

5G is cruel, inhuman and degrading treatment under resolution 39/46

References to the document submitted on February 11th 2019 to the United Nations Human Rights Council (UNHRC) by the Planetary Association for Clean Energy (PACE, inc.)

Table of Contents

References #1 – Big Tobacco.....	2
References #2 – Bending science and unbridled lobbying.....	4
References #3 – EMR and its insidiousness.....	7
References #4 – Dr. Richard Horton on the Reproducibility and Reliability of Medical Research.....	7
References #5 – When industry war games scientists.....	7
References #6 – A brief introduction to EMR and its biological effects.....	8
References #7 – EMR and biological effects is old news.....	10
References #8 – Biological effects in plants, animals, insects and microbes.....	11
References #9 – Health impacts of EMR.....	32
Endocrine, including neuroendocrine systems, impacted by non-thermal EMF exposures:.....	32
Effects of radiofrequency EMF exposure on reproduction and development:.....	34
Prenatal exposure to EMF non-thermal radiation can produce neurological effects:.....	35
EMF exposure has important role in cancer causation:.....	36
Neurological and neuropsychiatric effects of non-thermal EMF exposures both in animals and in humans:.....	37
Effects on cellular DNA including single-strand and double-strand breaks in cellular DNA and on oxidized bases in cellular DNA; also evidence for chromosomal mutations produced by double-strand DNA breaks:.....	39
Lowered fertility, including tissue remodeling changes in the testis, lowered sperm count and sperm quality, lowered female fertility including ovarian remodeling, oocyte (follicle) loss, lowered estrogen, progesterone and testosterone levels (that is sex hormone levels), increased spontaneous abortion incidence, lowered libido:.....	41
Neurological and neuropsychiatric effects:.....	43
Apoptosis/cell death:.....	46
Oxidative stress/free radical damage (important mechanisms involved in almost all chronic diseases; direct cause of cellular DNA damage):.....	47
Endocrine (hormonal effects):.....	49
Increased intracellular calcium (produces many pathophysiological, that is disease-causing, responses):.....	50
Cancer causation by EMF exposures:.....	52
Studies which have found other biological effects:.....	55
Effects on Children:.....	56
Studies which have found that late prenatal EMF exposures in rodents produce long-term neurological changes which are maintained as adults, changes similar to those found in ADHD or autism:.....	58
Effects On Implanted Medical Devices.....	59
References #10 - electrosensitivity (ES) and electrohypersensitivity (EHS):.....	60
References #11 – We are the guinea pigs!.....	63

References #12 – The precautionary principle is dead.....	63
References #13 – 5G. let's increase the dose!.....	64
References #14 – WHO, FCC, FDA and others, conflicts of interests are rampant.....	65
References #15 – WHO, ICNIRP, SCENIHR, ITU, conflicts of interests are the norm.....	68
References #16 – Media lies.....	69
References #17 – Liability motive and the cover-up.....	69
References #18 – What is 5G?.....	70
References #19 – Satellites will beam 5G from above.....	70
References #20 - Pulsed millimetre waves and phased-array antennas.....	73
Reviews showing that pulsed EMFs are, in most cases, much more biologically active than are non-pulsed (continuous wave) EMFs of the same average intensity:.....	75
References #21 – Millimetre waves and our body.....	76
References #22 – Millimetre waves, our eyes and our skin.....	76
References #23 – Russian roulette and insect populations.....	77
References #24 – 5G, human subjects experiments under UN Resolution 39/46.....	77
References #25 & #26 – Human and environmental rights violations are the norm.....	78
Additional international agreements, treaties , guidelines and recommendations being violated:.....	79
1. The Universal Declaration of Human Rights (1948).....	79
2. European Convention for the Protection of Human Rights and Fundamental Freedoms of November 4th 1950.....	79
3. European Social Charter of October 18th 1961.....	80
4. The right to the highest attainable standard of physical and mental health.....	81
5. The United Nations Global Strategy for Women's, Children's and Adolescents' Health (2016-2030).....	81
6 . Convention on the Rights of Persons with Disabilities (CRPD, 2006).....	82
7. The Standard Rules on the Equalization of Opportunities for Persons with Disabilities (1993).....	82
8. The United Nations Convention on the Rights of the Child (1989).....	83
9. Resolution 72 – Measurement concerns related to human exposure to electromagnetic fields of the International Telecommunications Union (2012).....	84
10. The Mid-term review of the European Environment and Health Action Plan 2004-2010 (2008):.....	84
11. Resolution 1815 (Council of Europe, 2011).....	84
12. The Declaration of the United Nations Conference on the Human Environment (1972):..	85
13. The World Charter for Nature (1982):.....	85
14. The Rio Declaration on Environment and Development (1992):.....	85
15. The United Nations World Summit on Sustainable Development (2002):.....	86
16. Revised African Convention on the Conservation of Nature and Natural Resources (2017):.....	86
17. The Outer Space Treaty (1967).....	86
18. The United Nations Guidelines for The Long-Term Sustainability of Outer Space Activities (2018):.....	87

References #1 – Big Tobacco

Glantz, Stanton A., John Slade, Lisa A. Bero, Peter Hanauer, and Deborah E. Barnes, editors *The Cigarette Papers*. Berkeley: University of California Press, c1996 1996.

<http://ark.cdlib.org/ark:/13030/ft8489p25j/>

Davis Michaels - *Doubt is Their Product: How Industry's Assault on Science Threatens Your Health* - Oxford University Press, 2008. ISBN 01997197

Gene Borio, Larry Breed – *Tobacco Timeline* – archive.tobacco.org – 2001

http://archive.tobacco.org/History/Tobacco_History.html

Oxysuisse - *Pourquoi l'affaire Université de Zürich - Philip Morris est très grave* - Association Oxysuisse, March 1st 2015.

<http://www.oxyromandie.ch/node/53>

Pr. Alex Mauron, Pr. Alfredo Morabia, Pr. Thomas Perneger, Pr. Thierry Rochat – *Report of the inquiry into the case concerning Prof. Ragnar Rylander* – Faculty of the University of Geneva, September 6th 2004. (Translated)

<http://www.prevention.ch/rye060904.pdf>

John Cordina - *French programme claims Dalli targeted by tobacco lobby to delay introduction of stricter laws* – Malta Independent, October 9th 2014.

<http://www.independent.com.mt/articles/2014-10-09/local-news/French-programme-claims-John-Dalli-targeted-by-tobacco-lobby-to-delay-introduction-of-stricter-laws-6736123381>

Oxysuisse - *La presse suisse propage les «fake news» de l'industrie du tabac* - Association Oxysuisse, February 22nd 2017.

<http://www.oxyromandie.ch/node/74>

Oxysuisse - *Swiss Senate Health Committee rejects tobacco advertising ban* – Association Oxysuisse, May 5th 2016. <http://www.oxyromandie.ch/node/70>

Aditya Kalra, Paritosh Bansal, Duff Wilson and Tom Lasseter - *Inside Philip Morris' campaign to subvert the global anti-smoking treaty – Philip Morris International is using its vast resources against efforts to reduce smoking. Internal company documents reveal details of the secretive operation* - Reuters, July 13th 2017

<https://www.reuters.com/investigates/special-report/pmi-who-fctc/>

Aditya Kalra, Paritosh Bansal, Duff Wilson and Tom Lasseter - *Philip Morris takes aim at young people in India, and health officials are fuming – The world's largest publicly traded tobacco company is marketing cigarettes in India in ways that government officials say violate the country's anti-smoking laws* – Reuters, July 18th 2017.

<https://www.reuters.com/investigates/special-report/pmi-india/>

Aditya Kalra, Paritosh Bansal, Duff Wilson, Thomas Wilson, Ami Miyazaki and Tom Lasseter - *Scientists describe problems in Philip Morris e-cigarette experiments – Ex-employees and contractors detail irregularities in the clinical trials that underpin Philip Morris intl's application to the FDA for its iQOS smoking device* - Reuters, December 20th 2017.

<https://www.reuters.com/investigates/special-report/tobacco-iqos-science/>

Aditya Kalra, Paritosh Bansal, Duff Wilson, Thomas Wilson, Ami Miyazaki and Tom Lasseter - *How Philip Morris is selling regulators on its hot new smoking device – Philip Morris executives are lobbying health officials across the world on the benefits of iQOS. The device, they say, shouldn't be categorized as a cigarette.* - Reuters, December 21st 2017.

<https://www.reuters.com/investigates/special-report/tobacco-iqos-marketing/>

Aditya Kalra, Paritosh Bansal, Duff Wilson, Thomas Wilson, Ami Miyazaki and Tom Lasseter – Internal Philip Morris documents which include emails, powerpoint presentations, strategy papers and lobbying plans. - Reuters December 2017.

<https://www.documentcloud.org/search/projectid:%2033738-the-philip-morris-files>

References #2 – Bending science and unbridled lobbying

“Radiation Research” and The Cult of Negative Results – Microwave News, July 31, 2006.
ISSN 0275-6595

<https://microwavenews.com/sites/default/files/docs/mwn.7-06.RR.pdf>

Brandon Ledford - Cell Phones, Electromagnetic Radiation, and Cancer: A Study of Author Affiliation, Funding, Bias, and Results – Policy Studies Organization (PSO), 2010.

<http://www.ipsonet.org/proceedings/wp-content/uploads/2012/07/Paper-11-Cell-Phones-Electromagnetic-Radiation-and-Cancer.pdf>

Lennart Hardell, Martin J. Walker, Bo Walhjalt, Lee S. Friedman and Elihu D. Richter - *Secret ties to industry and conflicting interests in cancer research* - American Journal of Industrial Medicine, 2006. DOI: 10.1002/ajim.20357

http://mobilfunk-debatte.de/pdf/Mobilfunk_Politik/Hardellsecret_ties.pdf

Laetitia Rollin, Nicolas Griffon, Stefan J. Darmoni, Jean Francois Gehanno - *Influence of author's affiliation and funding sources on the results of cohort studies on occupational cancer.* - Am. J. Ind. Med. 59:221–226, 2016.

<https://doi.org/10.1002/ajim.22549>

Cristin E. Kearns, Laura A. Schmidt, Stanton A. Glantz - *Sugar Industry and Coronary Heart Disease Research -A Historical Analysis of Internal Industry Documents.* - JAMA Intern Med. 2016;176(11):1680-1685. doi:10.1001/jamainternmed.2016.5394

Friedman, Lee; Friedman, Michael - *Financial Conflicts of Interest and Study Results in Environmental and Occupational Health Research.* - Journal of Occupational and Environmental Medicine: March 2016 - Volume 58 - Issue 3 - p 238–247. doi: 10.1097/JOM.0000000000000671

Industry Studies Tend To Come Up Empty. - Microwavenews.com, September 18th 2006.

<https://microwavenews.com/news-center/industry-studies-tend-come-empty>

Steven Overly, Nancy Scola, John Hendel and Ashley Gold - *Tech and telecom lobbying roundup* – Politico.com, April 23rd 2018.

<https://www.politico.com/newsletters/morning-tech/2018/04/23/tech-and-telecom-lobbying-roundup-179782>

Yann Joly, Flora Wahnon, Bartha Maria Knoppers - *Impact of the Commercialization of Biotechnology Research on the Communication of Research Results: North American Perspective* - Harvard Health Policy Review, Vol. 8, No. 1, Spring 2007.

<https://yannjoly.openum.ca/files/sites/57/2016/02/Impact-of-the-Commercialization-of-Biotechnology-Research-on-the-Communication-of-Research-Results-North-American-Perspective.pdf>

Lobbyists representing AT&T Inc, 2018 – Opensecrets.org.

<https://www.opensecrets.org/lobby/clientlbs.php?id=D000000076&year=2018>

Suzanne Mulcahy - LOBBYING EN EUROPE – Transparency International, 2015.

https://www.transparency-france.org/wp-content/uploads/2016/04/Lobbying-en-Europe_Résumé-et-recommandations_Avril-2015.pdf

Telefónica: the well-connected EU and Spanish lobbyist – Corporate Europe Observatory, June 8th 2017.

<https://corporateeurope.org/power-lobbies/2017/06/telef-nica-well-connected-eu-and-spanish-lobbyist>

Jason Koebler - *How Big Telecom Gets Away With Rewriting America's Laws* – Vice News, April 6 2016.

https://motherboard.vice.com/en_us/article/z43493/how-the-telecom-lobby-rewrites-americas-laws

Guillaume Courty - LE LOBBYING EN FRANCE INVENTION ET NORMALISATION D'UNE PRATIQUE POLITIQUE – January 1st 2018.

http://ceraps.univ-lille2.fr/fileadmin/user_upload/enseignants/Courty/Le_Lobbying_en_France_donnees_codages_methodes_01.pdf

Journal Editor Steps Down After Conflicts Revealed – Microwavenews.com, September 23rd 2006.

<https://microwavenews.com/news-center/editor-steps-down-after-conflicts-revealed>

Thomas O. McGarity, Wendy Elizabeth Wagner - *Bending Science: How Special Interests Corrupt Public Health Research* - Harvard University Press, 2008. ISBN 978-0-674-02815-9

Dr. Marcia Angell - *Transparency Hasn't Stopped Drug Companies From Corrupting Medical Research* – New York Times, September 14th 2018.

<https://www.nytimes.com/2018/09/14/opinion/jose-baselga-research-disclosure-bias.html>

References #3 – EMR and its insidiousness.

"The truth about mobile phone and wireless radiation" -- Dr Devra Davis

<https://youtu.be/BwyDCHf5iCY>

CASUALTIES OF WAVES - A film by Jean-Yves BILIEN

<https://www.youtube.com/watch?v=DjGazbVRqpc>

References #4 – Dr. Richard Horton on the Reproducibility and Reliability of Medical Research.

Dr. Richard Horton, Editor, The Lancet - *What is Medicine's 5 Stigma?* - The Lancet Vol. 385, April 11th 2015.

<https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736%2815%2960696-1.pdf>

References #5 – When industry war games scientists.

Henry Lai - *Cell Phones and Cancer* – TalkingStickTV, June 23rd 2011.

<https://youtu.be/NZl2MSHDKls>

Henry Lai - Biological Effects of Radiofrequency Fields - Department of Bioengineering, University of Washington, Seattle, WA -

https://beyondradiation.blogs.com/mblog/files/henry_lai_emf_health_london_rrt.pdf

Franz Adlkofer - Suppressing the Science on Cellphones – International expert conference on cellphones and health, Washington D.C., September 2009.

<https://youtu.be/B9ycyWd8GMs>

Mark Hertsgaard - *How Big Wireless War-Gamed the Science on Risks, While Making Customers Addicted to Their Phones* – Democracynow.org, April 6th 2018.

<https://youtu.be/un-vXIzIIOo>

References #6 – A brief introduction to EMR and its biological effects.

George Carlo, Martin Schram - *Cell Phones: Invisible Hazards in the Wireless Age: An Insider's Alarming Discoveries about Cancer and Genetic Damage* - Basic Books, 2002. ISBN: 978-0786709601

Claire Edwards - UN Staff Member: 5G Is War on Humanity – takebackyourpower.net, January 2019.

https://takebackyourpower.net/un-staff-member-5g-is-war-on-humanity/#_edn3

Grigoriev Y. - Bioeffects of modulated electromagnetic fields in the acute experiments. - Russian National Committee for Non-Ionizing Radiations Protection, 2004.

<http://bemri.org/publications/biological-effects-of-non-ionizing-radiation/78-grigoriev-bioeffects07/file.html>

Governments and organizations that ban or warn against wireless technology – Cellphonetaskforce.org, 2018.

<http://www.cellphonetaskforce.org/governments-and-organizations-that-ban-or-warn-against-wireless-technology/>

Henry Lai - *Mechanism mediating biological effects of radiofrequency fields* - Department of Bioengineering, University of Washington, 2017.

https://www.radiationresearch.org/wp-content/uploads/2017/04/Henri_Lay_Stavanger.pdf

Dr. R.S. Sharma, Indian government Senior Deputy Director General & Scientist of the Indian Council of Medical Research - *Ongoing Research from the Indian Medical Research Council on Cell Phones and Health* – George Washington University, June 9th 2015.

<https://ehtrust.org/wp-content/uploads/2015/05/Dr.Sharma.pdf>

Cindy Sage, David Carpenter et al. - “*The Bioinitiative Report*” - 2007

https://www.bioinitiative.org/report/wp-content/uploads/pdfs/sec01_2007_summary_for_public.pdf

Cindy Sage, David Carpenter et al. - “*The Bioinitiative Report*” - 2012

<http://bioinitiative.info/bioInitiativeReport2012.pdf>

Arthur Firstenberg - *5G Space Appeal calling for a ban on 5G technology both on earth and in space signed by 525 scientists 354 doctors 906 organizations and 40'422 individuals from 110 countries* - September 2018.

<https://www.5gspaceappeal.org/about/>

218 international scientists and doctors from 41 nations co-sign “The 5G appeal” - 2017

<http://www.5gappeal.eu/scientists-and-doctors-warn-of-potential-serious-health-effects-of-5g/>

The International Doctors’ Appeal (Freiburger Appeal). 2012.

<http://freiburger-appell-2012.info/en/home.php?lang=EN>

230 international scientists co-sign “*The international EMF Scientist Appeal*” addressed to Antonio Guterres, Secretary-General of the UN – Tedros Adhanom, Director-General of the WHO - Joyce Msuya, Acting Executive Director of the UN Environment Program and Assistant Secretary-General of the UN, May 11th 2015.

https://emfscientist.org/images/docs/International_EMF_Scientist-Appeal.pdf

International Association of Firefighters - *Position on the Health Effects from Radio Frequency/Microwave (RF/MW) Radiation in Fire Department Facilities from Base Stations for Antennas and Towers for the Conduction of Cell Phone Transmissions* – August, 2004.

<http://www.iaff.org/HS/Facts/CellTowerFinal.asp>

Reykjavik Appeal on wireless technology in schools. Signed by 148 scientists, physicians and educators from 35 countries. 2017.

<http://www.stralskyddsstiftelsen.se/wp-content/uploads/2017/03/Reykjavik-Appeal-170224-2.pdf>

Dr. Martin Blank, author of "Overpowered" – *Testimony at Arizona Smart AMI AMR RF Transmitting Utility Meter Meeting 12th of December 2014*.

<https://www.youtube.com/watch?v=oHTXt-LMWIE&t=1365s>

Cindy Sage, David Carpenter et al. - *Reported Biological Effects from Radiofrequency Radiation at Low-Intensity Exposure (Cell Tower, Wi-Fi, Wireless Laptop and 'Smart' Meter RF Intensities)* – Bioinitiative report, 2012.

<https://bioinitiative.org/report/wp-content/uploads/pdfs/BioInitiativeReport-RF-Color-Charts.pdf>

Kevin Mottus – *Over 700 Studies Showing Health Effects from Cell Phone Radio Frequency Radiation* - US Brain Tumor Association. August 2016.

<http://kevinmottus.com/wp-content/uploads/2016/08/Cell-Phone-Studies.pdf>

References #7 – EMR and biological effects is old news.

Michaelson, Thomson Howland, - *Biologic effects of microwave exposure* - Radiation Control for Health and Safety Act of 1967, Hearings before the Committee of Commerce, U.S. Senate, 90th Congress, Second Session, S.2067. Washington D.C. 1967.

<https://apps.dtic.mil/dtic/tr/fulltext/u2/824242.pdf>

Glaser Z. - *Bibliography of reported biological phenomena (Effects) and clinical manifestations attributed to microwave and radio-frequency radiation*. - Naval Medical Research Institute, October 4th 1971.

<https://apps.dtic.mil/dtic/tr/fulltext/u2/750271.pdf>

Glaser Z. - *Bibliography of reported biological phenomena (Effects) and clinical manifestations attributed to microwave and radio-frequency radiation*. - Naval Medical Research Institute, September 27th 1976.

<https://ehtrust.org/wp-content/uploads/Naval-MRI-Glaser-Report-1976.pdf>

Biological Effects of Non-ionizing Electromagnetic Radiation – A digest of current litterature – Franklin Research Center, Volume IV, Number 3, March 1980.

<https://apps.dtic.mil/dtic/tr/fulltext/u2/a082367.pdf>

Glaser Z. - *Cumulated index to the bibliography of reported biological phenomena ('effects') and clinical manifestations attributed to microwave and radio-frequency radiation: report, supplements (no. 1-9)*. BEMS newsletter (B-1 through B-464), 1971-1981.

<http://www.cellphonetaskforce.org/wp-content/uploads/2018/06/Zory-Glasers-index.pdf>.

Arthur W. Guy, IEEE – *History of the biological Effects of Electromagnetic Radiation*.

https://ethw.org/Biological_Effects_of_Electromagnetic_Radiation

References #8 – Biological effects in plants, animals, insects and microbes.

Afzal M. and Mansoor S, - *Effect of Mobile Phone Radiations on Morphological and Biochemical Parameters of Mung Bean (*Vigna radiata*) and Wheat (*Triticum aestivum*) Seedlings* - Asian Journal of Agricultural Sciences, January 2012.

