

File No. 1106510

Committee Item No. 4
Board Item No. 1

COMMITTEE/BOARD OF SUPERVISORS
AGENDA PACKET CONTENTS LIST

Committee CITY OPERATIONS AND
NEIGHBORHOOD SERVICES

Date 7/11/11

Board of Supervisors Meeting

Date July 26, 2011

Cmte Board

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| ☐ | ☐ | Resolution |
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OTHER

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Completed by: Gail Johnson
Completed by: [Signature]

Date 7/7/11
Date 7/13/11

* An asterisked item represents the cover sheet to a document that exceeds 25 pages.
The complete document is in the file.

[Environment Code—Cell Phone Disclosure Requirements]

Ordinance amending the San Francisco Environment Code Sections 1101 through 1105 to require cell phone retailers to provide their customers with information regarding how to limit exposure to the radiofrequency energy emitted by cell phones in place of the mandatory disclosure of Specific Absorption Rate values for cell phone models.

NOTE: Additions are single-underline italics Times New Roman;
deletions are ~~strike-through italics Times New Roman~~.
Board amendment additions are double-underlined;
Board amendment deletions are ~~strikethrough-normal~~.

Be it ordained by the People of the City and County of San Francisco:

Section 1. Findings.

1. It is the policy of the City and County of San Francisco to adhere to the Precautionary Principle, which provides that the government should not wait for scientific proof of a health or safety risk before taking steps to inform the public of the potential for harm.

2. There is a debate in the scientific community about the health effects of cell phones.

3. Numerous studies have identified evidence of an increased risk of brain cancer and other illnesses as a result of cell phone use, as well as heightened health concerns for children and pregnant women.

4. Leading epidemiologists who have studied the effects of radiofrequency energy absorbed from cell phones have recommended that the public be informed of the potential for adverse health effects from long-term cell phone use, particularly for children. See Cardis and Sadetski, "Indications of possible brain-tumour risk in mobile-phone studies: Should we be concerned?," Journal of Occupational and Environmental Medicine, Jan. 24, 2011.

1 5. Most cellular phone user manuals disclose, in fine print, that if a user holds a phone
2 too close to his or her body, his or her phone may exceed the radiofrequency energy
3 exposure limitation set by the Federal Communications Commission ("FCC").

4 6. FCC regulations presently do not require cell phone manufacturers to measure the
5 amount of radiofrequency energy an average user will absorb from each model of cell phone.
6 The amount of radiofrequency energy a user will absorb from a particular model of cell phone
7 depends on numerous factors, including how the phone is used, the frequency on which it
8 operates and the communication system it uses (for example, CDMA technology or GSM
9 technology).

10 7. The Board urges the FCC and the scientific community to develop a metric for
11 measuring the actual amount of radiofrequency energy an average user will absorb from each
12 model of cell phone. Such a metric would better enable consumers concerned about the
13 potential effects of radiofrequency emissions to compare cell phone models and make
14 informed purchasing decisions.

15 8. The Board finds that until such a metric is developed, it is in the interest of the public
16 health to require cell phone retailers to inform consumers about the potential health effects of
17 cell phone use, and about measures they can take to reduce their exposure to radiofrequency
18 energy from cell phones. The purpose of this legislation is to improve and strengthen the
19 disclosures required under the original Cell Phone Right-to-Know Ordinance to better achieve
20 this public health purpose.

1 Section 2. The San Francisco Environment Code is hereby amended by amending
2 Sections 1101 through 1105, to read as follows:

3 **SEC. 1101. DEFINITIONS.**

4 For the purposes of this Chapter, the following terms shall have the following
5 meanings, unless the context requires otherwise:

6 (a) "Cell phone" means a portable wireless telephone device that is designed to send
7 or receive transmissions through a cellular radiotelephone service, as defined in Section
8 22.99 of Title 47 of the Code of Federal Regulations. A cell phone does not include a wireless
9 telephone device that is integrated into the electrical architecture of a motor vehicle.

10 (b) "Cell phone retailer" means any person or entity within the City which sells or
11 leases cell phones to the public or which offers cell phones for sale or lease. *"Cell phone
12 retailer" shall include a "formula cell phone retailer."* "Cell phone retailer" shall not include
13 anyone selling or leasing cell phones solely over the phone, by mail, or over the internet. "Cell
14 phone retailer" shall also not include anyone selling or leasing cell phones directly to the
15 public at a convention, trade show, or conference, or otherwise selling or leasing cell phones
16 directly to the public within the City for fewer than 10 days in a year.

