Nos. 11-17707, 11-17773

UNITED STATES COURT OF APPEALS

FOR THE NINTH CIRCUIT

CTIA - THE WIRELESS ASSOCIATION®
Plaintiff-Appellant / Cross-Appellee
v.
THE CITY AND COUNTY OF SAN FRANCISCO, CALIFORNIA
Defendant-Appellee / Cross-Appellant

Cross-Appeal from United States District Court for the Northern District of California Civil Case No. 3:10-cv-03224 WHA (Honorable William H. Alsup)

Amici Curiae Brief of the Environmental Health Trust and the California Brain Tumor Association.

In Support of the Defendant-Appellee / Cross-Appellant City and County of San Francisco, California

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In Support of Affirming the District Court in part And Reversing in part

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QUESTIONS PRESENTED

1. Whether the City's law requiring health disclosures violates the First Amendment rights of cell phone retailers.

2. Whether the "reasonably related" test set out by the U.S. Supreme Court in Zauderer v. Office of Disciplinary Counsel, Supreme Court of Ohio, 471 U.S. 626 (1985), or the four-part test set out by the U.S. Supreme Court in Central Hudson Gas & Electric Corp. v. Public Service Commission of New York, 447 U.S. 557 (1980), applies to commercial speech disclosure requirements addressing health risks.

3. Whether the Federal Communications Commission's (FCC) regulations governing the technical specifications of cell phones preempt the City's regulations governing commercial speech.

TABLE OF CONTENTS

Page

TABLE OF AUTHORITIES

Page

Federal Cases

State Case

Federal Authorities

Other References

IDENTITY AND INTEREST OF AMICI CURIAE

The Environmental Health Trust is a public charity organization devoted to educating the public of environmental health risks and possible solutions to those risks. The California Brain Tumor Association is a non profit organization dedicated to supporting research into the causation of and cure for primary brain tumors as well as public education about environmental concerns contributing to brain tumors.

The amici curiae's interest in this case comes from the health risks posed by the RF Energy emitted by cell phones.

The authority for the amici curiae to file in this case comes from the blanket acceptance of all amici curaie briefs by both parties, CTIA and San Francisco.

This brief was authored wholly by the counsel for amici curiae and received no money from a party or any other person for its preparation.

CORPORATE DISCLOSURE STATEMENT

Amici Curiae the Environmental Health Trust and the California Brain Tumor Association are section 501(c)(3) public charities registered with the IRS. Neither has issued shares or debt securities to the public. Neither has parent companies, subsidiaries, or affiliates that have issued any shares or debt securities to the public. No publicly held companies own any stock in either the Environmental Health Trust or the California Brain Tumor Association.

STATEMENT OF FACTS

On July 26, 2011, the Board of Supervisors of the City of San Francisco (the City) passed Ordinance 110656 (the Ordinance). The Ordinance requires cell phone retailers operating inside the City to provide customers with information about the health effects of cell phones by handing out a factsheet, placing a poster in a visible location, and placing additional statements (stickers) on product displays. On September 30, 2011, the San Francisco Department of the Environment adopted the exact forms for implementing the Ordinance, including the factsheet, poster, and stickers.

CTIA – The Wireless Association (CTIA) sued the City in the United States District Court for the Northern District of California seeking an injunction against enforcement; CTIA alleged preemption and violation of the First Amendment. The district court delivered its decision on October 27, 2011. The district court denied preemption. The district court upheld the factsheet if the City would revise it to meet certain requirements, such as removing the images and clarifying the author. The district court enjoined the poster, stickers, and images on First Amendment grounds.

SUMMARY OF ARGUMENT

The Ordinance requires cell phone retailers within the City to provide potential customers with information based on the known and potential health effects of cell phones. Specifically, the Ordinance requires retailers to disclose that cell phones emit Radio-Frequency (RF) Energy, that the World Health Organization's (WHO) International Agency for Research on Cancer (IARC) has classified RF Energy as a possible carcinogen, that there are simple ways to reduce absorption of RF Energy, that studies to assess the health effects of RF Energy are ongoing, and that no study has ruled out the possibility of human harm from RF Energy. Recent studies have correlated long-term cell phone use with an increased incidence of brain tumors and tumors affecting the acoustic nerve. This information is to be disclosed through a factsheet handed to customers after purchase, a poster placed in a visible location of the retail store, and stickers attached to the commercial displays of individual cell phone models.

In 1996, based on evidence of short-term, acute, thermal-based health effects, the Federal Communications Commission (FCC) adopted safety standards for cell phones. These standards were heavily founded on the 1992 standard made by the industry supported groups the American National Institute of Standards (ANSI) and the International Electrical and Electronics Engineering (IEEE).

The U.S. Environmental Protection Agency (EPA) commented on the FCC's standards in 1993, finding that they are arbitrary, ignore long-term exposure, and ignore non-thermal health effects. The Federal RF Interagency Workgroup (RFIAWG) criticized the underlying 1992 ANSI and IEEE standard for similar reasons.

The Food and Drug Administration (FDA) expressed similar concerns, stating in 1993 that "we did not believe that [the ANSI/IEEE standard] addresses the issue of long-term, chronic exposures to RF fields, and that the relevance of such questions would only increase as the use of portable and hand-held devices grows." Letter from Food and Drug Administration to the FCC's Office of Engineering and Technology (July 17, 1996) (on file with FCC records).

The district court upheld the Ordinance to the extent that it addresses a potential harm. The district court struck down the poster, stickers, and images in their entirety. The district court upheld the factsheet pending clarification of the author, additional context, and deletion of the images.

This court should affirm the district court in its decision to allow the revised factsheet, but reverse the district court in its decision to strike down the poster, stickers, and images.

