the TCA embodied a "sweeping congressional objective of ensuring that all equipment used . . . be subject to exclusive national radiofrequency radiation standards."[172] The court explained that the actual text of the TCA, which referred primarily to carrier rate regulations and zoning authority, related only to the objective of developing the physical infrastructure necessary for a national wireless network, not to nationalizing radiation standards.[173]

[50] Second, the court recognized that in the TCA, Congress had specifically preempted only state regulation regarding "personal wireless service facilities."[174] The court interpreted the narrow nature of the express preemption provision as a strong indication that Congress did not intend to preempt state regulation outside of this narrowly and explicitly defined category.[175] Finally, the court pointed to the saving clauses in both the TCA and the FCA as additional strong factors that weighed against barring state tort suits that were both not explicitly preempted and seemingly explicitly preserved by the saving clauses.[176] Finding no evidence in the TCA of intent to preempt state tort suits or state

[172] *Id.* at 457.

[173] *See id.*

[174] *Id.* at 458.

[175] *See id.* at 458 (noting that the "specificity as to the preemptive nature of federal RF radiation standards for . . . facilities weighs against a finding that Congress has an implicit goal of making preemptive the radiofrequency radiation standards for . . . wireless telephones").

[176] *See Pinney*, 402 F.3d at 458-59 (stating that the "savings clauses counsel against any broad construction of the goals of [the TCA] that would create an implicit conflict with state tort law").

radiofrequency standards, the Fourth Circuit Court of Appeals held that the plaintiffs' suit against the cell phone manufacturers could proceed.[177]

2. *Murray v. Motorola* and *Farina v. Nokia* – Conflict Preemption

[51] In both *Murray* and *Farina*, appellate courts at the state and federal level respectively departed from the reasoning of *Pinney* and held that an implied conflict with the FCC SAR standard barred cell phone suits.[178] While the *Pinney* decision had focused primarily on the sections of the text of the TCA to read the statute narrowly and not in conflict, the *Murray* and *Farina* courts largely deferred to the view of the FCC in its amicus brief and to a broad reading of the objective of the TCA to find a conflict and bar the plaintiffs' claims.[179]

[52] In *Murray*, the plaintiffs brought state law tort claims alleging that brain tumors and cancers were caused by the long-term use of the defendants' cellular phones.[180] The plaintiffs alleged, *inter alia*, that the FCC SAR standard was inadequate and that the defendants were aware of the inadequacies.[181] Unlike *Pinney*, in which the FCC took no part in the case, in *Murray*, the FCC filed an amicus brief arguing that the plaintiffs'

[177] *See id.*

[178] *See* Farina v. Nokia, Inc., 625 F.3d 97, 125-26 (3d Cir. 2010); Murray v. Motorola, Inc., 982 A.2d 764, 768 (D.C. 2009). Although *Murray* is a D.C. Court of Appeals case, not a federal case, and therefore does not contribute to the circuit split, it is instructive in its analysis and comparisons to *Pinney*.

[179] *See infra* notes 187-203 and accompanying text.

[180] *Murray*, 982 A.2d at 768-69.

[181] *Id* at 769.

claims were preempted because they conflicted with the FCC SAR standard.[182]

[53] The D.C. Court of Appeals affirmed the trial court decision to dismiss the suit on grounds of conflict preemption.[183] In accordance with *Geier* and *Sprietsma*, the court gave great weight to the FCC's amicus brief[184] and adopted the FCC's view that allowing the suit to proceed would "necessarily upset [the] balance [the agency struck]."[185]

[54] In *Murray*, the court declined to follow the Fourth Circuit's decision in *Pinney* for several reasons. The *Murray* court stated that the "primary reason" why the *Pinney* decision was not persuasive was "that the court [in *Pinney*] appears to have reached its conclusion without considering the views of the FCC."[186] Second, *Murray* rejected *Pinney* because, according to the court in *Murray*, *Pinney* was not focused on the

[182] *See id.* at 775. In agreeing with the FCC's brief, the district court stated that "by urging a jury to find that defendants' cell phones emit unreasonably dangerous levels of radiofrequency radiation even though the phones' emissions are within the SAR guidelines . . . plaintiffs are effectively seeking to lower the FCC's current SAR standard." *Id.*

[183] *Id.* at 789.

