ICEMS
INTERNATIONAL COMMISSION FOR ELECTROMAGNETIC SAFETY

ORGANIZATION
RESOLUTIONS
WORKSHOPS
OTHER DOCUMENTS
NEWS
PRESS & PAPERS
CONTACTS
CAMPAIGN FOR SAFER CELL PHONE USE

Benevento Resolution

The International Commission for Electromagnetic Safety (ICEMS) held an international conference entitled *"The Precautionary EMF Approach: Rationale, Legislation and Implementation"*, hosted by the City of Benevento, Italy, on February 22, 23 & 24, 2006. The meeting was dedicated to W. Ross Adey, M.D. (1922-2004). The scientists at the conference endorsed and extended the 2002 Catania Resolution and resolved that:

1. **More evidence has accumulated suggesting that there are adverse health effects from occupational and public exposures to electric, magnetic and electromagnetic fields, or EMF[1], at current exposure levels. What is needed, but not yet realized, is a comprehensive, independent and transparent examination of the evidence pointing to this emerging, potential public health issue.**
2. **Resources for such an assessment are grossly inadequate despite the explosive growth of technologies for wireless communications as well as the huge ongoing investment in power transmission.**
3. **There is evidence that present sources of funding bias the analysis and interpretation of research findings towards rejection of evidence of possible public health risks.**
4. **Arguments that weak (low intensity) EMF cannot affect biological systems do not represent the current spectrum of scientific opinion.**
5. **Based on our review of the science, biological effects can occur from exposures to both extremely low frequency fields (ELF EMF) and radiation frequency fields (RF EMF). Epidemiological and *in vivo* as well as *in vitro* experimental evidence demonstrates that exposure to some ELF EMF can increase cancer risk in children and induce other health problems in both children and adults. Further, there is accumulating epidemiological evidence indicating an increased brain tumor risk from long term use of mobile phones, the first RF EMF that has started to be comprehensively studied. Epidemiological and laboratory studies that show increased risks for cancers and other diseases from occupational exposures to EMF cannot be ignored. Laboratory studies on cancers and other diseases have reported that hypersensitivity to EMF may be due in part to a genetic predisposition.**
6. **We encourage governments to adopt a framework of guidelines for public and occupational EMF exposure that reflect the Precautionary Principle[2] -- as some nations have already done. Precautionary strategies should be based on design and performance standards and may not necessarily define numerical thresholds because such thresholds may erroneously be interpreted as levels below which no adverse effect can occur. These strategies should include:**

   6.1 Promote alternatives to wireless communication systems, e.g., use of fiber optics and coaxial cables; design cellular phones that meet safer performance specifications, including radiating away from the head; preserve existing land line phone networks; place power lines underground in the vicinity of populated areas, only siting them in residential neighborhoods as a last resort;

   6.2 Inform the population of the potential risks of cell phone and cordless phone use. Advise consumers to limit wireless calls and use a land line for long conversations.

   6.3 Limit cell phone and cordless phone use by young children and teenagers to the lowest possible level and urgently ban telecom companies from marketing to them.

   6.4 Require manufacturers to supply hands-free kits (via speaker phones or ear phones), with each cell phone and cordless phone.

   6.5 Protect workers from EMF generating equipment, through access restrictions and EMF shielding of both individuals and physical structures.

   6.6 Plan communications antenna and tower locations to minimize human exposure. Register mobile phone base stations with local planning agencies and use computer mapping technology to inform the public on possible exposures. Proposals for city-wide wireless access systems (e.g. Wi-Fi, WIMAX, broadband over cable or power-line or equivalent technologies) should require public review of potential EMF exposure and, if installed, municipalities should ensure this information is available to all and updated on a timely basis.

   6.7 Designate wireless-free zones in cities, in public buildings (schools, hospitals, residential areas) and, on public transit, to permit access by persons who are hypersensitive to EMF.

7. **ICEMS[3] is willing to assist authorities in the development of an EMF research agenda. ICEMS encourages the development of clinical and epidemiological protocols for investigations of geographical clusters of persons with reported allergic reactions and other diseases or sensitivities to EMF, and document the effectiveness of preventive interventions. ICEMS encourages scientific collaboration and reviews of research findings.**

1 EMF, in this resolution, refers to zero to 300 GHz.
2 The Precautionary Principle states when there are indications of possible adverse effects, though they remain uncertain, the risks from doing nothing may be far greater than the risks of taking action to control these exposures. The Precautionary Principle shifts the burden of proof from those suspecting a risk to those who discount it.
3 International Commission For Electromagnetic Safety.