The Ordinance, in its entirety, passes the legal standards for regulating commercial speech set out by the U.S. Supreme Court. Specifically, it addresses a

potential harm as required in Ibanez v. Fla. Dep't of Bus. And Prof'l Regulation, Bd. Of Accountancy, 512 U.S. 136 (1994), and meets both the "reasonably related" test for disclosure requirements set out in Zauderer v. Office of Disciplinary Counsel, Supreme Court of Ohio, 471 U.S. 626 (1985) and the four-part test for a substantial state interest expressed in a non-burdensome manner set out in Central Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n of N.Y., 447 U.S. 557 (1980). The Ordinance makes factual, uncontroversial statements that, following the principles of protecting commercial speech in Va. State Bd. of Pharmacy v. Va. Citizens Consumer Council, Inc., 425 U.S. 748 (1976), pass First Amendment review by increasing the information available to consumers.

ARGUMENT

I. SAN FRANCISCO'S ORDINANCE REQUIRING RETAILERS TO DISCLOSE THE POTENTIAL HEALTH EFFECTS OF CELL PHONE USE MEETS FIRST AMENDMENT SCRUTINY

A. The Ordinance Is A Commercial Speech Disclosure Requirement In Accordance With The Landmark U.S. Supreme Court Decision Virginia Pharmacy (1976) And All Subsequent Commercial Speech Cases

The U.S. Supreme Court extended First Amendment protection to commercial speech in Virginia Pharmacy in order to protect consumers' interest in the free-flow of information. 425 U.S. at 765. Four years later, the Court created a four-part test to apply intermediate scrutiny to commercial speech regulations, the Central Hudson test. 447 U.S. at 566. First, the Court said in Central Hudson, the regulation must govern lawful and truthful commercial speech; commercial speech that is misleading or regarding an illegal activity is not protected by the First Amendment. *Id*. Second, the government must identify a substantial state interest served by the regulation. *Id*. Third, the regulation must directly advance the state interest; indirect regulations of commercial speech are not lawful. *Id*. Fourth, the regulation must not be more extensive than necessary; the regulation is not lawful if there is a reasonable, less intrusive path or if it regulates speech unrelated to the state interest. *Id*.

Five years after the decision in Central Hudson, the U.S. Supreme Court decided Zauderer, in which they crafted the "reasonably related" test for disclosure

requirements as an exception to Central Hudson. 471 U.S. at 650. As the Court explained in Virginia Pharmacy, First Amendment protection of commercial speech principally serves consumers' interest in receiving information; therefore, in Zauderer, the Court determined that an advertiser's right in *not* providing information is minimal. 471 U.S. at 651. In other words, because advertisers' right to omit information is minimally protected compared to their right to speak, laws requiring them to disclose information are reviewed less stringently than laws restricting what they may say.

The last U.S. Supreme Court case critically relevant is Ibanez, decided nine years after Zauderer. In Ibanez, the Court described the factual basis necessary to prove a substantial state interest (part two of Central Hudson's test). The Court stated that the government must identify a real harm, but goes on to include "potentially real harm[s]," rather than the "purely hypothetical." 512 U.S. at 146.

The Ordinance passes every part of Central Hudson's four-part test, meets Zauderer's reasonably-related test, and identifies a substantial state interest to the U.S. Supreme Court's satisfaction as discussed in Ibanez. For these reasons, this court should affirm the district court's decision to allow enforcement of the City's revised factsheet and reverse the district court's decision to enjoin the City's poster, stickers, and images.

1. The U.S. Supreme Court Defines Commercial Speech As Speech Proposing A Transaction; The Ordinance Regulates Speech Proposing The Buying And Selling Of Cell Phones

The U.S. Supreme Court defines commercial speech as "the 'common-sense' distinction between speech proposing a commercial transaction, which occurs in an area traditionally subject to government regulation, and other varieties of speech." Bolger v. Youngs Drug Products Corp., 463 U.S. 60 (1983), at 64, quoting Ohralik v. Ohio State Bar Assoc., 436 U.S. 447, 455-456 (1978).

The Ordinance is a commercial speech disclosure requirement because it governs speech related to the buying and selling of cell phones. The required factsheet, poster, and stickers are tied to advertisements proposing the purchase of cell phones and the transaction itself. The Ordinance does not tread on any of the non-commercial messages raised by the appellant-plaintiff's declarant, Mr. Domenico D'Ambrosio. Mr. D'Ambrosio identifyied two non-commercial messages made by one of appellant-plaintiff's members. However, both Mr. D'Ambrosio in his declaration and appellant-plaintiff it its brief, fail to indicate how the poster, stickers, or factsheet would impact either non-commercial message; common sense suggests no impact.

The first, a donation box, would receive absolutely no impact from the Ordinance; the donation box is not a wall for the poster to go on, it is not a display material for the stickers to be attached to, and it is not a phone to be purchased

thereby requiring the factsheet to be handed out. ER (D'Ambrosio) 104. The second, a plaque regarding conservation efforts, will also remain unaffected. *Id.* Mr. D'Ambrosio's declaration fails to describe where the plaque is placed, and even assuming that it shares wall space with the Ordinance's *single* poster, the disclosure cannot be considered unduly burdensome in light of the examples the Court has reviewed. In Ibanez, the required disclosure was so burdensome the Court viewed it as a prohibition. 512 U.S. at 146-147. It cannot be said that requiring one poster prohibits the placement of a plaque.

The U.S. Supreme Court has fully discussed this issue of mixed speech, providing examples to guide this inquiry. The best discussion arises from the U.S. Supreme Court case Riley v. Nat'l Fed'n of the Blind of N.C., Inc., 487 U.S. 781 (1988), and the cases it relies upon, Sec'y of State of Md. v. Munson, Co., 467 U.S. 947 (1984) and Schaumburg v. Citizens for a Better Env't, 444 U.S. 620 (1980).