[184] The court explained that it would defer to the FCC because of the FCC's "'unique understanding of the statutes [it] administer[s] and [its] attendant ability to make informed determinations about how state requirements may pose an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.'" *Id.* at 776-77 (quoting Wyeth v. Levine, 555 U.S. 555, 577 (2009)) (alteration in original).

[185] *Murray*, 982 A.2d at 777 (citation omitted).

[186] *Id.* at 778 n.19 (citing Pinney v. Nokia, Inc., 402 F.3d 430, 457 (4th Cir. 2005)). It should be noted that the *Pinney* court did not consider the views of the FCC because the FCC decided not to file an amicus brief in that case.

SAR standard, but on whether states could require headsets.[187] Third, the D.C. Court of Appeals stated that the *Pinney* court gave unnecessary weight to the fact that the FCC had enacted its regulations to satisfy the NEPA and not the TCA.[188]

[55] The plaintiffs in *Murray* argued that their claimed injuries were the results of "non-thermal" effects that the FCC standard had decidedly ignored.[189] The plaintiffs analogized the omission of regulation to the Coast Guard's decision not to require propeller guards in *Sprietsma*.[190] The D.C. Court of Appeals held that the situation was distinguishable from *Sprietsma* because while in *Sprietsma* the agency prescribed a floor, in *Murray*, the FCC SAR standard was the floor and ceiling.[191] *Farina*, like *Murray* and *Pinney*, presented a class action of consumers claiming injury from long-term exposure to cell phones.[192] The Third Circuit Court of Appeals in *Farina*, like the D.C. court in *Murray*, held that the state tort law action against cell phone companies was barred by conflict

[187] *See id.* As discussed above, the court in *Pinney* was cognizant that the plaintiff's claim required proof that the FCC SAR standard was insufficient. *See supra* notes 168-77 and accompanying text.

[188] *See Murray*, 982 A.2d at 778 n.19. As discussed above, the court in *Pinney* conducted its entire analysis under the TCA and made little reference to the NEPA. *See supra* notes 172-77 and accompanying text.

[189] *See Murray*, 982 A.2d at 779.

[190] *See id.*

[191] *See id*. at 780 (citing H.R. REP. NO. 104-204, at 95 (1995), *reprinted in* 1996 U.S.C.C.A.N. 10, 68 (stating that in *Sprietsma*, the Court recognized that "Congress authorized the issuance of regulations prescribing minimum safety standards," but "[h]ere, by contrast . . . Congress mandated that the FCC 'shall . . . prescribe and make effective rules regarding the environmental effects of radio frequency emissions'" (omission in original)).

[192] *See* Farina v. Nokia, Inc., 625 F.3d 97, 104 (3d Cir. 2010).

preemption.[193] The *Farina* court drew an analogy to *Geier* and explained that the FCC had carefully balanced competing policy objectives in the SAR standard.[194] The Court of Appeals held that allowing state tort suits to proceed may have the effect of upsetting the balance the FCC had struck.[195] The court also cited to the FCC's amicus brief in *Murray* as support for a finding of conflict preemption[196] and stressed the need for national uniformity.[197] The *Farina* court disregarded the plaintiff's argument that the TCA Saving Clause counseled against a finding of preemption and held that, regardless of the clause, the tort suits against cell phone makers were barred.[198]

[56] After these three separate appeals court decisions, there is no definitive resolution as to whether cell phone suits should be barred by

[193] *See id.* at 123-27.

[194] *Id.* at 129-30.

[195] *See id.* In an interesting twist, the Third Circuit declared that "given the current state of the science, the FCC considers all phones in compliance with its standards to be safe." *See id.* at 126. The Third Circuit cited the *FCC First Order* from 1996 as demonstrative of the current state of science. *Id*. at 126 (citing FCC First Order, *supra* note 1, at 15184).