<http://maxwellsci.com/print/ajas/v4-149-152.pdf>

Algiers B, Hennichs K (1983). *Biological effects of electromagnetic fields on vertebrates.* A review. Vet Res Commun; 6(4):265-79

<http://www.ncbi.nlm.nih.gov/pubmed/6359665>

Altmann, G. and Warnke, U. (1976), *Der Stoffwechsel von Bienen (*Apis mellifera L.*) im 50-Hz-Hochspannungsfeld.* Zeitschrift für Angewandte Entomologie, 80: 267–271. doi: 10.1111/j.1439-0418.1976.tb03324.x

<http://onlinelibrary.wiley.com/doi/10.1111/j.1439-0418.1976.tb03324.x/abstract>

Bacandritsos N, Granato A, Budge G, Papanastasiou I, Roinioti E, Caldon M, Falcaro C, Gallina A, Mutinelli F. (2010) Sudden deaths and colony population decline in Greek honey bee colonies. J Invertebr Pathol. Sep 23

<http://www.ncbi.nlm.nih.gov/pubmed/20804765>

Balmori A. (2009). Electromagnetic pollution from phone masts. Effects on wildlife. Pathophysiology 16. 191–199. doi:10.1016/j.pathophys.2009.01.007.

<http://wifiinschools.org.uk/resources/Balmori+2009.pdf>

Balmori A. (2009b) *The incidence of electromagnetic pollution on wild mammals: A new “poison” with a slow effect on nature?* The Environmentalist . 30 (1), pg. 90-97.

<http://www.springerlink.com/content/e03764404274q481/>

Balmori A. (2010). *Mobile phone mast effects on common frog (*Rana temporaria*) tadpoles: the city turned into a laboratory.* Electromagn Biol Med. 29(1-2):31-5.

<http://www.ncbi.nlm.nih.gov/pubmed/20560769>

Balmori, A (2010). *The incidence of electromagnetic pollution on wild mammals: A new “poison” with a slow effect on nature?* The Environmentalist. 30(1): 90-97. DOI:10.1007/s10669-009-9248-y

<http://www.springerlink.com/content/e03764404274q481/>

Balmori, A and Ö. Hallberg, (2007) *The urban decline of the house sparrow (*Passer domesticus*):a possible link with electromagnetic radiation.* Electromagn. Biol. Med. 26 141–151.

<http://www.ncbi.nlm.nih.gov/pubmed/17613041>

Balmori, A. (2005) *Possible effects of electromagnetic fields from phone masts on a populationof white stork (*Ciconia ciconia*)*, Electromagn. Biol. Med. 24 109–119.

www.buergerwelle.de/pdf/effects_of_emf_on_white_stork.pdf

Balmori, A. (2006) *The incidence of electromagnetic pollution on the amphibian decline: Is this an important piece of the puzzle?* Toxicological Environmental Chemistry 88(2): 287–299.

<http://www.ingentaconnect.com/content/tandf/gtec/2006/00000088/00000002/art00010;jsessionid=45daaaisp3s1s.alexandra>

Balode, S. (1996). *Assessment of radio-frequency electromagnetic radiation by the micronucleus test in bovine peripheral erythrocytes.* Sci. Total. Environm. 180: 81-85.

<http://www.ncbi.nlm.nih.gov/pubmed/8717319>

Bastide M, Youbicier-Simo BJ, Lebecq JC, Giaimis J. (2001). *Toxicologic study of electromagnetic radiation emitted by television and video display screens and cellular telephones on chickens and mice.* Indoor Built Environ 10:291–8.

<http://ibe.sagepub.com/content/10/5/291.abstract>

Batellier F, I. Couty, D. Picard, J.P. Brillard (2008). *Effects of exposing chicken eggs to a cell phone in “call”position over the entire incubation period.* Theriogenology 69: 737–745

<http://www.ncbi.nlm.nih.gov/pubmed/18255134>

Beason, RC and P. Semm (2002). Responses of neurons to an amplitude modulated microwavestimulus Neuroscience Letters 333: 175–178.

<http://www.ncbi.nlm.nih.gov/pubmed/12429376>

Becker RO (1984). Electromagnetic Controls Over Biological Growth Processes. Electromagnetic Biology and Medicine 3(1-2). 105-118.

<http://informahealthcare.com/doi/abs/10.1080/15368378409035962>

Begall S, Cerveny J, Neef J, Vojtech O, Burda H. (2008). *Magnetic alignment in grazing and resting cattle and deer*. Proc Natl Acad Sci 105(36):13451-5.

<http://www.ncbi.nlm.nih.gov/pubmed/18725629>

Berman, E. L., Chacon, D., House, B., Koch, A., Koch, W. E., et al. (1990). *Development of chicken embryos in a pulsed magnetic field*. Bioelectromagnetics 11:169–187.

<http://www.ncbi.nlm.nih.gov/pubmed/2242052>

Bernabò N, E. Tettamanti, V. Russo, A. Martelli, M. Turriani, M. Mattoli, B. Barboni (2010). Theriogenology. 73(9):1293-1305

[http://www.theriojournal.com/article/S0093-691X\(10\)00047-6/abstract](http://www.theriojournal.com/article/S0093-691X(10)00047-6/abstract)

Bigu J. (1973) National Research Centre of Canada. Extract from Ltr-CS-113 “Interaction of electromagnetic fields and living systems with special reference to birds.”

<http://www.ncbi.nlm.nih.gov/pubmed/16724328>

Bigu-del-Blanco and Romero-Sierra (1975) *The properties of bird feathers as converse piezoelectric transducers and as receptors of microwave radiation. I. Bird feathers as converse piezoelectric transducers* Biotelemetry 2:341-353.

<http://www.ncbi.nlm.nih.gov/pubmed/1235241?dopt=AbstractPlus>

Bigu-del-Blanco and Romero-Sierra (1975). *The properties of bird feathers as converse piezoelectric transducers and as receptors of microwave radiation. II. Bird feathers as dielectric receptors of microwave radiation*. Biotelemetry 2:354-634

<http://www.ncbi.nlm.nih.gov/pubmed/1242004?dopt=AbstractPlus>

Bindokas VP, Gauger JR, Greenberg B. (1988). *Mechanism of biological effects observed in honey bees (*Apis mellifera*, L.) hived under extra-high-voltage transmission lines: implications derived from bee exposure to simulated intense electric fields and shocks.* Bioelectromagnetics. 9(3):285-301.

<http://www.ncbi.nlm.nih.gov/pubmed/3178903?dopt=Abstract>

Blackman CF, House DE, Benane SG, Joines WT, Spiegel RJ. (1988). *Effect of ambient levels of power-line-frequency electric fields on a developing vertebrate.* Bioelectromagnetics ;9(2):129–140

<http://www.ncbi.nlm.nih.gov/pubmed/3377861>

Briefing Paper on the Need for Research into the Cumulative Impacts of Communication Towers on Migratory Birds and Other Wildlife in the United States. April 7th 2009.

<https://electromagnetichealth.org/pdf/CommTowerResearchNeedsPublicBriefing-2-409.pdf>

Broomhall, Mark - *Report for UNESCO and IUCN – Report detailing the exodus of species from the Mt. Nardi area of the Nightcap National Park World Heritage Area during a 15-year period (2000-2015).*

<https://ehtrust.org/wp-content/uploads/Mt-Nardi-Wildlife-Report-to-UNESCO-FINAL.pdf>

Bruder B., Boldt A. (1994). Homing pigeons under radio influence. Naturewissenschaften 81(7):316–17.

<http://www.springerlink.com/content/0028-1042/81/7/>

Bryan TE, Gildersleeve RP. (1988). *Effects of nonionizing radiation on birds.* Comp Biochem Physiol A Comp Physiol. 89(4):511-30.

<http://www.ncbi.nlm.nih.gov/pubmed/2899470>

Burchard, J. F., H. Monardes, and D. H. Nguyen. (2003). *Effect of 10kV, 30 µT, 60 Hz Electric and Magnetic Fields on Milk Production and Feed Intake in Nonpregnant Dairy Cattle.* Bioelectromagnetics 24:557-563.

<http://www.ncbi.nlm.nih.gov/pubmed/14603475>

Burchard, J. F., Nguyen, D. H. and Rodriguez, R. (2006). Plasma concentrations of thyroxine in dairy cows exposed to 60 Hz electric and magnetic fields. Bioelectromagnetics 27: 553–559

<http://www.ncbi.nlm.nih.gov/pubmed/9771588>

Burda H, S Begall, J Cervený, J Neef, and P Nemec (2009) *Extremely low-frequency electromagnetic fields disrupt magnetic alignment of ruminants*. PNAS. 106(14): 5708–5713.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2667019/>

Cammaerts MC, Debeir O, Cammaerts R. (2011). *Changes in Paramecium caudatum (Protozoa) near a switched-on GSM telephone*. Electromagn Biol Med. 30(1):57-66.

<http://informahealthcare.com/doi/abs/10.3109/15368378.2011.566778>

Cammaerts MC, P De Doncker, X Patris, F Bellens, Z Rachidi, D Cammaerts (2012). *GSM900 MHz radiation inhibits ants' association between food sites and encountered cues*. Electromagnetic Biology and Medicine. Posted online on January 23, 2012. (doi:10.3109/15368378.2011.624661)

<http://informahealthcare.com/doi/abs/10.3109/15368378.2011.624661>

Cammaerts Marie-Claire, Johansson Olle - *Ants can be used as bio-indicators to reveal biological effects of electromagnetic waves from some wireless apparatus*. Electromagn Biol Med. 2014;33(4):282-288. doi: 10.3109/15368378.2013.817336.

Carlo, G. Speaks: *Radiation Is Killing the Bees Despite the Cell Phone Industry's Disinformation Campaign* – June 2007.

https://www.buergerwelle.de/assets/files/radiation_is_killing_the_bees.htm?cultureKey=&q=pdf/radiation_is_killing_the_bees.htm

Clark MW, Gildersleeve RP, Thaxton JP, Parkhurst CR, McRee DI. (1987). *Leukocyte numbers in hemorrhaged Japanese quail after microwave irradiation in ovo*. Comp Biochem Physiol AComp Physiol. 87(4):923-32.

<http://www.ncbi.nlm.nih.gov/pubmed/2887391>

Colin ME, D. Richard, S. Chauzy (1991). *Measurement of Electric Charges Carried by Bees: Evidence of Biological Variations*. Electromagnetic Biology and Medicine 10(1-2): 17–32.

<http://informahealthcare.com/doi/abs/10.3109/15368379109031397>

Corbet, SA, J Beament, and D Eisikowitch (1982). *Are electrostatic forces involved in pollen transfer?* Plant, Cell, and Environ. 5: 125-129.

<http://onlinelibrary.wiley.com/doi/10.1111/1365-3040.ep11571488/abstract>

Cramer, G. (2007). HAARP Transmissions May Accidentally be Jamming Bees Homing Ability

<http://www.hyperstealth.com/haarp/index.htm>

Daniells, C., Duce, I Thomas, D., Sewell, P., Tattersall, J., & de Pomerai, D. (1998). Transgenic nematodes as biomonitor of microwave-induced stress. Mutation Research, 399(1), 55-64.

<http://www.ncbi.nlm.nih.gov/pubmed/9635489>

Delgado JMR (1985). *Biological Effects of Extremely Low Frequency Electromagnetic Fields*. Electromagnetic Biology and Medicine, 4(1): 75–92

<http://informahealthcare.com/doi/abs/10.3109/15368378509040362>

Doherty and Grubb, (1996). *Effects of high-voltage power lines on birds breeding within the power lines electromagnetic fields*. Sialia 18:129–134

<http://audubon-omaha.org/bbbox/nabs/pdtg1.htm>

Dongre S.D. and R.G.Verma (2009). Effect Of Cell Phone Radiation On Gauriya Sparrows Passer Domesticus. International Research Journal Vol. II, Issue -7

<http://ssmrae.com/admin/images/ddf68afa10cc9d1545ce7a5f0460bddf.pdf>

Durfee WK, Polk C, Smith LT, Yates VJ. (1975). Extremely Low Frequency Electric and Magnetic Fields in Domestic Birds. University of Rhode Island, Technical Report, Phase I (Continuous Wave), March 1, 1975.

Edwards, D. K. (1961). Influence of electrical field on pupation and oviposition in *Nepytiophantasmaria* stkr. (Lepidoptera, Geometridae). *Nature* 191, 976-993.

<http://www.nature.com/nature/journal/v191/n4792/abs/191976a0.html>

Eskov EK.(2006). [Destabilization of the cardiac function of an insect by a low-frequency electric field]. *Biofizika*. 51(1):153-5. [Article in Russian].

<http://www.ncbi.nlm.nih.gov/pubmed/16521566>

Eskov EK., Sapozhnikov AM (1976). [Mechanisms of generation and perception of electric fields by honey bees.] *Biophysik* 21(6): 1097-1102. [Article in Russian]

<http://www.ncbi.nlm.nih.gov/pubmed/1009204>

Everaert, J. & D. Bauwens, (2007) *A possible effect of electromagnetic radiation from mobile phone base stations on the number of breeding House Sparrows (Passer domesticus)*, *Electromagn. Biol. Med.* 26 63–72.

<http://www.ncbi.nlm.nih.gov/pubmed/17454083>

Farrell, J. M., Litovitz, T. L., Penafiel, M., Montrose, C.J., Doinov, P., Barber, M., Brown, K.M., and Litovitz, T. A. (1997). The effect of pulsed and sinusoidal magnetic fields on the morphology of developing chick embryos. *Bioelectromagnetics* 18:431–438.

<http://www.ncbi.nlm.nih.gov/pubmed/9261540>

Favre, D. (2011). Mobile phone-induced honeybee worker piping. *Apidologie*.

<http://www.springerlink.com/content/bx23551862212177/fulltext.pdf>

Fernie KJ, Reynolds SJ. (2005). The effects of electromagnetic fields from power lines on avian reproductive biology and physiology: a review. *Toxicol Environ Health B Crit Rev*. 8(2):127-40.

http://www.ierp.bham.ac.uk/documents/pub_Fernie_and_Reynolds_2005.pdf

Fernie, K.J., D.M. Bird, R.D. Dawson, P.C. Lague, (2000) *Effects of electromagnetic fields on the reproductive success of American kestrels*, Physiol. Biochem. Zool. 73 60–65.

<http://www.ncbi.nlm.nih.gov/pubmed/10685907>

Fernie, K.J. & D.M. Bird, (1999) Effects of electromagnetic fields on body mass and food-intake of American kestrels, Condor 101 616–621.

http://www.avaate.org/IMG/pdf/fernrie_cernicalos.pdf

Fernie, K.J. & D.M. Bird, (2001) *Evidence of oxidative stress in American kestrels exposed to electromagnetic fields*, Environ. Res. A 86 198–207.

<http://www.ncbi.nlm.nih.gov/pubmed/11437466>

Fernie, K.J., D M Bird, and D Petitclerc. (1999). Effects of electromagnetic fields on photophasic circulating melatonin levels in American kestrels. Environ Health Perspect.107(11): 901–904.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1566687/>

Fernie, K.J., N.J. Leonard, D.M. Bird. (2000). *Behavior of free-ranging and captive American kestrels under electromagnetic fields*, J. Toxicol. Environ. Health, Part A 59. 597–603.

<http://www.ncbi.nlm.nih.gov/pubmed/10839495>

Friend AW, E. D. Finch and H. P. Schwan. (1975). *Low frequency electric field induced changes in the shape and motility of amoebas*. Science, 187: 357-359.

<http://www.ncbi.nlm.nih.gov/pubmed/1111109>

Gabar, A.A. (2010). Biological Effects of Electromagnetic Radiation. PhD Thesis. Agricultural University of Athens.

http://dspace.hua.gr/xmlui/bitstream/handle/10329/817/Gabr_A.pdf?sequence=1

Galvin MJ, McRee DI, Hall CA, Thaxton JP, Parkhurst CR. (1981). *Humoral and cell-mediated immune function in adult Japanese Quail following exposure to 2.45-GHz microwave radiation during embryogeny*. Bioelectromagnetics. 2(3):269-78.

<http://www.ncbi.nlm.nih.gov/pubmed/7306223>

Gildleeve RP, Bryan TE, Galvin MJ, McRee DI, Thaxton JP. (1988). *Serum enzymes in hemorrhaged Japanese quail after microwave irradiation during embryogeny*. Comp Biochem Physiol A Comp Physiol. 89(4):531-4.

<http://www.ncbi.nlm.nih.gov/pubmed/2899471>

Gildersleeve RP, MJGalvin, DI McRee, JP Thaxton (1986). *Response of Japanese quail to hemorrhagic stress after exposure to microwave radiation during embryogeny*. Comp Biochem Physiol A Comp Physiol. 85(4): 679-687.

<http://www.ncbi.nlm.nih.gov/pubmed?term=2879671>

Gildersleeve RP, Satterlee DG, McRee DI, Bryan TE, Parkhurst CR. (1988). *Plasmacorticosterone in hemorrhaged Japanese quail after microwave irradiation in ovo*. Comp Biochem Physiol A Comp Physiol. 89(3):415-24.

<http://www.ncbi.nlm.nih.gov/pubmed/2896572>

Gonet, B., Kosik-Bogacka, D.I., Kuźna-Grygiel, W. (2009). *Effects of extremely low-frequency magnetic fields on the oviposition of Drosophila melanogaster over three generations*. Bioelectromagnetics. 30(8):687-9.

<http://www.ncbi.nlm.nih.gov/pubmed/19630039>

Goodman, E.M., Greenbaum, B., and Marron, M.T. (1976). *Effects of extremely low frequency electromagnetic fields on Physarum polycephalum*. Radiat. Res. 66:531.

[http://www.jstor.org/discover/10.2307/3574457?
uid=3738776&uid=2&uid=4&sid=47698820671907](http://www.jstor.org/discover/10.2307/3574457?uid=3738776&uid=2&uid=4&sid=47698820671907)

Graue, L.C. (1975). *Orientation of homing pigeons (Columba livia) exposed to electromagnetic fields at Project Sanguine's Wisconsin test facility*. In Compilation of Navy Sponsored ELF Biomedical and Ecological Research Reports, vol. I. Bethesda, Md: Naval Research and Development Command.

Greenberg B, J. C. Kunich, V. P. Binokas. (1978). *Effect of High Voltage Transmission on Honeybees, paper presented at 18th Annual Life Sciences Symposium*, Richland, Wn., October 16-18, 1978.

Greenberg, B., Bindokas, V. P., and Gaujer, J. R. (1981). *Biological effects of a 760 kV transmission line: Exposures and thresholds in honeybee colonies*. Bioelectromagnetics 2:315

<http://onlinelibrary.wiley.com/doi/10.1002/bem.2250020404/abstract>

Grefner, N. M., Yakovleva, T. L., Boreysha, I. K. (1998). *Effects of electromagnetic radiation on tadpole development in the common frog (Rana temporaria L.)*. Russian J. Ecol. 29:133– 134.

Grigoriev Iu G. (2003). Biological effects of mobile phone electromagnetic field on chick embryo (risk assessment using the mortality rate). Radiats Biol Radioecol 43:541–3.

<http://www.ncbi.nlm.nih.gov/pubmed/14658287>

Haggerty K. - Adverse influence of radio frequency background on trembling aspen seedlings: Preliminary observations. International Journal of Forestry Research, 2010; Article ID 836278.

<http://downloads.hindawi.com/journals/ijfr/2010/836278.pdf>

Hamann, H.-J., Schmidt, K.-H., and Wiltschko, W. (1998). *Mögliche Wirkungen elektrischer und magnetischer Felder auf die Brutbiologie von Vögeln am Beispiel einer Population von Höhlenbrütenden Singvögeln an einer Stromtrasse*. Z. Vogelk. Natursch. Hessen VogelUmwelt 9:215–246.

Hamrick PE, McRee DI, Thaxton P, Parkhurst CR. (1977). Humoral immunity of Japanese quail subjected to microwave radiation during embryogeny. Health Phys. 33(1):23-33. [No abstract]

<http://www.ncbi.nlm.nih.gov/pubmed/893100>

Harst W., Kuhn J., Stever H.. (2006). *Can electromagnetic exposure cause a change in behaviour? Studying possible non-thermal influences on honey bees- An approach within the frame work of Educational Informatics*. Acta Systematica – IIAS Intern. J. 6:1–6.

http://www.bemri.org/publications/cat_view/2-publications/5-biological-effects-of-non-ionizing-radiation/17-wildlife.html

Hässig M, Jud F, Spiess B. (2012). *Increased occurrence of nuclear cataract in the calf after erection of a mobile phone base station.* Schweiz Arch Tierheilkd. 154(2):82-6. [Article in German]

<http://www.ncbi.nlm.nih.gov/pubmed/22287140>

Hässig, M. Jud, F. Naegeli, H. Kupper, J. Spiess, B M. (2009). *Prevalence of nuclear cataract in Swiss veal calves and its possible association with mobile telephone antenna base stations.* Schweizer Archiv für Tierheilkunde. 151.10.471

<http://www.ncbi.nlm.nih.gov/pubmed/19780007>

Hillman, D., Charles Goeke, and Richard Moser. (2004). *Electric and magnetic fields (EMFs) affect milk production and behavior of cows: Results using shielded-neutral isolation transformer.* 12th Int. Conf. On Production Diseases in Farm Animals, Mich. State Univ., College of Veterinary Medicine, July 2004, East Lansing, MI 48824. (Video-DVD available).

Hillman, D., D Stetzer, M Graham, CL. Goeke, K E. Mathson, EE, H H. VanHorn, C J. Wilcox,(2003). *Relationship of Electric Power Quality to Milk Production of Dairy Herds.* Presentation Paper No.033116, American Society of Agricultural Engineers, International Meeting, July 27-30, 2003, Las Vegas, NV, USA.

<https://www.ncbi.nlm.nih.gov/pubmed/23416176>

Hjeresen, D. L., Miller, M. C., Kaune, K. T. and Phillips, R. D. (1982). A behavioral response of swine to a 60 Hz electric field. Bioelectromagnetics 3, 443-451.