17 (c) "Cell phone service provider" means a telecommunications common carrier
18 authorized to offer and provide cellular service for hire to the general public.

19 (d) "Director" means the Director of the Department of the Environment, or his or her
20 designee.

21 (e) "Display materials" means informational or promotional materials posted adjacent
22 to a sample phone or phones on display at the retail location that describe or list the features
23 of the phone. "Display materials" shall not include any tag, sticker, or decal attached to a cell
24 phone by the manufacturer, the manufacturer's packaging for a cell phone, or materials that
25 list only the price and an identifier for the phone.

1 ~~(f) "Formula cell phone retailer" means a cell phone retailer which sells or leases cell phones~~
2 ~~to the public, or which offers cell phones for sale or lease, through a retail sales establishment located~~
3 ~~in the City which, along with eleven or more other retail sales establishments located in the United~~
4 ~~States, maintains two or more of the following features: a standardized array of merchandise; a~~
5 ~~standardized facade; a standardized decor and color scheme; a uniform apparel; standardized~~
6 ~~signage; or, a trademark or service mark.~~

7 ~~(g) "SAR value" means the maximum whole body and spatial peak Specific Absorption Rate for~~
8 ~~a particular make and model of cell phone as registered with the Federal Communications~~
9 ~~Commission. (See, generally, Section 2.1093 of Title 47 of the Code of Federal Regulations.)~~
10

11 **SEC. 1102. REQUIREMENTS FOR CELL PHONE SERVICE PROVIDERS.**

12 ~~(a) Beginning September 1, 2010, any~~ Any cell phone service provider that sells its service
13 through a retailer in the City must provide a list of those retail locations to the Department of
14 the Environment in a form determined by the Department. The service provider must update
15 the list annually. The Department shall adopt regulations governing the form and submission
16 of the lists.

17 ~~(b) Beginning November 1, 2010, any cell phone service provider that sells its service through~~
18 ~~a retailer in the City must provide those retailers with the SAR value for each make and model of cell~~
19 ~~phone sold or leased at that location in connection with cell phone service from the provider. The~~
20 ~~service provider must update the information it provides to retailers whenever new makes and models~~
21 ~~of cell phones covered by the service provider are added or old makes and models dropped, or~~
22 ~~whenever the service provider receives new information on the SAR values of any of the phones.~~

23 ~~(c) If a cell phone service provider is unable to provide this information (in subsection b) to~~
24 ~~retailers in the City, then the Department of Environment upon the request of the service provider shall~~
25 ~~provide assistance in procuring that information.~~

1
2 **SEC. 1103. REQUIREMENTS FOR CELL PHONE RETAILERS.**

3 (a) Beginning 15 days after the Department of the Environment adopts the regulations required
4 under Section 1104(d) 1104(b), cell phone retailers must display in a prominent location visible to the
5 public, within the retail store, an informational poster developed by the Department of the Environment
6 as referenced in Section 1104.

7 (b) Beginning 15 days after the Department of the Environment adopts the regulations required
8 under Section 1104(d) 1104(b), cell phone retailers must provide to every customer that purchases a
9 cell phone a free copy of an informational factsheet developed by the Department of the Environment
10 as referenced in Section 1104. A copy of this factsheet must also be provided to any customer who
11 requests it, regardless of whether they purchase a cell phone or not.

12 (c) ~~(a)~~ Beginning 30 days after the Department of the Environment adopts the regulations
13 required under Section 1104(d) 1104(b), if If a cell phone retailer posts display materials in
14 connection with sample phones or phones on display, the display materials must include
15 these three informational statements, whose contents, and size, and format as printed, shall
16 be determined by the Department of the Environment elements:

17 (1) A statement explaining that cell phones emit radiofrequency energy that is absorbed
18 by the head and body;

19 (2) A statement referencing measures to reduce exposure to radiofrequency energy from
20 the use of a cell phone; and,

21 (3) A statement that the informational factsheet referenced in subsection (b) is available
22 from the cell phone retailer upon request.