[196] *See id.* at 127. The Third Circuit rejected the plaintiff's argument that since the FCC had previously disclaimed preemptive authority, its amicus brief supporting preemption should be given little weight. See *id*. (citing Wyeth v. Levine, 129 S. Ct. 1187, 1201-02 (2009)), for the argument that an agency's view on preemption should be given no deference when the agency had previously asserted that state law did not erect an obstacle to the agency's objectives. The court held that this case was distinct from *Wyeth* because, according to the court, the FCC in its *First Order* and *Second Order* had not disclaimed preemptive effect but had merely reserved the right to make a decision on preemption later, a decision it made in its amicus brief. *See id.*

[197] *See Farina*, 625 F.3d. at 124-25.

[198] *See id.* at 131-32.

conflict preemption. Moreover, with *Murray* in 2009 and *Farina* in 2010, the courts are trending away from the earlier decision in *Pinney* and toward a deferential view of an FCC standard that has remained unchanged for almost two decades. Nevertheless, with evidence of the non-thermal effects continuing to mount each month,[199] a course correction in the courts should ensue.

IV. PROPOSAL – JUDICIAL ACTION TO ALLOW SUITS AGAINST CELL PHONE MANUFACTURERS

[57] In order to ensure that cell phone manufacturers are taking the efficient level of precaution and not hiding behind the outdated SAR standard, the courts should allow tort suits against cell phone manufacturers to proceed. Cell phone manufacturers should be held responsible, thus incentivizing them to lower the SAR in phones. When faced with the affirmative defense of preemption in the future, courts should hold that the suits are not barred by conflict preemption. However, if the trend towards preemption continues in the courts of appeals, the Supreme Court should grant certiorari and resolve the circuit split in favor of allowing suits to proceed.

[58] The doctrine of implied conflict preemption should not bar state tort law claims against cell phone manufacturers. From a purely doctrinal standpoint, the cell phone radiation cases should not be barred because they are analogous to the Supreme Court's decision in *Sprietsma*[200] and distinct from its decision in *Geier*.[201] The preemption provisions and saving clauses of the FCA and TCA as well as the FCC's own position in

[199] *See* Tara Parker-Pope, *Cellphone Use Tied to Changes in Brain Activity*, WELL N.Y. TIMES (Feb. 22, 2011, 4:21 PM), http://well.blogs.nytimes.com/2011/02/22/cellphone-use-tied-to-changes-in-brain-activity/.

[200] *See supra* Part III.A.2.

[201] *See id.*

the *FCC First Order* and *FCC Second Order* all demonstrate that cell phone suits should not be barred.[202] When the statutory and regulatory language is combined with the general presumption against preemption, especially in the field of health and safety, it is clear that regardless of a federal objective of uniformity or the FCC amicus brief to the contrary, state tort suits against cell phone manufacturers should not be barred.[203]

[59] Furthermore, from a policy perspective, these suits should be allowed to proceed precisely because the risk is unknown, yet potentially catastrophic.[204] In the face of such uncertainty and risk, the highest level of efficient safety should be taken. Yet, with the FCC standard as a shield, cell phone manufacturers may not be taking the appropriate level of care.[205]

A. Precedent Dictates That Cell Phone Suits Should Not Be Preempted by the FCC Standard

[60] Supreme Court precedent dictates that the FCC SAR standard should not preempt state tort suits. The Court has consistently held that there is a "presumption against preemption," especially in areas of traditional state control like health and safety.[206] Under this presumption, state law should not be preempted unless it was the "clear and manifest

[202] *See supra* Part II.A.

[203] *See id.*

[204] *See infra* Part IV.C.

