

# The Porto Alegre Resolution

We, the undersigned scientists, were honored to participate in a workshop organized by the Universidade Federal do Rio Grande do Sul and the Public Ministry of Rio Grande do Sul and sponsored by the Brazilian Health Ministry, the International Commission for Electromagnetic Safety, the Porto Alegre Environmental Council (COMAM/PA), the Rio Grande do Sul Center for Health Vigilance (CEVS/RS) and others, entitled, "International Workshop on Non-Ionizing Radiation, Health and Environment" which took place on May 18 and 19, 2009, in Porto Alegre, Brazil.

This resolution follows several international resolutions agreed to by concerned scientists and medical doctors over the past decade, including resolutions developed by the International Commission for Electromagnetic Safety [1], based on evidence and consideration on documents such as the BioInitiative Report [2] and a special issue of the journal Pathophysiology on electrical and magnetic fields, published in August 2009 [3].

We agreed that the protection of health, well-being and the environment requires immediate adoption of the Precautionary Principle, which 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*", until new scientific discoveries are recognized as the only criterion for the establishment or modification of non-ionizing radiation exposure standards;

We recognize that, in Brazil as well as all over the world, where there has been an unprecedented explosion in the availability and use of non-ionizing electromagnetic fields for electrical and wireless communications technologies (mobile and cordless phones, WiFi and WIMAX networks, RFID, etc.), as well as major electrical grid and wireless broadband infrastructure changes, this assessment should inform risk management to take proper steps to protect the public from long-term, low-level exposure to extremely-low frequency as well as radiofrequency electromagnetic fields that have substantially increased in the ambient environment in recent years.

We are concerned about the body of evidence that indicates that exposure to electromagnetic fields interferes with basic human biology and may increase the risk of cancer and other chronic diseases. The exposure levels at which these effects have been observed are many times lower than the standards promulgated by the International Commission for Non-Ionizing radiation Protection (ICNIRP) [4] and the IEEE's International Committee on Electromagnetic Safety (ICES) [5]. These standards are obsolete and were derived from biological effects of short-term high intensity exposures that cause health effects by temperature elevation and nerve excitation discovered decades ago. Recent research indicates that electromagnetic fields could cause detrimental health effects even at very low levels of exposure. The ICNIRP and IEEE/ICES standards are being supported and promoted by interested parties to avoid precautionary technical planning, precautionary laws, and precautionary advice to the public.

We are deeply concerned that current uses of non-ionizing radiation for mobile phones, wireless computers and other technologies place at risk the health of children and teens, pregnant women,

seniors and others who are most vulnerable due to age or disability, including a health condition known as electromagnetic hypersensitivity. We strongly recommend these precautionary practices:

1. Children under the age of 16 should not use mobile phones and cordless phones, except for emergency calls;
2. The licensing and/or use of Wi-Fi, WIMAX, or any other forms of wireless communications technology, indoors or outdoor, shall preferably not include siting or signal transmission in residences, schools, day-care centers, senior centers, hospitals or any other buildings where people spend considerable time;
3. The licensing for siting and installation of infrastructure related to electrical power and wireless broadband telecommunications, particularly, cellular telephony, Wi-Fi and WIMAX, should only be approved after open public hearings are held and approval granted with full consideration given to the need to apply the Precautionary Principle. Sensitive areas should be avoided to protect vulnerable populations;
4. Mankind shall be encouraged to continue to discover new means of harnessing non-ionizing electromagnetic energy, aiming at bringing benefits to society, through definition of new standards of human exposure, which are based on the biological realities of nature and not solely on the consideration of economic and technological needs.

We, therefore, urge all nations to join Switzerland, Italy, Belgium, Russia China, the U.S. (for the FCC standard for partial exposure of the head) and other countries and regions that have chosen to adopt a more precautionary strategy, aiming to assure more safety to the public while maintaining good service quality.

We make an urgent call to all nations to convene a panel of experts, selected from candidates recommended by civil society groups (not only those preferred by the affected industries) to discuss precautionary technology, laws and advice in order to develop policies that reconcile public health concerns with further development of wireless communications technology such as mobile phones as well as electric power transmission and distribution systems.

Citations:

- [1] ICEM's Benevento Resolution (2006) and Venice Resolution (2008) [www.icems.eu](http://www.icems.eu).
- [2] BioInitiative Report [www.bioinitiative.org](http://www.bioinitiative.org)
- [3] A Special Issue of Pathophysiology on the science and public health/policy issues regarding Electromagnetic Fields was published March 2009, and is the only peer reviewed scientific journal referenced on this list. It is now available online at <http://www.sciencedirect.com/science/journal/09284680>
- [4] International Commission on Non-ionizing Radiation Protection [www.icnirp.de](http://www.icnirp.de)
- [5] Institute of Electrical and Electronics Engineers. [www.ieee.org](http://www.ieee.org).

For further information, please contact [info@icems.eu](mailto:info@icems.eu).