23 (1) The SAR value of that phone and the maximum allowable SAR value for cell phones
24 set by the FCC;

25 (2) A statement explaining what a SAR value is; and,

1 ~~(3) A statement that additional educational materials regarding SAR values and cell~~
2 ~~phone use are available from the cell phone retailer.~~

3 ~~The Department of the Environment shall adopt regulations specifying the content and format~~
4 ~~for the elements required by this subsection (a), and shall develop a template for those elements. The~~
5 ~~SAR values and header text shall be printed in type no smaller than the size and readability equivalent~~
6 ~~of "Arial" 11 point, and the copy text shall be printed in type no smaller than the size and readability~~
7 ~~equivalent of "Arial" 8 point.~~

8 ~~Formula cell phone retailers must comply with the requirements of this subsection (a) beginning~~
9 ~~May 1, 2011. All other cell phone retailers must comply by February 1, 2012.~~

10 ~~(b) If a cell phone retailer does not post display materials in connection with sample phones or~~
11 ~~phones on display, the retailer must display, in a prominent location within the retail location visible to~~
12 ~~the public, a poster that includes these three elements:~~

13 ~~(1) The SAR value of each make and model of cell phone offered for sale or lease at that~~
14 ~~retail location and the maximum allowable SAR value for cell phones set by the FCC;~~

15 ~~(2) A statement explaining what a SAR value is; and,~~

16 ~~(3) A statement that additional educational materials regarding SAR values and cell~~
17 ~~phone use are available from the cell phone retailer.~~

18 ~~The Department of the Environment shall adopt regulations specifying the content and format~~
19 ~~for the elements required by this subsection (b), and shall develop a template for those elements. The~~
20 ~~store poster shall be no smaller than 8.5 inches by 11 inches.~~

21 ~~Formula cell phone retailers must comply with the requirements of this subsection (b) beginning~~
22 ~~May 1, 2011. All other cell phone retailers must comply by February 1, 2012.~~

23 ~~(d) (e).~~ The Director may, in his or her discretion, authorize a retailer to use alternate
24 means to comply with the requirements of subsections (a), ~~(b) and (c) and (b)~~. The Director
25 shall authorize such alternate means through the adoption of a regulation after a noticed

1 hearing, and no retailer may sell or lease cell phones to the public or offer to sell or lease cell
2 phones to the public using any alternate means of compliance with this Chapter unless
3 specifically authorized to do so in advance in writing by the Director.

4 ~~(d) Retailers shall provide any customer who requests one with a free copy of the supplemental~~
5 ~~factsheet prepared by the Department of the Environment under Section 1104(a), as referenced in~~
6 ~~subsections (a)(3) and (b)(3).~~

7
8 **SEC. 1104. REQUIREMENTS FOR THE DEPARTMENT OF THE ENVIRONMENT**
9 **DEPARTMENTAL FACTSHEETS; ASSISTANCE WITH COMPLIANCE.**

10 (a) Following a public hearing, the Department of the Environment, in consultation with
11 the Department of Public Health, shall develop: ~~a supplemental factsheet regarding SAR values~~
12 ~~and the use of cell phones, as well as templates for display materials and store posters required by this~~
13 ~~Chapter.~~

14 (1) An informational poster, as referenced in Section 1103(a);

15 (2) An informational factsheet, as referenced in Section 1103(b); and,

16 (3) A set of statements that must be included in display materials, as referenced in
17 Section 1103(c).

18 (b) The materials shall inform consumers of issues pertaining to radiofrequency energy
19 emissions from cell phones and actions that can be taken by cell phone users to minimize exposure to
20 radiofrequency energy, such as turning off cell phones when not in use, using a headset and speaker
21 phone, or using the phone to send text messages ("texting").

22 (c) The Director may by regulation require the inclusion of additional information in the
23 poster, the factsheet, and/or the statements required in connection with display materials.

1 ~~The Department of the Environment shall hold the initial public hearing by September 1, 2010,~~
2 ~~and complete the supplemental factsheet by November 1, 2010. The supplemental factsheet shall be no~~
3 ~~larger than 8.5 inches by 11 inches.~~

4 (d) (b) By November 1, 2010, Within 15 days after the effective date of this ordinance or as
5 soon thereafter as is practicable, the Department of the Environment shall, after a noticed public
6 hearing, issue regulations specifying the contents, size, and format for the elements the poster, the
7 factsheet, and the statements required in connection with display materials as referenced in
8 subsection (a), and provide templates of them for use by retailers.

9 (1) The informational poster shall be a maximum size of 11 inches by 17 inches;

10 (2) The informational factsheet shall be a maximum size of 5.5 inches by 11 inches
11 (half-sheet of paper); and,

12 (3) The informational statements shall be printed in a space no smaller than 1 inch by
13 2.625 inches.