<http://onlinelibrary.wiley.com/doi/10.1002/bem.2250030407/abstract>

Hultgren, J. (1990a). *Small electric currents affecting farm animals and man: A review with special reference to stray voltage. I. Electrical properties of the body and the problem of stray voltage.* Veterinary Research Communications, 14:287-298. ©Kluwer Pub., Netherlands.

<http://www.springerlink.com/content/x848210574v142m7/>

Hultgren, J. 1990b. *Small electric currents affecting farm animals and man: A review with special reference to stray voltage. II. Physiological effects and the concept of stress.* Veterinary Research Communications, 14:299-308. ©Kluwer Academic Publishers – Netherlands

<http://www.springerlink.com/content/x848210574v142m7/>

Hynek Burda, S Begall, J Cervený, J Neef, and P Nemec (2009) *Extremely low-frequency electromagnetic fields disrupt magnetic alignment of ruminants.* PNAS. 106(14):5708-13

<http://www.ncbi.nlm.nih.gov/pubmed/19299504>

Ingole IV and , S. K. Ghosh (2006). *Exposure to radio frequency radiation emitted by cell phone and mortality in chick embryos (*Gallus domesticus*).* Biomedical Research 17(3): 205-210

<http://www.alliedacademies.org/articles/exposure-to-radio-frequency-radiation-emitted-by-cell-phone-and-mortality-in-chick-embryos-gallus-domesticus.html>

Janac B Selaković V, Rauš S, Radenović L, Zrnić M, Prolić Z. (2012) *Temporal patterns of extremely low frequency magnetic field-induced motor behaviour changes in Mongoliangerbils of different age,* Int J Radiat Biol. 2012 Jan 6.

<http://www.ncbi.nlm.nih.gov/pubmed/22221164>

Kimmel S, Kuhn J, Harst W, Stever H (2007). *Electromagnetic Radiation: Influences on Honeybees (*Apis mellifera*)* (IIAS – InterSymp Conference, Baden-Baden 2007)

http://www.hese-project.org/hese-uk/en/papers/kimmel_iaas_2007.pdf

Kirk, J. H., N.D. Reese, and P C. Bartlett. (1984). *Stray Voltage on Michigan Dairy Farms.* J.American Veterinary Assoc. 185(4): 426-428

<http://www.ncbi.nlm.nih.gov/pubmed/6469841>

Kirschvink JL, S. Padmanabha, CK Boyce, J. Oglesby (1997). *Measurement of the thresholdsensitivity of honeybees to weak, extremely low-frequency magnetic fields.* The Journal of Experimental Biology 200:1363–68

<http://jeb.biologists.org/content/200/9/1363.full.pdf+html>

Klimovitsky VYa, Loginov VA, Zagorskaya EA, Weissleder H, Drescher J, Hecht K. (1992). *The evaluation of biological efficiency of electromagnetic fields generated by implanted radiotelemetric transmitters used in space research on animals.* Physiologist. 35(1Suppl):S248-9.

<http://www.ncbi.nlm.nih.gov/pubmed?term=Hecht%20K.%20emf>

Korall, H., Leucht, T., & Martin, H. (1988). *Bursts of magnetic fields induce jumps of misdirection in bees by a mechanism of magnetic resonance.* Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 162(3), 279284. doi: 10.1007/BF00606116.

<http://www.springerlink.com/content/v6406173767q7445/>

Kordas D. - *Birds and Trees of Northern Greece: Changes since the Advent of 4G Wireless*, 2017.

<https://einarflydal.files.wordpress.com/2017/08/kordas-birds-and-trees-of-northern-greece-2017-final.pdf>

Krueger WF, A. J. Giarola, J. W. Bradley, and A. Shrekenhamer (1975). *Effects of Electromagnetic Fields on Fecundity in the Chicken*, Ann. N.Y. Acad. Sci., 247: 391.

<http://www.ncbi.nlm.nih.gov/pubmed/1054241>

Krylov, V.V. (2010). *Effects of electromagnetic fields on parthenogenic eggs of Daphnia magna Straus*. Ecotoxicology and Environmental Safety, 73(1): 62-66.

<http://www.ncbi.nlm.nih.gov/pubmed?term=19362370>

Kumar N. R., Sangwan S., Badotra P. (2011). Exposure to cell phone radiations produces biochemical changes in worker honey bees. Toxicol. Int.. 18:70–72.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3052591/>

Larkin RP and PJ Sutherland (1977) *Migrating birds respond to Project Seafarer'selectromagnetic field*. Science 25 February 1977: 195(4280): 777-9.

<http://www.sciencemag.org/content/195/4280/777.2.abstract>

Lefcourt, Alan M., and R. M. Akers. 1981. *Endocrine Response of Cows Subjected to Controlled Voltages During Milking*. J. Dairy Sci. 65:2125-2130. 88. Levingood, WC (1969). A new teratogenic agent applied to amphibian embryos. J. Embryol. Exp. Morphol. 21:23–31. <http://www.ncbi.nlm.nih.gov/pubmed/5765792>

Levin, M. (2003). *Bioelectromagnetics in morphogenesis*. Bioelectromagnetics 24:295–315.

<http://www.ncbi.nlm.nih.gov/pubmed/12820288>

Löscher, W. and Käs, G. (1998). *Conspicuous behavioural abnormalities in a dairy cow herd near a TV and Radio transmitting antenna*. Practical Veterinary surgeon, 29: 5, 437-444

www.croww.org/study-effects.pdf

Magone I. - The effect of electromagnetic radiation from the Skrunda Radio Location Station on Spirodela polyrhiza (L.) Schleiden cultures. The Science of the Total Environment, 1996, 180(1):75-80. doi: 0048-9697(95)04922-3.

Magras, I.N and T.D. Xenos, (1997) *RF-induced changes in the prenatal development of mice*, Bioelectromagnetics 18. 455–461.

<http://www.ncbi.nlm.nih.gov/pubmed/9261543>

Marks, T.A., C.C. Ratke and W.O. English. (1995). *Stray voltage and developmental,reproductive and other toxicology problems in dogs, cats and cows: a discussion*. Vet. Hum.Toxicol, 37: 163-172.

<http://www.ncbi.nlm.nih.gov/pubmed/7631499>

Marks, T.A., C.C. Ratke and W.O. English. (1995). *Stray voltage and developmental,reproductive and other toxicology problems in dogs, cats and cows: a discussion*. Vet. Hum.Toxicol, 37: 163-172.

<http://www.ncbi.nlm.nih.gov/pubmed/7631499>

Marsh, G. (1968). *The effect of 60-cycle AC current on the regeneration axis of Dugesia*. J. Exp. Zool. 169:65.

<http://onlinelibrary.wiley.com/doi/10.1002/jez.1401690109/abstract>

Maw, MG. (1962). *Behaviour of insects in electrostatic fields*. Proc. Entomol. Soc. Manitoba. 18:30-36.

McKinley G. M. and D.R. Charles (1930). *Certain biological effects of high frequency fields*, Science, 71: 490.

McKinley, G. M. (1930). *Some biological effects of high frequency electrostatic fields'*, Proc. Penn. Acad. Sci 46.

Meral I, Mert H, Mert N, Deger Y, Yoruk I, Yetkin A, Keskin S. (2007). *Effects of 900-MHz electromagnetic field emitted from cellular phone on brain oxidative stress and some vitamin levels of guinea pigs*. Brain Res. 1169:120-4.

<http://www.ncbi.nlm.nih.gov/pubmed/17674954>

Neurath, P. W. (1968). *High gradient magnetic field inhibits embryonic development of frogs*. Nature 219: 1358

Newland PL, E Hunt, SM Sharkh, N Hama, M Takahata, CW Jackson (2008). *Static electricfield detection and behavioural avoidance in cockroaches*. J Exp Biol 211, 3682-3690.

<http://jeb.biologists.org/content/211/23/3682.full>

Nicholls B, Racey PA. (2007). *Bats avoid radar installations: Could electromagnetic fields deter bats from colliding with wind turbines?* PloS ONE. 2(3):e297.

<http://www.ncbi.nlm.nih.gov/pubmed/17372629>

Nicholls B, Racey PA. (2009). *The aversive effect of electromagnetic radiation on foraging bats: a possible means of discouraging bats from approaching wind turbines*. PLoS One. 16;4(7):e6246

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2705803/?tool=pubmed>

Nittby H, Moghadam MK, Sun W, Malmgren L, Eberhardt J, Persson BR, Salford LG. (2011). *Analgetic effects of non-thermal GSM-1900 radiofrequency electromagnetic fields in the land snail Helix pomatia*. Int J Radiat Biol. 2011 Dec 20.

<http://www.ncbi.nlm.nih.gov/pubmed/22124250>

Nittby H, Brun A, Strömblad S, et al. - Nonthermal GSM RF and ELF EMF effects upon rat BBB permeability. - Environmentalist, 2011, 31(2):140-148.
doi: 10.1007/s10669-011-9307-z.

Olsen, R.G., (1997). *Insect teratogenesis in a standing-wave irradiation system.* RadioScience 12: 199-207.

<http://www.agu.org/pubs/crossref/1977/RS012i06Sp00199.shtml>

Orlov, V. M. (1990). *Invertebrates and high voltage power lines* -Electromagnetic Biology and Medicine 9(2): 121-131

<http://informahealthcare.com/doi/abs/10.3109/15368379009119800>

Orlov, V. M. and Babenko, A. S. (1988). *Effect of the electric field of high voltage transmission lines on land invertebrates.* Sov. J. Ecol. 18,267 -274

Panagopoulos D.J., Karabarbounis A., and Margaritis L.H., (2004). *Effect of GSM 900-MHz Mobile Phone Radiation on the Reproductive Capacity of Drosophila melanogaster,* Electromagnetic Biology and Medicine, 23(1), 29-43.

<http://www.ncbi.nlm.nih.gov/pubmed/17045516>

Margaritis LH, Manta AK, Kokkaliaris KD, et al. - Drosophila oogenesis as a bio-marker responding to EMF sources. Electromagnetic Biology Medicine, 2014; 33(3):165-189. doi: 10.3109/15368378.2013.800102

Otitoloju AA, Osunkalu VO, Oduware R, et al. - Haematological effects of radiofrequency radiation from GSM base stations on four successive generations (F1 – F4) of albino mice, Mus Musculus. - Journal of Environmental Occupation Science, 2012, 1(1):17-22.

<https://www.ejmanager.com/mnstemps/62/62-1332160631.pdf?t=1532966199>

Perumpral, J. V., Earp, U. F. and Stanley, J. M. (1978). *Effects of electrostatic fields on locational preference of house flies and flight activities of cabbage loopers.* Environ. Entomol. 7, 482-486.

<http://www.ingentaconnect.com/content/esa/envent/1978/00000007/00000003/art00032>

Prolić Z, R Jovanović, G Konjević, B Janać (2003). *Behavioral Differences of the Insect Morimus funereus (Coleoptera, Cerambycidae) Exposed to an Extremely Low Frequency Magnetic Field*. Electromagnetic Biology and Medicine 22(1): 63–73.

<http://informahealthcare.com/doi/abs/10.1081/JBC-120020358>

Prolić, Z., Jovanović, Z. (1986) [*Influence of magnetic field on the rate of development of honey bee preadult stage*]. Periodicum biologorum, Zagreb, 88: 187-188

Rejt L, Mazgajski T, Kubacki R, Kieliszek J, Sobiczevska E, Szmigielski S. (2007). Influence of radar radiation on breeding biology of tits (Parus sp.). Electromagn Biol Med .26(3):235-8.

<http://www.ncbi.nlm.nih.gov/pubmed/17886009>

Rochalska M (2009). The influence of electromagnetic fields on flora and fauna. Medycyna pracy 60(1):43-50 [Article in Polish] <http://ukpmc.ac.uk/abstract/MED/19603696>

Rochalska M (2007). The effect of electromagnetic fields on living organisms: plants, birdsand animals. Medycyna pracy 58(1):37-48 [Article in Polish]

<http://ukpmc.ac.uk/abstract/MED/17571627>

Rochalska M.(2007). *The effect of electromagnetic fields on living organisms: plants, birdsand animals*. Med Pr. 58(1):37-48. [Article in Polish]

<http://www.ncbi.nlm.nih.gov/pubmed/17571627>

116. Rodriguez, M., D. Petitclerc, J.F. Burchard, D.H. Nguyen, E. Block and B.R. Downey(2003). *Responses of the estrous cycle in dairy cows exposed to electric and magnetic fields(60 Hz) during 8-h photoperiods*. Anim. Reprod. Sci., 15: 11-20.

[http://www.journals.elsevierhealth.com/periodicals/anirep/article/S0378-4320\(02\)00273-7/abstract](http://www.journals.elsevierhealth.com/periodicals/anirep/article/S0378-4320(02)00273-7/abstract)

Sainudeen Sahib S. (2011). *Impact of mobile phones on the density of honeybees*. Journal of public administration and policy research 3(4) pp. 131-117.

<http://www.academicjournals.org/jhf/PDF/pdf2011/April/Sainudeen%20sahib.pdf>

Sainudeen Sahib. S (2010). *Electromagnetic Radiation (EMR) Clashes with Honey Bees*. International Journal of Environmental Sciences. 1(5). 897-900.

<http://ipublishing.co.in/jesvol1no12010/EIJES2044.pdf>

Salama N, Kishimoto T, Kanayama HO, Kagawa S. (2010). Effects of exposure to a mobile phone on sexual behavior in adult male rabbit: an observational study, Int J Impot Res .22(2):12733

<http://www.ncbi.nlm.nih.gov/pubmed/19940851>

Savić T, Janać B, Todorović D, Prolić Z. (2011). *The embryonic and post-embryonic development in two Drosophila species exposed to the static magnetic field of 60 mT*. Electromagn Biol Med. 30(2):108-14.

<http://www.ncbi.nlm.nih.gov/pubmed/21591895>

Selga T, Selga M. - Response of pinus sylvestris L. needles to electromagnetic fields. Cytological and ultrastructural aspects - The Science of the Total Environment 180, 1996.

DOI: [10.1016/0048-9697\(95\)04921-5](https://doi.org/10.1016/0048-9697(95)04921-5)

Semm P. (1983) *Neurobiological investigation of the magnetic sensitivity of the pineal gland in rodents and pigeons*. Comp Biochem Physiol A 76:683–689

<http://www.sciencedirect.com/science/article/pii/0300962983901299>

Severini, M and Bosco, L. (2010). *Delayed maturation of Xenopus laevis (Daudin) tadpoles exposed to a weak ELF magnetic field: sensitivity to small variations of magnetic flux density*. Eur. J. Oncol. Library. 5: 247-60.

<http://www.emf-portal.de/viewer.php?l=g&aid=18903>

Sharma V.P. and N.R. Kumar (2010). *Changes in Honeybee Behaviour and Biology Under the Influence of Cellphone Radiations*. Current Science 98 (10). 1376-78.

http://www.bemri.org/publications/doc_view/286-changes-in-honeybee-behaviour-and-biology-under-the-influence-of-cellphone-radiations.raw?tmpl=component

Sheiman I. M., Kreshchenko N. D. (2009). Influence of weak electromagnetic field on different forms of behavior in grain beetle, *Tenebrio molitor*. - Article in Russian - Zh Vyssh Nerv Deiat Im I P Pavlova. Jul-Aug; 59(4):488-94.

<http://www.ncbi.nlm.nih.gov/pubmed/19795812>

Shutenko, O. I., et al. (1981). Effects of super-high electromagnetic fields on animals of different ages. *Gigiyena i Sanitariya*, no. 10:35-38, JPRS 84 221: 85-90.

Southern W. (1975). Orientation of Gull Chicks Exposed to Project Sanguine's Electromagnetic Field, *Science*, 189: 143.

<http://www.sciencemag.org/content/189/4197/143.short>

Stärk, K. D., Krebs, T., Altpeter, E., Manz, B., Griot, C., & Abelin, T. (1997). *Absence of chronic effect of exposure to short-wave radio broadcast signal on salivary melatonin concentrations in dairy cattle*. *Journal of Pineal Research*, 22(4), 171-6.

<http://www.ncbi.nlm.nih.gov/pubmed/9247202>

Summers-Smith, J.D. (2003). *The decline of the house sparrow: a review*. *Brit. Birds* 96:439–446. <http://www.ndoc.org.uk/articles/passerine1.htm>

Taheri M, Mortazavi SM, Moradi M, et al. - *Evaluation of the effect of radiofrequency radiation emitted from Wi-Fi router and mobile phone simulator on the antibacterial susceptibility of pathogenic bacteria Listeria monocytogenes and Escherichia coli*. *Dose Response*. -2017, doi: 10.1177/1559325816688527

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5298474>

Tanner J.A. (1969) National Research centre of Canada Extract from LTR-CS-18. “*Effects of microwave radiation on Parakeets in Flight*”

Tanner J.A., C. Romero-Sierra (1982). *The Effects of Chronic Exposure to Very Low Intensity Microwave Radiation on Domestic Fowl*. *Electromagnetic Biology and Medicine*. 1(2): 195–205.

<http://informahealthcare.com/doi/abs/10.3109/15368378209040336>

Tanner JA, Romero-Siena C. and Davie, SJ. (1969). *The effects of microwave on birds: preliminary experiments*. Journal of Microwave Power. 4(2): 122. (Cited in McRee 1972).
Tanner JA, C. Romero-Sierra and S.J. Davie (1969) - *The Effects of Microwaves on Birds: Preliminary Experiments*. JMPEE 4(2): 122-28.

http://www.jmpee.org/JMPEE_PDFs/04-2_bl/JMPEE-Vol4-Pg122-Tanner.pdf

Tanner JA. (1966). *Effect of microwave radiation on birds*. Nature. 7; 210(5036):636.

<http://www.ncbi.nlm.nih.gov/pubmed/5964569>

Tanner, J.A. & DR. Sierra, romero (1973) Dept of Anatomy, Queen University, Kingston Canada Extract from LTR- Cs-89. "Bird Feathers as Dialectic Receptors of Microwave Radiation."

Temuryants NA, Demtsun NA (2010). *Seasonal differences in the regeneration of planariansunder conditions of long-term electromagnetic shielding*. Biophysics 55(4): 628-632. <http://www.springerlink.com/content/h34v2v174357v524/>

Ubeda, A., J Leal, M A Trillo, M A Jimenez, and J M Delgado. (1983). *Pulse shape of magnetic fields influences chick embryogenesis*. Anat. 137(Pt 3): 513–536.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1171845/pdf/janat00207-0069.pdf>

Úbeda, A; M.A. Trillo, L. Chacón, M.J. Blanco, J. Leal (1994). *Chick embryo developmentcan be irreversibly altered by early exposure to weak extremely-low-frequency magneticfields* - Bioelectromagnetics 15 (1994) 385–398.

<http://www.ncbi.nlm.nih.gov/pubmed/7802707>

Walker MM and M.E. Bitterman (1989). *Honeybees Can Be Trained to Respond to Very Small Changes in Geomagnetic Field Intensity*. J. Exp. Biology 145, 489-494

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1851986/>

Warnke U. (1976). *Effects of electric charges on honeybees Effects of electric charges on honey bees*. - Bee World 57(2):50-56.

<http://bemri.org/publications/biological-effects-of-non-ionizing-radiation.html>

Warnke . U. (2007). *Birds, Bees and Mankind. Destroying Nature by 'Electrosmog' - The Competence Initiative for the Humanity, Environment and Democracy. Brochure 1.*

https://www.naturalscience.org/wp-content/uploads/2015/01/kompetenzinitiative-ev_study_bees-birds-and-mankind_04-08_english.pdf

Wasserman et al. (1984) *The effects of microwave radiation on avian dominance behavior* - Bioelectromagnetics 5:331-339

<http://www.ncbi.nlm.nih.gov/pubmed/6487384?dopt=Abstract>

Watson DB (1988). *The bouncing of Drosophila melanogaster in power frequency electric fields* - New Zealand Entomologist 11(1): 21–24

http://www.ento.org.nz/nzentomologist/free_issues/NZEnto11_1_1988/Volume%2011-21-24.pdf

Weisbrot D, Lin H, Ye L, Blank M, Goodman R. (2003). *Effects of mobile phone radiation on reproduction and development in Drosophila melanogaster*. J Cell Biochem. 1;89(1):48-55 <http://www.ncbi.nlm.nih.gov/pubmed/12682907>

Wellenstein, G. (1973). The influence of high tension lines on honey bee colonies. Zeitschrift fur Angewandte Entomologie, 74, 86-94

Williams, T.C. (1976). *A radar investigation of the effects of extremely low frequency electromagnetic fields on free flying migrant birds*. In *Compilation of Navy Sponsored ELF Biomedical and Ecological Research Reports*, vol. 3. Bethesda, Md.: Naval Research and Development Command.

Windle BC. (1895). The Effects of Electricity and Magnetism on Development. J Anat Physiol. 29(Pt 3): 346–351

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1328408/>

Youbicier-Simo, B. J, Boudard, F., Cabaner, C., and Bastide, M. (1997). *Biological effects of continuous exposure of embryos and young chickens to electromagnetic fields emitted by video display units*. Bioelectromagnetics 18:514–523.

[http://onlinelibrary.wiley.com/doi/10.1002/\(SICI\)1521-186X\(1997\)18:7%3C514::AID-BEM7%3E3.0.CO;2-5/abstract](http://onlinelibrary.wiley.com/doi/10.1002/(SICI)1521-186X(1997)18:7%3C514::AID-BEM7%3E3.0.CO;2-5/abstract)

Zareen N, Khan MY. (2008). *Effect of mobile phone induced electromagnetic fields on the development of chick embryo.* J Coll Physicians Surg Pak. 18(8):528-9.
<http://www.ncbi.nlm.nih.gov/pubmed/18798598>

Zareen N, MYKhan, LA Minhas (2009). *Dose Related Shifts In The Developmental Progress Of Chick Embryos Exposed To Mobile Phone Induced Electromagnetic Fields.* J Ayub Med Coll Abbottabad. 21(1): 130-34.