In Riley, the Court reviewed a law requiring charitable organizations to disclose what percentage of a donation carried through to the charity (as opposed to costs and fees). A charity's expressive speech is fully protected, but the underlying transaction may not be. The Court attempted to parse the commercial from the non-commercial speech and found "that the [commercial] speech [does not] retain its commercial character when it is inextricably intertwined with

otherwise fully protected speech." 487 U.S. at 796. So, in reviewing commercial speech regulations, a court must determine if the commercial and non-commercial elements are inextricably intertwined. To make this determination, "our lodestars in deciding what level of scrutiny to apply to a compelled statement must be *the nature of the speech taken as a whole and the effect of the compelled statement thereon.*" *Id.*, *emphasis added*. The Court then quotes its previous decisions in Munson and Schaumberg:

> "Soliciting financial support is undoubtedly subject to reasonable regulation, but the latter must be undertaken with due regard for the reality that solicitation is characteristically intertwined with informative and perhaps persuasive speech seeking support for particular causes or for particular views on economic, political, or social issues, and for the reality that, *without solicitation, the flow of such information and advocacy would likely cease.*" 467 U.S. 947 at 959-960, *emphasis added*.

As the Court did in Riley, Munson, and Schaumburg, this court should look at the whole nature and effects of the Ordinance. The concern in Riley, Munson, and Schaumburg, was that the non-commercial information provided by charities might cease if the commercial speech disclosure were enforced. *Id.* There is no showing that any non-commercial speech will be impacted, let alone cease, if the Ordinance were enforced.

Appellant-plaintiff's argument skips the required step of parsing the commercial from non-commercial speech elements. The court in Mattel, Inc. v. MCA Records, Inc., 296 F.3d 894 (9th Cir. 2002), the Ninth Circuit case that

appellant-plaintiff relies upon, does not skip this step when it attempted to parse the commercial from non-commercial elements of a song. The Ninth Circuit determined that a song's commercial and non-commercial elements were inextricably intertwined, like the charitable information in Riley, Munson, and Schaumburg.

Again, there has been no showing that a donations box or a plaque are intertwined with the City's disclosure requirements. These elements are easily parsed; the donations box and plaque are not in danger. For these reasons, this court should find that the Ordinance only affects commercial speech.

2. The U.S. Supreme Court Set The Government's Burden At Addressing Potential Harms In Ibanez (1994)

This court should uphold the district court's decision to allow the City to require a disclosure based on the "possibility that [cell phones] may (or may not) turn out to be harmful." ER (Order) 10. Long-term cell phone use is correlated with increased incidence of brain cancer and other health effects. Only with more research and time will scientists discover if this correlation is causation or neutral. The current lack of knowledge represents a potential harm, not safety.

The district court is well supported by the U.S. Supreme Court's decisions in Edenfield, 507 U.S. 761 (1993) and Ibanez, which state that the burden a government must carry is to address a potential harm. Unlike the current case, both Edenfield and Ibanez reviewed regulations that had little or no basis in fact.

Specifically, the Court struck these regulations under parts two and three of Central Hudson's test: (2) the government must identify a substantial state interest and (3) the regulation must directly advance said interest.

The Court described the government's burden in Edenfield as "demonstrat[ing] that the harms it recites are real and that its restriction will in fact alleviate them to a material degree." 507 U. S. at 770-771. The Court then listed ways the Florida Board of Accountancy failed to meet this burden:

> "It presents no studies that suggest personal solicitation of prospective business clients by CPA's creates the dangers of fraud, overreaching, or compromised independence that the Board claims to fear. The record does not disclose any anecdotal evidence, either from Florida or another State, that validates the Board's suppositions." 507 U.S. at 771.

When applying this standard for commercial speech restrictions to the commercial speech disclosure requirement in Ibanez, the Court stated that "[g]iven the state of this record—the failure of the Board to point to any harm that is potentially real, not purely hypothetical—we are satisfied that the Board's action is unjustified." 512 U.S. at 146.

In the immediate case, the City is supported by the consensus of modern science and federal agencies that no study has ruled out harm from RF energy and that more research is required. Based on the same science, the WHO's IARC concluded a correlation between cell phones and cancer. The EPA, a health and safety federal agency, believes that the current FCC standards are inadequate to

address the potential harms of cell phone use. *See infra* Part I.B of this brief. Further, the district court found that "it cannot be said that San Francisco has acted irrationally in finding a potential public health risk and in requiring disclosures to mitigate that potential risk." ER (Order) 11.

Appellant-plaintiff incorrectly cites Video Software Dealers Ass'n v. Schwarzenegger, 556 F.3d 950 (9th Cir. 2009), to suggest a higher burden on government regulation. In Schwarzenegger, the Ninth Circuit applied strict scrutiny to a regulation of expressive speech (the banning of videogames), and intermediate scrutiny to commercial speech (a labeling requirement). The State, in Schwarzenegger, alleged causation and the court found no evidence of it. 556 F.3d 950 at Part V.A. In the immediate case, the City based the Ordinance on potential harm, not causation.

Particularly relevant to City's burden, the Ninth Circuit stated that "[w]hether the State's interest in preventing psychological or neurological harm to minors is legally *compelling* depends on the evidence the State proffers of the effect of video games on minors." *Id., emphasis added*. Central Hudson requires a substantial, not compelling, interest; because compelling evidence is required in strict scrutiny, we may infer that substantial evidence is required in intermediate scrutiny, which the City has provided. Not even in a case of strict scrutiny does

the Ninth Circuit "require the State to demonstrate a 'scientific certainty,'" as the appellant-plaintiff essentially argues. *Id.*

3. The Ordinance Passes Both Commercial Speech Tests Established By The U.S. Supreme Court: Zauderer's "Reasonably Related" Test And Central Hudson's Four Part Test

The U.S. Supreme Court established a "reasonably related" test in Zauderer to apply to commercial speech mandated disclosures of factual and uncontroversial information, such as the Ordinance. This is an exception to the four-part test established in Central Hudson; it can be summarized as, "we hold that an advertiser's rights are adequately protected as long as disclosure requirements are reasonably related to the State's interest in preventing deception of consumers." 471 U.S. at 651.

