

## Reykjavik appellen om trådlös teknik i skolan

Vi som undertecknar denna appell är oroadade för våra barns hälsa och utveckling i skolor med trådlös teknik i undervisningen. En stor mängd vetenskapliga studier har visat på betydande medicinska risker med långtidsexponering för radiofrekvent strålning från trådlös teknisk utrustning långt under rekommenderade gränsvärden från International Commission on Non-Ionizing Radiation Protection (ICNIRP). Vi ber att berörda skolmyndigheter tar sitt ansvar för våra barns framtida hälsa och välmående.

I maj 2011 klassificerade WHO's vetenskapliga råd för cancerforskning (IARC, the International Agency for Research on Cancer) radiofrekvent strålning som 'möjlig cancerframkallande' enligt grupp 2B. Sedan dess har fler vetenskapliga studier stärkt sambandet mellan radiofrekvent strålning och cancer, speciellt för hjärntumörer. Ett antal laboratoriestudier har visat på olika mekanismer i cancerutveckling, såsom oxidativ cell stress, påverkan på mRNA och skador på DNA i cellerna. IARC klassificeringen innefattar alla källor för radiofrekvent strålning. Exponeringen från basstationer, WiFi nätverk, smartphones, bärbara datorer och läsplattor är ofta långvarig, ofta dygnet runt både i skolan och i hemmet. Risken för barn kan även vara ökad på grund av en kumulativ effekt under en hel livstid. Omogna och växande celler kan vara mer känsliga för radiofrekvent strålning. Baserat på befintliga vetenskapliga studier finns idag ingen säker lägsta gräns för påverkan från den radiofrekventa strålningen och därför finns inte heller någon garanti för en säker lägsta nivå för strålningen.

Förutom cancerrisken kan radiofrekvent strålning även bidra till att blodhjärnbarriären öppnas och släpper in stora skadliga molekyler till hjärnan, skada nervceller i hippocampus som är hjärnans minnescentrum, påverka regleringen av nödvändiga proteiner i hjärnans ämnesomsättning, signalsubstanser, stressförsvar, och skydd av nervceller. Spermier som har exponerats för Wi-Fi har fått fler huvuddefekter och DNA-skador. Radiofrekvent strålning kan öka den oxidativa stressen i cellerna och leda till en ökning av inflammatoriska cytokiner och en lägre kapacitet att laga enkel- och dubbelsträngbrott på DNA.

Kognitiv påverkan på inlärning och minne har också påvisats. OECD's PISA undersökning bland 15-åringar visar att resultaten i läsning och matematik sjönk i länder som investerat mest i införandet av datorer i undervisningen. Multitasking, att göra flera saker samtidigt, allt för många timmar framför en skärm, mindre tid för sociala kontakter och fysisk aktivitet med risk för värk i nacke och rygg, övervikt, sömnproblem och IT-missbruk är några av de kända risker som framkommit för IT (informationsteknologi). De står i motsats till de ofta hävdade men i stort sett obevisade fördelarna med IT.

Vi ber att skolmyndigheter i alla länder sätter sig in i den kunskap som finns angående möjliga risker med radiofrekvent strålning för våra barn som växer och utvecklas. Att använda kabelbundna datorer i undervisningen är en säkrare lösning än potentiellt riskfylld exponering för trådlös radiofrekvent strålning. ALARA (As Low As Reasonably Achievable; så lågt som är möjligt) principen bör följas liksom Europarådets resolution 1815 för att försöka reducera exponeringen från radiofrekvent strålning så mycket som möjligt.

## **Praktiska regler för skolor angående barn och trådlös teknik.**

- Inga trådlösa nätverk i förskola och skola.
- Kabelbunden uppkoppling till varje klassrum för läraren att använda under lektionerna.
- Föredra fasta telefoner med kabel till all personal i förskola och skola.
- Föredra kabelbunden uppkoppling till internet och till skrivare samt stäng av WiFi på all utrustning.
- Föredra datorer och läsplattor som går att ansluta till internet med kabel.
- Elever bör inte få använda mobiltelefoner i skolan. De bör antingen lämna dem hemma eller att läraren samlar in dem helt avstängda före första lektionen på morgonen.