[205] *See id.*

[206] Medtronic, Inc. v. Lohr, 518 U.S. 470, 485 (1996); *see also* Hillsborough Cnty. v. Automated Med. Labs. Inc., 471 U.S. 707, 715-16 (1985); Rice v. Santa Fe Elevator Corp., 331 U.S. 218, 230 (1947).

purpose of Congress."[207] In *Sprietsma*, the Court recognized that the Coast Guard's decision to forgo regulation did not carry preemptive force because it was not an affirmative statement that propeller guards were unnecessary, rather it was premised upon the fact that there was insufficient data to regulate on a federal level.[208] Similarly, in its 1997 *FCC Second Order*, the FCC explicitly stated that it did not independently evaluate the non-thermal effects when calculating the SAR standard because expert organizations found insufficient evidence that such effects existed.[209]

[61] The decision of the FCC to not include non-thermal effects did not amount to a prohibition on states from allowing tort suits over the non-thermal effects of cell phones. In *Sprietsma*, the Court explained that the Coast Guard's decision to not mandate propeller guards did not prohibit state regulations because the Coast Guard "did not take the further step of deciding that . . . the States . . . should not impose some version of propeller guard regulation."[210] In contrast, the FCC did take that further step, albeit in the opposite direction.[211] Rather than declare that the states were barred from imposing standards with regard to non-thermal effects, the FCC expressly stated in 1996 and reaffirmed in 1997 that the SAR standard it set forth would not preempt state laws.[212] The FCC's decision to ignore non-thermal effects in its standards, when coupled with its order against preemption, amount to a ruling that the states could "fill the

[207] *Medtronic*, 518 U.S. at 485.

[208] Sprietsma v. Mercury Marine, 537 U.S. 51, 65-66 (2002).

[209] *See* FCC Second Order, *supra* note 46, at 13504-05.

[210] *See Sprietsma*, 537 U.S. at 65-67.

[211] *See* FCC Second Order, *supra* note 46, at 13529.

[212] *See id.*

gaps"[213] through allowing tort suits geared toward protecting the health of state residents from the non-thermal effects of cell phone radiation.

[62] Unlike the law at issue in the Supreme Court's decision in *Geier*, state liability will not undermine the federal SAR standard because it is only a minimum safety requirement. In *Geier* the DOT allowed car companies to use either airbags or other safety restraints.[214] State tort suits were barred because a state finding of liability for cars that did not include airbags would essentially result in an airbag requirement in that state, nullifying the federal goal of variety between airbags and other safety devices.[215]

[63] In contrast, if a state found liability for phones with a SAR of 1.5 w/kg, cell phone manufacturers would have an incentive to lower their phones maximum SAR to below 1.5 w/kg; however, this would not interfere with the FCC federal goal that all phones have SARs below 1.6 w/kg. The new phones would be below 1.6 w/kg, but they would also comply with state law. The FCC SAR standard is distinct from the DOT regulation in *Geier* because state liability would not nullify the federal requirement. State tort suits, therefore, should not be barred on account of the SAR standard.[216]

[213] *See* Sprietsma v. Mercury Marine, 537 U.S. 51, 65 (2002).

[214] *See* Geier v. Am. Honda Motor Co., 529 U.S. 861, 876 (2000).

[215] *See id* at 881.

[216] There is a counterargument that the national system of cell towers requires uniformity—namely, if phones have less powerful SAR then the towers will need to boost power, therefore different state maximums may inhibit a fully functioning national system. *But see infra* Part V.A (arguing that lower SAR standards would not affect the national system).

B. The Statutory Saving Clauses and the FCC Orders Indicate an Intent to Allow Suits to Proceed

[64] The multiple saving clauses in the applicable statutes indicate a congressional intent to allow state suits to proceed. The Federal Communications Act of 1934 declares that "[n]othing contained in this chapter shall in any way abridge or alter the remedies now existing at common law or by statute."[217] The TCA, while containing an express preemption provision barring state laws regarding the placement of wireless *facilities*, retains a saving clause to limit its preemptive power to only the express *facilities* context.[218] This saving clause, appropriately titled "no implied effect," states explicitly that the TCA "shall not be construed to modify, impair, or supersede Federal, State, or local law unless expressly so provided."[219] If, as the Supreme Court has often repeated, the "ultimate touchstone" of a preemption analysis is the purpose of Congress, then the "no implied effect" provision should weaken any argument that Congress intended the TCA to bar suits regarding radiofrequency radiation emissions from cell phones when the legislation only expressly preempts facilities.[220]

[65] Although not exactly saving clauses, the *FCC First Order* and *FCC Second Order* each declared that the SAR standard would not

[217] Federal Communications Act of 1934, 47 U.S.C. § 414 (2006).