Signed by:

Franz Adlkofer, Prof. Dr. Med., Verum Foundation, Germany  
Carl Blackman, PhD., CFB, USA  
Martin Blank, PhD. Prof. Columbia Univ., USA  
Devra L. Davis, PhD , MPA , Founder, Environmental Health Trust, USA  
Om P. Gandhi, Sc.D. , Univ. of Utah, USA  
Elizabeth Kelley, M.A., Electromagnetic Safety Alliance, USA  
Michael Kundi, PhD. , Medical Univ. of Vienna, Austria  
Henry Lai, PhD., Univ. of Washington, USA  
Leif Salford, MD, PhD., Lund Univ., Sweden

Carlos E. C. Abrahão, M.D. , Campinas, SP, Brazil  
Adilza C. Dode, M. Sc., MRE, MG, Brazil  
Claudio R. Fernández, M. Sc., IFSUL, Pelotas, RS, Brazil  
Robson Spinelli Gomes, Dr., MP/RJ, Brazil  
Sergio Koifman, M. D., ENSP/Fiocruz, RJ, Brazil  
Renato R. Lieber, Dr., UNESP, Guaratinguetá, SP, Brazil  
Anaiza H. M. Miranda, Public Official, Ministerio Publica, Rio de Janeiro, Brazil  
Ana Maria M. Marchesan, Public Official, Ministerio Publica, Rio do Sul, Brazil  
Alvaro A. de Salles, Ph.D., UFRGS, RS, Brazil  
Solange R. Schaffer, M.Sc., Fundacentro, SP, Brazil  
Cintia Schmidt, environmental lawyer, OAB/RS, Brazil  
Helio A. da Silva, Dr., UFJF, MG, Brazil  
Francisco de A. Tejo, Dr. , UFCG, Pb, Brazil  
Geila R. Vieira, M.D., CGVS/SMS, P. Alegre, RS, Brazil

**Additional scientists signing on to the Porto Alegre Resolution after September 15, 2009:**

Rodrigo Jaimes Abril, Vice Dean, Electrical Engineer, National University of Colombia, Bogota, Col.  
Betânia Bussinger, M.D., Biological Effects of Non Ionizing Radiation, UFF, RJ, Brazil  
Simona Carrubba, PhD, Louisiana State Univ. Health Science Center, Shreveport, La, USA.  
Claudio Gómez-Perretta, MD, PhD. Centro Investigación, Hospital Universitario La Fe, Valencia.  
Spain  
Christos Georgiou, PhD., ICEMS, Prof. Biochemistry, University of Patras, Greece  
Karl Braun-von Gladiß. Dr. med., Arzt für Allgemeinmedizin, Deutsch Evern, Germany  
Yury Grigoriev, Professor, Dr. of Medical Science, Chairman of Russian National Committee on  
- Non-Ionizing Radiation Protection, Moscow (Russian Federation)  
Magda Havas, PhD. Prof. Environmental Science, Trent University, Peterborough, Ontario, Canada  
Olle Johansson, Assoc. Prof., The Experimental. Dermatology Unit, Department of Neuroscience,  
- Karolinska Institute; and Professor, The Royal Institute of Technology, Stockholm, Sweden  
Lukas H. Margaritis, Professor of Cell Biology and Radiobiology, Athens University, Greece

L. Lloyd Morgan, Electronics Engineer (retired), USA.  
Wilhelm Mosgoeller, MD, Prof. Medical University of Vienna, Austria  
Jerry L. Phillips, PhD. Prof. Dir. Science Learning Ctr. Univ. Colorado, Colorado Springs, USA.  
Nesrin Seyhan, PhD., ICEMS, Prof. Medical Faculty of Gazi University, Chair, Biophysics Dept.  
- Turkey Rep/WHO EMF IAC, Panel member, NATO RTO, HFM, Turkey  
David Servan-Schreiber, MD, PhD. Clinical Professor, Psychiatry, Univ. Pittsburgh USA  
Stanislaw Smigielski, MD, ICEMS, Military Institute of Hygiene & Epidemiology, Poland  
Stelios A Zinelis MD, ICEMS, Hellenic Cancer Society, Cefallonia, Greece