Children, Screen time and Wireless Radiation – International Conference  
Barn, Skärmtid och Trådlös Radiofrekvent Strålning - Internationell Konferens  
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Signerat av

**Lennart Hardell**, MD, PhD (speaker)  
Department of Oncology, Faculty of Medicine and Health,  
Örebro University, SE-701 82 Örebro, Sweden.  
E-mail: [lennart.hardell@regionorebrolan.se](mailto:lennart.hardell@regionorebrolan.se)

**Cris Rowan**, BScOT, BScBi, SIPT (speaker)  
CEO Zone'in Programs Inc. and Sunshine Coast Occupational Therapy Services Inc.  
6840 Seaview Rd, Sechelt, BC Canada V0N3A4

**Tarmo Koppel**, PhD candidate (speaker)  
Department of Labour Environment and Safety  
Tallinn University of Technology,  
SCO351 Ehitajate tee 5, 19086 Tallinn, Estonia  
E-mail: [tarmo.koppel@ttu.ee](mailto:tarmo.koppel@ttu.ee)

### **Iceland**

**Sveinn S. Kjartansson** Formaður, Félag foreldra leikskólabarna, Chairman, Association of parents of preschool children in Reykjavik, Island

**Valdemar Gisli Valdemarsson** electronic technician/manager, Island

### **Sweden**

**Lena Hedendahl**, MD, Independent Environment and Health Research Luleå, Sweden

**Michael Carlberg** MSc, Department of Oncology, Faculty of Medicine and Health,

Örebro University, Sweden

**Mikko Ahonen**, PhD, Sweden

**Adamantia Fragopoulou**, PhD, Department of Neuroscience, KI, (Karolinska Institute), Sweden

**Olle Johansson**, PhD, Department of Neuroscience, KI, Sweden

**Johan Wilhelmson**, MD, Sweden

**Ulrika Åberg MD**, Sweden

**Gabriella Ahlgren**, Chairman, Vågbrytaren, Against insanitary electromagnetic radiation, Sweden

**Gunilla Ladberg**, PhD, Vågbrytaren, Sweden

**Marianne Ketti**, Chairwoman, FEB Sweden (The Swedish Association for the ElectroHyperSensitive)

**Per Segerbäck**, Scientific Advisor, FEB Sweden

**Mona Nilsson**, Chairman Swedish Radiation Protection Foundation, Sweden

**Bertil Arting**, Teacher (former) Sweden

**Kristina Arting**, Teacher (former) Sweden

**Linda Niewenhuizen**, Teacher, Sweden

**Gertrud Öjbrandt**, Teacher (former) Sweden

## **Finland**

**Marjukka Hagström**, Senior Specialist, LL.M., M.Soc.Sc., Finland

**Rainer Nyberg**, EdD, Professor emeritus, Finland

## **Norway**

**Solveig Glomsrød**, Chairman, Association of electro-hypersensitive, Norway

**Sissel Halmøy**, Chair, International EMF Alliance, Norway

**Thomas Middelthon**, Chairman, Citizens' Radiation Protection, Norway

## **Austria**

**Piero Lercher**, MD, Consultant for environmental medicine in the Viennese medical chamber, Austria

**Gerd Oberfeld**, MD, Public Health Dept. Salzburg Government, Austria

**Thomas Szekeres**, a.o. Univ.-Prof. Dr. President of the Viennese medical chamber, Austria

## **Belgium**

**Ernesto Burgio**, MD, Pediatrician, ECERI European Cancer and Environment Research Institute Bruxelles, Belgium

## **Cyprus**

**Stella Canna Michaelidou**, Dr, President of the National Committee on Environment and Children's Health, Nicosia, Cyprus.

**Alexia Sakadaki**, Organizing Manager, Cyprus Greens – Citizens' Cooperation, Cyprus

## **France**

**Dominique Belpomme**, MD, MS, Professor, Oncology, Paris University Hospital, France, and European Cancer and Environment Research Institute (ECERI), Brussels, Belgium.

**Christine Campagnac** (Hospital Director, seconded from Assistance Publique-Hôpitaux de Paris (AP-HP), Paris, France; and ECERI, Brussels, Belgium

**Philippe Irigaray**, PhD, ARTAC, Paris, France

**Etienne Cendrier**, Spokesman for Robin des Toits, France

**Janine Le Calvez**, Chairman of the French NGO, Priartem, France

**Sophie Pelletier**, Collectif des Electrosensibles de France, France

## **Germany**

**Franz Adlkofer**, Professor, Germany

**Peter Hensinger**, M.A., diagnose:funk, German consumer-rights organization, Germany

**Markus Kern**, Dr. med., Kempten, Germany

**Peter Ohnsorge**, Dr. Med., European Academy for Environmental Medicine, Member of the Board, Wuerzburg, Germany

**Siegfried Zwerenz**, Chairman of Bürgerwelle e.V., Schutz von Mensch und Umwelt, Germany

## **Greece**

**Theodore Metsis**, PhD, Electrical-Mechanical-Environmental Engineer-Consultant, Athens, Greece

**Stelios A Zinelis** MD, BA, Hellenic Cancer Society of Kefallonia and Ithaki, Greece

### **Italy**

**Fiorella Belpoggi**, Dr, Director, Research Department, Cesare Maltoni Cancer Research Center, Ramazzini Institute, Bologna, Italy

**Dott. Morando Soffritti** Presidente Onorario, Istituto Ramazzini e Segretario Generale, Collegium Ramazzini, Bologna, Italy

### **Russia**

**Oleg A. Grigoriev**, DrSc., PhD, Head of the Scientific Department of Non-Ionizing Radiation, Federal Medical Biophysical Center of Federal Medical Biological Agency of Russia, Moscow, Russia.