[218] *See* Telecommunications Act of 1996, 47 U.S.C. § 152 (2006).

[219] Telecommunications Act of 1996, Pub. L. No. 104-104 § 601(c)(1), 110 Stat. 143-44 (1996) (codified at 47 U.S.C. § 152 (2006)).

[220] The Court stated in *Geier* that the existence of a statutory saving clause "does *not* bar the ordinary working of conflict pre-emption principles;" however, the combination of the express preemption provision and the "no implied effect" foster a strong implication of congressional intent. *Geier*, 529 U.S. at 869.

preempt state tort suits premised upon radiation emissions.[221] The decision to not preempt was not just a policy choice; it was based on the FCC's understanding that under the TCA, it did not have the authority to preempt outside of the facilities context.[222] The *FCC First Order* also created a procedure for aggrieved parties to petition the FCC to change its ruling on preemption in the future; however, it maintained that such a petition would have to first address whether the FCC even had such authority under the TCA.[223]

[66] The FCC pronouncements in the *FCC First Order* and *FCC Second Order* serve two vital functions. First, they strengthen the earlier assertion that the TCA does not allow the preemption of state tort suits because this is clearly how the FCC itself understood the TCA to operate. Second, the creation of an official procedure for petitioning the FCC for preemption weakens the agency's use of an amicus brief to claim that its SAR standard has preemptive effects.[224]

[221] *See* FCC Second Order, *supra* note 46, at 13529; FCC First Order, *supra* note 1, at 15183-84.

[222] *See* FCC Second Order, *supra* note 46, at 13498; FCC First Order, *supra* note 1, at 15183-84.

[223] *See* FCC First Order, *supra* note 1, at 15184.

[224] While the Court did not specifically state that agency amicus briefs are controlling, in both *Geier* and *Sprietsma* the Court sided with the agency amicus and found their briefs highly persuasive. *See* Sprietsma v. Mercury Marine, 537 U.S. 51, 67-68 (2002); *Geier*, 529 U.S. at 883. In contrast, the fact that the FCC has, long before filing its amicus brief, proclaimed that it does not have the legal authority to preempt under the TCA and has created an official procedure for asking the agency to preempt radiation suits—a procedure that neither the agency itself nor any cell phone companies have taken up—are strong arguments for giving the FCC amicus brief less weight than the amicus in both *Geier* and *Sprietsma*.

[67] As a result of the *FCC First Order* and *FCC Second Order*, the FCC amicus brief in favor of preemption should be given little or no deference. The Supreme Court has stated that when an agency has previously advocated a position against preemption or created a procedural mechanism for formally recognizing preemption, any later unilateral decision by the agency to preempt state law is "inherently suspect in light of this procedural failure."[225] The FCC's creation of a formal procedure to petition the FCC to change its rules to preempt state laws and the FCC's subsequent ignorance of its own procedure, is a "procedural failure" that makes the agency's amicus brief highly suspect.

C. Policy Rationales Support Allowing Cell Phone Litigation to Proceed

[68] From a policy perspective, suits against cell phone manufacturers should not be barred by the doctrine of conflict preemption because the actual danger posed by cell phones is still inconclusive.[226] While cell phone manufacturers have argued that the FCC has weighed the dangers into the FCC SAR standard, the evidence indicates that the FCC did not take non-thermal effects, the truly dangerous potential consequences, into account.[227] Furthermore, the sheer size and scope of potential future harm that could result from non-thermal effects counsels strongly in favor of taking the utmost precaution. The attitude of other nations that have guided their citizens towards phones with lower SARs stands in stark contrast with the cavalier stance of the FCC, the CTIA, and the cell phone industry.[228]

[225] Wyeth v. Levine, 555 U.S. 555, 577 (2009).

[226] *See supra* Part II.C.

[227] *See supra* Part II.B.

[228] *See supra* Part II.C.