The Ohio regulation reviewed in Zauderer required attorneys to disclose a client's responsibility to pay costs if the attorney advertises a contingency-fee based service. *Id.* at 652. The regulation served the substantial state interest of protecting consumers from potential deception. *Id.* The Court found that a client, unfamiliar with legal cases, may not know the difference between costs and fees and may likely be deceived by a contingency-fee agreement that charged costs regardless of the case's outcome. *Id.*

The Court created this exception because there are "material differences between disclosure requirements and outright prohibitions on speech." *Id.* at 650.

"First Amendment protection to commercial speech is justified principally by the value to consumers of the information such speech provides… appellant's constitutionally protected interest in *not* providing any particular factual information in his advertising is minimal." *Id.* at 651 (citing Virginia Pharmacy).

This court should recognize, as the Supreme Court did, that Zauderer's exception applies when substantial state interests other than prevention of deception are served. In footnote 14 of Zauderer, the Court discusses how disclosure requirements should not be subjected to a "least restrictive means" analysis. The Court repeatedly says, the focus of the inquiry should be "the State's purposes," rather than "preventing deception of consumers." Footnote 14 in its entirety:

> "We reject appellant's contention that we should subject disclosure requirements to a strict 'least restrictive means' analysis under which they must be struck down if there are other means by which the State's purposes may be served. Although we have subjected outright prohibitions on speech to such analysis, **all our discussions of restraints on commercial speech have recommended disclosure requirements as one of the acceptable less restrictive alternatives to actual suppression of speech**. *See, e.g., Central Hudson Gas & Electric,* 447 U.S. at 447 U.S. 565. **Because the First Amendment interests implicated by disclosure requirements are substantially weaker than those at stake when speech is actually suppressed**, we do not think it appropriate to strike down such requirements merely because other possible means by which the State might achieve its purposes can be hypothesized. Similarly, we are unpersuaded by appellant's argument that a disclosure requirement is subject to attack if it is 'underinclusive' -- that is, if it does not get at all facets of the problem it is designed to ameliorate. As a general matter, governments are entitled to attack problems piecemeal, save where

> their policies implicate rights so fundamental that strict scrutiny must be applied. *See, e.g., Zablocki v. Redhail*, 434 U.S. 374, 434 U.S. 380 (1978). **The right of a commercial speaker not to divulge accurate information regarding his services is not such a fundamental right.**" 471 U.S. 626 at 651, **emphasis added**.

The U.S. Supreme Court has not identified any reason to apply a higher level of scrutiny to commercial speech disclosures serving the public health than those preventing consumer deception. For this reason at least, this court should uphold the district court in applying Zauderer. ER (Order) 10.

The U.S. Court of Appeals for the 2nd Circuit followed this logic in Nat'l Elec. Mfrs. Ass'n v. Sorrell, 272 F.3d 104 (2nd Cir. 2001). The Second Circuit applied Zauderer to a Vermont disclosure requirement. The Second Circuit stated that: Zauderer applies to commercial speech disclosures and Central Hudson applies to commercial speech restrictions, *id.* at ¶ 45, the distinction between a disclosure aimed at preventing deception and a disclosure aimed at protecting the public is irrelevant, *id.* at ¶ 46, and under-inclusive statutes (ones which do not address *all* the sources of public harm) are acceptable, *id.* at ¶ 48.

Should this court determine that it will apply Central Hudson's four-part test rather than Zauderer's "reasonable relationship" test, it should still uphold the Ordinance in its entirety. The Ordinance meets all four parts of the Central Hudson test.

The Central Hudson test governs commercial speech regulations, except those falling under Zauderer. The four parts are:

> "In commercial speech cases, then, a four-part analysis has developed. [Part 1,] At the outset, we must determine whether the expression is protected by the First Amendment. For commercial speech to come within that provision, it at least must concern lawful activity and not be misleading. Next, [part 2,] we ask whether the asserted governmental interest is substantial. If both inquiries yield positive answers, we must determine [part 3,] whether the regulation directly advances the governmental interest asserted, and [part 4,] whether it is not more extensive than is necessary to serve that interest." 447 U.S. at 566.

Satisfying part one, the Ordinance regulates commercial speech. *See* Part I.A.1 of this brief. Satisfying part two, the Ordinance supports the substantial state interest of public health. *See* Part I.B of this brief. Satisfying part three, the Ordinance directly advances public health by giving the at-risk population information to protect itself. Satisfying part four, the Ordinance is not more extensive than necessary; the Ordinance focuses solely on issues related to public health. The Ordinance *serves* the free-flow of information by requiring cell phone retailers to disclose accurate, truthful information they might otherwise omit.

For these reasons, if it applies Central Hudson, this court should find the Ordinance a constitutional commercial speech regulation.

B. A Scientific Consensus Calls For More Research On Cell Phones And RadioFrequency (RF) Radiation

Cell phones pose a potential danger to personal and public health because they emit RF Energy, which has been correlated with negative health effects including an increased incidence of brain tumors, tumors affecting the acoustic nerve, and damage to sperm. The RF Energy emitted by cell phones causes thermal and non-thermal effects, the difference being whether heat is the mechanism; the federal RF Interagency Work Group and the Environmental Protection Agency are both concerned over the non-thermal health effects of RF Energy while the FCC admits to not knowing if they pose a danger. Distance plays a key role in RF Energy absorption from near-field sources like cell phones, which is why the Ordinance's required factsheet suggests that a user text instead of call and make use of belt clips and purses.