**Yury G. Grigoriev**, Professor, M. Dr Sci. President, Russian National Committee on Non-Ionizing Radiation Protection, Moscow, Russia

### **Spain**

**Enrique A. Navarro**, Professor, Universitat de València, Spain

**Pedro Belmonte**, Area of electromagnetic pollution of Ecologistas en Acción, Spain

**Julio Carmona**, Coordination PECCEM (Spanish Citizen Platform Against Electromagnetic Pollution), Spain.

**Minerva Palomar**, President of Electro and Chemical Sensitive for the Right to Health, Spain

### **Slovak Republic**

**Igor Belyaev**, Dr.Sc. Cancer Research Institute, BMC SAS, Slovak Republic

### **United Kingdom**

**David Gee**, Visiting Fellow, Institute of Environment, Health and Societies, Brunel University, UK

**Paula Healy**, MSc., (neuroscience), UK

**Erica Mallery-Blythe**, MD, BMBS (Soton), PHIRE Medical (Physicians' Health Initiative for Radiation and Environment), UK

**Alasdair Philips**, BSc, DAgE, Director of Powerwatch (UK NGO), UK

**Sarah Starkey**, PhD, Independent Neuroscience and Environmental Health Research, UK

**Michael Bevington**, Electrosensitivity UK, United Kingdom

**Eileen O'Connor**, Director, EM Radiation Research Trust, and PHIRE, Board Member  
International EMF Alliance, UK

**Nicola Kingsley**, School secretary (retired). UK

**Gabriel Millar**, Teacher, activist organizer of 6 public meetings on the subject of wireless  
radiation in Stroud, Gloucestershire, UK

## **Israel**

**Gadi Lissak**, Dr, Behavioral medicine psychologist, Israel

**Yael Stein**, Dr, MD, Hadassah Medical Center, Jerusalem, Israel

**Iris Atzmon**, MPH, author, Israel.

## **Brazil**

**Alvaro Augusto de Salles**, PhD, Professor, Federal University of Rio Grande do Sul –  
UFRGS, Porto Alegre, Brazil.

## **Colombia**

**Carlos Sosa**, MD, Medellin, Colombia,

## **Canada**

**Daniel Berman**, MSW, Vancouver, Washington, Board Member, Wireless Education Action,  
Canada

**Anthony B. Miller**, MD, FRCP, Professor Emeritus, Dalla Lana School of Public Health,  
University of Toronto, Canada

**Heather Dawn Gingerich**, MSc, International Medical Geology Association and AAAS  
Science & Human Rights Coalition, Canada

**Melissa Chalmers**, Director, Electromagnetic Pollution Illnesses Canada Foundation (EPIC),  
Canada

**Janis Hoffmann**, Parents for Safe Schools, Canada

**Jean Hudon**, Co-founder, Quebec's Coalition Against Electromagnetic Pollution , Quebec,  
Canada

**Lucie Montpetit**, Occupational therapist with EHS, ME and FM patients. Canada

**Sharon Noble**, Director, Coalition to Stop Smart Meters, Director, Citizens for Safe Technology, Victoria, British Columbia, Canada

**Barbara Payne**, Director? Electromagnetic Pollution Illnesses Canada Foundation (EPIC), Canada

**Marcus & Benita Schluschen**, Canadians for Safe Technology, British Columbia, Canada

**Pedro Gregorio**, M.Eng, Canada

**Vladimir Gagachev**, P.Eng., Electrical Engineer, Canada

**Petrina Gregson**, B of Mus, MA, Retired teacher, Clearwater, BC, Canada

**Sheila Pratt**, BA, Retired teacher, Canada

**Cathy Veris**, Community Mediation Coordinator, Mississauga, Ontario, Canada

**Shelley Wright**, Teacher, Canada

## **USA**

**David O. Carpenter**, MD, Director, Institute for Health and the Environment. A Collaborating Centre of the World Health Organization, University at Albany, NY, USA