14 ~~required by Section 1103, subsections (a) and (b), for display materials and store posters, respectively.~~
15 ~~By that date, the Department of the Environment shall also adopt templates for display materials and~~
16 ~~store posters.~~

17 ~~(e) The Department shall develop content for all of these materials that is based on and~~
18 ~~consistent with the relevant information provided by the FCC or other federal agencies having~~
19 ~~jurisdiction over cell phones, explaining the significance of the SAR value and potential effects of~~
20 ~~exposure to cell phone radiation. The materials shall also inform customers of actions that can be taken~~
21 ~~by cell phone users to minimize exposure to radiation, such as turning off cell phones when not in use,~~
22 ~~using a headset and speaker phone, or texting.~~

23 (c) Should the scientific community or the FCC develop a new metric to measure the actual
24 amount of radiofrequency energy an average user will absorb from each model of cell phone, the

1 Department of the Environment shall make recommendations to the Board of Supervisors for
2 amendments to this Chapter to require notification to the public of this metric at the point of sale.

3
4 **SEC. 1105. IMPLEMENTATION AND ENFORCEMENT.**

5 ~~(a) During the period leading up to May 1, 2011, the Department of the Environment shall~~
6 ~~conduct an education and assistance program for formula cell phone retailers regarding the provisions~~
7 ~~of Section 1103(a), (b), and (d), and shall visit the retailers and assist them with meeting the~~
8 ~~requirements of the subsections.~~

9 ~~(b) Notwithstanding those provisions of Section 1103(a), (b) and (d) applicable to all cell~~
10 ~~phone retailers other than formula cell phone retailers, requiring them to make certain disclosures and~~
11 ~~statements in connection with cell phone sales and leases, the City shall not enforce those provisions~~
12 ~~until August 1, 2012. During the period between the operative date for those requirements, February 1,~~
13 ~~2012, and August 1, 2012, the Department of the Environment shall conduct an education and~~
14 ~~assistance program for those cell phone retailers, and shall visit the retailers and assist them with~~
15 ~~meeting the requirements of the subsections.~~

16 ~~(a) (e)~~ The City Administrator shall issue a written warning to any person he or she
17 determines is violating provisions of this Chapter or any regulation issued under this Chapter.
18 If 30 days after issuance of the written warning the City Administrator finds that the person
19 receiving the warning has continued to violate the provisions of the Chapter or any regulation
20 issued under this Chapter, the City Administrator may impose administrative fines as provided
21 below in subsections ~~(b), (c) and (d) (d), (e), and (f).~~

22 ~~(b) (d)~~ Violation of this Chapter or any regulation issued under this Chapter shall be
23 punishable by administrative fines in the amount of:

24 (1) Up to \$100.00 for the first violation;

25 (2) Up to \$250.00 for the second violation within a twelve-month period; and,

1 (3) Up to \$500.00 for the third and subsequent violations within a twelve-month
2 period.

3 (c) ~~(e)~~ Except as provided in subsection (b) ~~(d)~~, setting forth the amount of
4 administrative fines, Administrative Code Chapter 100, "Procedures Governing the Imposition
5 of Administrative Fines," as may be amended from time to time, is hereby incorporated in its
6 entirety and shall govern the imposition, enforcement, collection, and review of administrative
7 citations issued by the City Administrator to enforce this Chapter or any regulation issued
8 under this Chapter. Violation of this Chapter is not a misdemeanor, and the Board of
9 Supervisors intends that the requirements of this Chapter be enforced only through
10 administrative fines as provided in this Section.

11 (d) ~~(f)~~ For purposes of this Chapter, each individual item that is sold or leased, or
12 offered for sale or lease, contrary to the provisions of this Chapter or any regulation issued
13 under this Chapter shall constitute a separate violation.

14
15 Section 3. **Additional Provisions.**

16 (a) **Disclaimer.** In adopting and implementing this Chapter, the City and County of
17 San Francisco is assuming an undertaking only to promote the general welfare. It is not
18 assuming, nor is it imposing on its officers and employees, an obligation for breach of which it
19 is liable in money damages to any person who claims that such breach proximately caused
20 injury.

21 (b) **Conflict with State or Federal Law.** This Chapter shall be construed so as not to
22 conflict with applicable federal or State laws, rules or regulations. Nothing in this Chapter
23 shall authorize any City agency or department to impose any duties or obligations in conflict
24 with limitations on municipal authority established by State or federal law at the time such
25 agency or department action is taken.

