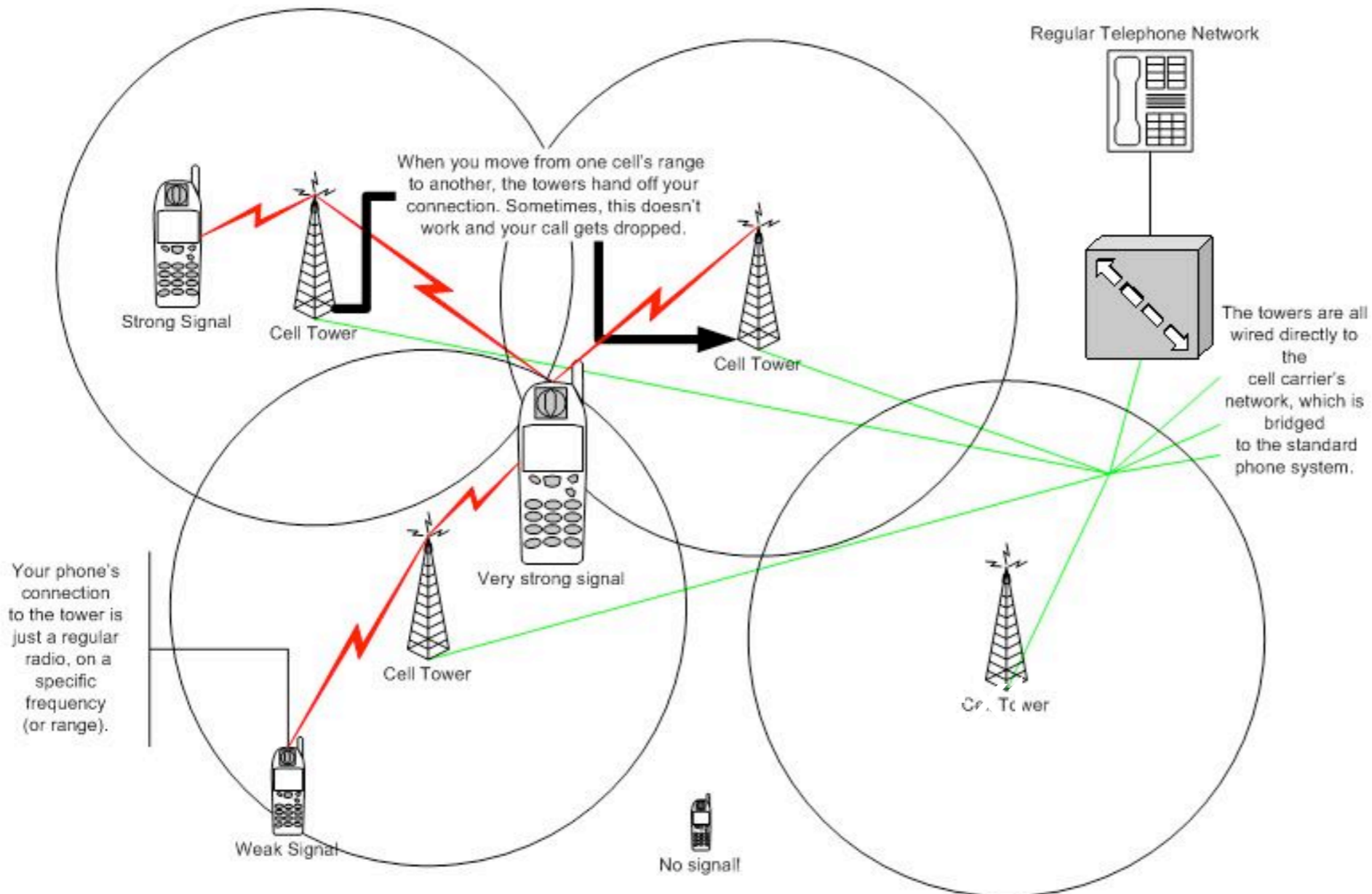


CELL PHONE RADIATION

ALLEN REID

BACKGROUND

- ALL OBJECTS EMIT RADIATION.
- THERE IS A CONTROVERSY OVER RADIATION EMITTED BY CELL PHONES, CALLED EMF OR ELECTROMAGNETIC RADIATION.
- CELL PHONES OPERATE ON FREQUENCY OF 900 AND 1800 MHZ EVER SINCE 1991. (HARDELL, 2008)
- CELLULAR PHONES ORIGINATED IN SWEDEN BUT JAPAN AND THE USA HAVE TAKEN THE LEAD IN THE TECHNOLOGY (HARDELL, 2008).
- A 2007 ESTIMATE IS THAT 250 MILLION OR 82% OF THE US POPULATION HAS A CELL PHONE. (STEVENS, 2007)
- A QUARTER OF HOUSEHOLDS ARE WIRELESS ONLY. (STROSS, 2010)
- THE CURRENT MARKET FOR CELL PHONES IS 4.1 BILLION PEOPLE. (RICH, 2010)



CELL PHONES
 EMIT AND
 COLLECT
 RADIATION TO
 AND FROM
 TOWERS AND
 THE PHONE
 ANTENNA.

THERE IS A
 CONCERN
 ABOUT
 INCREASE IN
 BRAIN
 TUMORS AND
 BRAIN
 CANCER DUE
 TO CELL
 PHONES SO
 CLOSE TO THE
 HEAD.