1. The World Health Organization's (WHO) International Agency For Research On Cancer (IARC) Concluded That The RF Energy Emitted By Cell Phones Is A Possible Carcinogen

The WHO, through the IARC, "has classified radiofrequency electromagnetic fields as possibly carcinogenic to humans (Group 2B), based on an increased risk for glioma, a malignant type of brain cancer, associated with wireless phone use." SER (WHO IARC Press Release) 819. The IARC Director, Christopher Wild, states that "[g]iven the potential consequences for public health of this classification and findings… it is important that additional research be

conducted into the long‐term, heavy use of mobile phones. Pending the availability of such information, it is important to take pragmatic measures to reduce exposure such as hands‐free devices or texting." *Id.* at SER 820.

The Ordinance is an example of a pragmatic measure that addresses the interest of reducing exposure.

Importantly, the IARC's review of the scientific evidence included the industry funded and supported INTERPHONE study. "There were suggestions of an increased risk of glioma at the highest exposure levels..." despite no finding of a causal relationship. SER (INTERPHONE Study Group) 532. This positive relationship between high exposure levels and increased risk of glioma constitutes an un-refuted correlation and poses a potential personal and public health risk, especially considering the ubiquitous use of cell phones today.

2. Federal Agencies Join The Consensus

The FCC is responsible for establishing safety standards for cell phones, but the FCC is not a health and safety agency; for this reason, the FCC relies on the FDA and the EPA. The current safety standards were established in 1996, only minor modifications have been made since. The FCC's standards were primarily based on the ANSI and IEEE standards developed in 1992. During the comments phase in setting the FCC standards, the EPA and FDA criticized the 1992 ANSI and IEEE standard at length. These criticisms remain unanswered.

a. The FCC Does Not Know If The Non-Thermal Effects Of RF Energy Adversely Affect Human Health

The FCC recognizes its lack of knowledge. In August of 1999, the FCC's Office of Engineering and Technology (OET) published an update of its Bulletin 56, which explains RF Energy, different biological responses to exposure, and many scientific nuances. Off. of Engineering and Tech., Federal Communications Comm'n, Bull. 56: Questions and Answers about Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields (1999).

Bulletin 56 defines RF Energy, "Radio waves and microwaves are forms of electromagnetic energy that are collectively described by the term 'radiofrequency' or 'RF.'" Bull. 56 at 1. The connection between RF Energy and cell phones is made shortly thereafter, "[t]hese waves are generated by the movement of electrical charges such as in a conductive metal object or antenna. For example, the alternating movement of charge (i.e., the 'current') in an antenna used by a radio or television broadcast station or in a cellular base station antenna generates electromagnetic waves that radiate away from the 'transmit' antenna and are then intercepted by a 'receive' antenna such as a rooftop TV antenna, car radio antenna or an antenna integrated into a hand-held device such as a cellular telephone." *Id.*

Next, Bulletin 56 defines thermal and non-thermal biological effects. The thermal effects of RF Energy exposure are the "[b]iological effects that result from heating of tissue by RF energy… It has been known for many years that exposure

to high levels of RF radiation can be harmful due to the ability of RF energy to heat biological tissue rapidly. This is the principle by which microwave ovens cook food…" *Id.* at 6. The non-thermal effects of RF Energy exposure occur "[a]t relatively low levels of exposure to RF radiation, i.e., field intensities lower than those that would produce significant and measurable heating…" *Id.* at 8.

Regarding the FCC's agreement on the need for more research and recognized lack of knowledge, "[i]n general, while the possibility of 'non-thermal' biological effects may exist, whether or not such effects might indicate a human health hazard is not presently known. Further research is needed to determine the generality of such effects and their possible relevance, if any, to human health." *Id.*

This update of Bulletin 56 was published in 1999, since which, further research has been conducted and has determined a correlation between the non-thermal effects of RF Energy exposure and human health. *See* Part I.B. of this brief.

b. The Environmental Protection Agency (EPA), The Food And Drug Administration (FDA), And The Federal RF Interagency Work Group (RFIAWG) Conclude That The FCC's Standards Are Inadequate

The EPA found the 1996 FCC safety standards inadequate in several ways. First, they ignore potential non-thermal effects of RF Energy exposure. Second, they ignore potential long-term effects of RF Energy exposure. Third, they ignore

the difference in risk for different parts of the population. Fourth, they ignore the difference in RF Energy absorption by different parts of the body (especially the head).

In 1993, after the FCC began the notice and comment phase on whether to adopt the ANSI / IEEE standard, the EPA wrote its concerns. "The 1992 ANSI/IEEE conclusion that there is no scientific data indicating that certain subgroups of the population are more at risk than others is not supported by NCRP [National Council on Radiation Protection and Measurements] and EPA reports." Environmental Protection Agency, Comments to the Federal Communications Commission on FCC 93-142, April 1993, Notice of Proposed Rulemaking; Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation (1993) at 7. The comments continue, "[t]he thesis that the 1992 ANSI/IEEE recommendations are protective of all mechanisms of interaction is unwarranted because the adverse effects level in the 1992 ANSI/IEEE standard is based on a thermal effect." *Id.*

The Food and Drug Administration (FDA) also commented on the FCC's proposed standards in 1993. The FDA explicitly states its concern over the unaddressed long-term effects of RF exposure. Letter from Food and Drug Administration to the FCC's Office of Engineering and Technology (July 17, 1996) (on file with FCC records).

In 1999, three years after the 1996 FCC rules were adopted, the RFIAWG wrote several concerns to the ANSI/IEEE. First, the RFIAWG suggested that

> "an effort should be made to base local SAR limits on the differential sensitivity of tissues to electric fields and temperature increases. **For example, it seems intuitive that the local limits for the brain and bone marrow should be lower than those for muscle, fat and fascia; this is not the case with the current limits which implicitly assume that all tissues are equally sensitive (except for eye and testicle)**. If no other data are available, differential tissue sensitivity to ionizing radiation should be considered." Federal Interagency Work Group, Letter to IEEE, *RF Guideline Issues* (1999) at 1, **emphasis added**.