[69] Allowing litigation against cell phone manufacturers would permit the tort system to incentivize phone makers to take the appropriate level of precaution.[229] The current system of conflict preemption results in disincentivizing cell phone manufacturers to conduct safety research into their products because they are not threatened by the possibility of tort litigation.[230] Moreover, the current system provides an incentive to cell phone manufacturers not to research their products because this lack of research decreases plaintiffs' potential ability to prove causation and/or knowledge of effects should the courts cease to find the suits barred by conflict preemption.[231]

[70] Allowing these suits to proceed would put the emphasis onto the part of the litigation where it should be—the merits. Cell phone manufacturers would likely cite to the FCC SAR standard to show that the sales and advertising of their phones as "safe" was not "unreasonable" and plaintiffs would be hard pressed to prove otherwise. If, however, it became clear that cell phone companies were aware that the FCC SAR standard was deficient and still took no action, there is no legitimate reason that the SAR standard should stand as a bar to holding such reckless companies accountable.

[71] Finally, plaintiffs would still have the heavy burden of proving causation.[232] If plaintiffs were able to prove both knowledge and

[229] *See* Wolf, *supra* note 106, at 294-95.

[230] *See id.* at 295.

[231] *See id.* at 295 n.188 (citing Rebecca S. Dressler et al., *Breast Implants Revisited: Beyond Science on Trial*, 1997 WIS. L. REV. 705, 775 (1997) (noting that the current tort system gives manufacturers an incentive to not properly research their products, as this will decrease plaintiffs' potential to prove causation)).

[232] *See* Newman v. Motorola, Inc., 78 F. App'x 292, 293 (2003); Wolf, *supra* note 106, at 272-73.

causation, not only should cell phone companies be held accountable, but the FCC should take such an outcome as an indicator that the FCC SAR standard, unchanged since 1997, was overdue for a reevaluation. Therefore, the threat of litigation could serve not only to incentivize cell phone manufacturers, but successful litigation could also act as a trigger for the FCC to reconsider the SAR standard in light of the most recent scientific findings on non-thermal effects.

V. COUNTERARGUMENTS AGAINST ALLOWING CELL PHONE SUITS

[72] Those parties in favor of the FCC SAR standard preempting state suits have reasonable arguments. The primary reasons that critics point to for preempting cell phone litigation are the need for a nationally uniform wireless network and the high costs that litigation would impose on the industry (and would be passed on to consumers).[233] While these arguments are facially convincing, each is flawed.

A. National Uniformity of the Wireless Network

[73] Proponents of the preemptive power of the FCC SAR standard have argued and courts that have found preemption have agreed, that the need for a nationally uniform wireless communications network requires that states do not interfere with the federal SAR standard.[234] This uniformity argument can be overcome on both legal and factual grounds.[235]

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[233] *See* Farina v. Nokia, Inc., 625 F.3d 97, 132 (3d Cir. 2010); Wolf, *supra* note 106, at 271.

[234] *See Farina*, 625 F.3d at 124-26; Murray v. Motorola, Inc., 982 A.2d 764, 785-86 (D.C. 2009).

[235] The "national uniformity" argument refers to the ability to have a national wireless network; it does not refer to the inability of the cell phone manufacturer to sell the same phone across the fifty states. That was not the intention of the TCA nor should it be a concern of preemption law. Regardless, there are at least two responses: First, as argued,

[74] Legally, in *Sprietsma*, the Supreme Court declared that while "[u]niformity is undoubtedly important," it did not "justify the displacement of state common-law remedies that compensate accident victims."[236] In this case, while uniformity of the SAR standard may have some intrinsic value (a factual issue to be challenged momentarily), it is not substantial enough to overcome the state's fundamental interest in matters of residents' health and safety. With the widespread usage of cell phones among all demographics and the inconclusive information on their potential harm, the states have a substantial interest in minimizing the potential risk.[237] Tort suits against cell manufacturers will insure that this risk is kept to the safest and most efficient levels possible.[238]