<http://www.ncbi.nlm.nih.gov/pubmed/20364761>

Stindl R, Stindl W Jr. (2010) *Vanishing honey bees: Is the dying of adult worker bees a consequence of short telomeres and premature aging?*, Med Hypotheses. 75(4):387-90.

Van Engelsdorp D, Hayes J Jr, Underwood RM, Pettis J. (2008) A survey of honey bee colony losses in the U.S., fall 2007 to spring 2008. PLoS One. 3(12):e4071.

Vian A., Davies E., Gendraud M. and Bonnet P. - Plant Responses to High Frequency Electromagnetic Fields - BioMed Research International, 2016.

<http://dx.doi.org/10.1155/2016/1830262>

Erickson, EH (1975). *Surface electric potentials on worker honeybees leaving and entering the hive.* J. Apic. Res. 14: 141-147.

References #9 – Health impacts of EMR.

Endocrine, including neuroendocrine systems, impacted by non-thermal EMF exposures:

Glaser ZR, PhD. 1971 Naval Medical Research Institute Research Report, June 1971. *Bibliography of Reported Biological Phenomena ("Effects") and Clinical Manifestations Attributed to Microwave and Radio-Frequency Radiation.* Report No. 2 Revised.

https://scholar.google.com/scholar?q=Glaser+naval+medical+microwave+radio-frequency+1972&btnG=&hl=en&as_sdt=0%2C38

Tolgskaya MS, Gordon ZV. 1973. *Pathological Effects of Radio Waves,* Translated from Russian by B Haigh. Consultants Bureau, New York/London, 146 pages.

Raines, J. K. *Electromagnetic Field Interactions with the Human Body: Observed Effects and Theories*. Greenbelt, Maryland: National Aeronautics and Space Administration 1981; 116 p.

Hardell, L., Sage, C. *Biological effects from electromagnetic field exposure and public exposure standards*. Biomed. Pharmacother. 62, 104-109. 2008

Makker K, Varghese A, Desai NR, Mouradi R, Agarwal A. *Cell phones: modern man's nemesis?* Reprod Biomed Online 18:148-157. 2009

Gye MC, Park CJ. *Effect of electromagnetic field exposure on the reproductive system*. Clin Exp Reprod Med 39:1-9. 2012 doi.org/10.5653/cerm.2012.39.1.1

Pall, M. L. 2015. Scientific evidence contradicts findings and assumptions of Canadian Safety Panel 6: *microwaves act through voltage-gated calcium channel activation to induce biological impacts at non-thermal levels, supporting a paradigm shift for microwave/lower frequency electromagnetic field action*. Rev. Environ. Health 3, 99-116.

Sangün Ö, Dündar B, Çömlekçi S, Büyükgelibiz A. *The Effects of Electromagnetic Field on the Endocrine System in Children and Adolescents*. Pediatr Endocrinol Rev 13:531-545. 2016

Hecht, Karl. *Health Implications of Long-Term Exposures to Electrosmog*. Brochure 6 of A Brochure Series of the Competence Initiative for the Protection of Humanity, the Environment and Democracy. 2016

http://www.kompetenzinitiative.net/KIT/wp-content/uploads/2016/07/KI_Brochure-6_K_Hecht_web.pdf

Asghari A, Khaki AA, Rajabzadeh A, Khaki A. *A review on Electromagnetic fields (EMFs) and the reproductive system*. Electron Physician. 2016 Jul 25;8(7):2655-2662. doi: 10.19082/2655. 2016

Pall ML. *Wi-Fi is an important threat to human health*. Environ Res 164:404-416. 2018.

Wilke I. *Biological and pathological effects of 2.45 GHz on cells, fertility, brain and behavior*. Umwelt Medizin Gesselsha; 2018 Feb 31 (1).

Effects of radiofrequency EMF exposure on reproduction and development:

Avendaño, Mata AM, Sanchez Sarmiento CA. *Use of laptop computers connected to the internet through Wi-Fi deceases human sperm motility and increases sperm DNA fragmentation.* Fertil Steril 97: No. 1, January 2012 0015-8282.

Agarwal A, Desai NR, Makker K, Varghese A, Mouradi R, Sabanegh E, Sharma R. *Effects of radiofrequency electromagnetic waves (RF-EMW) from cellular phones on human ejaculated semen: an in vitro pilot study.* Fertil Steril 92: 1318-1325. 2008

Erogul O, Oztas E, Yildirim U, Kir T, Emin A, Komeski G, Irkilata, HC, Irmak MK, Peker AF. *Effects of electromagnetic radiation from cellular phone on human sperm motility.* Arch Med Res 37:840-843. 2006.

Wdowiak A, Wdowiak L, Wiktor H. *Evaluation of the effect of using mobile phones on male fertility.* Ann Agric Environ Med 2007, 14: 169-172. 2007.

Oni OM, Amuda DB, Gilbert CE *Effects of radiofrequency radiation from WiFi devices on human ejaculated semen.* Int J Res Rev Appl Sci 9 (2): 292-294. 2011.

Houston BJ, Nixon B, King BV, De Iuliis GN, Aitken RJ *The effects of radiofrequency electromagnetic radiation on sperm function.* Reproduction 152 (6): R263-R276. 2016.

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

Zalata A, El-Samanoudy AZ, Shaalan D, El-Baiomy Y, Mostafa T. - *In vitro effect of cell phone radiation on motility, DNA fragmentation and clusterin gene expression in human sperm.* Int J Fertil Steril 9 (1): 129-136. 2015.

Gorpinchenko I, Nikitin O, Banya O, Shulyak A. *The influence of direct mobile phone radiation on sperm quality.* Cent European J Urol 67 (1): 65-71. 2014.

Wang D, Li B, Liu Y, Ma YF, Chen SQ, Sun HJ, Dong J, Ma XH, Zhou J, Wang XH *Impact of mobile phone radiation on the quality and DNA methylation of human sperm in vitro.* Zhonghua Nan Ke Xue 21 (6): 515-520. 2015.

Baste V, Riise T, Moen BE *Radiofrequency electromagnetic fields; male infertility and sex ratio of offspring*. Eur J Epidemiol 23 (5): 369-377. 2008.

Davoudi M, Brossner C, Kuber W. *Influence of electromagnetic waves on sperm motility*. J Urol Urogynaekol 9 (3): 18-22. 2002.

Fejes I, Zavaczki Z, Szollosi J, Koloszar S, Daru J, Kovacs L, Pal A *Is there a relationship between cell phone use and semen quality?* Arch Androl 51 (5): 385-393. 2005.

Goldsmith JR. 1997 *Epidemiologic evidence relevant to radar (microwave) effects*. Environ Health Perspect. 1997 Dec;105 Suppl 6:1579-87.

Mahmoudabadi FS, Ziae S, Firoozabadi M, Kazemnejad A. 2015 *Use of mobile phone during pregnancy and the risk of spontaneous abortion*. J Environ Health Sci Eng. 2015 Apr 21;13:34. doi: 10.1186/s40201-015-0193-z.

Mortazavi SMJ, Mortazavi SA, Paknahad M. 2012 *Association between electromagnetic field exposure and abortion in pregnant women living in Tehran*. Int J Reprod Biomed (Yazd) 2017 Feb;15(2):115-116

Liu XY, Bian XM, Han JX, Cao ZJ, Fan GS, Zhang C, Zhang WL, Zhang SZ, Sun XG. 2007 *Risk factors in the living environment of early spontaneous abortion pregnant women*. J Zhongguo Yi Xue Ke Xue Yuan Xue Bao. 2007 Oct;29(5):661-4.

Zhou LY, Zhang HX, Lan YL, Li Y, Liang Y, Yu L, Ma YM, Jia CW, Wang SY. *Epidemiological investigation of risk factors of the pregnant women with early spontaneous abortion in Beijing*. Chin J Integr Med. 2017 May;23(5):345-349. doi: 10.1007/s11655-015-2144-z. Epub 2015 Apr 14.

Prenatal exposure to EMF non-thermal radiation can produce neurological effects:

Aldad TS, Gan G, Gao X-B, Taylor HS. 2012 *Fetal radiofrequency radiation from 800-1900 MH-rated cellular telephone affects neurodevelopment and behavior in mice*. Scientific Rep 2, article 312.

Othman, H., Ammari, M., Rtibi, K., Bensaid, N., Sakly, M., Abdelmelek, H. 2017. *Postnatal development and behavior effects of in-utero exposure of rats to radiofrequency waves emited from conventional WiFi devices*. Environ. Toxicol. Pharmacol. 52:239-247. doi:10.1016/j.etap.2017.04.016.

Bas O, Sönmez OF, Aslan A, Ikinci A, Hancı H, Yıldırım M, Kaya H, Akça M, Odacı E. 2013 *Pyramidal Cell Loss in the Cornu Ammonis of 32-day-old Female Rats Following Exposure to a 900 Megahertz Electromagnetic Field During Prenatal Days 13-21*. Neuroquantology 11: 591-599.

Kumari K, Koivisto H, Myles C, Jonne N, Map V, Heikki T, Jukka J. 2017 *Behavioural phenotypes in mice after prenatal and early postnatal exposure to intermediate frequency magnetic fields*. Environ Res 162: 27-34.

Ferreira AR1, Knakievicz T, Pasquali MA, Gelain DP, Dal-Pizzol F, Fernández CE, de Salles AA, Ferreira HB, Moreira JC. - Ultra high frequency-electromagnetic field irradiation during pregnancy leads to an increase in erythrocytes micronuclei incidence in rat offspring. - Life Sciences, 2006 Dec 3;80(1):43-50. DOI: 10.1016/j.lfs.2006.08.018

Othman H, Ammari M, Sakly M, Abdelmelek H. 2017 *Effects of prenatal exposure to WIFI signal (2.45GHz) on postnatal development and behavior in rat: Influence of maternal restraint*. Behav Brain Res 326: 291-302 doi: 10.1016/j.bbr.2017.03.011.

Stasinopoulou M, Fragopoulou AF, Stamatakis A, Mantziaras G, Skouroliakou K, Papassideri IS, Stylianopoulou F, Lai H, Kostomitsopoulos N, Margaritis LH. 2016 *Effects of pre- and postnatal exposure to 1880-1900 MHz DECT base radiation on development in the rat*. Reprod Toxicol 2016; 65: 248-262.

EMF exposure has important role in cancer causation:

Belyaev, I., 2005. Non-thermal biological effects of microwaves. Microwave Rev. 11, 13-29.

Belyaev, I., 2015. Biophysical mechanisms for nonthermal microwave effects. In: Markov M.S. (Ed), Electromagnetic Fields in Biology and Medicine, CRC Press, New York, pp 49-67.

Pall, M. L. 2015 Scientific evidence contradicts findings and assumptions of Canadian Safety Panel 6: microwaves act through voltage-gated calcium channel activation to induce biological impacts at non-thermal levels, supporting a paradigm shift for microwave/lower frequency electromagnetic field action. Rev. Environ. Health 3, 99-116. doi: 10.1515/reveh-2015-0001.

Neurological and neuropsychiatric effects of non-thermal EMF exposures both in animals and in humans:

Marha K. 1966 *Biological Effects of High-Frequency Electromagnetic Fields* (Translation). ATD Report 66-92. July 13, 1966 (ATD Work Assignment No. 78, Task 11).

<http://www.dtic.mil/docs/citations/AD0642029>

Glaser ZR, PhD. 1971 *Naval Medical Research Institute Research Report, June 1971. Bibliography of Reported Biological Phenomena ("Effects") and Clinical Manifestations Attributed to Microwave and Radio-Frequency Radiation.* Report No. 2 Revised.

https://scholar.google.com/scholar?q=Glaser+naval+medical+microwave+radio-frequency+1972&btnG=&hl=en&as_sdt=0%2C38

Tolgskaya MS, Gordon ZV. 1973. *Pathological Effects of Radio Waves, Translated from Russian by Haigh.* Consultants Bureau, New York/London, 146 pages.

Bawin SM, Kaczmarek LK, Adey WR. 1975 . *Effects of modulated VHF fields on the central nervous system.* Ann NY Acad Sci 247:74-81.

Bise W. 1978 *Low power radio-frequency and microwave effects on human electroencephalogram and behavior.* Physiol Chem Phys 10:387-398.

Raines, J. K. 1981. Electromagnetic Field Interactions with the Human Body: Observed Effects and Theories. Greenbelt, Maryland: National Aeronautics and Space Administration 1981; 116 p.

Frey AH. 1993 Electromagnetic field interactions with biological systems. FASEB J 7:272-281.

Lai H. 1994 Neurological effects of radiofrequency electromagnetic radiation. In: Advances in Electromagnetic Fields in Living Systems, Vol. 1, J.C. Lin, Ed., Plenum Press, New York, pp. 27-88.

Grigor'ev IuG. 1996 Role of modulation in biological effects of electromagnetic radiation. Radiats Biol Radioecol 36:659-670.

Lai, H 1998 Neurological effects of radiofrequency electromagnetic radiation.

http://www.mapcruzin.com/radiofrequency/henry_lai2.htm.

Valentini E, Curcio G, Moroni F, Ferrara M, De Gennaro L, M. Bertini M. 2007
Neurophysiological Effects of Mobile Phone Electromagnetic Fields on Humans:
A Comprehensive Review. Bioelectromagnetics 28:415-432.

Hardell, L., Sage, C. 2008. Biological effects from electromagnetic field exposure and public exposure standards. Biomed. Pharmacother. 62, 104-109.

Makker K, Varghese A, Desai NR, Mouradi R, Agarwal A. 2009 Cell phones: modern man's nemesis? Reprod Biomed Online 18:148-157.

Kundi M, Huger H-P. 2009 Mobile phone base stations—Effects on wellbeing and health. Pathophysiology 16:123-135.

Khurana VG, Hardell L, Everaert J, Bortkiewicz A, Carlberg M, Ahonen M. 2010
Epidemiological evidence for a health risk from mobile phone base stations. Int J Occup Environ Health 16:263-267.

Levig, B. B., Lai, H. 2010. Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays. Environ. Rev. 18, 369-395.
doi.org/10.1139/A10-018

Carpenter DO. 2013 Human disease resulting from exposure to electromagnetic fields. Rev Environ Health 2013;28:159-172.

Politański P, Bortkiewicz A, Zmyślony M. 2016 Effects of radio- and microwaves emited by wireless communication devices on the functions of the nervous system selected elements]. Med Pr 67:411-421.

Hensinger P, Wilke E. 2016. Mobilfunk-Studienergebnisse bestätigen Risiken
Studienrecherche 2016-4 veröffentlicht. Umwelt Medizin Gesellsha; 29:3/2016.

Pall ML. 2016 Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression. J Chem Neuroanat 75(Pt B):43-51. doi: 10.1016/j.jchemneu.2015.08.001.

Hecht, Karl. 2016 Health Implications of Long-Term Exposures to Electrosomog. Brochure 6 of A Brochure Series of the Competence Initiative for the Protection of Humanity, the Environment and Democracy.

http://kompetenzinitiative.net/KIT/wp-content/uploads/2016/07/KI_Brochure-6_K_Hecht_web.pdf

Sangün Ö, Dündar B, Çömlekçi S, Büyükgeliz A. 2016 The Effects of Electromagnetic Field on the Endocrine System in Children and Adolescents. *Pediatr Endocrinol Rev* 13:531-545.

Belyaev I, Dean A, Eger H, Hubmann G, Jandrisovits R, Kern M, Kundi M, Moshammer H, Lercher P, Müller K, Oberfeld G, Ohnsorge P, Pelzmann P, Scheingraber C, Thill R. 2016 EUROPAMED EMF Guideline 2016 for the prevention, diagnosis and treatment of EMF-related health problems and illnesses. *Rev Environ Health DOI 10.1515/reveh-2016-0011.*

Zhang J, Sumich A, Wang GY. 2017 Acute effects of radiofrequency electromagnetic field emitted by mobile phone on brain function. *Bioelectromagnetics* 38:329-338. doi: 10.1002/bem.22052.

Lai H. 2018. A Summary of Recent Literature (2007–2017) on Neurological Effects of Radio Frequency Radiation. Chapter 8 in Mobile Communications and Public Health, Marko Markov, Ed., CRC press, pp 185-220.

Pall ML. 2018 Wi-Fi is an important threat to human health. *Environ Res* 164:404-416.

Wilke I. 2018 Biological and pathological effects of 2.45 GHz on cells, fertility, brain and behavior. *Umwelt Medizin Gesellschaft*; 2018 Feb 31 (1).

Effects on cellular DNA including single-strand and double-strand breaks in cellular DNA and on oxidized bases in cellular DNA; also evidence for chromosomal mutations produced by double-strand DNA breaks:

Glaser ZR, PhD. 1971 Naval Medical Research Institute Research Report, June 1971. Bibliography of Reported Biological Phenomena (“Effects”) and Clinical Manifestations Attributed to Microwave and Radio-Frequency Radiation. Report No. 2 Revised.

https://scholar.google.com/scholar?q=Glaser+naval+medical+microwave+radio-frequency+1972&btnG=&hl=en&as_sdt=0%2C38

Goldsmith JR. 1997 Epidemiologic evidence relevant to radar (microwave) effects. Environ Health Perspect 105(Suppl 6):1579-1587.

Yakymenko IL, Sidorik EP, Tsybulin AS. 1999 Metabolic changes in cells under electromagnetic radiation of mobile communication systems. Ukr Biokhim Zh (1999), 2011 Mar-Apr:20-28.

Aitken RJ, De Iuliis GN. 2007 Origins and consequences of DNA damage in male germ cells. Reprod Biomed Online 14:727-733.

Hardell, L., Sage, C. 2008. Biological effects from electromagnetic field exposure and public exposure standards. Biomed. Pharmacother. 62, 104-109.

Hazout A, Menezo Y, Madelenat P, Yazbeck C, Selva J, Cohen-Bacrie P. 2008 [Causes and clinical implications of sperm DNA damages]. Gynecol Obstet Fer+1 ;36:1109-1117.

Phillips JL, Singh NP, Lai H. 2009 Electromagnetic fields and DNA damage. Pathophysiology 16:79-88.

Ruediger HW. 2009 Genotoxic effects of radiofrequency electromagnetic fields. Pathophysiology. 16:89-102.

Desai NR, Kesari KK, Agarwal A. 2009 Pathophysiology of cell phone radiation: oxidative stress and carcinogenesis with focus on the male reproductive system. Reproduct Biol Endocrinol 7:114.

Makker K, Varghese A, Desai NR, Mouradi R, Agarwal A. 2009 Cell phones: modern man's nemesis? Reprod Biomed Online 18:148-157.

Yakymenko I, Sidorik E. 2010 Risks of carcinogenesis from electromagnetic radiation and mobile telephony devices. Exp Oncol 32:729-736.

Yakimenco IL, Sidorik EP, Tsybulin AS. 2011 [Metabolic changes in cells under electromagnetic radiation of mobile communication systems]. Ukr Biokhim Zh (1999). 2011 Mar-Apr;83(2):20-28.

Gye MC, Park CJ. 2012 Effect of electromagnetic field exposure on the reproductive system. Clin Exp Reprod Med 39:1-9.
doi.org/10.5653/cerm.2012.39.1.1

Pall, ML. 2013. Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects. *J Cell Mol Med* 17:958-965. doi: 10.1111/jcmm.12088.

Pall, M. L. 2015 Scientific evidence contradicts findings and assumptions of Canadian Safety Panel 6: microwaves act through voltage-gated calcium channel activation to induce biological impacts at non-thermal levels, supporting a paradigm shift for microwave/lower frequency electromagnetic field action. *Rev. Environ. Health* 3, 99-116. doi: 10.1515/reveh-2015-0001.

Pall ML. 2016 Electromagnetic fields act similarly in plants as in animals: Probable activation of calcium channels via their voltage sensor. *Curr Chem Biol* 10:74-82

Hensinger P, Wilke E. 2016. Mobilfunk-Studienergebnisse bestätigen Risiken Studienrecherche 2016-4 veröffentlicht. Umwelt Medizin Gesellsha; 29:3/2016.

Houston BJ, Nixon B, King BV, De Iuliis GN, Aitken RJ. 2016 The effects of radiofrequency electromagnetic radiation on sperm function. *Reproduction* 152:R263-R276.

Batista Napotnik T, Reberšek M, Vernier PT, Mali B, Miklavčič D. 2016 Effects of high voltage nanosecond electric pulses on eukaryotic cells (*in vitro*): A systematic review. *Bioelectrochemistry*. 2016 Aug;110:1-12. doi: 10.1016/j.bioelechem.2016.02.011.

Asghari A, Khaki AA, Rajabzadeh A, Khaki A. 2016 A review on Electromagnetic fields (EMFs) and the reproductive system. *Electron Physician*. 2016 Jul 25;8(7):2655-2662. doi: 10.19082/2655.

Pall ML. 2018 How cancer can be caused by microwave frequency electromagnetic field (EMF) exposures: EMF activation of voltage-gated calcium channels (VGCCs) can cause cancer including tumor promotion, tissue invasion and metastasis via 15 mechanisms. Chapter 7 in *Mobile Communications and Public Health*, Marko Markov, Ed., CRC press, pp 163-184.

Pall ML. 2018 Wi-Fi is an important threat to human health. *Environ Res* 164:404-416.