1 (c) **Severability.** If any of the words, phrases, clauses, sentences, sections, or
2 provisions of this ordinance or the application thereof to any person or circumstance are held
3 invalid, the remainder of this ordinance's words, phrases, clauses, sentences, sections, or
4 provisions, including the application of such part or provisions thereof to persons or
5 circumstances other than those to which it is held invalid, shall not be affected thereby and
6 shall continue in full force and effect. To this end, the provisions of this ordinance are
7 severable.

8 (d) **Environmental Findings.** The Planning Department has determined that the
9 actions contemplated in this ordinance are in compliance with the California Environmental
10 Quality Act (Cal. Pub. Res. Code §§ 21000 et seq.). Said determination is on file with the
11 Clerk of the Board of Supervisors in File No. 110656 and is incorporated herein by
12 reference.

13
14
15
16 APPROVED AS TO FORM:
17 DENNIS J. HERRERA, City Attorney

18 By: 
19 THOMAS J. OWEN
20 Deputy City Attorney
21
22
23
24
25

LEGISLATIVE DIGEST

[Environment Code—Cell Phone Disclosure Requirements]

Ordinance amending the San Francisco Environment Code by amending Sections 1101 through 1105, to require cell phone retailers to provide their customers with information regarding how to limit exposure to the radiofrequency energy emitted by cell phones, in place of the mandatory disclosure of Specific Absorption Rate values for cell phone models.

Existing Law

Chapter 11 of the San Francisco Environment Code, the "Cell Phone Right-to-Know Ordinance," requires cell phone retailers to post or display the Specific Absorption Rate for each make and model of cell phone offered at the store.

Amendments to Current Law

The proposal would amend Chapter 11 to require every cell phone retailer to display in a prominent location within the retail store a poster developed by the Department of the Environment explaining that cell phones emit radiofrequency energy that is absorbed by the head and body, and discussing measures that cell phone users can take to reduce their exposure to radiofrequency energy from the use of a cell phone. The amendment would require the retailer to provide every customer who purchased a cell phone (and any other customer who asked for a copy) with a free factsheet containing similar information. And the amendment would require the retailer to include similar information along with any display materials for sample phones in the store.

The amendment would delete the requirement that cell phone retailers post or display the Specific Absorption Rate for each make and model of cell phone offered at the store.

BOARD of SUPERVISORS



City Hall
Dr. Carlton B. Goodlett Place, Room 244
San Francisco 94102-4689
Tel. No. 554-5184
Fax No. 554-5163
TDD/TTY No. 554-5227

June 3, 2011

File No. 110656

Bill Wycko
Environmental Review Officer
Planning Department
1650 Mission Street, 4th Floor
San Francisco, CA 94103

Dear Mr. Wycko:

On May 17, 2011, Supervisors Avalos introduced the following proposed legislation:

File No. 110656. Ordinance amending the San Francisco Environment Code Sections 1101 through 1105 to require cell phone retailers to provide their customers with information regarding how to limit exposure to the radiofrequency energy emitted by cell phones in place of the mandatory disclosure of Specific Absorption Rate values for cell phone models.

The legislation is being transmitted to you for environmental review, pursuant to Planning Code Section 306.7(c).

Angela Calvillo, Clerk of the Board

Gail Johnson

By: Gail Johnson, Committee Clerk
City Operations and Neighborhood
Services Committee

Attachment

cc: Nannie Turrell, Major Environmental Analysis
Brett Bollinger, Major Environmental Analysis

*Non-physical per CEQA
Guidelines Section 15060(c)(2).*

Brett Bollinger 6/09/11

Approved Planning Dept. Brett Bollinger

2011.0611E



SF Environment

Our home. Our city. Our planet.

A Department of the City and County of San Francisco



EDWIN LEE
Mayor

MELANIE NUTTER
Director

June 9, 2011

Angela Calvillo
Clerk of the Board
1 Dr. Carlton B. Goodlett Place
City Hall, Room 244
San Francisco, Ca. 94102-4689

Regarding File No. 110656

I have enclosed for the Board's consideration copies of the following studies, which indicate a possible link between cell phone use and adverse health effects:

Agarwal A, Desai NR, Makker K, Varghese A, Mouradi R, Sabanegh E, et al. 2009. Effects of radiofrequency electromagnetic waves (RF-EMW) from cellular phones on human ejaculated semen: an in vitro pilot study. *Fertil Steril*: in press.