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cell manufacturers would likely innovate to have the lowest possible SAR once the standard was no longer preemptive. Second, even if some phones could not be sold in certain states, states often bar certain products that hinder health and safety. *See, e.g.*, Katie Adams, *Lake County Residents Learned Dangers of Alcoholic Energy Drinks*, ORLANDO SENTINEL (Dec. 14, 2010), http://articles.orlandosentinel.com/2010-12-14/news/os-lk-alcohol-caffeine-meeting-20101214_1_energy-drinks-phusion-projects-alcoholic-beverages (discussing ban of Four Loko energy drink in five states); Penni Crabtree, *Illinois Is About to Adopt a Ban on Sale of Ephedra*, SAN DIEGO UNION TRIB., May 17, 2003, at C1, *available at* http://legacy.utsandiego.com/news/business/20030517-9999_1b17ephedra.html (citing several states considering bans on the drug ephedra); Dave Weber, *Fake Pot Banned in Seminole Schools*, ORLANDO SENTINEL (Dec. 14, 2010), http://articles.orlandosentinel.com/2010-12-14/news/os-seminole-school-fake-marijuana-12120101214_1_fake-pot-synthetic-marijuana-synthetic-pot (discussing several states' ban of herbs laced with chemicals that mimic the effects of marijuana).

[236] *See* Sprietsma v. Mercury Marine, 537 U.S. 51, 70 (2002).

[237] *See Semi-Annual Mid-Year 2012 Wireless Industry Survey*, CTIA: THE WIRELESS ASS'N 2 (2012), http://files.ctia.org/pdf/CTIA_Survey_MY_2012_Graphics-_final.pdf; *see also* Victoria J. Rideout, Ulla G. Foehr & Donald F. Roberts, *Generation M^2, Media in the Lives of 8- to 18-Year-Olds*, KAISER FAMILY FOUND. 1-18 (Jan. 2010), http://www.kff.org/entmedia/upload/8010.pdf.

[238] *See* Wolf, *supra* note 106, at 294-95.

[75] Factually, the argument for national uniformity that both the FCC and cell phone companies have advanced is illusory, if not disingenuous. Proponents of preemption argue that if states have widely varying SAR standards, the national network will not function.[239] However, even without state regulations or tort suits, cell phones already have wildly varying SARs with little impact on network functionality.[240] Illustratively, one of the phones with the lowest SAR is currently the Samsung Galaxy Note.[241] The Galaxy Note, a "smartphone," has a SAR of 0.19 w/kg, approximately one tenth of the FCC SAR standard.[242] The phone conducts all standard cell operations and has advanced capabilities such as email and web browsing.[243] The mere fact that a smartphone can interact with the national network at such a low SAR severely undercuts the argument that state tort suits will disrupt the national communications network.

[76] Perhaps there is an argument that anything below 0.19 w/kg is impossible to connect to the network. If that is the case, then it can be argued that *Geier* requires that any state tort suits demanding a SAR lower than 0.19 w/kg should be barred by preemption. However, absent such a bottom minimum necessary SAR level, the courts should discard the "national uniformity" argument as high in rhetoric and low in substantive validity.

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[239] *See, e.g.*, *Murray*, 982 A.2d at 775-77.

[240] *See infra* notes 242–43 and accompanying text.

[241] *See* Lynn La & Kent German, *Cell Phone Radiation Levels*, CNET (Oct. 29, 2012), http://reviews.cnet.com/2719-6602_7-291-3.html.

[242] *See id.*

[243] *See* Liane Cassovoy, *What Makes a Smartphone Smart?*, ABOUT.COM, http://cellphones.about.com/od/smartphonebasics/a/what_is_smart.htm (last visited Feb. 25, 2013).

[77] Finally, the uniformity argument takes on a different meaning when the "disunifying" force is not positive state regulation but tort suit verdicts. In other words, in order for multiple standards to be created, it would require plaintiffs to bring suits against cell phone manufacturers that *prove* that the SAR level of cell phones is unsafe. If such cases are brought successfully, that may indicate cell phones emitting current SAR levels are unsafe for long-term use – a startling revelation. A finding of liability, therefore, may be a good proxy to demonstrate that the FCC standard is deficient and should be amended.