**Scott Eberle**, MD, Medical Director, Hospice of Petaluma, CA, USA

**Dan O. Harper**, MD, Solana Beach, CA, USA

**James Huff**, PhD, Guest Researcher, Formerly, Associate Director for Chemical Carcinogenesis, National Institute of Environmental Health Sciences, Research Triangle Park, North Carolina , USA

**Peter F. Infante**, D.D.S, Dr.P.H., F.A.C.E. USA

**Toril Jelter**, MD, MDI Wellness Center in Walnut Creek, CA, USA

**Elizabeth Kelley**, MA, Former Managing Director, International Electromagnetic Safety Alliance, USA

**Ann Yeawon Lee**, MD, USA

**L. Lloyd Morgan**, Senior Research Fellow, Environmental Health Trust, USA

**Ronald M. Powell**, PhD, USA

**Camilla Rees**, MBA, ElectromagneticHealth.org. USA

**Cindy Sage**, MA, Sage Associates, Co-Editor, BioInitiative Reports, USA

**Theodora Scarato MSW**, Environmental Health Trust, USA

**Barry Castleman**, ScD, Environmental Consultant, USA

**Mary Beth Brangan**, Ecological Options Network, USA

**Patricia Burke**, HaltMAsmartmeters.org., USA

**Galilee Carlisle**, M.Ed., Heads Up! for Public Health? Chehalis, WA, USA

**Elizabeth Doonan**, Maryland for Safe technology, USA  
**Cecelia Doucette**, Technology Safety Educator, USA  
**Lee Emerson**, President, Lee F. Emerson & Associates Inc., Mill Spring, NC, USA  
**Arthur Firstenberg**, President, Cellular Phone Task Force, Santa Fe, NM. USA  
**Diane Hickey**, Co-founder, National Association For Children and Safe Technology, USA  
**Desiree Jaworski**, Executive Director, Center for Safer Wireless, USA  
**Ellie Marks**, Director, California Brain Tumor Association, San Francisco, CA, USA  
**Sandi Maurer**, Director, EMF Safety Network, USA  
**Sam Parish**, Forensic Engineer, Providence, RI, USA  
**Katie Singer**, Author, *An Electronic Silent Spring*, EMRadiation Policy Institute, USA  
**Angela Tsiang**, Engineer, USA  
**Gary Vesperman**, Clean Energy Inventions, Boulder City, Nevada, USA  
**Dianne Wilkins**, Paralegal, Maine, USA  
**Mary Anne Tierney**, RN, MPH, Fairview, NC USA

#### **Australia**

**Don Maisch** PhD, Member of the Australasian Oceania Radiofrequency Scientific Advisory Association (ORSAA), Australia  
**Steven Weller**, B.Sc., Australia  
**Karen Adler**, EHS group network, Sydney, Australia  
**Linda Jones**, Stop Smart Meters Australia, Victoria, Australia  
**Greg Jones**, Stop Smart Meters Australia, Victoria, Australia  
**Lyn McLean**, Director, EMR Australia PL  
**Sarah Benson**, Retired teacher, Australia

#### **Additional signers after the conference**

##### **Germany**

**Jan Gerhard**, MD, Pediatrician, Youth-Psychiatrist, Bünsdorf, Germany  
**Dietrich Moldan**, Dr, Moldan Umweltanalytik, Iphofen, Germany  
**Claus Scheingraber**, Dr. med dent., Chairman German Working Group Electro-Biology, Germany  
**Sonja Tamm**, Baubiologin IBN, Germany



**Ortwin Zais**, Dr, Managing Chairman, EUROPAEM e.V. European Academy  
for Environmental Medicine e.V. Germany

### **Italy**

**Sparer Armin**, Fach. Ing., Bozen, Italy

### **Netherlands**

**Peter van der Vleuten**, Stichting Kennisplatform Elektromagnetische Straling and Brainport  
Biotech Solutions BV, The Netherlands

### **Switzerland**

**Peter Schlegel**, M.Sc. Esslingen, Switzerland

**Markus Lauener**, Präsident (chairman), Dachverband Elektrosmog Schweiz und  
Liechtenstein (Swiss Umbrella Organization for EMF protection), Switzerland

### **Argentina**

**Liliana Palancio**, Presidente Asociación Civil Aletheia por la vida Personería Jurídica.  
Buenos Aires. Argentina.

### **Canada**

**Paul Héroux**, PhD, Occupational Health Program Director, Department of Epidemiology,  
Biostatistics and Occupational Health, McGill University Medicine, Montreal, Canada

**Martin Weatherall**, Co-Director WEEP Initiative, Canada

## Appendix för mer information

### Referenser

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