BioInitiative. 2007. BioInitiative Report: A Rationale for a Biologically-based Public Exposure Standard for Electromagnetic Fields (ELF and RF). Available: <http://www.bioinitiative.org/report/index.htm> [accessed January 27, 2009].

Cahill DF. 1983. A suggested limit for population exposure to radiofrequency radiation. *Health Phys* 45(1): 109-26.

Cardis E, Deltour I, Mann S, Moissonnier M, Taki M, Varsier N, et al. 2008. Distribution of RF energy emitted by mobile phones in anatomical structures of the brain. *Phys Med Biol* 53(11): 2771-83.

Cardis, E, Sadetzi, S. 2011. Indications of possible brain-tumour risk in mobile-phone studies: should we be concerned? *Occup. Environ. Med.* 68(3): 169-71.

Conil E, Hadjem A, Lacroux F, Wong MF, Wiart J. 2008. Variability analysis of SAR from 20 MHz to 2.4 GHz for different adult and child models using finite-difference time-domain. *Phys Med Biol* 53(6): 1511-25.

De Iuliis GN, Newey RJ, King BV, Aitken RJ. 2009. Mobile phone radiation induces reactive oxygen species production and DNA damage in human spermatozoa in vitro. *PLoS One* 4(7): e6446.

de Salles AA, Bulla G, Rodriguez CE. 2006. Electromagnetic absorption in the head of adults and children due to mobile phone operation close to the head. *Electromagn Biol Med* 25(4): 349-60.

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Divan HA, Khelfets L, Obel C, Olsen J. 2008. Prenatal and postnatal exposure to cell phone use and behavioral problems in children. *Epidemiology* 19(4): 523-9.

Erogul O, Oztas E, Yildirim I, Kir T, Aydur E, Komesli G, et al. 2006. Effects of electromagnetic radiation from a cellular phone on human sperm motility: an in vitro study. *Arch Med Res* 37(7): 840-3.

Fejes I, Zavaczki Z, Szollosi J, Koloszar S, Daru J, Kovacs L, et al. 2005. Is there a relationship between cell phone use and semen quality? *Arch Androl* 51(5): 385-93.

Gandhi OP, Lazzi G, Furse CM. 1996. Electromagnetic absorption in the human head and neck for mobile telephones at 835 and 1900 MHz. *IEEE Transactions on Microwave Theory and Techniques* 44(10): 1884 - 97.

Gandhi OP, Kang G. 2002. Some present problems and a proposed experimental phantom for SAR compliance testing of cellular telephones at 835 and 1900 MHz. *Phys Med Biol* 47(9): 1501-18.

Hardell L, Carlberg M, Hansson Mild K. 2005. Use of cellular telephones and brain tumour risk in urban and rural areas. *Occup Environ Med* 62(6): 390-4.

Hardell L, Carlberg M, Hansson Mild K. 2006a. Pooled analysis of two case-control studies on the use of cellular and cordless telephones and the risk of benign brain tumours diagnosed during 1997-2003. *Int J Oncol* 28(2): 509-18.

Hardell L, Carlberg M, Hansson Mild K. 2006. Pooled analysis of two case-control studies on use of cellular and cordless telephones and the risk for malignant brain tumours diagnosed in 1997-2003. *Int Arch Occup Environ Health* 79(8): 630-9.

Hardell L, Carlberg M, Hansson Mild K. 2009. Epidemiological evidence for an association between use of wireless phones and tumor diseases
Pathophysiology: in press

Hardell L, Mild KH, Carlberg M. 2003. Further aspects on cellular and cordless telephones and brain tumours. *Int J Oncol* 22(2): 399-407

Hours M, Bernard M, Montestrucq L, Arslan M, Bergeret A, Deltour I, et al

2007. [Cell Phones and Risk of brain and acoustic nerve tumours: the French INTERPHONE case-control study]. *Rev Epidemiol Sante Publique* 55(5): 321-32

INTERPHONE Study Group. 2010. Brain tumour risk in relation to mobile telephone use: results of the INTERPHONE international case-control study
International Journal of Epidemiology 2010; 1-20

Khelfets L, Repacholi M, Saunders R, van Deventer E. 2005. The sensitivity of children to electromagnetic fields. *Pediatrics* 116(2): e303-13