Wilke I. 2018 Biological and pathological effects of 2.45 GHz on cells, fertility, brain and behavior. *Umwelt Medizin Gesselsha*; 2018 Feb 31 (1).

Lowered fertility, including tissue remodeling changes in the testis, lowered sperm count and sperm quality, lowered female fertility including ovarian remodeling, oocyte (follicle) loss, lowered estrogen, progesterone and testosterone levels (that is sex hormone levels), increased spontaneous abortion incidence, lowered libido:

Glaser ZR, PhD. 1971 Naval Medical Research Institute Research Report, June 1971. Bibliography of Reported Biological Phenomena ("Effects") and Clinical Manifestations Attributed to Microwave and Radio-Frequency Radiation. Report No. 2 Revised.

https://scholar.google.com/scholar?q=Glaser+naval+medical+microwave+radio-frequency+1972&btnG=&hl=en&as_sdt=0%2C38

Tolgskaya MS, Gordon ZV. 1973. Pathological Effects of Radio Waves, Translated from Russian by B Haigh. Consultants Bureau, New York/London, 146 pages.

Goldsmith JR. 1997 Epidemiological evidence relevant to radar (microwave) effects. Environ Health Perspect 105(Suppl 6):1579-1587.

Aitken RJ, De Iuliis GN. 2007 Origins and consequences of DNA damage in male germ cells. Reprod Biomed Online 14:727-733.

Hazout A, Menezo Y, Madelenat P, Yazbeck C, Selva J, Cohen-Bacrie P. 2008 [Causes and clinical implications of sperm DNA damages]. Gynecol Obstet Fertil ;36:1109-1117.

Makker K, Varghese A, Desai NR, Mouradi R, Agarwal A. 2009 Cell phones: modern man's nemesis? Reprod Biomed Online 18:148-157.

Desai NR, Kesari KK, Agarwal A. 2009 Pathophysiology of cell phone radiation: oxidative stress and carcinogenesis with focus on the male reproductive system. Reproduct Biol Endocrinol 7:114.

Kang N, Shang XJ, Huang YF. 2010 [Impact of cell phone radiation on male reproduction]. Zhonghua Nan Ke Xue 16:1027-1030.

Gye MC, Park CJ. 2012 Effect of electromagnetic field exposure on the reproductive system. Clin Exp Reprod Med 39:1-9. doi.org/10.5653/cerm.2012.39.1.1

La Vignera S, Condorelli RA, Vicari E, D'Agata R, Calogero AE. 2012 Effects of the exposure to mobile phones on male reproduction: a review of the literature. J Androl 33:350-356.

Carpenter DO. 2013 Human disease resulting from exposure to electromagnetic fields. Rev Environ Health 2013;28:159-172.

Naziroğlu M, Yüksel M, Köse SA, Özkaya MO. 2013 Recent reports of Wi-Fi and mobile phone-induced radiation on oxidative stress and reproductive signaling pathways in females and males. J Membr Biol 246:869-875.

Adams JA, Galloway TS, Mondal D, Esteves SC, Mathews F. 2014 Effect of mobile telephones on sperm quality: a systematic review and meta-analysis. Environ Int 70:106-112.

Liu K, Li Y, Zhang G, Liu J, Cao J, Ao L, Zhang S. 2014 Association between mobile phone use and semen quality: a systematic review and meta-analysis. Andrology 2:491-501.

K Sri N. 2015 Mobile phone radiation: physiological & pathophysiological considerations. Indian J Physiol Pharmacol 59:125-135.

Hensinger P, Wilke E. 2016. Mobilfunk-Studienergebnisse bestätigen Risiken Studienrecherche 2016-4 veröffentlicht. Umwelt Medizin Gesellschaft; 29:3/2016.

Houston BJ, Nixon B, King BV, De Iuliis GN, Aitken RJ. 2016 The effects of radiofrequency electromagnetic radiation on sperm function. Reproduction 152:R263-R276

Pall ML. 2018 Wi-Fi is an important threat to human health. Environ Res 164:404-416.

Wilke I. 2018 Biological and pathological effects of 2.45 GHz on cells, fertility, brain and behavior. Umwelt Medizin Gesellschaft; 2018 Feb 31 (1).

Neurological and neuropsychiatric effects:

Marha K. 1966 Biological Effects of High-Frequency Electromagnetic Fields (Translation). ATD Report 66-92. July 13, 1966 (ATD Work Assignment No. 78, Task 11).

<http://www.dtic.mil/docs/citations/AD0642029>

Glaser ZR, PhD. 1971 Naval Medical Research Institute Research Report, June 1971. Bibliography of Reported Biological Phenomena ("Effects") and Clinical Manifestations Attributed to Microwave and Radio-Frequency Radiation. Report No. 2 Revised.

https://scholar.google.com/scholar?q=Glaser+naval+medical+microwave+radio-frequency+1972&btnG=&hl=en&as_sdt=0%2C38

Tolgskaya MS, Gordon ZV. 1973. Pathological Effects of Radio Waves, Translated from Russian by Haigh. Consultants Bureau, New York/London, 146 pages.

Bawin SM, Kaczmarek LK, Adey WR. 1975 . Effects of modulated VHF fields on the central nervous system. Ann NY Acad Sci 247:74-81.

Bise W. 1978 Low power radio-frequency and microwave effects on human electroencephalogram and behavior. Physiol Chem Phys 10:387-398.

Raines, J. K. 1981. Electromagnetic Field Interactions with the Human Body: Observed Effects and Theories. Greenbelt, Maryland: National Aeronautics and Space Administration 1981; 116 p.

Frey AH. 1993 Electromagnetic field interactions with biological systems. FASEB J 7:272-281.

Lai H. 1994 Neurological effects of radiofrequency electromagnetic radiation. In: Advances in Electromagnetic Fields in Living Systems, Vol. 1, J.C. Lin, Ed., Plenum Press, New York, pp. 27-88.

Grigor'ev IuG. 1996 [Role of modulation in biological effects of electromagnetic radiation]. Radiats Biol Radioecol 36:659-670.

Lai, H 1998 Neurological effects of radiofrequency electromagnetic radiation.

http://www.mapcruzin.com/radiofrequency/henry_lai2.htm.

Valentini E, Curcio G, Moroni F, Ferrara M, De Gennaro L, M. Bertini M. 2007 Neurophysiological Effects of Mobile Phone Electromagnetic Fields on Humans: A Comprehensive Review. Bioelectromagnetics 28:415-432.

Hardell, L., Sage, C. 2008. Biological effects from electromagnetic field exposure and public exposure standards. Biomed. Pharmacother. 62, 104-109.

Makker K, Varghese A, Desai NR, Mouradi R, Agarwal A. 2009 Cell phones: modern man's nemesis? Reprod Biomed Online 18:148-157.

Kundi M, Huger H-P. 2009 Mobile phone base stations—Effects on wellbeing and health. Pathophysiology 16:123-135.

Khurana VG, Hardell L, Everaert J, Bortkiewicz A, Carlberg M, Ahonen M. 2010 Epidemiological evidence for a health risk from mobile phone base stations. Int J Occup Environ Health 16:263-267.

Levig, B. B., Lai, H. 2010. Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays. Environ. Rev. 18, 369-395. doi.org/10.1139/A10-018

Carpenter DO. 2013 Human disease resulting from exposure to electromagnetic fields. Rev Environ Health 2013;28:159-172.

Politański P, Bortkiewicz A, Zmysłony M. 2016 [Effects of radio- and microwaves emitted by wireless communication devices on the functions of the nervous system selected elements]. Med Pr 67:411-421.

Hensinger P, Wilke E. 2016. Mobilfunk-Studienergebnisse bestätigen Risiken Studienrecherche 2016-4 veröffentlicht. Umwelt Medizin Gesellsha; 29:3/2016.

Pall ML. 2016 Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression. J Chem Neuroanat 75(Pt B):43-51. doi: 10.1016/j.jchemneu.2015.08.001.

Hecht, Karl. 2016 Health Implications of Long-Term Exposures to Electrosmog. Brochure 6 of A Brochure Series of the Competence Initiative for the Protection of Humanity, the Environment and Democracy.

http://kompetenzinitiative.net/KIT/wp-content/uploads/2016/07/KI_Brochure-6_K_Hecht_web.pdf

Sangün Ö, Dündar B, Çömlekçi S, Büyükgelbiz A. 2016 The Effects of Electromagnetic Field on the Endocrine System in Children and Adolescents. Pediatr Endocrinol Rev 13:531-545.

Belyaev I, Dean A, Eger H, Hubmann G, Jandrisovits R, Kern M, Kundi M, Moshammer H, Lercher P, Müller K, Oberfeld G, Ohnsorge P, Pelzmann P, Scheingraber C, Thill R. 2016 EUROPAMED EMF Guideline 2016 for the prevention, diagnosis and treatment of EMF-related health problems and illnesses. Rev Environ Health DOI 10.1515/reveh-2016-0011.

Zhang J, Sumich A, Wang GY. 2017 Acute effects of radiofrequency electromagnetic field emitted by mobile phone on brain function. Bioelectromagnetics 38:329-338. doi: 10.1002/bem.22052.

Lai H. 2018. A Summary of Recent Literature (2007–2017) on Neurological Effects of Radio Frequency Radiation. Chapter 8 in Mobile Communications and Public Health, Marko Markov, Ed., CRC press, pp 185-220.

Pall ML. 2018 Wi-Fi is an important threat to human health. Environ Res 164:404-416.

Wilke I. 2018 Biological and pathological effects of 2.45 GHz on cells, fertility, brain and behavior. Umwelt Medizin Gesellschaft; 2018 Feb 31 (1).

Apoptosis/cell death:

Glaser ZR, PhD. 1971 Naval Medical Research Institute Research Report, June 1971. Bibliography of Reported Biological Phenomena (“Effects”) and Clinical Manifestations Attributed to Microwave and Radio-Frequency Radiation. Report No. 2 Revised.

https://scholar.google.com/scholar?q=Glaser+naval+medical+microwave+radio-frequency+1972&btnG=&hl=en&as_sdt=0%2C38

Tolgskaya MS, Gordon ZV. 1973. Pathological Effects of Radio Waves, Translated from Russian by B Haigh. Consultants Bureau, New York/London, 146 pages.

Raines, J. K. 1981. Electromagnetic Field Interactions with the Human Body: Observed Effects and Theories. Greenbelt, Maryland: National Aeronautics and Space Administration 1981; 116 p.

Hardell L, Sage C. 2008. Biological effects from electromagnetic field exposure and public exposure standards. Biomed. Pharmacother. 62:104-109. doi: 10.1016/j.biopha.2007.12.004.

Makker K, Varghese A, Desai NR, Mouradi R, Agarwal A. 2009 Cell phones: modern man's nemesis? Reprod Biomed Online 18:148-157.

Levig, B. B., Lai, H. 2010. Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays. Environ. Rev. 18, 369-395. doi.org/10.1139/A10-018

Yakymenko I, Sidorik E. 2010 Risks of carcinogenesis from electromagnetic radiation and mobile telephony devices. Exp Oncol 32:729-736.

Yakimenko IL, Sidorik EP, Tsybulin AS. 2011 [Metabolic changes in cells under electromagnetic radiation of mobile communication systems]. Ukr Biokhim Zh (1999). 2011 Mar-Apr;83(2):20-28.

Pall, ML. 2013. Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects. J Cell Mol Med 17:958-965. doi: 10.1111/jcmm.12088.

Pall ML. 2016 Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression. J Chem Neuroanat 75(Pt B):43-51. doi: 10.1016/j.jchemneu.2015.08.001.

Batista Napotnik T, Reberšek M, Vernier PT, Mali B, Miklavčič D. 2016 Effects of high voltage nanosecond electric pulses on eukaryo+c cells (in vitro): A systema+c review. Bioelectrochemistry. 2016 Aug;110:1-12. doi: 10.1016/j.bioelechem.2016.02.011.

Asghari A, Khaki AA, Rajabzadeh A, Khaki A. 2016 A review on Electromagne+c fields (EMFs) and the reproductive system. Electron Physician. 2016 Jul 25;8(7):2655-2662. doi: 10.19082/2655.

Pall ML. 2018 Wi-Fi is an important threat to human health. Environ Res 164:404-416.

Oxidative stress/free radical damage (important mechanisms involved in almost all chronic diseases; direct cause of cellular DNA damage):

Salah MB, Abdelmelek H, Abderraba M. - Effects of olive leave extract on metabolic disorders and oxidative stress induced by 2.45 GHz WIFI signals. - Environ Toxicol Pharmacol. 2013 Nov;36(3):826-34. doi: 10.1016/j.etap.2013.07.013. Epub 2013 Aug 3.

Raines, J. K. 1981. Electromagnetic Field Interactions with the Human Body: Observed Effects and Theories. Greenbelt, Maryland: National Aeronautics and Space Administration 1981; 116 p.

Hardell, L., Sage, C. 2008. Biological effects from electromagnetic field exposure and public exposure standards. *Biomed. Pharmacother.* 62, 104-109.

Hazout A, Menezo Y, Madelenat P, Yazbeck C, Selva J, Cohen-Bacrie P. 2008 [Causes and clinical implications of sperm DNA damages]. *Gynecol Obstet Ferl* ;36:1109-1117

Makker K, Varghese A, Desai NR, Mouradi R, Agarwal A. 2009 Cell phones: modern man's nemesis? *Reprod Biomed Online* 18:148-157.

Desai NR, Kesari KK, Agarwal A. 2009 Pathophysiology of cell phone radiation: oxidative stress and carcinogenesis with focus on the male reproductive system. *Reproduct Biol Endocrinol* 7:114.

Yakymenko I, Sidorik E. 2010 Risks of carcinogenesis from electromagnetic radiation and mobile telephony devices. *Exp Oncol* 32:729-736.

Dasdag S, Akdag MZ. 2016 The link between radiofrequencies emitted from wireless technologies and oxidative stress. *J Chem Neuroanat* 75(Pt B):85-93.

Yakimenko IL, Sidorik EP, Tsybulin AS. 2011 [Metabolic changes in cells under electromagnetic radiation of mobile communication systems]. *Ukr Biokhim Zh* (1999). 2011 Mar-Apr;83(2):20-28.

Consales, C., Merla, C., Marino, C., et al. 2012. Electromagnetic fields, oxidative stress, and neurodegeneration. *Int. J. Cell Biol.* 2012: 683897.

LaVignera et al. 2012 La Vignera S, Condorelli RA, Vicari E, D'Agata R, Calogero AE. 2012 Effects of the exposure to mobile phones on male reproduction: a review of the literature. *J Androl* 33:350-356.

Pall, ML. 2013. Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects. *J Cell Mol Med* 17:958-965. doi: 10.1111/jcmm.12088.

Naziroğlu M, Yüksel M, Köse SA, Özkaya MO. 2013 Recent reports of Wi-Fi and mobile phone-induced radiation on oxidative stress and reproductive signaling pathways in females and males. *J Membr Biol* 246:869-875.

Pall, M. L. 2015. Scientific evidence contradicts findings and assumptions of Canadian Safety Panel 6: microwaves act through voltage-gated calcium channel activation to induce biological impacts at non-thermal levels, supporting a paradigm shift for microwave/lower frequency electromagnetic field action. *Rev. Environ. Health* 3, 99-116.

Yakymenko I, Tsybulin O, Sidorik E, Henshel D, Kyrylenko O, Kysylenko S. 2015 Oxidative mechanisms of biological activity of low-intensity radiofrequency radiation. *Electromagnetic Biol Med*: Early Online 1-16. ISSN: 1536-8378.

Hensinger P, Wilke E. 2016. Mobilfunk-Studienergebnisse bestätigen Risiken Studienrecherche 2016-4 veröffentlicht. *Umwelt Medizin Gesellsha*; 29:3/2016.

Houston BJ, Nixon B, King BV, De Iuliis GN, Aitken RJ. 2016 The effects of radiofrequency electromagnetic radiation on sperm function. *Reproduction* 152:R263-R276.
Pall ML. 2016 Electromagnetic fields act similarly in plants as in animals: Probable activation of calcium channels via their voltage sensor. *Curr Chem Biol* 10:74-82.

Ali Masoumi, Narges Karbalaei, S.M.J Mortazavi & Mohammad Shabani - Radiofrequency radiation emitted from Wi-Fi (2.4 GHz) causes impaired insulin secretion and increased oxidative stress in rat pancreatic islets. - *International Journal of Radiation Biology*, To link to this article:

<https://doi.org/10.1080/09553002.2018.1490039>

Wang H, Zhang X. 2017 Magnetic fields and reactive oxygen species. *Int J Mol Sci*. 2017 Oct 18;18(10). pii: E2175. doi: 10.3390/ijms18102175.

Pall ML. 2018 Wi-Fi is an important threat to human health. *Environ Res* 164:404-416.

Wilke I. 2018 Biological and pathological effects of 2.45 GHz on cells, fertility, brain and behavior. *Umwelt Medizin Gesselsha*; 2018 Feb 31 (1).

Thrivikraman G, Boda SK, Basu B. 2018 Unraveling the mechanistic effects of electric field stimulation towards directing stem cell fate and function: A tissue engineering perspective. *Biomaterials* 150:60-86. doi: 10.1016/j.biomaterials.2017.10.003

Endocrine (hormonal effects):

Glaser ZR, PhD. 1971 Naval Medical Research Institute Research Report, June 1971. Bibliography of Reported Biological Phenomena (“Effects”) and Clinical Manifestations Attributed to Microwave and Radio-Frequency Radiation. Report No. 2 Revised.

https://scholar.google.com/scholar?q=Glaser+naval+medical+microwave+radio-frequency+1972&btnG=&hl=en&as_sdt=0%2C38

Tolgskaya MS, Gordon ZV. 1973. Pathological Effects of Radio Waves, Translated from Russian by B Haigh. Consultants Bureau, New York/London, 146 pages.

Raines, J. K. 1981. Electromagnetic Field Interactions with the Human Body: Observed Effects and Theories. Greenbelt, Maryland: National Aeronautics and Space Administration 1981; 116 p.

Hardell, L., Sage, C. 2008. Biological effects from electromagnetic field exposure and public exposure standards. Biomed. Pharmacother. 62, 104-109.

Makker K, Varghese A, Desai NR, Mouradi R, Agarwal A. 2009 Cell phones: modern man's nemesis? Reprod Biomed Online 18:148-157.

Gye MC, Park CJ. 2012 Effect of electromagnetic field exposure on the reproductive system. Clin Exp Reprod Med 39:1-9. doi.org/10.5653/cerm.2012.39.1.1

Wilke I. 2018 Biological and pathological effects of 2.45 GHz on cells, fertility, brain and behavior. Umwelt Medizin Gesselsha; 2018 Feb 31 (1).

Pall, M. L. 2015. Scientific evidence contradicts findings and assumptions of Canadian Safety Panel 6: microwaves act through voltage-gated calcium channel activation to induce biological impacts at non-thermal levels, supporting a paradigm shift for microwave/lower frequency electromagnetic field action. Rev. Environ. Health 3, 99-116.

Sangün Ö, Dündar B, Çömlekçi S, Büyükgelibiz A. 2016 The Effects of Electromagnetic Field on the Endocrine System in Children and Adolescents. Pediatr Endocrinol Rev 13:531-545.

Hecht, Karl. 2016 Health Implications of Long-Term Exposures to Electrosomog. Brochure 6 of A Brochure Series of the Competence Initiative for the Protection of Humanity, the Environment and Democracy.

http://www.kompetenzinitiative.net/KIT/wp-content/uploads/2016/07/KI_Brochure-6_K_Hecht_web.pdf

Asghari A, Khaki AA, Rajabzadeh A, Khaki A. 2016 A review on Electromagnetic fields (EMFs) and the reproductive system. *Electron Physician.* 2016 Jul 25;8(7):2655-2662. doi: 10.19082/2655.

Pall ML. 2018 Wi-Fi is an important threat to human health. *Environ Res* 164:404-416.

Increased intracellular calcium (produces many pathophysiological, that is disease-causing, responses):

Adey WR. 1988 Cell membranes: the electromagnetic environment and cancer promotion. *Neurochem Res.* 13:671-677.

Walleczek, J. 1992. Electromagnetic field effects on cells of the immune system: the role of calcium signaling. *FASEB J.* 6: 3177-3185.

Adey, WR. 1993 Biological effects of electromagnetic fields. *J Cell Biochem* 51:410-416.

Frey AH. 1993 Electromagnetic field interactions with biological systems. *FASEB J* 7:272-281.

Funk RHW, Monsees T, Özkucur N. 2009 Electromagnetic effects—From cell biology to medicine. *Prog Histochem Cytochem* 43:177-264.

Yakymenko IL, Sidorik EP, Tsybulin AS. 1999 [Metabolic changes in cells under electromagnetic radiation of mobile communication systems]. *Ukr Biokhim Zh* (1999), 2011 Mar-Apr:20-28.

Gye MC, Park CJ. 2012 Effect of electromagnetic field exposure on the reproductive system. *Clin Exp Reprod Med* 39:1-9. doi.org/10.5653/cerm.2012.39.1.1

Pall, ML. 2013. Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects. *J Cell Mol Med* 17:958-965. doi: 10.1111/jcmm.12088.

Pall ML. 2014 Electromagnetic field activation of voltage-gated calcium channels: role in therapeutic effects. *Electromagn Biol Med*. 2014 Apr 8 doi: 10.3109/15368378.2014.906447.

Pall ML. 2015 How to approach the challenge of minimizing non-thermal health effects of microwave radiation from electrical devices. *International Journal of Innovative Research in Engineering & Management (IJIREM)* ISSN: 2350-0557, Volume-2, Issue -5, September 2015; 71-76.