The RFIAWG continues on the next page, stating that "[t]he past approach of basing the exposure limits on acute effects data with an extrapolation to unlimited chronic exposure durations is problematic." *Id.* at 2. The RFIAWG's concern is that "[f]or lower level ('non-thermal'), chronic exposures, the effects of concern may be very different from those for acute exposure (e.g., epigenetic effects, tumor development, neurologic symptoms)." *Id.*

The RFIAWG criticizes the ANSI/IEEE standards for having two tiers of exposure limits based on environments rather than based on a population's biological sensitivity:

> "The ANSI/IEEE standard establishes two exposure tiers for controlled and uncontrolled environments. The following statement is made in the rationale (Section 6, page 23): 'The important distinction is not the population type, but the nature of the exposure environment.' If that is the case, consideration should be given to providing a better explanation as to why persons in uncontrolled environments need to be protected to a greater extent than persons in

> controlled environments. An uncontrolled environment can become a controlled environment by simply restricting access (e.g., erecting fences) and by making individuals aware of their potential for exposure. After such actions are taken, this means that the persons who previously could only be exposed at the more restrictive uncontrolled levels could now be exposed inside the restricted area (e.g., inside the fence) at controlled levels.
>
> What biologically-based factor changed for these people? Since the ostensible public health reason for providing greater protection for one group of persons has historically been based on biological considerations or comparable factors, it is not clear why the sentence quoted above is valid." *Id.* at 4.

This list of criticisms shows how the FCC's 1996 safety standards ignore the potential personal and public health risk posed by the long-term use of cell phones. For these reasons, this court should uphold the district court in determining that the City's factsheet is serves the interest of "protecting public health and safety" and extend this finding to the poster, sticker, and images. ER (Order) at 7.

c. Independent Criticisms Of The FCC's Safety Standards Reveal More Inadequacies

The BioInitiave Report was published in 2007, it included criticisms of the FCC's safety standards based on current science. Dr. Carl F. Blackman, a research scientist in the EPA's Environmental Carcinogenesis Division, was on the organizing committee and Dr. Henry Lai, a University of Washington scientist, was one of the fourteen scientists conducting the reviews. Dr. Lai is important to note because appellant-plaintiff's expert, Mr. Ronald C. Petersen, reviewed the 1992 ANSI/IEEE standard in forming his opinions, Petersen Decl. in Supp. Of

Prelim. Inj. Motion at 10, and the 1992 ANSI/IEEE standards reviewed Dr. Lai's work. *Id.*, Ex. 4, at 50.

Dr. Lai noted that "[i]n many instances, neurological and behavioral effects were observed at a SAR less than 4 W/kg. This directly contradicts the basic assumption of the IEEE guideline criterion." Henry Lai, Evidence for Effects on Neurology and Behavior 10 (David Carpenter and Cindy Sage, eds., BioInitiative Report 2007). This casts additional, independent doubt on the 1992 ANSI/IEEE standard and, because they use the ANSI/IEEE standard, the 1996 FCC safety standard.

Also in the BioInitiative Report, Drs. Lennart Hardell, Kjell Hansson Mild, and Michael Kundi review the evidence correlating the incidence rate of tumors with cell phone use. Several of Dr. Hardell's and Dr. Mild's works were referenced in the INTERPHONE study. SER (The INTERPHONE Study Group) 550. The City considered work from Dr. Hardell and Dr. Mild when it passed the Ordinance. SER 468 – 508.

The doctors found "a consistent pattern of an increased risk for acoustic neuroma and glioma after > 10 years mobile phone use. We conclude that current standard for exposure to microwaves during mobile phone use is not safe for long-term brain tumor risk and needs to be revised." Lennart Hardell et al., Evidence

for Brain Tumors and Acoustic Neuromas 18 (David Carpenter and Cindy Sage, eds., BioInitiative Report 2007).

These criticisms, combined with the EPA's, FDA's, and RFIAWG's criticisms and the FCC's acknowledgment that it does not know if the non-thermal effects of RF Energy pose a threat to human health, lay the appropriate foundation for establishing the existence of a potential personal and public health risk.

This court should find that the Ordinance serves the state interest in addressing the potential personal and public health risks posed by the non-thermal and long-term effects of cell phones without directly attacking the FCC and its safety standards concerning the acute, thermal effects of cell phones.

3. Scientific Evidence Correlates The RF Radiation Of Cell Phones And Negative Health Effects

a. Epidemiological Studies Correlate Cell Phone Use With Brain Cancer And Tumors Affecting The Acoustic Nerve

Beyond the conclusions reached by the WHO's IARC, the City reviewed many studies that made the correlation between cell phone use and increased incidence of brain cancer and tumors affecting the acoustic nerve. These studies are in the supplemental record and, pertinently, they routinely conclude "[i]ncreased risk… for both cellular and cordless phones, highest in the group with >10 years latency period." SER (Pooled analysis of two case-controlled studies on use of cellular and cordless telephones and the risk for malignant brain tumors

diagnosed in 1997-2003) 487. Another found that, "[i]n summary our review yielded a consistent pattern of an increased risk for acoustic neuroma and glioma after >10 year mobile phone latency." SER (Epidemiological evidence for an association between use of wireless phones and tumor diseases) 506. Interestingly, the side of the head a person favors while using a phone may be a factor, "[f]or digital cellular phones no significantly increased risk was found overall, but ipsilateral exposure [the side of the head that a person favors] increased the risk significantly." SER (Further aspects on cellular and cordless telephones and brain tumours) 516.

b. Children Absorb More RF Energy From Cell Phones Than Adults

Supporting the Ordinance's suggestion to limit cell phone use by children, the City reviewed studies analyzing if children are more susceptible to RF Energy than adults. The WHO's IARC relied on this scientific evidence when it classified RF Energy as a possible carcinogen. SER (WHO IARC Monograph) 823-825.