- Kundi M. 2009. The Controversy about a Possible Relationship between Mobile Phone Use and Cancer. *Environ Health Perspec* 117(3): 316-24
- Lahkola A, Auvinen A, Raitanen J, Schoemaker MJ, Christensen HC, Feychting M, et al. 2007. Mobile phone use and risk of glioma in 5 North European countries. *Int J Cancer* 120(8): 1769-75
- Lee KS, Choi JS, Hong SY, Son TH, Yu K. 2008. Mobile phone electromagnetic radiation activates MAPK signaling and regulates viability in *Drosophila*. *Bioelectromagnetics* 29(5): 371-9
- Lonn S, Ahlbom A, Hall P, Feychting M. 2004. Mobile phone use and the risk of acoustic neuroma. *Epidemiology* 15(6): 653-9
- Martinez-Burdalo M, Martín A, Anguiano M, Villar R. 2004. Comparison of FDTD-calculated specific absorption rate in adults and children when using a mobile phone at 900 and 1800 MHz. *Phys Med Biol* 49(2): 345-54
- Mild KH, Hardell L, Carlberg M. 2007. Pooled analysis of two Swedish case-control studies on the use of mobile and cordless telephones and the risk of brain tumours diagnosed during 1997-2003. *Int J Occup Saf Ergon* 13 (1): 63-71
- NRC. 2008. National Research Council. Identification of Research Needs Relating to Potential Biological or Adverse Health Effects of Wireless Communication
- Russian National Committee on Nonionizing Radiation Protection. 2011 Electromagnetic Fields from Mobile Phones: Health Effect on Children and Teenagers
- Sadetzki S, Chetrit A, Jarus-Hakak A, Cardis E, Deutch Y, Duvdevani S, et al. 2008. Cellular phone use and risk of benign and malignant parotid gland tumors—a nationwide case-control study. *Am J Epidemiol* 167(4): 457-67
- Salama N, Kishimoto T, Kanayama HO. 2009. Effects of exposure to a mobile phone on testicular function and structure in adult rabbit. *Int J Androl*: in press
- Sato Y, Akiba S, Kubo O, Yamaguchi N. 2011. A Case-Case Study of Mobile Phone Use and Acoustic Neuroma Risk in Japan. *Bioelectromagnetics* 32:85-93 (2011)
- Saravi FD. 2011. Asymmetries in hip mineralization in mobile cellular phone users. *J Craniofac Surg* 22(2): 706-10
- Schoemaker MJ, Swerdlow AJ, Ahlbom A, Auvinen A, Blaasaas KG, Cardis E, et al. 2005. Mobile phone use and risk of acoustic neuroma: results of the Interphone case-control study in five North European countries. *Br J Cancer* 93(7): 842-8

Schuz J. 2005. Mobile phone use and exposures in children
Bioelectromagnetics Suppl 7: S45-50

Schuz J, Bohler E, Berg G, Schlehofer B, Hettinger I, Schlaefer K, et al. 2006.
Cellular phones, cordless phones, and the risks of glioma and meningioma
(Interphone Study Group, Germany). Am J Epidemiol 163(6): 512-20

Schuz J, Waldemar G, Olsen JH, Johansen C. 2009. Risks for central nervous
system diseases among mobile phone subscribers: a Danish retrospective
cohort study. PLoS ONE 4(2): e4389

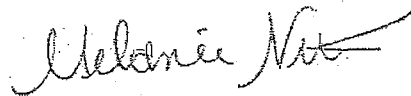
Wang J, Fujiwara O. 2003. Comparison and Evaluation of Electromagnetic
Absorption Characteristics in Realistic Human Head Models of Adult and
Children for 900-MHz Mobile Telephones IEEE Transactions on Microwave Theory
and Techniques 51(3): 966-70

Wiat J, Hadjem A, Wong MF, Bloch I. 2008. Analysis of RF exposure in the head
tissues of children and adults. Phys Med Biol 53(13): 3681-95

Wiedemann PM, Schutz H, Clauberg M. 2008. Influence of information about
specific absorption rate (SAR) upon customers' purchase decisions and safety
evaluation of mobile phones. Bioelectromagnetics 29(2): 133-44

Yan JG, Agresti M, Bruce T, Yan YH, Granlund A, Matloub HS. 2007. Effects of
cellular phone emissions on sperm motility in rats. Fertil Steril 88(4): 957-64

With sincere thanks,



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