Pall, M. L. 2015 Scientific evidence contradicts findings and assumptions of Canadian Safety Panel 6: microwaves act through voltage-gated calcium channel activation to induce biological impacts at non-thermal levels, supporting a paradigm shift for microwave/lower frequency electromagnetic field action. *Rev. Environ. Health* 3, 99-116. doi: 10.1515/reveh-2015-0001.

Pall ML. 2016 Electromagnetic fields act similarly in plants as in animals: Probable activation of calcium channels via their voltage sensor. *Curr Chem Biol* 10: 74-82.

Pall ML. 2016 Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression. *J Chem Neuroanat* 75(Pt B):43-51. doi: 10.1016/j.jchemneu.2015.08.001.

Batista Napotnik T, Reberšek M, Vernier PT, Mali B, Miklavčič D. 2016 Effects of high voltage nanosecond electric pulses on eukaryotic cells (in vitro): A systematic review. *Bioelectrochemistry*. 2016 Aug;110:1-12. doi: 10.1016/j.bioelechem.2016.02.011.

Asghari A, Khaki AA, Rajabzadeh A, Khaki A. 2016 A review on electromagnetic fields (EMFs) and the reproductive system. *Electron Physician*. 2016 Jul 25;8(7):2655-2662. doi: 10.19082/2655.

Thrivikraman G, Boda SK, Basu B. 2018 Unraveling the mechanistic effects of electric field stimulation towards directing stem cell fate and function: A tissue engineering perspective. *Biomaterials* 150:60-86. doi: 10.1016/j.biomaterials.2017.10.003

Cancer causation by EMF exposures:

Dwyer, M. J., Leeper, D. B. 1978 A Current Literature Report on the Carcinogenic Properties of Ionizing and Nonionizing Radiation. DHEW Publication (NIOSH) 78-134, March 1978.

Marino AA, Morris DH. 1985 Chronic electromagnetic stressors in the environment. A risk factor in human cancer. *J environ sci health C*3:189-219.

Adey WR. 1988 Cell membranes: the electromagnetic environment and cancer promotion. *Neurochem Res.*13:671-677.

Adey WR. 1990 Joint actions of environmental nonionizing electromagnetic fields and chemical pollution in cancer promotion. *Environ Health Perspect* 86:297-305.

Frey AH. 1993 Electromagnetic field interactions with biological systems. *FASEB J* 7:272-281.

Goldsmith JR. 1995 Epidemiological evidence of radiofrequency radiation (microwave) effects on health in military, broadcasting and occupational settings. *Int J Occup Environ Health* 1:47-57.

Goldsmith JR. 1997 Epidemiologic evidence relevant to radar (microwave) effects. *Env Health Perspect* 105(Suppl 6):1579-1587.

Kundi M, Mild K, Hardell L, Magsson M. 2004 Mobile telephones and cancer – a review of the epidemiological evidence. *J Toxicol Env Health, Part B* 7:351-384.

Kundi M. 2004 Mobile phone use and cancer. *Occup Env Med* 61:560-570.

Behari J, Paulraj R. 2007 Biomarkers of induced electromagnetic field and cancer. *Indian J Exp Biol* 45:77-85.

Hardell L, Carlberg M, Soderqvist F, Hansson Mild K. 2008 Meta-analysis of long-term mobile phone use and the association with brain tumors. *Int J Oncol* 32:1097-1103.

Khurana VG, Teo C, Kundi M, Hardell L, Carlberg M. 2009 Cell phones and brain tumors: a review including the long-term epidemiologic data. *Surg Neurol* 72:205-214.

Desai NR, Kesari KK, Agarwal A. 2009 Pathophysiology of cell phone radiation: oxidative stress and carcinogenesis with focus on the male reproductive system. *Reproduct Biol Endocrinol* 7:114.

Davanipour Z, Sobel E. 2009 Long-term exposure to magnetic fields and the risks of Alzheimer's disease and breast cancer: Further biological research. *Pathophysiology* 16:149-156.

Yakymenko I, Sidorik E. 2010 Risks of carcinogenesis from electromagnetic radiation and mobile telephony devices. *Exp Oncol* 32:729-736.

Carpenter DO. 2010 Electromagnetic fields and cancer: the cost of doing nothing. *Rev Environ Health* 25:75-80.

Giuliani L, Soffritti M (Eds). 2010 NON-THERMAL EFFECTS AND MECHANISMS OF INTERACTION BETWEEN ELECTROMAGNETIC FIELDS AND LIVING MATTER, RAMAZZINI INSTITUTE EUR. J. ONCOL. LIBRARY Volume 5, National Institute for the Study and Control of Cancer and Environmental Diseases "Bernardino Ramazzini" Bologna, Italy 2010, 400 page monograph.

Khurana, V. G., Hardell, L., Everaert, J., Bortkiewicz, A., Carlberg, M., Ahonen, M. 2010 Epidemiological evidence for a health risk from mobile phone base stations. *Int. J. Occup. Environ. Health* 16, 263-267.

Yakymenko, I., Sidorik, E., Kyrylenko, S., Chekhun, V. 2011. Long-term exposure to microwave radiation provokes cancer growth: evidences from radars and mobile communication systems. *Exp. Oncol.* 33(2), 62-70.

Bioinitiative Working Group, David Carpenter and Cindy Sage (eds). 2012 Bioinitiative 2012: A rationale for biologically-based exposure standards for electromagnetic radiation.

<http://www.bioinitiative.org/participants/why-we-care/>

Ledoigt G, Belpomme D. 2013 Cancer induction molecular pathways and HF-EMF irradiation. *Adv Biol Chem* 3:177-186.

Hardell L, Carlberg M. 2013 Using the Hill viewpoints from 1965 for evaluating strengths of evidence of the risk for brain tumors associated with use of mobile and cordless phones. *Rev Environ Health* 28:97-106. doi: 10.1515/reveh-2013-0006.

Hardell L, Carlberg M, Hansson Mild K. 2013 Use of mobile phones and cordless phones is associated with increased risk for glioma and acoustic neuroma. *Pathophysiology* 2013;20(2): 85-110.

Carpenter DO. 2013 Human disease resulting from exposure to electromagnetic fields. *Rev Environ Health* 2013;28:159-172.gj

Davis DL, Kesari S, Soskolne CL, Miller AB, Stein Y. 2013 Swedish review strengthens grounds for concluding that radiation from cellular and cordless phones is a probable human carcinogen. *Pathophysiology* 20:123-129.

Morgan LL, Miller AB, Sasco A, Davis DL. 2015 Mobile phone radiation causes brain tumors and should be classified as a probable human carcinogen (2A). *Int J Oncol* 46(5): 1865-1871.

Mahdavi M, Yekta R, Tackallou SH. 2015 Positive correlation between ELF and RF electromagnetic fields on cancer risk. *J Paramed Sci* 6(3), ISSN 2008-4978.

Grell K, Frederiksen K, Schüz J, Cardis E, Armstrong B, Siemiatycki J, Krewski DR, McBride ML, Johansen C, Auvinen A, Hours M, Blegner M, Sadetzki S, Lagorio S, Yamaguchi N, Woodward A, Tynes T, Feychtung M, Fleming SJ, Swerdlow AJ,

Andersen PK. 2016 The Intracranial Distribution of Gliomas in Relation to Exposure From Mobile Phones: Analyses From the INTERPHONE Study. *Am J Epidemiol* 184:818-828.

Carlberg M, Hardell L. 2017 Evaluation of Mobile Phone and Cordless Phone Use and Glioma Risk Using the Bradford Hill Viewpoints from 1965 on Association or Causation. *BioMed Res Int* 2017, Article ID 9218486.

<https://doi.org/10.1155/2017/9218486>

Bortkiewicz A, Gadzicka E, Szymczak W. 2017 Mobile phone use and risk for intracranial tumors and salivary gland tumors - A meta-analysis. *Int J Occup Med Environ Health* 30:27-43.

Bielsa-Fernández P, Rodríguez-Martin B. 2017 [Association between radiation from mobile phones and tumour risk in adults]. *Gac Sanit.* 2017 Apr 12. pii: S0213-9111(17)30083-3. Doi:10.1016/j.gaceta.2016.10.014.

Alegría-Loyola MA, Galnares-Olalde JA, Mercado M. 2017 [Tumors of the central nervous system]. Rev Med Inst Mex Seguro Soc 55:330-334.

Prasad M, Kathuria P, Nair P, Kumar A, Prasad K. 2017 Mobile phone use and risk of brain tumours: a systematic review of association between study quality, source of funding, and research outcomes. Neurol Sci. 2017 Feb 17. doi: 10.1007/s10072-017-2850-8.

Miller A. 2017 References on cell phone radiation and cancer.

<https://ehtrust.org/references-cell-phone-radio-frequency-radiation-cancer/>

Pall ML. 2018 How cancer can be caused by microwave frequency electromagnetic field (EMF) exposures: EMF activation of voltage-gated calcium channels (VGCCs) can cause cancer including tumor promotion, tissue invasion and metastasis via 15 mechanisms. Chapter 7 in: Mobile Communications and Public Health, Marko Markov, Ed., CRC Press, pp 163-184.

Hardell L. 2017 World Health Organization, radiofrequency radiation and health – a hard nut to crack (Review). Int J Oncol 51:405-413.

Studies which have found other biological effects:

Sultan Ayoub Meo, Yazeed Alsubaie, Zaid Almubarak, Hisham Almutawa, Yazeed AlQasem and Rana Muhammed Hasanato - Association of Exposure to Radio-Frequency Electromagnetic Field Radiation (RF-EMFR) Generated by Mobile Phone Base Stations with Glycated Hemoglobin (HbA1c) and Risk of Type 2 Diabetes Mellitus. - Int. J. Environ. Res. Public Health 2015, 12, 14519-14528

Kolomytseva, M. P., Gapeev, A. B., Sadovnikov, V. B., & Chemeris, N. K. (2002). Suppression of nonspecific resistance of the body under the effect of extremely high frequency electromagnetic radiation of low intensity. Biofizika, 47(1), 71-77.

<https://www.ncbi.nlm.nih.gov/pubmed/11855293>

Usichenko, T. I., Edinger, H., Gizhko, V. V., Lehmann, C., Wendt, M., & Feyerherd, F. (2006). Low-intensity electromagnetic millimeter waves for pain therapy. Evidence-based complementary and alternative medicine, 3(2), 201-207.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1475937/>

Ziskin, M. C. (2013). Millimeter waves: acoustic and electromagnetic. *Bioelectromagnetics*, 34(1), 3-14.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3522782/>

List of more than 1,000 recent scientific studies conducted by independent researchers from around the world concerning the biological effects of RF radiation. They include, Effects On Fetal And Newborn Development, Effects On Young Children, Brain Tumors, Parotid Gland Tumors, Other Malignancies, Effects On DNA, Neurological/Cognitive Effects, Effects On Male Fertility, Electromagnetic Sensitivity, Effects On Implanted Medical Devices, 5G Effects and Miscellaneous Articles.

<https://www.telecompowergrab.org/science.html>

Effects on Children:

Sage, C. & Burgio. - "Electromagnetic Fields, Pulsed Radiofrequency Radiation, and Epigenetics: How Wireless Technologies May Affect Childhood Development." *E. Child Development* (2017).

<https://www.ncbi.nlm.nih.gov/pubmed/28504324>

Sudan, M, et al. - "Prospective Cohort Analysis of Cellphone Use and Emotional and Behavioural Difficulties in Children." - *Journal of Epidemiology and Community Health* (2016).

<https://www.ncbi.nlm.nih.gov/pubmed/27217533>

Morgan, L. Lloyd, Santosh Kesari, and Devra Lee Davis. "*Why Children Absorb More Microwave Radiation than Adults: The Consequences.*" *Journal of Microscopy and Ultrastructure* 2, no. 4 (December 2014): 197-204.

<https://doi.org/10.1016/j.jmau.2014.06.005>

Byun, Yoon-Hwan, et al. - "Epidemiological Characteristics of Mobile Phone Ownership and Use in Korean Children and Adolescents." - *Environmental Health and Toxicology* 28 (2013).

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3909745/>

Li, De-Kun, et al. - "A Prospective Study of In-Utero Exposure to Magnetic Fields and the Risk of Childhood Obesity." - *Scientific Reports* 2.540 (2012).

<http://www.nature.com/articles/srep00540>

Schüz and Joachim - "Exposure to Extremely Low-Frequency Magnetic Fields and the Risk of Childhood Cancer: Update of the Epidemiological evidence." - *Progress in Biophysics and Molecular Biology* 107(3):339-42 (2011).

<http://www.sciencedirect.com/science/article/pii/S0079610711001076>

Divan, Kheifets, et al. - "Cell Phone Use and Behavioural Problems in Young Children." - *Journal of Epidemiol Community Health* 66(6):524-9 (2010).

https://www.researchgate.net/publication/49665228_Cell_phone_use_and_behavioural_problems_in_young_children

Feychting, Maria. - "Mobile Phones, Radiofrequency Fields, and Health Effects in Children-Epidemiological Studies." - *Progress in Biophysics and Molecular Biology* 107(3):343-348 (2010).

<http://www.sciencedirect.com/science/article/pii/S0079610711001210>

Thomas, Silke, et al. - Exposure to Radio-Frequency Electromagnetic Fields and Behavioral Problems in Bavarian Children and Adolescents." - *European Journal of Epidemiology* 25(2):135-41 (2009).

<http://link.springer.com/article/10.1007/s10654-009-9408-x>

Repacholi, et al. Deventer. - "The Sensitivity of Children to Electromagnetic Fields." *Journal of Pediatrics* 116(2):303-313 (2005).

<http://pediatrics.aappublications.org/content/116/2/e303>

Jakub Misek, Igor Belyaev, Viera Jakusova, Ingrid Tonhajzerova, Jan Barabas, and Jan Jakus - Heart Rate Variability Affected by Radiofrequency Electromagnetic Field in Adolescent Students *Bioelectromagnetics*. 39:277–288, 2018. doi: 10.1002/bem.22115.

Studies which have found that late prenatal EMF exposures in rodents produce long-term neurological changes which are maintained as adults, changes similar to those found in ADHD or autism:

Aldad TS, Gan G, Gao X-B, Taylor HS. 2012 Fetal radiofrequency radiation from 800-1900 MH-rated cellular telephone affects neurodevelopment and behavior in mice. *Scientific Rep* 2, article 312.

Othman, H., Ammari, M., Rabi, K., Bensaid, N., Sakly, M., Abdelmelek, H. 2017. Postnatal development and behavior effects of in-utero exposure of rats to radiofrequency waves emitted from conventional WiFi devices. *Environ. Toxicol. Pharmacol.* 52:239-247. doi: 10.1016/j.etap.2017.04.016.

Bas O, Sönmez OF, Aslan A, Ikinci A, Hancı H, Yıldırım M, Kaya H, Akça M, Odaci E. 2013 Pyramidal Cell Loss in the Cornu Ammonis of 32-day-old Female Rats Following Exposure to a 900 Megahertz Electromagnetic Field During Prenatal Days 13-21. *Neuroquantology* 11: 591-599.

Kumari K, Koivisto H, Myles C, Jonne N, Map V, Heikki T, Jukka J. 2017 Behavioural phenotypes in mice after prenatal and early postnatal exposure to intermediate frequency magnetic fields. *Environ Res* 162: 27-34

Othman H, Ammari M, Sakly M, Abdelmelek H. 2017 Effects of prenatal exposure to WIFI signal (2.45GHz) on postnatal development and behavior in rat: Influence of maternal restraint. *Behav Brain Res* 326: 291-302.

Stasinopoulou M, Fragopoulou AF, Stamatakis A, Mantziaras G, Skouroliakou K, Papassideri IS, Stylianopoulou F, Lai H, Kostomitsopoulos N, Margaritis LH. 2016 Effects of pre- and postnatal exposure to 1880-1900 MHz DECT base radiation on development in the rat. *Reprod Toxicol* 2016; 65: 248-262.

Twenge, Jean M. - Have Smartphones Destroyed a Generation? - The Atlantic, September 2017.

<https://www.theatlantic.com/amp/article/534198/>

Effects On Implanted Medical Devices

Seidman and Guag. - "Ad Hoc Electromagnetic Compatibility Testing of Non-Implantable Medical Devices and Radio Frequency Identification." Biomedical Engineering OnLine 12:71 (2013).

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3716957/>

Lakshmanadoss, Chinnachamy, et al. - "Electromagnetic Interference of Pacemakers." - Interchopen 229-252 (2011).

<http://cdn.intechopen.com/pdfs-wm/13783.pdf>

Censi, Calcagnini, et al. - "Interference Between Mobile Phones and Pacemakers: A Look Inside." - Annali dell'Istituto superiore di sanità 43(3):254-259 (2007).

<http://www.ncbi.nlm.nih.gov/pubmed/17938456>

Erdogan, Okan. - "Electromagnetic Interference on Pacemakers." - Indian Pacing and Electrophysiology Journal 2(3):74-78 (2002).

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1564060/>

Sousa, Klein, et al. - "Electromagnetic Interference in Patients with Implanted Cardioverter-Defibrillators and Implantable Loop Recorders." - Indian Pacing and Electrophysiology Journal 2(3):79-84 (2002).

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1564059/>

"Radiofrequency Interference with Medical Devices. A Technical Information Statement. IEEE Committee on Man and Radiation, Institute of Electrical and Electronics Engineers 17(3):111-4 (1998).

<http://www.ncbi.nlm.nih.gov/pubmed/9604711>

Ellenbogen and Wood. - "Cellular Telephones and Pacemakers: Urgent Call or Wrong Number?" - Journal of the American College of Cardiology 27(6):1478-9 (1996).

<http://www.ncbi.nlm.nih.gov/pubmed/8626961>

References #10 - electrosensitivity (ES) and electrohypersensitivity (EHS).

Rea WR, Pan Y, Yenyves EJ, Sujisawa I, Suyama N, Ross GH. 1991. *Electromagnetic field sensitivity*. J Bioelectr 10:241-256.

Havas M. 2006 *Electromagnetic hypersensitivity: biological effects of dirty electricity with emphasis on diabetes and multiple sclerosis*. Electromagn Biol Med 2006;25(4):259–68.

Havas M, et al. 2010 *Provocation study using heart rate variability shows microwave radiation from DECT phone affects autonomic nervous system*. In: Giuliani L, Soffrip M, editors. “Non-thermal Effects and Mechanisms of Interaction Between Electromagnetic Fields and Living Mager”, European J Oncology — Library. National Institute for the Study and Control of Cancer and Environmental Disease Bologna: Mapoli; 2010. pp. 273–300. 2010.

McCarty DE, et al. 2011 Electromagnetic hypersensitivity: evidence for a novel neurological syndrome. Int J Neurosci. 2011 Sep 5.

www.ncbi.nlm.nih.gov/pubmed/21793784

Abdel-Rassoul, El-Fateh, et al. - "Neurobehavioral Effects Among Inhabitants Around Mobile Phone Base Stations." - NeuroToxicology28(2):434-440 (2007).

<http://www.sciencedirect.com/science/article/pii/S0161813X06001835>

De Luca C, Raskovic D, Pacifico V, Thai JC, Korkina L. 2011 *The search for reliable biomarkers of disease in multiple chemical sensitivity and other environmental intolerances*. Int J Environ Res Public Health. 2011 Jul;8(7):2770-97. doi: 10.3390/ijerph8072770.

Genius and Lipp. - "Electromagnetic Hypersensitivity: Fact or Fiction?" - Science of the Total Environment 414(1):103-112 (2012).

<http://www.sciencedirect.com/science/article/pii/S0048969711012733>

Irigaray P, Caccamo D, Belpomme D. *Oxidative stress in electrohypersensitivity self-reporting patients: Results of a prospective in vivo investigation with comprehensive molecular analysis*. Int J Mol Med. 2018 Oct;42(4):1885-1898. doi: 10.3892/ijmm.2018.3774.

Liakouris, A. - "Radiofrequency (RF) Sickness in the Lilienfeld Study: An Effect of Modulated Microwaves?" - Archives of Environmental Health 236-238 (2010).

<https://www.tandfonline.com/doi/abs/10.1080/00039899809605701?journalCode=vzeh20>

Heuser G, Heuser SA. *Functional brain MRI in patients complaining of electrohypersensitivity after long term exposure to electromagnetic fields.* Rev Environ Health. 2017 Sep 26;32(3):291-299. doi: 10.1515/reveh-2017-0014.

Hietanen, Maila. - "Establishing the Health Risks of Exposure to Radiofrequency Fields Requires Multidisciplinary Research." - Scandinavian Journal of Work, the Environment, and Health 32(3):169-170 (2006).

http://www.sjweh.fi/show_abstract.php?abstract_id=994

Medeiros and Sanchez. - "Tinnitus and Cell Phones: The Role of Electromagnetic Radiofrequency Radiation." - Brazilian Journal of Otorhinolaryngology 82(1):97-104 (2016).

<http://www.sciencedirect.com/science/article/pii/S1808869415001639>

National Board of Health and Welfare (Socialstyrelsen). Environmental Health Report. Stockholm, Sweden, 2001, in Swedish.

Pall, Martin L. - "Microwave Frequency Electromagnetic Fields (EMFs) Produce Widespread Neuropsychiatric Effects Including Depression." - Journal of Chemical Neuroanatomy (2015).

https://www.researchgate.net/publication/281261829_Microwave_frequency_electromagnetic_fields_EMFs_produce_widespread_neuropsychiatric_effects_including_depression

Gomez-Perretta, Navarro, et al. - "Subjective Symptoms Related to GSM Radiation from Mobile Phone Base Stations: a Cross- Sectional Study." BMJ Open 3.12 (2013).