B. Harmless Phones, Frivolous Suits, and Higher Consumer Costs

[78] Another reasonable objection to allowing litigation against cell phone manufacturers is that it is still unclear whether there are any harmful effects.[244] With the evidence inconclusive, cell phones could be definitively proven to cause no harmful side effects.[245] Furthermore, the allowance of suits may lead to frivolous suits and manufacturers will likely pass on their defense costs to consumers, resulting in higher priced technology without any gain in safety (since they are already safe).[246] Why, in the face of such uncertainty, should suits be allowed to proceed?[247]

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[244] *See generally INTERPHONE Study*, *supra* note 76 (studying the potential adverse effects of mobile phones).

[245] *See id.*

[246] *See, e.g.*, Aaron O. Martin, Comment, *The American Consumer Is Not Well: Where Is Dr. Miles?*, 47 WASHBURN L.J. 581, 603 (2008) (discussing how the cost of frivolous lawsuits gets passed on to consumers in the form of increased product costs).

[247] There is another strong argument that putting an agency in charge of safety is not nearly as responsive to changing and advancing data as allowing tort suits to proceed against companies and thus incentivize safety. *See* Wendy Wagner, *When All Else Fails: Regulating Risky Products Through Tort Litigation*, 95 GEO. L.J. 693, 694-97 (2007).

[79] The response to such criticism is that, unlike products that are used by relatively few people, cell phones today are omnipresent.[248] The risk of harm, therefore, if the SAR standard is "wrong," is staggering.

[80] Despite the potential costs to cell phone manufacturers and consumers stemming from allowing litigation today, the potential catastrophic downside—if cell phones cause harm in the long term—is worth the utmost precaution today.

[81] Litigation will force cell phone manufacturers to constantly reexamine their standards and have the status quo rigorously and frequently tested through *Daubert* evidence fights and trials to juries.[249] Many products that are ultimately proven to be safe go through the fire of litigation and emerge on the other side vindicated.[250] If such is the case with cell phones, at least we can rest assured that the devices that sit in our pockets and against our heads for our entire lives are doing as little harm as possible.

VI. CONCLUSION

[82] The FCC SAR Standard is an important safety threshold, but it is only a minimum standard.[251] The standard is outdated and ignores the increasingly recognized non-thermal effects of prolonged cell phone

[248] *See supra* notes 101-02 (explaining that there are 292 million cell phone users in the United States, including sixty-six percent of all teenagers).

[249] *See, e.g.*, Newman v. Motorola, Inc., 78 F. App'x 292, 293-94 (4th Cir. 2003).

[250] *See* Wolf, *supra* note 106, at 268-72 (highlighting both Bendectin and breast implants as products that were allegedly harmful, litigated, and found safe both in court and in later scientific research).

[251] *See supra* Part IV.A.

radiation exposure.[252] Suits based on these non-thermal effects should not be barred by a standard that chose to ignore them.[253]

[83] The TCA was not intended to preempt state health and safety objectives and courts should not read it to say as much, thereby removing all remedies from those adversely affected by cell phones radiation.[254] Broad readings of the preemptive effects of the TCA ignore the explicit language to the contrary in the statute and by the FCC itself, regardless of their changed position in recent amicus briefs.[255]

[84] Allowing cell phone suits to proceed to the merits will not impact the "uniformity" of the national wireless network because as demonstrated, SAR levels already vary widely within the maximum.[256] In fact, allowing such suits to proceed could act as a complement to the FCC because a successful suit could demonstrate that enough evidence has been mounted to warrant a reexamination of the SAR standard in light of non-thermal effects (if that time has not already come).[257] While the link between cell phones and health problems is still not definitive, the risk of future harm to hundreds of millions of people dwarfs the minimal addition of precaution.[258] When the stakes are so high, we should not accept "inconclusive" as definitive proof that cell phones are safe.

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[252] *See supra* Part II.A.1.

[253] *See supra* Part IV.

[254] *See supra* Part II.A.2.

[255] *See supra* Part IV.B.

[256] *See supra* Part V.A.

[257] *See supra* Part V.B.

[258] *See id.*