INTERPHONE

International Agency for Research on Cancer



- THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER CONDUCTED A FEASIBILITY STUDY IN 1998-1999.
- THEY FOUND IT WOULD BE WELL TO CONDUCT A FORMAL PILOT STUDY ON CELL PHONE'S EFFECTS.
- INTERPHONE WAS CREATED TO FOCUS ON **FOUR DISTINCT TYPES OF TUMORS** (GLIOMA, MENINGIOMA, ACOUSTIC NEUROMA, TUMORS OF THE PAROTID GLAND).

INTERPHONE

- THE STUDY INVOLVES 16 CENTERS FROM 13 DIFFERENT COUNTRIES. (AUSTRALIA, CANADA, DENMARK, FINLAND, FRANCE GERMANY, ISRAEL, ITALY, JAPAN, NEW ZEALAND, NORWAY, SWEDEN, UK)
- THE FINAL REPORT IS NOT YET RELEASED BUT WE HAVE INITIAL DATA FROM DIFFERENT CENTERS.
- THE MOST RECENT UPDATE REPORT WAS ISSUED IN MARCH 2010 WHICH REPORTED SOME LINK BUT THEY SAID THE DATA COULD NOT BE CASUALLY INTERPRETED AS A DEFINITE LINK BETWEEN CELL PHONES AND CANCER. (HARDELL, 2008)
- MOST OF INTERPHONE'S REPORTS SHOW A LINK BETWEEN CELL PHONE USE AND REDUCED TUMOR/CANCER OR NO LINKAGE AT ALL. (HARDELL, 2008)



BIOINITIATIVE REPORT

- THE BIOINITIATIVE REPORT STANDS IN OPPOSITION TO INTERPHONE
- IT WAS WRITTEN BY 14 SCIENTISTS, RESEARCHERS AND PUBLIC HEALTH POLICY SPECIALISTS.
- OTHERS HAVE STUDIED AND COME TO THEIR SAME CONCLUSION, THAT THERE IS A LINK BETWEEN MOBILE PHONE USAGE AND CANCER SUCH AS HARDELL (2008).
- HARDELL MADE ONE OF TWO META-ANALYSES ON THE SUBJECT (MATTSSON, 2009)
- HE CLAIMS THERE IS CONCLUSIVE EVIDENCE TO LINK MOBILE PHONE USE AND IPSILATERAL (NEAR SIDE) GLIOMA (HARDELL, 2008)
- THE RESULTS ARE THE SAME EVEN WITHOUT STUDIES HE IS INVOLVED WITH. (HARDELL, 2008)

EUROPEAN COMMISSION

- THE EUROPEAN COMMISSION ISSUED A REPORT ON THE SUBJECT ACKNOWLEDGING THE RESEARCH OF INTERPHONE (PRE-2010) AND HARDELL.
- THEY CONCLUDE THAT THERE IS NO CONCLUSIVE LINK BUT THEY ADVISE CAUTION. (MATTSSON 2009)
- THEY PROVIDE US STEPS TO A SOLUTION.

DISAGREEMENTS

INTERPHONE

- CELL PHONE USE DOES NOT CAUSE CANCER.
- COMPANIES WANT GOOD AND SAFE PRODUCTS FOR CUSTOMERS.

BIOINITIATIVE

- CELL PHONE USE CAUSES CANCER.
- COMPANIES SELL PRODUCTS CHEAPLY FOR PROFIT WITHOUT REGARD FOR SAFETY.

DEBATES

INTERPHONE

CELL PHONE COMPANIES DON'T WANT FAULTY SCIENCE TO MAKE THEM CHANGE HOW THEY DO BUSINESS.

CELL PHONE COMPANIES FUND RESEARCH THEY ARE INTERESTED IN.

BIOINITIATIVE

STUDIES SHOWS THAT THERE COULD BE A RISK THAT RESPONSIBLE COMPANIES SHOULD ADDRESS.

THERE IS A CONFLICT OF INTEREST IN COMPANIES FUNDING THE RESEARCH.

DEBATES

INTERPHONE

- HEAVY USERS MIGHT HAVE INCREASED RISK OF CANCER.
- LONGER TERM STUDIES ARE NEEDED.
- POLICY CAN'T BE FORMED ON SPECULATION.

BIOINITIATIVE

- HEAVY USERS AT THE INITIAL STUDY TIME COULD MEAN AN HOUR A MONTH
- LONGER TERM STUDIES ARE NEEDED.
- WE ARE MORALLY RESPONSIBLE TO PREVENT FUTURE HEALTH PROBLEMS.

WHAT NEEDS TO BE ADDRESSED

- TERMS AND PROCESSES NEED TO BE **DEFINED** BETTER
 - WHAT IS HEAVY USAGE? (IN 1990S? 2010?)
 - DEFINE PEER REVIEW. (OPEN DIALOGUE? ALLOW CRITIQUE?)
 - WHAT COUNTS AS VALID RESEARCH?
- LONGITUDINAL STUDIES: LONGER TIME FRAME NECESSARY.** (CANCERS CAN TAKE OVER 10 YEARS TO DEVELOP)
- ENGAGE THE PUBLIC. (MAKE THEM AWARE)
- FUNDING TRANSPARENCY AND/OR ENCOURAGE NEUTRAL FUNDING

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