One study, which exposed phantoms (test dummies for measuring RF Energy absorption by humans) of both adult and child sizes, represents the scientific basis for the City to advise its citizens to limit cell phone use by children. The study concluded that "SAR [RF Energy absorption] results around 60% higher than those simulated for the adults were observed for the children with fitted parameters, independent of antenna type or frequency." SER ("Electromagnetic

Absorption in the Head of Adult and Children Due to Mobile Phone Operation Close to the Head") 402, 409.

c. Male Sexual Health May Be Negatively Affected By Cell Phone Use

Supporting the Ordinance's general concern "about the potential health effects from cell phone RF Energy," the City reviewed scientific evidence that (1) proves that when a cell phone's RF Energy is directly applied to sperm it causes a negative effect on sperm motility and (2) correlates a negative effect when a human male uses a cell phone regularly. ER (City's Revised Factsheet) 277, SER ("Effects of Electromagnetic Radiation from a Cellular Phone on Human Sperm Motility: An In Vitro Study") 431, and SER ("Is there a relationship between cell phone use and semen quality?") 434.

First, in a study applying RF Energy directly to a sperm sample outside the body, "…exposure to EMR [RF] led to a significant decrease in sperm motility." SER 431. The study concludes by stating that "…statistically significant changes in sperm motility… was caused by the EMR produced by the cellular phone." SER 431.

Second, in a study reviewing males, their phone use, and sperm motility, the seven medical doctors reviewing the data concluded that cell phone use correlated with decreased sperm motility. Specifically, "[t]he duration of possession [of a cell phone] and the daily transmission time [of use] correlated negatively with the

proportion of rapid progressive motile sperm… and positively with the proportion of slow progressive motile sperm." SER 434.

C. The U.S. Supreme Court Has Found Political And Other Expressive Speech Cases Irrelevant To Commercial Speech Cases

The scientific facts about cell phones viewed in the commercial context should lead this court to follow the U.S. Supreme Court in distinguishing political and other expressive speech cases from cases that concern commercial speech. The Court has repeatedly explained that it has extended only partial First Amendment protection to commercial speech.

1. Different Precedent Governs Commercial Speech Than Political And Other Expressive Speech

After the U.S. Supreme Court extended partial First Amendment protection to commercial speech in Virginia Pharmacy, they set about the task of giving lower courts guidance in applying this new protection. The Court set out the Central Hudson four-part test along with the "reasonably related" test in Zauderer. These tests are *not* strict scrutiny. Strict scrutiny applies to political and other expressive speech, *not* commercial speech.

Because the Ordinance regulates purely commercial speech and commercial speech is reviewed under separate rules than political and other expressive speech, this court should review the Ordinance under commercial speech precedent and distinguish the precedent of political and other expressive speech cases.

2. Zauderer States That "The Interests At Stake In [Commercial Speech Cases]… Are Not Of The Same Order As Those Involving Politics, Nationalism, Religion, Or Others…"

The U.S. Supreme Court, in Zauderer, directly explained that several of the cases cited by appellant-plaintiff's brief have no bearing on the case at hand. Appellant-plaintiff cites Wooley, Tornillo, and Barnette in its discussion of compelled speech; none of these cases concern compelled commercial speech. The Court, in Zauderer, explicitly states that "the interests at stake in this case [a commercial speech case] are not of the same order as those discussed in *Wooley*, *Tornillo*, and *Barnette*. Ohio [the government regulator in Zauderer] has not attempted to 'prescribe what shall be orthodox in politics, nationalism, religion, or other matters of opinion or force citizens to confess by word or act their faith therein.'" 471 U.S. at 651 quoting 319 U.S. 624 at 642.

As the U.S. Supreme Court does in Zauderer, this court should do in the immediate case, and refrain from applying political and other expressive speech precedents to this commercial speech case.

3. Because the Ordinance Concerns Commercial Speech, Appellant-Plaintiff Is Incorrect In Arguing For The Application Of Political And Other Expressive Speech Cases

Appellant-plaintiff argues that intermediate (heightened) scrutiny applies to the current case, yet it gives a half-sentence mention to the case that applies intermediate scrutiny, Central Hudson. Central Hudson's four-part test is the

intermediate scrutiny test for commercial speech unless the regulation is a disclosure requirement falling under Zauderer.

While arguing for intermediate scrutiny, appellant-plaintiff continually cites to cases applying strict scrutiny, a protection the U.S. Supreme Court has not extended to commercial speech. Cases concerning political and other expressive speech are irrelevant to the case at hand. *Id.* For this reason, this court should distinguish the strict scrutiny cases that appellant-plaintiff cites, like Pac. Gas & Elec. Co. v. Pub. Util. Comm'n, 475 U.S. 1 (1986).

In PG&E, the Court applied strict scrutiny to a government regulation concerning PG&E's *non-commercial* newsletter it included with its monthly bill. The regulation required PG&E to include political messages it disagreed with in its billing envelope. PG&E is not similar to the immediate case, which concerns a government regulation requiring cell phone retailers to include health information directly related to their *commercial* product and speech. The difference is the exact distinction the Court made when it distinguished Zauderer from Wooley, Tornillo, and Barnette.

This court should uphold the district court in distinguishing the immediate case from those concerning political and other expressive speech.

II. THE ORDINANCE IS IN HARMONY WITH THE FCC AND IS NOT PREEMPTED

A. The District Court Correctly Found The Ordinance In Harmony With The FCC's Safety Regime

The district court correctly found that the Ordinance is not preempted by the FCC's regulations. Specifically, "Nothing in the federal statutes or FCC regulations bars local disclosure requirements like those now required in San Francisco." ER (Order) 6.

In its discussion, the district court found that the FCC has never found or stated that cell phones are absolutely safe. *Id.* Instead of insuring their safety, the FCC actually balances safety against marketplace demands. *Id.*

This court should affirm the district court's sound reasoning.