<http://bmjopen.bmj.com/content/3/12/e003836.full>

Schreier N, Huss A, Röösli M. *The prevalence of symptoms attributed to electromagnetic field exposure: a cross-sectional representative survey in Switzerland.* Sozial- und Präventivmedizin/Social and Preventive Medicine 51:202-209, 2006.

Schroeder E. *Stakeholder perspectives on amending the 26th Federal Emission Control Ordinance. Results of the nationwide telephone survey ordered by the Federal Office of Radiation Protection.* Schr/bba 04.02.26536.020, Munich, Germany, 2002, in German.

Levallois P, Neutra R, Lee G, Hristova L. *Study of self-reported hypersensitivity to electromagnetic fields in California.* Environmental Health Perspectives 110(suppl 4): 619-23, 2002.

Pfutzner, Helmut. - "Hot Nano Spots" as an Interpretation of So-Called Non-Thermal Biological Mobile Phone Effects." - Journal of Electromagnetic Analysis and Applications 8(3):62-69 (2016).

<http://www.scirp.org/journal/PaperInformation.aspx?PaperID=65212>

Spiß, B. (2003). *Pilotstudie zu Mobilfunkstrahlung und Gesundheit–Modellierung der Immission mit den Programmen NIRView und CORLA.* Diplomarbeit an der Naturwissenschaftlichen Fakultät der Universität Salzburg, Oktober 2003, Salzburg, Austria.

"*Electrosensitive Testimonials.*" We Are The Evidence, wireless technology injured advocacy group, 2018.

<http://wearetheevidence.org/adults-who-developed-electro-sensitivity/>

Magda Havas, PhD, Associate Professor of Environmental & Resource Studies at Trent University explains why some firefighters experienced electrohypersensitivity (EHS) when cell towers were placed near or on their fire stations. At time 32:53, a Toronto woman describes in detail the slow development of symptoms of EHS in she and her daughter when a cell tower was placed on the top floor of her apartment just above where they lived. After the acute exposure they both became sensitive to devices they were not sensitive to before.

<https://youtu.be/AEOcB7Svhvw>

Electro Hypersensitivity: Talking to Your Doctor. Canadian Initiative to Stop Wireless, Electric, and Electromagnetic Pollution.

<http://weepinitiative.org/talkingtoyourdoctor.pdf>.

Short Film about WiFi Refugees – emfanalysis youtube channel, June 6th 2015.

<https://www.youtube.com/watch?v=MIJ-YnKVwVU>

References #11 – We are the guinea pigs!

Compilation of measures and recommendations by governments and international organizations and court rulings on health effects caused by electromagnetic (EM) radiation from wireless communication (smartphones, WiFi, cell towers, etc.). Last updated January 29th 2019.

<https://www.stopumts.nl/pdf/Compilation-RF-radiation-2019.pdf>

Mark Hertsgaard and Mark Dowie - *How Big Wireless Made Us Think That Cell Phones Are Safe: A Special Investigation - The disinformation campaign—and massive radiation increase—behind the 5G rollout.* The Nation, March 29th 2018.

<https://www.thenation.com/article/how-big-wireless-made-us-think-that-cell-phones-are-safe-a-special-investigation/>

References #12 – The precautionary principle is dead.

Wingspread Conference on the Precautionary Principle, January 1998.

www.who.int/ifcs/documents/forums/forum5/wingspread.doc

Electromagnetic fields and public health cautionary policies – World Health Organization, March 2000.

https://www.who.int/docstore/peh-emf/publications/facts_press/EMF-Precaution.htm

The Precautionary Principle – World Commission on the Ethics of Scientific Knowledge and Technology (COMEST) - UNESCO, 2005.

<https://unesdoc.unesco.org/ark:/48223/pf0000139578>

Journals Address Conflicts of Interest, Microwavenews.com, September 21st 2006.

<https://microwavenews.com/news-center/journals-address-conflicts-interest>

References #13 – 5G. let's increase the dose!

Dariusz Leszczynski - *The potential risks to human health from 5G* - International Conference on 5G hosted by the Association of Parents of Preschool Children, Reykjavik February 2017.

<https://youtu.be/Zo6Wbi2UYQ0?list=PLT6DbkXhTGoBmSJ3hFcJFavw4JbLw6tnw>

Russell, C. L. (2018). 5 G wireless telecommunications expansion: Public health and environmental implications. Environmental research. doi: 10.1016/j.envres.2018.01.016
Nasim, I. and Kim, S. Georgia - "Human Exposure to RF Fields in 5G Downlink."- Southern University (2017).

<https://arxiv.org/pdf/1711.03683.pdf>

Ciaula, AD. - "Towards 5G Communication Systems: Are There Health Implications?" - International Journal of Hygiene and Environmental Health 367-375 (2018).

<https://www.sciencedirect.com/science/article/pii/S1438463917308143>

Russell, C.L. - "5G Wireless Telecommunications Expansion: Public Health and Environmental Implications." - Environmental Research 165:484-495 (2018).

<https://www.sciencedirect.com/science/article/pii/S0013935118300161>

Senator Patrick Colbeck - *Testimony against 5G at a Michigan Senate session* – March 15th 2018.

<https://www.youtube.com/watch?v=hkDDQqDVsbk&feature=youtu.be>

Senator Patrick Colbeck - *Testimony against 5G during Michigan Senate 5G hearings*. May 29th 2018.

<https://www.youtube.com/watch?v=j-UEuOYOED4&feature=youtu.be>

Dafna Tachover and Paul Héroux - *Testimonies against 5G during Michigan Senate 5G hearings*. May 29th 2018.

<https://youtu.be/lTo7imWb5bM>

Dr. Sharon Goldberg *Testifies at Michigan's 5G Small Cell Tower Legislation Hearing*, October 4th 2018.

<https://youtu.be/CK0AliMe-KA>

Dr. Paul Heroux *Testifies at Michigan's 5G Small Cell Tower Legislation Hearing*, October 4th 2018.

https://youtu.be/2JI7-9_FRYc

Dr. Sharon Goldberg - *Michigan House Energy Policy Committee 10/4/18 Testimony Key Points/References on 5G Associated Health Issues*. Full written testimony.

<https://ehtrust.org/wp-content/uploads/Main-Points-and-References-from-October-4th-Testimony.10.15-1.pdf>

References #14 – WHO, FCC, FDA and others, conflicts of interests are rampant.

Energy and Commerce Chairman Frank Pallone, Jr. (D-NJ) and Communications and Technology Subcommittee Chairman Mike Doyle (D-PA) letter to Federal Communications Commission (FCC) Chairman Ajit Pai. - “*Under your leadership, the FCC has failed repeatedly to act in the public interest and placed the interest of corporations over consumers*”. - February 4th 2019.

https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/FCC.2019.2.4.%20Letter%20to%20Chairman%20Pai%20re%20116th%20Congress%20Oversight.CAT_.pdf

FCC Chairman Tom Wheeler on 5G: “*We won't study it, regulate it, have standards for it.*” Youtube. June 20th 2016.

www.youtube.com/watch?v=Bwgwe01SIMc

Dr. Lennart Hardell - *World Health Organization, radiofrequency radiation and health - a hard nut to crack (Review)* – International Journal of Oncology, June 21st 2017. doi: 10.3892/ijo.2017.4046

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5504984/>

Judith Richter - *Time to turn the tide: WHO's engagement with non-state actors and the politics of stakeholder governance and conflicts of interest.* - BMJ 2014;348:g3351. May 19th 2014. <https://doi.org/10.1136/bmj.g3351>

The ‘Russian National Committee on Non-Ionizing Radiation Protection (RNCNIRP)’ warns the WHO for its unbalanced EMR Working group, consisting mainly of present and past ICNIRP members who do not recognize the biological effects of EMR. March 2017.

https://www.mast-victims.org/resources/docs/RNCNIRP-letter-WHO-2017_03_01.pdf

Leading expert Anders Ahlbom linked to the Telecom Industry. Conflict of interest at the World Health Organization (WHO) - Mona Nilsson, investigative journalist, Sweden, May 23rd 2011.

<http://www.monanilsson.se/document/AhlbomConflictsIARCMay23.pdf>

Repacholi's RF Review - Microwavenews.org, October 25th 2011.

<https://microwavenews.com/short-takes-archive/repacholis-rf-review>

IARC Drops Anders Ahlbom from RF–Cancer Panel, Microwavenews.com, May 22nd, 2011.

<https://microwavenews.com/Ahlbom.html>

IARC Welcomes Industry to RF–Cancer Review, Microwavenews.com, March 23rd 2011.

<https://microwavenews.com/IARC.RF.html>

“Microwaves, Science and Lies” Documentary Reveals a Product Defense Strategy – smartgridawareness.org, August 30th 2014

<https://smartgridawareness.org/2014/08/30/microwaves-science-and-lies-documentary-reveals-a-product-defense-strategy/>

Lost Research Opportunities - Industry Treads Water; Conflicts Abound – Microwavenews.org, February 25th 2014.

<https://microwavenews.com/news-center/lost-opportunities>

Electromagnetic fields and public health: mobile phones – World Health Organization (WHO), March 8th 2014.

<https://www.who.int/en/news-room/fact-sheets/detail/electromagnetic-fields-and-public-health-mobile-phones>

Canadian Conflict-of-Interest Follies: Anything Goes Except Non-Disclosure, Microwavenews.com, April 23rd 2014. Last updated, September 26th 2016.

<https://microwavenews.com/news-center/rsc-sc6>

2011 International Scientific Conference on EMF and Health - List of Participants and Speakers (and their associations and conflict of interests) – November 16th and 17th 2011, European Commission, Brussels. André Fauteux, La Maison du 21ème Siècle.

https://maisonsaine.ca/wp-content/uploads/2015/10/Brussels_2011_EMF_Conference_-CONFLICTS_OF_INTEREST.pdf

The Anatomy of a Rumor, Microwavenews.com, December 1st 2017.

<https://microwavenews.com/news-center/anatomy-rumor>

Statement from Jeffrey Shuren, M.D., J.D., director of the FDA's Center for Devices and Radiological Health on the recent National Toxicology Program draft report on radiofrequency energy exposure – US Food & Drug Administration (FDA), February 2nd 2018.

<https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm595144.htm>

Jeffrey Shuren, conflicts of interests and the US Food & Drug Agency (FDA) - *FDA SpyGate, New Revelations Challenge The New York Times Investigation of Agency "Enemies List," Raise More Questions About the 'Government's Most Dysfunctional Agency'* – Jon Entine, Forbes, August 20th 2012.

<https://www.forbes.com/sites/jonentine/2012/08/20/fda-spygate-new-revelations-challenge-the-new-york-times-investigation-of-agency-enemies-list-raise-more-questions-about-the-governments-most-dysfunctional-agency/>

Jeffrey and Allison Shuren's conflicts of interests - *At FDA, a new goal, then a push for speedy device reviews* – Associated Press, November 28th 2018.

<https://www.apnews.com/9f8ea03a4d324d1ba5585680d280804b>

References #15 – WHO, ICNIRP, SCENIHR, ITU, conflicts of interests are the norm.

Martin L. Pall - Response to 2018 ICNIRP Draft Guidelines and Appendices on Limiting Exposure to Time-Varying Electric, Magnetic and Electromagnetic Fields (100 kHz to 300 GHz) - Washington State University, October 8th 2018.

<https://tinyurl.se/pall>

There appears to be a conflict of interest between the WHO and ICNIRP – Vallisoletana Association of people affected by mobile phone antennas (AVAATE), July 10th 2015.

http://www.avaate.org/IMG/pdf/escrito_web_icnirp_ingles_final.pdf

SCENIHR members' history (bias and conflicts of interest)

https://www.stralskyddsstiftelsen.se/wp-content/uploads/2015/09/Annex_1_SCENIHR_Experts_2015.pdf

Bias in the assessment of Electromagnetic Fields (EMF) - Over 40 NGOs lodge a complaint to the European Ombudsman over SCENIHR report – Swedish Radiation Protection Foundation, 2015.

<https://www.stralskyddsstiftelsen.se/2015/03/bias-in-the-assessment-of-electromagnetic-fields-emf/>

Conflicts of interest at IEEE's *International Committee on Electromagnetic Safety - ICES (SCC-39) Annual Report: 2014 – 2015 Includes Technical Committee 34 (Product Safety Relative to the Safe Use of Electromagnetic Energy) and Technical Committee 95 (Safety Levels with Respect to Human Exposure to Electric, Magnetic and Electromagnetic Fields)* - Submitted by Ron Petersen, Secretary, SCC-3929, November 2015. See pages 19 to 23.

<https://betweenrockandhardplace.files.wordpress.com/2016/09/scc39-annual-report-2014-2015.pdf>

References #16 – Media lies.

Denyse Grady - *Cancer Risk From Cellphone Radiation Is Small, Studies Show* – New York Times, February 2nd 2018.

<https://www.nytimes.com/2018/02/02/health/cell-phones-cancer.html>

David Gorski - *The Nation indulges in fear mongering about cell phones and cancer* – Science Based Medicine, April 2nd 2018.

<https://sciencebasedmedicine.org/the-nation-indulges-in-some-particularly-egregious-fear-mongering-about-cell-phones-and-cancer/>

Benjamin Mazer - *Bad Faith: When conspiracy theorists play academics and the media for fools* - Science Based Medicine, July 16th 2018.

<https://sciencebasedmedicine.org/bad-faith-when-conspiracy-theorists-play-academics-and-the-media-for-fools/>

David Robert Grimes – *Why mobile phones are NOT a health hazard.* - The Guardian, July 21st 2018.

<https://www.theguardian.com/technology/2018/jul/21/mobile-phones-are-not-a-health-hazard>

References #17 – Liability motive and the cover-up.

Jonathan Ponciano - *The World's Largest Telecom Companies 2018: AT&T, Verizon Remain On Top As Sector Struggles* – Forbes, June 6th 2018.

<https://www.forbes.com/sites/jonathanponciano/2018/06/06/worlds-largest-telecom-companies-2018/#3c425bb17d39>

References #18 – What is 5G?

Martha DeGrasse - *AT&T outlines 5G network architecture* – RCR Wireless News, October 20th 2016.

<https://www.rcrwireless.com/20161020/network-infrastructure/att-outlines-5g-network-architecture-tag4>

What You Need To Know About 5G Wireless and “Small” Cells – Environmental Health Trust, 2018.

https://ehtrust.org/wp-content/uploads/5G_What-You-Need-to-Know.pdf

References #19 – Satellites will beam 5G from above.

Firstenberg A. - Planetary Emergency. - Cellular Phone Task Force website, 2018.

<http://www.cellphonetaskforce.org/planetary-emergency>.

Williams ER. - The global electrical circuit: a review. - Atmospheric Research, 2009;91(2):140-152. doi:10.1016/j.atmosres.2008.05.018

Ludwig W, Mecke R. - Archives for Meteorology Geophysics and Bioclimatology Series B Theoretical and Applied Climatology, 1968;16(2-3):251-261. doi:10.1007/BF02243273

König H. - Biological effects of extremely low frequency electrical phenomena in the atmosphere - Journal of Interdisciplinary Cycle Research, 2(3):317-323.

www.tandfonline.com/doi/abs/10.1080/09291017109359276

Sulman F. - The Effect of Air Ionization, Electric Fields, Atmospherics, and Other Electric Phenomena On Man and Animal. - American lecture series, Vol 1029. Springfield, Ill: Thomas; 1980

König HL, Krüger, AP, Lang S, Sönnig, W. - Biologic Effects of Environmental Electromagnetism. - Springer-Verlag; 1981. doi: 10.1007/978-1-4612-5859-9.

Sazanova E, Sazanov A, Sergeenko N, Ionova V, Varakin Y. - Influence of near earth electromagnetic resonances on human cerebrovascular system in time of heliogeophysical disturbances. Progress in Electromagnetics Research Symposium, August 2013: 1661-1665.

Cherry N. - Schumann resonances, a plausible biophysical mechanism for the human health effects of solar/geomagnetic activity. - Natural Hazards, 2002, 26(3):279-331. doi:10.1023/A:1015637127504

Polk C. - Schumann resonances. In Volland H, ed. CRC Handbook of Atmospheric Vol. 1. Boca Raton, Fla: CRC Press; 1982:111-178.

<https://archive.org/stream/in.ernet.dli.2015.132044/2015.132044.Crc-Handbook-Of-Atmospherics-Vol-1#page/n115/mode/2up/search/polk>

Park C, Helliwell R. - Magnetospheric effects of power line radiation. - Science. 1978;200(4343):727-730. doi:10.1126/science.200.4343.727

Bullough K, Kaiser TR, Strangeways HJ - Unintentional man-made modification effects in the magnetosphere. - Journal of Atmospheric and Terrestrial Physics, 1985;47(12):1211-1223

[https://doi.org/10.1016/0021-9169\(85\)90089-3](https://doi.org/10.1016/0021-9169(85)90089-3)

Firstenberg A. - *Earth's Electric Envelope. The Invisible Rainbow: A History of Electricity and Life*. Santa Fe, NM: AGB Press; 2017: 113-131.

Lurette JP, Park CG, Helliwell RA. The control of the magnetosphere by power line radiation. Journal of Geophysical Research, 1979;84:2657-2660.

<https://doi.org/10.1029/JA084iA06p02657>

Becker RO. - The basic biological data transmission and control system influenced by electrical forces. - Ann NY Acad Sci. 1974;238:236-241. doi: 10.1111/j.1749-6632.1974.tb26793.x.

Maxey ES, Beal JB. - The electrophysiology of acupuncture; How terrestrial electric and magnetic fields influence air ion energy exchanges through acupuncture points. - International Journal of Biometeorology, 1975;19 (Supp. 1):124. doi:10.1007/BF01737335.

Ćosić I, Cvetković D, Fang Q, Jovanov E, Lazoura H. - Human electrophysiological signal responses to ELF Schumann resonance and artificial electromagnetic fields. - FME Transactions. 2006;34:93-103.

<http://scindeks-clanci.anton.rs/data/pdf/1450-8230/2006/1450-82300602093C.pdf>

Cohen M, Behrenbruch C, Ćosić I. Is there a link between acupuncture meridians, earth-ionosphere resonances and cerebral activity? Proceedings of the 2nd International Conference on Bioelectromagnetism, Melbourne, Australia. 1998:173-174. doi: 10.1109/ICBEM.1998.666451.

Chevalier G, Mori K, Oschman JL. The effect of earthing (grounding) on human physiology. European Biology and Bioelectromagnetics. January 2006:600-621.

<http://162.214.7.219/~earthio0/wp-content/uploads/2016/07/Effects-ofEarthing-on-Human-Physiology-Part-1.pdf>

Cannon PS, Rycroft MJ. Schumann resonance frequency variations during sudden ionospheric disturbances. *J Atmos Sol Terr Phys.* 1982;44(2):201-206. doi:10.1016/0021-9169(82)90124-6

Space Sustainability: A Practical Guide.” Secure World Foundation, 2014, 21. Accessed January 1, 2019.

https://swfound.org/media/206289/swf_space_sustainability-a_practical_guide_2018_1.pdf

Space Law: Liability for Space Debris.” Panish, Shea & Boyle LLP. 2018.

<https://www.aviationdisasterlaw.com/liability-for-space-debris/>

Kessler, D. J., P. M. Landry, B. G. Cour-Palais, and R. E. Taylor. “Aerospace: Collision Avoidance in Space: Proliferating Payloads and Space Debris Prompt Action to Prevent Accidents.” *IEEE Spectrum* 17, no. 6 (1980): 37-41.

Von Der Dunk, Frans G. “Liability versus Responsibility in Space Law: Misconception or Misconstruction?” University of Nebraska-Lincoln College of Law: Space, Cyber, and Telecommunications Law Program Faculty Publications 21 (1992).

<http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1020&context=spacelaw>

Federal Communications Commission (FCC) - SpaceX V-Band NGSO Constellation Approval - Complete system technical data. April 2016.

http://licensing.fcc.gov/myibfs/download.do?attachment_key=1200245

Federal Communications Commission (FCC) - *Amendment to Petition for Declaratory Ruling Granting Access to the U.S. Market for the OneWeb V-Band System*. April 2016.

http://licensing.fcc.gov/myibfs/download.do?attachment_key=1326688

Federal Communications Commission (FCC) - The Boeing Company requests authority to launch and operate the V-band segment of the NGSO System providing fixed satellite service in the 37.5-42.5 GHz (space-to-Earth), 47.2-50.2 GHz (Earth-to-space) and 50.4-52.4 GHz (Earth-to-space) bands. April 2016.

http://licensing.fcc.gov/myibfs/download.do?attachment_key=1199797

Federal Communications Commission (FCC) - *Telesat Canada V-band LEO Satellite Constellation* – April 2016.

http://licensing.fcc.gov/myibfs/download.do?attachment_key=1199822

Federal Communications Commission (FCC) – *Application of Iridium Constellation LLC for modification of authorization*. October 30th 2017.

http://licensing.fcc.gov/myibfs/download.do?attachment_key=1297920

Federal Communications Commission (FCC) – *Space X Pending Application for Satellite Space and Earth Station Authorization*. Schedule S, Technical Report. Dated April 2016, filed March 1, 2017.

http://licensing.fcc.gov/myibfs/download.do?attachment_key=1200245

References #20 - Pulsed millimetre waves and phased-array antennas.

Delos, Peter. “The Way to a New Phased Array Radar Architecture.” TechTime: Electronics & Technology News. January 15, 2018.

<https://techtime.news/2018/01/15/analog-devices-phased-array-radar/>

Prost, M., Olchowik, G., Hautz, W., & Gaweda, R. (1994). Experimental studies on the influence of millimeter radiation on light transmission through the lens. *Klinika oczna*, 96(8-9), 257-259.