We, the undersigned scientists, agree to assist in the promotion of EMF research and the development of strategies to protect public health through the wise application of the precautionary principle.

Signed:

Fiorella Belpoggi, European Foundation for Oncology & Environmental Sciences, B.Ramazzini, Bologna, Italy

Carl F. Blackman, President, Bioelectromagnetics Society (1990-91), Raleigh, NC, USA

Martin Blank, Department of Physiology, Columbia University, New York, USA

Natalia Bobkova, Institute of Cell Biophysics, Pushchino, Moscow Region

Francesco Boella, National Inst. Prevention & Worker Safety, Venice, Italy

Zhaojin Cao, National Institute Environmental Health, Chinese Center for Disease Control, China

Sandro D'Allessandro, Physician, Mayor of Benevento, Italy, (2001-2006)

Enrico D'Emilia, National Institute for Prevention and Worker Safety, Monteporzio, Italy

Emilio Del Giuduice, National Institute for Nuclear Physics, Milan, Italy

Antonella De Ninno,Italian National Agency For Energy, Environment & Technology, Frascati, Italy

Alvaro A. De Salles, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil

Livio Giuliani,East Veneto&South Triol, National Inst. Prevention & Worker Safety, Camerino University

Yury Grigoryev, Institute of Biophysics; Chairman, Russian National Committee NIERP

Settimo Grimaldi, Inst. Neurobiology & Molecular Medicine, National Research, Rome, Italy

Lennart Hardell, Department of Oncology, University Hospital, Orebro, Sweden

Magda Havas, Environmental & Resource Studies, Trent University, Ontario, Canada

Gerard Hyland, Warwick University, UK; International Inst. Biophysics, Germany; EM Radiation Trust, UK

Olle Johansson,Experimental Dermatology Unit, Neuroscience Department, Karolinska Institute, Sweden

Henry C. Lai, Department of Bioengineering, University of Washington, Seattle, USA

Mario Ledda, Inst. Neurobiology & Molecular Medicine, National Council for Research, Rome, Italy

Yi-Ping Lin, Center of Health Risk Assessment & Policy, National Taiwan University, Taiwan

Antonella Lisi, Inst. Neurobiology & Molecular Medicine, National Research Council, Rome, Italy

Fiorenzo Marinelli, Institute of Immunocytology, National Research Council, Bologna, Italy

Elihu Richter, Head, Occupational & Environmental Medicine, Hebrew University-Hadassah, Israel

Emanuela Rosola, Inst. Neurobiology & Molecular Medicine, National ResearchCouncil, Rome, Italy

Leif Salford, Chairman, Department of Neurosurgery, Lund University, Sweden

Nesrin Seyhan, Head, Department of Biophysics; Director, Gazi NIRP Center, Ankara, Turkey

Morando Soffritti, Scientific Director, European Foundation for Oncology & Environmental Sciences, B. Ramazzini, Bologna, Italy

Stanislaw Szmigielski, Military Institute of Hygiene and Epidemiology, Warsaw, Poland

Mikhail Zhadin, Institute of Cell Biophysics, Pushchino, Moscow Region.

Date of Release: September 19, 2006. For more information, contact Elizabeth Kelley, Managing Secretariat, International Commission For Electromagnetic Safety (ICEMS), Montepulciano, Italy. Email: info@icems.eu.

Additional signers to the Benevento Resolution:

Igor Y. Belyaev, Dept. Genetics, Microbiology and Toxicology, Arrhenius Laboratories for Natural Sciences, Stockholm University, Stockholm, Sweden

William J. Bruno, Ph.D., Theoretical Biophysics, awarded by Department of Physics, University of California at Berkeley, USA

Mauro Cristaldi, Dip, B.A.U. Universita degli Studi "La Sapienza", Roma, Italia

Suleyman Dasdag, Biophysics Department of Medical School, Dicle University, Diyarbakir,Turkey

Sandy Doull, Consultant, Noel Arnold & Associates, Box Hill VIC, Australia

Christos D. Georgiou, Assoc. Professor of Biochemistry, Department of Biology, University of Patras, Greece

Reba Goodman, Prof. Emeritus, Clinical Pathology, Columbia University, New York, New York USA