B. The District Court Correctly Distinguished Third Circuit And D.C. Court of Appeals Decisions Involving Cell Phone Regulations Based On Factual Differences

Because of factual differences, namely the Ordinance being a commercial speech disclosure and not a change in required technical standards, the district court distinguished two cases upholding preemption arguments. First, the Third Circuit ruled on preemption grounds in Farina v. Nokia, Inc., 625 F.3d 97 at 104 (3rd Cir. 2010), but the reviewed regulation involved changing the technical requirements of cell phones, not adding a disclosure. ER (Order) 6.

The D.C. Court of Appeals, in Murray v. Motorola, Inc., 982 A.2d 764 (D.C. 2009), reviewed a local regulation allowing tort claims arising from cell phone use. The court made two preemption determinations. First, there is no federal preemption of laws regarding a consumer disclosure requirement. *Id.* at 788-789. Second, there is federal preemption of laws regarding technical standards, like those in Farina. *Id.* at 785-786. The district court in the immediate case correctly found that since the Ordinance is a disclosure requirement, not a technical requirement, it is not preempted. ER (Order) 6. This court should affirm the district court in finding no federal preemption of local laws regarding consumer disclosures.

C. The FCC Is "Reluctant To Preempt State Or Local Regulations Enacted To Promote Bona Fide Health And Safety Objectives"

This court should affirm the district court's findings based on the FCC's 1996 order, *Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, (*RF Order I*), which sets out the FCC's safety standards. In the section titled, "Federal Preemption," the FCC states that "[t]o date the Commission has declined to preempt on health and safety matters." *RF Order I*, ¶ 164. The FCC reiterates, stating, "[w]e have traditionally been reluctant to preempt state or local regulations enacted to promote bona fide health and safety objectives." *RF Order I*, ¶ 167.

This court should affirm the district court's finding of no preemption because the FCC states that its rules do not preempt state or local regulations, explicitly including the promotion of bona fide health and safety objectives.

III. AFFIRM THE DISTRICT COURT'S FINDING THAT THE CITY'S REVISED FACTSHEET IS CONSTITUTIONAL; REVERSE THE DISTRICT COURT'S FINDING THAT THE POSTER, STICKERS, AND IMAGES ARE UNCONSTITUTIONAL

A. The District Court Correctly Found The Revised Factsheet Constitutional, It Permissibly Regulates Commercial Speech

The district court found the factsheet constitutional, save three corrections which the City made. This court should affirm the district court's finding that the revised factsheet is constitutional.

The district court found "it… hard to see why, [given the revisions], San Francisco cannot require their disclosure…" ER (Order) 11. The district court made this decision after applying the "reasonably related" test in Zauderer. The Ordinance also passes Central Hudson's four-part test. There has been no showing that the Ordinance impacts any speech but commercial, so there is no cause to apply any test other than those the U.S. Supreme Court has determined in Zauderer or Central Hudson.

B. The District Court Erred In Finding The Poster Unreasonable; The Poster Is Reasonable Because It Informs Customers Of The Same Information As The Factsheet, But Before Purchase

The district court found the poster unreasonable because of the images it displays, the wall space it will require, and because the court-approved revised factsheet will still inform consumers.

These findings are erroneous for several reasons. Fist, the images are not misleading and not opinions. Cell phones emit RF Energy and distance is a primary factor in emission strength; graphically displaying easy-to-understand colored circles radiating from a cell phone is not an opinion, it is an accepted means of communication following Zauderer. 471 U.S. at 647 (found that the images the attorney used in advertisement were not misleading and that images should receive the same treatment as verbal speech). Second, the burden of one poster's wall space is negligible, not unduly; this is common sense. Third, the poster is a useful, if not necessary, complement to the factsheet. The factsheet is handed out after purchase, but the poster can be seen whilst shopping, giving consumers the same information *before* purchase.

C. The District Court Erred In Finding The Ordinance's Stickers Unduly Burdensome; The Size And Brevity Of The Stickers Make Them Minimally Burdensome On Retailers' Minimally Protected Right To Omit

The district court erroneously found adding additional statements to display materials to be unduly burdensome because of their impact on the retailers' own message.

First, the statements are physically small, 1 x 2.65 inches. Second, these additional statements may not go on a cell phone manufacturer's box or over the retailers' attachments to those boxes. Third, the statements are only required when the retailer engages in a larger amount of speech (more than price and identifier), thereby making the footprint of the City's statements smaller in ratio and less burdensome.

For these reasons, this court should reverse the district court and find the additional required statements to display materials constitutional.

D. The District Court Erred In Striking Down The Original Factsheet's Images; Following Zauderer, The First Amendment Protects Commercial Images As It Does Commercial Verbal Speech

The district court erroneously found the images on the original factsheet to be misleading statements of opinion, as opposed to truthful statements of fact.

As discussed in Part IV.B (the poster requirement), the images on the original factsheet are constitutional because graphic representations are a protected channel of speech. The district court created a test to view the images in different

lights, then it picked the light most negative to the defendant. "One plausible interpretation is that cell phones are dangerous. This is not the only possible meaning but since the public might easily understand it in this way, the image must be scrutinized in that light." ER (Order) 12.

In the context of this case, this rationale is unsupportable.

CONCLUSION

This court should affirm the district court's judgment to the extent that it upheld the Ordinance's factsheet. This court should reverse the district court's judgment to the extent that it struck down the Ordinance's poster, stickers, and images.

The Ordinance only affects commercial speech, it serves to protect the public against the potential personal and public health risk posed by unaddressed effects of cell phone use, and it passes every test the U.S. Supreme Court has established for reviewing commercial speech regulations.

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Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

I certify that this brief complies with the type-volume limitation of Fed. R. App. P. 28.1(e)(2)(B) and 29(d). This brief is 8,250 words excluding the portions exempted by Fed. R. App. P. 32(a)(7)(B)(iii), half the allowed 16,500 words of the principal brief, according to the "word count" tool of Microsoft Word for Windows.

Dated February 1, 2012

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