<https://www.ncbi.nlm.nih.gov/pubmed/7897988>

Qammer H. Abbasi, Hassan El Sallabi, Nishtha Chopra, Ke Yang, Khalid Qaraqe, Akram Alomainy - *Terahertz Channel Characterisation Inside the Human Skin for Nano-scale Body-Centric Networks* – IEEE Transactions on Terahertz science and technology, Volume: 6 , Issue: 3 , May 2016.

<https://qmro.qmul.ac.uk/xmlui/bitstream/handle/123456789/11924/Alomainy%20Terahertz%20Channel%20Characterization%202016%20Accepted.pdf?sequence=1>

Andrei G. Pakhomov, Yahya Akyel, Olga N. Pakhomova, Bruce E. Stuck and Michael R. Murphy - Current State and Implications of Research on Biological Effects of Millimeter Waves: A Review of the Literature - *Bioelectromagnetics* 19: 393 – 413 (1998).

[https://doi.org/10.1002/\(SICI\)1521-186X\(1998\)19:7%3C393::AID-BEM1%3E3.0.CO;2-X](https://doi.org/10.1002/(SICI)1521-186X(1998)19:7%3C393::AID-BEM1%3E3.0.CO;2-X)

Yuri Feldman, Alexander Puzenko, Paul Ben Ishai, Andreas Caduff, Issak Davidovich, Fadi Sakran and Aharon J. Agranat. - *The electromagnetic response of human skin in the millimetre and submillimetre wave range* – Physics in medicine and biology, May 8th 2009.

<http://dx.doi.org/10.1088/0031-9155/54/11/005>

Paul Ben-Ishai - *Potential Risks to Human Health from Future Sub-MM Communication Systems* - Wireless Radiation and Health – Expert Forum on Environmental Health Research and Policy Priorities - Israel Institutue for Advanced Studies at Hebrew University, Jerusalem, January 24th to 27th 2017.

<https://youtu.be/VuVtGldYXK4?list=PLT6DbkXhTGoBmSJ3hFcJFavw4JbLw6tnw>

Wei Hong, Zhi Hao Jiang, Chao Yu, Jianyi Zhou, Peng Chen, Zhiqiang Yu, Hui Zhang, Binqi Yang, Xingdong Pang, Mei Jiang, Yujian Cheng, Mustafa K. Taher Al-Nuaimi , Yan Zhang, Jixin Chen, Shiwen He - *Multibeam Antenna Technologies for 5G Wireless Communications* - IEEE Transactions on Antennas and Propagation, Volume: 65, Issue: 12, December 2017. DOI: 10.1109/TAP.2017.2712819

<https://ieeexplore.ieee.org/document/7942144>

Reviews showing that pulsed EMFs are, in most cases, much more biologically active than are non-pulsed (continuous wave) EMFs of the same average intensity:

Osipov YuA, 1965 [Labor hygiene and the effect of radiofrequency electromagnetic fields on workers]. Leningrad Meditsina Publishing House, 220 pp.

Pollack H, Healer J. 1967 Review of Information on Hazards to Personnel from High-Frequency Electromagnetic Radiation. Institute for Defense Analyses; Research and Engineering Support Division. IDA/HQ 67-6211, Series B, May 1967.

Frey AH. 1974 Differential biologic effects of pulsed and continuous electromagnetic fields and mechanisms of effect. Ann N Y Acad Sci 238: 273-279.

Creighton MO, Larsen LE, Stewart-DeHaan PJ, Jacobi JH, Sanwal M, Baskerville JC, Bassen HE, Brown DO, Trevithick JR. 1987 In vitro studies of microwave-induced cataract. II. Comparison of damage observed for continuous wave and pulsed microwaves. Exp Eye Res 45:357-373.

Grigor'ev IuG. 1996 [Role of modulation in biological effects of electromagnetic radiation]. Radiats Biol Radioecol 36:659-670.

Belyaev I. 2005 Non-thermal biological effects of microwaves. Microwave Rev 11:13-29.

Belyaev I. 2005 Non-thermal biological effects of microwaves: current knowledge, further perspective and urgent needs. Electromagn Biol Med 24(3):375-403.

Markov MS. 2007 Pulsed electromagnetic field therapy: History, state of the art and future. The Environmentalist 27:465-475.

Van Boxem K, Huntoon M, Van Zundert J, Patijn J, van Kleef M, Joosten EA. 2014 Pulsed radiofrequency: a review of the basic science as applied to the pathophysiology of radicular pain: a call for clinical translation. Reg Anesth Pain Med. 2014 Mar-Apr;39(2):149-59.

Belyaev, I. 2015. Biophysical mechanisms for nonthermal microwave effects. In: Electromagnetic Fields in Biology and Medicine, Marko S. Markov, ed, CRC Press, New York, pp 49-67.

Panagopoulos DJ, Johansson O, Carlo GL. 2015 Real versus simulated mobile phone exposures in experimental studies. BioMed. Res. Int. 2015, ar+cle ID 607053, 8 pages. Doi:10.1155/2015/607053.

Pall, M. L. 2015 Scientific evidence contradicts findings and assumptions of Canadian Safety Panel 6: microwaves act through voltage-gated calcium channel activation to induce biological impacts at non-thermal levels, supporting a paradigm shift for microwave/lower frequency electromagnetic field action. Rev. Environ. Health 3, 99-116. doi: 10.1515/reveh-2015-0001.

Batista Napotnik T, Reberšek M, Vernier PT, Mali B, Miklavčič D. 2016 Effects of high voltage nanosecond electric pulses on eukaryotic cells (*in vitro*): A systematic review. Bioelectrochemistry. 2016 Aug;110:1-12. doi: 10.1016/j.bioelechem.2016.02.011.

Paul Ben-Ishai, Dariusz Leszczynski, Devra Davis and Anthony Miller - *5G Technology: Potential Risks To Human Health* – Wireless Radiation and Health – Expert Forum on Environmental Health Research and Policy Priorities - Israel Institutue for Advanced Studies at Hebrew University, Jerusalem, January 24th to 27th 2017.

<https://youtu.be/QvPg1AyQ43I>

References #21 – Millimetre waves and our body.

Albanese R, Blaschak J, Medina R, Penn J. - *Ultrashort electromagnetic signals: Biophysical questions, safety issues and medical opportunities*. - Aviat Space Environ Med. 1994;65(5 Supp):A116-A120.

<http://www.dtic.mil/cgi-bin/GetTRDoc?Location=U2&docname=GetTRDoc.pdf&docid=a282990>.

References #22 – Millimetre waves, our eyes and our skin.

Gandhi, O. P., & Riazi, A. (1986). Absorption of millimeter waves by human beings and its biological implications. IEEE Transactions on Microwave Theory and Techniques, 34(2), 228-235.

<https://ieeexplore.ieee.org/document/1133316>

Betzalel, N., Ishai, P.B., and Feldman, Y. - "The Human Skin As A Sub-THz Receiver – Does 5G Pose a Danger To It or Not?" - Environmental Research 163:208-216 (2018).

<https://www.sciencedirect.com/science/article/pii/S0013935118300331?via%3Dihub>

Betzalel, N., Feldman, Y., and Ishai, P.B. - "The Modeling of the Absorbance of Sun-THz Radiation by Human Skin." - IEEE Transactions on Terahertz Science and Technology 7(5):521-528 (2017).

<https://ieeexplore.ieee.org/document/8016593/>

References #23 – Russian roulette and insect populations.

Hallmann C.A., M. Sorg and E. Jongejans. “More than 75 per cent decline over 27 years in total flying insect biomass in protected areas.” PLOS One 12, no. 10 (2017): e0185809.

<http://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0185809&type=printable>

References #24 – 5G, human subjects experiments under UN Resolution 39/46.

Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (39/46). See Article 16.

<http://www.un-documents.net/a39r46.htm>

International Covenant on Civil and Political Rights. Adopted by the General Assembly of the United Nations on 19 December 1966. See Article 7.

<http://www.un-documents.net/iccpr.htm>

The Nuremberg Code - "*Trials of War Criminals before the Nuremberg Military Tribunals under Control Council Law No. 10*" - Vol. 2, pp. 181-182. Washington, D.C.: U.S. Government Printing Office, 1949.

The Nuremberg Code applies to all experiments on humans, thus including the deployment of 5G with new, higher RF radiation exposure that has not been pre-market tested for safety. “The voluntary consent of the human subject is absolutely essential” (art. 1). Exposure to 5G will be involuntary. “No experiment should be conducted, where there is an a priori reason to believe that death or disabling injury will occur” (art. 5).

The findings of over 10,000 scientific studies and the voices of hundreds of international organizations representing hundreds of thousands of members who have suffered disabling injury and been displaced from their homes by already-existing wireless telecommunications facilities, are “a priori reasons to believe that death or disabling injury will occur”. Also, we are light years away from “Informed consent”.

<https://history.nih.gov/research/downloads/nuremberg.pdf>

The Significance of the Nuremberg Code – as it applies to 5G – CEP, February 1st 2019.

<https://www.electrosmogprevention.org/international-electrosmog-prevention-news/stop-5g/the-significance-of-the-nuremberg-code-as-it-applies-to-5g/>

References #25 & #26 – Human and environmental rights violations are the norm.

World Medical Association Declaration of Helsinki - Ethical Principles for Medical Research Involving Human Subjects – Originally adopted by the 18th WMA General Assembly, Helsinki, Finland, June 1964 and subsequently complemented until the 64th WMA General Assembly, Fortaleza, Brazil, October 2013.

<https://pdf-it.dev.acw.website/please-and-thank-you?url=https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects&pdfName=wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects>

The Belmont Report - National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, Department of Health, Education and Welfare (DHEW) - Bethesda, Maryland, September 30th 1978.

https://videocast.nih.gov/pdf/oerp_belmont_report.pdf

Standards and operational guidance for ethics review of health-related research with human participants of the WHO (2011).

https://apps.who.int/iris/bitstream/handle/10665/44783/9789241502948_eng.pdf;jsessionid=84A8770C0A05F4493339B34D2EF0BA27?sequence=1

International Ethical Guidelines for Health-related Research Involving Humans -Prepared by the Council for International Organizations of Medical Sciences (CIOMS) in collaboration with the World Health Organization (WHO) – Geneva, Switzerland, 2016.

<https://cioms.ch/wp-content/uploads/2017/01/WEB-CIOMS-EthicalGuidelines.pdf>

Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine: Convention on Human Rights and Biomedicine – Council of Europe, European Treaty Series-No. 164, Oviedo, April 4th 1997.

<https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=090000168007cf98>

Additional international agreements, treaties , guidelines and recommendations being violated:

1. The Universal Declaration of Human Rights (1948).

“Everyone has the right to life, liberty and security of person” (art. 3).

“No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment” (art. 5).

https://www.ohchr.org/EN/UDHR/Documents/UDHR_Translations/eng.pdf

2. European Convention for the Protection of Human Rights and Fundamental Freedoms of November 4th 1950.

Everyone's right to life shall be protected by law (art 2.1).

No one shall be subjected to torture or to inhuman or degrading treatment or punishment (art. 3).

https://www.cvce.eu/obj/convention_for_the_protection_of_human_rights_and_fundamental_freeoms_rome_4_november_1950-en-32a749bd-2ce0-4d3a-b26a-973e4b176e4f.html

3. European Social Charter of October 18th 1961.

Part I The Contracting Parties accept as the aim of their policy, to be pursued by all appropriate means, both national and international in character, the attainment of conditions in which the following rights and principles may be effectively realized:

3. All workers have the right to safe and healthy working conditions.
7. Children and young persons have the right to a special protection against the physical and moral hazards.
8. Employed women, in case of maternity, and other employed women as appropriate, have the right to a special protection in their work.
11. Everyone has the right to benefit from any measures enabling him to enjoy the highest possible standard of health attainable.

Article 7 – The right of children and young persons to protection.

With a view to ensuring the effective exercise of the right of children and young persons to protection, the Contracting Parties undertake:

10. to ensure special protection against physical and moral dangers to which children and young persons are exposed, and particularly against those resulting directly or indirectly from their work.

Article 11 – The right to protection of health

With a view to ensuring the effective exercise of the right to protection of health, the Contracting Parties undertake, either directly or in co operation with public or private organizations, to take appropriate measures designed inter alia:

1. to remove as far as possible the causes of ill health;
2. to provide advisory and educational facilities for the promotion of health and the encouragement of individual responsibility in matters of health;
3. to prevent as far as possible epidemic, endemic and other diseases.

https://www.cvce.eu/content/publication/2003/3/7/e71c737f-4afb-41e3-9426-43bbf1cd0f00/publishable_en.pdf

4. The right to the highest attainable standard or physical and mental health

As set out in article 12 of the International Covenant on Economic, Social and Cultural Rights.

Article 12 provides as follows:

1. The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.
2. The steps to be taken by the States Parties to the present Covenant to achieve the full realization of this right shall include those necessary for:
 - (a) The provision for the reduction of the still birth-rate and of infant mortality and for the healthy development of the child;
 - (b) The improvement of all aspects of environmental and industrial hygiene;
 - (c) The prevention, treatment and control of epidemic, endemic, occupational and other diseases;
 - (d) The creation of conditions which would assure to all medical service and medical attention in the event of sickness.

<https://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx>

5. The United Nations Global Strategy for Women’s, Children’s and Adolescents’ Health (2016-2030)

[...] has as objectives and targets to “transform”, by expanding enabling environments; to “survive”, by reducing maternal and newborn mortality; and to “thrive” by ensuring health and well-being and reducing pollution-related deaths and illnesses.

<https://www.who.int/life-course/partners/global-strategy/globalstrategyreport2016-2030-lowres.pdf>

6 . Convention on the Rights of Persons with Disabilities (CRPD, 2006).

Preamble:

- (a) Recalling the principles proclaimed in the Charter of the United Nations which recognize the inherent dignity and worth and the equal and inalienable rights of all members of the human family as the foundation of freedom, justice and peace in the world,
- (b) Recognizing that the United Nations, in the Universal Declaration of Human Rights and in the International Covenants on Human Rights, has proclaimed and agreed that everyone is entitled to all the rights and freedoms set forth therein, without distinction of any kind,
- (c) Reaffirming the universality, indivisibility, interdependence and interrelatedness of all human rights and fundamental freedoms and the need for persons with disabilities to be guaranteed their full enjoyment **without discrimination**,
- (d) Recalling the International Covenant on Economic, Social and Cultural Rights, the International Covenant on Civil and Political Rights, the International Convention on the Elimination of All Forms of Racial Discrimination, the Convention on the Elimination of All Forms of Discrimination against Women, **the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment**, the Convention on the Rights of the Child, and the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families,
- (e) Recognizing that disability is an evolving concept and that disability results from the interaction between persons with impairments and attitudinal and environmental barriers that hinders their full and effective participation in society on an equal basis with others,

etc.

<http://www.un.org/disabilities/documents/convention/convoptprot-e.pdf>

7. The Standard Rules on the Equalization of Opportunities for Persons with Disabilities (1993).

Fundamental concepts in disability policy (Page 6).

17. The term "disability" summarizes a great number of different functional limitations occurring in any population in any country of the world. People may be disabled by physical, intellectual or sensory impairment, medical conditions or mental illness. Such impairments, conditions or illnesses maybe permanent or transitory in nature.
18. The term "handicap" means the loss or limitation of opportunities to take part in the life of the community on an equal level with others. It describes the encounter between the person with a disability and the environment. The purpose of this term is to emphasize the focus on the short comings in the environment and in many organized activities in society,for example, information, communication and education, which prevent persons with disabilities from participating on equal terms.
19. The use of the two terms "disability" and "handicap", as defined in paragraphs 17 and 18 above, should be seen in the light of modern disability history. During the 1970s there was a strong reaction among representatives of organizations of persons with disabilities and professionals in the field of disability against the terminology of the time. The terms "disability" and "handicap" were often used in an unclear and confusing way, which gave poor guidance for policy-making and for political action. The terminology reflected a medical and diagnostic approach, which ignored the imperfections and deficiencies of the surrounding society.
22. The term "prevention" means action aimed at preventing the occurrence of physical, intellectual, psychiatric or sensory impairments (primary prevention) or at preventing impairments from causing a permanent functional limitation or disability (secondary prevention). Prevention may include many different types of action, such as primary health care, prenatal and postnatal care, education in nutrition, immunization campaigns against communicable diseases, measures to control endemic diseases, safety regulations , programs for the prevention of accidents in different environments, including adaptation of workplaces to prevent occupational disabilities and diseases, and prevention of disability resulting from pollution of the environment or armed conflict.

... And just about every rule stated thereafter are violated.

<http://www.un.org/disabilities/documents/gadocs/standardrules.pdf>

8. The United Nations Convention on the Rights of the Child (1989).

States shall “undertake to ensure the child such protection and care as is necessary for his or her well-being” (art. 3),

States Parties recognize the right of the child to the enjoyment of the highest attainable standard of health and to facilities for the treatment of illness and rehabilitation of health. States Parties shall strive to ensure that no child is deprived of his or her right of access to such health care services (art. 24.1).

States Parties shall pursue full implementation of this right and, in particular, shall take appropriate measures (art. 24.2):

(c) To combat disease and malnutrition, including within the framework of primary health care, through, inter alia, the application of readily available technology and through the provision of adequate nutritious foods and clean drinking-water, taking into consideration the dangers and risks of environmental pollution;

<https://www.ohchr.org/en/professionalinterest/pages/crc.aspx>

9. Resolution 72 – Measurement concerns related to human exposure to electromagnetic fields of the International Telecommunications Union (2012).

It stated that “There is a need to inform the public of the potential effects of exposure to electromagnetic fields (EMFs)” and invited Member States “to adopt suitable measures in order to ensure compliance with relevant international recommendations to protect health against the adverse effect of EMF”. https://www.itu.int/dms_pub/itu-t/opb/res/T-RES-T.72-2012-PDF-E.pdf

10. The Mid-term review of the European Environment and Health Action Plan 2004-2010 (2008):

“The European Parliament notes that the limits on exposure to electromagnetic fields which have been set for the general public are obsolete, ... obviously take no account of developments in information and communication technologies, of the recommendations issued by the European Environment Agency or of the stricter emission standards adopted, for example, by Belgium, Italy and Austria, and do not address the issue of vulnerable groups, such as pregnant women, newborn babies and children.”

<https://publications.europa.eu/en/publication-detail/-/publication/2d11e9cb-4797-44be-a423-a2d9ad94b09a/language-en>

11. Resolution 1815 (Council of Europe, 2011).

The potential dangers of electromagnetic fields and their effect on the environment: “Take all reasonable measures to reduce exposure to electromagnetic fields, especially to radio frequencies from mobile phones, and particularly the exposure to children and young people.”

Also worth noting, Part 4: While electrical and electromagnetic fields in certain frequency bands have wholly beneficial effects which are applied in medicine, **other non-ionising frequencies, whether from extremely low frequencies, power lines or certain high frequency waves used in the fields of radar, telecommunications and mobile telephony, appear to have more or less potentially harmful, non-thermal, biological effects on plants, insects and animals as well as the human body, even when exposed to levels that are below the official threshold values.**

<http://assembly.coe.int/nw/xml/XRef/Xref-XML2HTML-en.asp?fileid=17994>

12. The Declaration of the United Nations Conference on the Human Environment (1972):

“The discharge of toxic substances... in such quantities or concentrations as to exceed the capacity of the environment to render them harmless, must be halted in order to ensure that serious or irreversible damage is not inflicted upon ecosystems” (principle 6).

<http://www.un-documents.net/unchedec.htm>

13. The World Charter for Nature (1982):

“Activities which are likely to cause irreversible damage to nature shall be avoided... [W]here potential adverse effects are not fully understood, the activities should not proceed” (art. 11).

<http://www.un.org/documents/ga/res/37/a37r007.htm>

14. The Rio Declaration on Environment and Development (1992):

PRINCIPLE 1: Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.

PRINCIPLE 2: States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, **and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.**

PRINCIPLE 3: The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

PRINCIPLE 4: In order to achieve sustainable development, **environmental protection shall constitute an integral part of the development process** and cannot be considered in isolation from it.

http://www.unesco.org/education/pdf/RIO_E.PDF

15. The United Nations World Summit on Sustainable Development (2002):

“There is an urgent need to... create more effective national and regional policy responses to environmental threats to human health” (para. 54(k)).

<https://sustainabledevelopment.un.org/milestones/wssd>

16. Revised African Convention on the Conservation of Nature and Natural Resources (2017):

“The Parties shall... take all appropriate measures to prevent, mitigate and eliminate to the maximum extent possible, detrimental effects on the environment, in particular from radioactive, toxic, and other hazardous substances and wastes” (art. 13).

https://au.int/sites/default/files/treaties/7782-treaty-0029_-revised_african_convention_on_the_conservation_of_nature_and_natural_resources_e.pdf

17. The Outer Space Treaty (1967)

Which requires that the use of outer space be conducted “so as to avoid [its] harmful contamination and also adverse changes in the environment of the Earth”(art. IX).

http://www.unoosa.org/pdf/gares/ARES_21_2222E.pdf

18. The United Nations Guidelines for The Long-Term Sustainability of Outer Space Activities (2018):

Address, to the extent practicable, risks to people, property, public health and the environment associated with the launch, in-orbit operation and re-entry of space objects (Guideline A.2,2 c).

http://www.unoosa.org/res/oosadoc/data/documents/2018/aac_1052018crp/aac_1052018crp_20_0_html/AC105_2018_CRP20E.pdf