Luisa Anna Ieradi, Istituto per lo Studio degli Ecosistemi C.N.R., Roma, Italia

Michael Kundi, Head,Institute Environmental Health, Medical University of Vienna, Austria

Angelo Gino Levis, Professor Emeritus, Environmental Oncology, Padua University, Italy

Lukas H. Margaritis, Professor of Cell Biology and Radiobiology, Athens University, Athens, Greece

Vera Markovic, Faculty of Electrical Engineering, University of Nis, Serbia

Gerd Oberfeld, Federal Salzburg Government. National Medical Management, Public Health Hygiene and Environmental Health, Salzburg, Austria

Jerry L. Phillips, Professor, University of Colorado, Colorado Springs

Zamir Shalita, Consultant on Electromagnetic Hazards, Ramat Gan, Israel

E. Stanton Maxey, M.D. retired surgeon, Fayetteville Arkansas

Ion Udroiu, Dip. B.A.U., Università degli Studi "La Sapienza", Roma, Italia

Mehmet Zeyrek, Prof., Physics Department, Middle East Technical University, Ankara, Turkey

Stelios A Zinelis M.D., Vice President, Hellenic Cancer Society, Cefallonia, Greece

Anna Zucchero, MD, Internal Medicine Department. Venice-Mestre Hospital, Venice, Italy

Additional signers who are qualified but have not published EMF papers or published prior to 2000.

Andrew Goldsworthy, Lecturer in Biology (retired), Imperial College London.

Sarah J. Starkey, PhD, Neuroscience, University of London, London, United Kingdom

---

CATANIA RESOLUTION

September 2002

The Scientists at the International Conference

"State of the Research on Electromagnetic Fields – Scientific and Legal Issues", organized by ISPESL*, the University of Vienna and the City of Catania, held in Catania (Italy) on September 13th – 14th, 2002, agree to the following:

1. **Epidemiological and *in vivo* and *in vitro* experimental evidence demonstrates the existence of electromagnetic field (EMF) induced effects, some of which can be adverse to health.**
2. **We take exception to arguments suggesting that weak (low intensity) EMF cannot interact with tissue.**
3. **There are plausible mechanistic explanations for EMF-induced effects which occur below present ICNIRP and IEEE guidelines and exposure recommendations by the EU.**
4. **The weight of evidence calls for preventive strategies based on the precautionary principle. At times the precautionary principle may involve prudent avoidance and prudent use.**
5. **We are aware that there are gaps in knowledge on biological and physical effects, and health risks related to EMF, which require additional independent research.**
6. **The undersigned scientists agree to establish an international scientific commission to promote research for the protection of public health from EMF and to develop the scientific basis and strategies for assessment, prevention, management and communication of risk, based on the precautionary principle.**

Fiorella Belpoggi, Fondazione Ramazzini, Bologna, Italy

Carl F. Blackman, President of the Bioelectromagnetics Society (1990-1991), Raleigh, USA

Martin Blank, Department of Physiology, Columbia University, New York, USA

Emilio Del Giudice, Istituto Nazionale di Fisica Nucleare, Milano, Italy

Livio Giuliani, Camerino University - ISPESL*, Venezia, Italy

Settimio Grimaldi, CNR-Istituto di Neurobiologia e Medicina Molecolare, Roma, Italy

Lennart Hardell, Department of Oncology, University Hospital, Orebro, Sweden

Michael Kundi, Institute of Environmental Health, University of Vienna, Austria

Henry Lai, Department of Bioengineering, University of Washington, USA

Abraham R. Liboff, Department of Physics, Oakland University, USA

Wolfgang Löscher, Department of Pharmacology, Toxicology and Pharmacy, School of Veterinary Medicine, Hannover, Germany

Kjell Hansson Mild, President of the Bioelectromagnetics Society (1996-1997), National Institute of Working Life, Umea, Sweden

Wilhelm Mosgöller, Institute for Cancer Research, University of Vienna, Austria

Elihu D. Richter, Head, Unit of Occupational and Environmental Medicine, School of Public Health, Hebrew University-Hadassah, Jerusalem, Israel.

Umberto Scapagnini, Neuropharmacology, University of Catania, Italy, Member of the Research Comm. of the European Parliament

Stanislaw Szmigielski, Military Institute of Hygiene and Epidemiology, Warsaw, Poland

* = Istituto Superiore per la Prevenzione e la Sicurezza del Lavoro, Italy (National Institute for Prevention and Work Safety, Italy)

Get Adobe Reader

Google search