**Other signers who are advocates, organizations or members of the general public:**

Dea Emilia Carneiro de Andrade, Sou Presidente do Comitê de Cidadania Comissão Justiça e Paz  
- da Arquidiocese de Juiz de Fora – MG, Brazil  
Ana Maria Daitx Valls Atz, Farmacêutica, Porto Alegre/RS, Brasil  
City of Colwood, British Columbia, Canada  
Jose Maria Tiburcio Barroso, engineer, Niteroi, RJ, Brazil  
Elizabeth Barris, Director, The Peoples Initiative Foundation, USA  
Elza Antonia Pereira Cunha Boiteux, Prof. Dra., Faculdade de Direito, Universidade de São Paulo, BR  
Denize Francisca da Silva, Física Ambiental - Salvador-BA, Brasil  
Fernando Netto Boiteux, Doutor em Direito Comercial pela FADUSP, Brazil  
Sergio A. Pereira De Borja, Prof. Direito Constitucional, PUC/RS e da Instituições de Direito, UFRGS  
Elaine S. A. Cabral, M. Sc., Education, Environmental Law; member, Human Rights Commission  
- of Attorney Association-OAB, J. de Fora, MG, Brazil  
Kerry Crofton, PhD, Health Educator, Canada  
Bill Curry, PhD. Physics, ret. Argonne National Labs, Board Member, EMR Network, USA  
Frances Fox, Psychic Counselor, Florida, USA  
Adamantia F. Fragopoulou, B.Sc., M.Sc., Ph.D. Candidate, EMF Bioeffects, Athens Univ. Greece  
Cristiano M. Gallep, Prof. Dr., DTT, Unicamp, Brazil  
Carol C. Georges, PhD. Psychologist, Italy  
Margaret M. Glaser, USA  
Andrew Goldsworthy BSc PhD, Lecturer in Biology (retired) Imperial College, London, UK  
Laura Elza L. F. Gomes. M.Sc., Prof. da Escola de Arquitetura e Urbanismo da UFF - Universidade  
- Federal Fluminense  
Penelope Hargreaves, Ouruhia, New Zealand  
Anderson Huguenin Goncalves, Lawyer, OAB RJ, Rio de Janeiro, Brazil  
Alastair M Graham, EMF and Eco Consultant, South Africa  
[Sue Grey](#), LLB(Hons), BSc (Microbiology and Biochemistry), RSHDipPHI, New Zealand.  
Sissel Halmøy, Principal advisor electromagnetic radiation, Norges Miljøvernforbund, Norway  
Carrie Hyman, L.Ac., O.M.D, USA.  
João Henrique C. Kanan, PhD, UFRGS, RS, Brazil  
John Kristensen P. Biol., VP Technical, RETA (Responsible Electricity Transmission for Albertans),  
- Alberta, Canada  
Caroline Lucas MEP, Trustee of the Electromagnetic Radiation Trust, UK  
Don Maisch, EMFacts Consultancy, Australia  
Ellen Marks, Lafayette, California, USA  
Zack Marks, CEO, The California Brain Tumor Association, USA  
Sandi Maurer, EMF Safety Network, California, USA

Andrew Michrowski, PhD, The Planetary Association for Clean Energy, Inc., Ottawa, Canada  
Luiz Roberto Santos Moraes, Professor Titular em Saneamento, Universidade Federal da  
- Bahia, Brazil  
Sharon Noble, C.A.U.S.E, Citizens Against UnSafe Emissions, Colwood, British Columbia Canada  
Daniel Oberhausen, Prof. Physics (retired), Association PRIARTÉM, France.  
Eileen O'Connor, Director, Electromagnetic Radiation Research Trust, UK  
Francesca Romana Orlando, Vice Presidente di AMICA, Associazione Malattie da Intossicazione  
- Cronica e/o Ambientale, Roma, Italia  
Jorge Panazio, Telecommunications Engineer, MCT (retired), Brazil  
Mary Redmayne, Dip. Env. Stud., Victoria University, Certified BBE Electro-Biology  
- Environmental Inspector, New Zealand  
Camilla Rees, ElectromagneticHealth.org, USA  
Luiz Jacques Lüderitz Saldanha, Porto Alegre, RS/Brasil.  
Denize Francisca da Silva, Graduada em Física e Mestre em Engenharia Ambiental  
- Urbana pela Universidade Federal da Bahia-UFBA. Salvador-BA, Brasil.  
Rodrigo Borsu de Salles, Economist, Porto Alegre, Brazil  
Fanny Helena Martins Salles, psychologist, public official, Prof. University of Bage, RS, Brazil.  
David Saunders, Mayor, City of Colwood, Colwood, BC  
Judi Shils, Search for the Cause, Teens Turning Green, Marin County, California, USA  
Carmen Ruth Stangenhuis, Arquiteta MSc, Associação Brasileira de Materiais e Tecnologias  
- - Não Convencionais - Rio de Janeiro - Brasil  
Sarah J. Starkey, PhD. Neuroscientist, UK  
Brian Stein, Chair Radiation Research Trust, Trustee E.S.-UK, Electrosensitive  
Alex Swinkels, National Platform on Radiation Risks, Netherlands  
Alex W. Thomas, Ph.D, CIHR University-Industry, Chair, Bioelectromagnetics, Lawson Health Research  
- Institute, University of Western Ontario.  
Cesar Nicolau Vargas, Tecg° Eletroeletrônica, Federação Nacional dos Urbanitários - FNU/CUT,  
Brazil Vita de Waal - Director Foundation for GAIA, UK and main Representative for Planetary  
Association  
- for Clean Energy to the UN Geneva  
Casper Wickman, PhD, Chalmers University of Technology, Sweden  
Josefin Wickman, Design Engineer, Sweden  
Isabel Wilke, Dipl.-Biologin, KATALYSE Institut für Angewandte Umweltforschung e.V., Köln, DE  
Sandra H. Wilkinson, Hamilton Township Residents against Pennsylvania Creek Tower, PA, USA

---

**To request that your name be added to this Resolution as a scientist, advocate, organization or member of the general public, we welcome you to notify ICEMS at [info@icems.eu](mailto:info@icems.eu). Please indicate your name, title, affiliation, city and country (1-2 lines at most.)**