

Piece 23 TER CPAM File Pg DUPREZ complainant  
Pierre DUPREZ October 26, 2024

Comments (below) on the pre-report from ANSES made public in  
September 2024 on carcinogenesis due to digital waves.  
Pre-study conducted by ANSES based on WHO data.

Summary:

This pre-report confirms by greatly confronting the body of evidence  
provided  
by the daily in vivo experiences of EHS the danger of these pulsed waves  
from

digital sources.

Also, ANSES's opinion in conclusion is more than subjective (with experts  
who have previously received budgets from ANSES except for one person, who  
has

"strangely" a different conclusion from the group of "experts" mandated by  
ANSES).

Indeed, everyone (including you) can read in this pre-report:

That half of the studies conclude with carcinogenic or dangerous  
consequences.

That half of the studies use digital waves in their protocol and the other  
half uses analog waves.

That 100% of studies using pulsed digital waves report a  
danger.

That 100% of studies using analog waves report "none"  
danger.

That all these analog studies have no place in this report. That is why  
only the studies using pulsed digital waves remain, which conclude with  
a danger.

That all the analog studies (therefore non-pulsed), by reporting no  
danger, support the conclusion of the deleterious effect of the pulsed  
nature of

digital waves by creating inductions due to the abrupt variations of  
fields

from the multiplexed modulation of digital waves.

Regardless of the power, which essentially reflects exposure, the  
pulsed/induction effect is the main indicator of harmfulness that  
unfortunately is not

taken into account in the protection of people or living beings.

That is why when we talk about wave exposure, the question arises: But  
what type/nature of wave is living being exposed to? Here, digital and  
thus pulsed, hence its harmfulness.

You have here the main link of cause and effect of the harmful nature, due  
to the pulsed effect of all or nothing (the 0 or the 1) of the multiplexed  
modulation

(and thus the multiplied effect) of these digital waves that  
characterize/define them, which ANSES obstinately refuses to see in a  
denial of reality whose reason is not scientific  
and harms the entire population...

## Introduction

Sorry for the mistakes but my health has become precarious due to the pulsed waves of digital technology. My engineering training has allowed me over these ten years to uncover the deception.

Stating the reality is not offensive.

My only concern is the protection of the health of the French people. I am also at the heart of the issue of the radiation experienced.

## Comments / Objections on the study conducted by ANSES:

You will see in reading my comments that this preliminary report also confirms the cause-and-effect link on health: the pulsed effect has been revealed/exposed.

The biased conclusion of this report stating that everything is fine, that we don't really know, etc., comes out of nowhere based solely on the assessment of a committee

composed of a group of researchers dependent on the industry or the budgets of ANSES. The only independent person in this committee, who can therefore only give a minority opinion,

produces a conclusion that is contrary to the views of the results of his work on tomato plants and his assessment of the studies in this report.

His conclusion is not part of

the paragraph dedicated to the Conclusion so as not to appear at first glance to future readers, but it is relegated elsewhere (following the list of referenced documents, page 362).

Nevertheless, this consultation allows us to see the hidden reality, and that is why we inform ANSES, all researchers, legal experts, and all citizens.

You still wonder why the conclusion of this committee is invalid? Not only because of the reality experienced in vivo by millions of people, but also upon a thorough reading of

this preliminary report. What do we observe? All studies conducted with exposure on rats with continuous waves (without pulsed modulation) conclude that there is no effect on health.

All studies with exposure on rats with pulsed waves and thus with pulsed modulation conclude with a very serious effect on health.

However, the digital waves deployed in France are all pulsed modulated during data transfers. This pulsed effect increases exponentially with the increased multiplexing of

the new generations 3G, 4G, 5G.

Everyone understands that taking into account studies with continuous waves to contradict studies with pulsed modulation makes no sense given how different the exposure conditions

and wave types are, and especially in light of the reality of the daily electro smog of harmful pulsed digital waves that we experience

invasively, uncontrolled, imposed everywhere,

even on our private property up to our homes without our consent, without the possibility of dialogue between citizens and their elected representatives.

If all studies without pulsed effect are not representative of reality, it should only list in the pre-report those "valid" with the pulsed effect, which we will see all conclude to a danger for the population, far from the subjective conclusions of ANSES, which is very competent in this understanding... On the contrary, when we question members of this committee, who do not really know the characteristics of pulsed digital waves, we doubt their expertise to produce an opinion on these very particular artificial waves. Moreover, their individual opinions are unknown to us.

The attempt by ANSES to amalgamate everything and oppose different studies is revealed/demonstrated. We could expect from the function of ANSES a probity and not an obscurantism, at a minimum an acknowledgment of this reality confirmed by the observation made from their pre-report.

It's a bit like if ANSES mandated or conducted studies on pesticides using pesticides without the active molecule!

We will therefore conduct a critical analysis of this valuable pre-report.

You will be able to see that this pre-report demonstrates and confirms that the causal link to health impairment is indeed due to the pulsed modulation of these harmful digital waves that we endure daily.

For total transparency, we will not only select studies that would indicate harmfulness but will take them one by one, page by page, and focus our attention starting from page 54 where we have the paragraphs on the most interesting exposure studies. Each time this pre-report refers to a study conducted, it is essential to observe whether the protocol demonstrates the effective use of pulsed digital waves... otherwise, the study is "invalid" in relation to the reality experienced by our fellow citizens and should therefore have been eliminated from this pre-report. The same applies to the synthesis of meta-studies without pulsed waves conducted by representatives of the mobile telephony inter-profession ICNIRP to which the European Commission still refers today to establish standards that are distorted by the absence of representative indicators of all harmfulness.

For each page, the highlighted paragraph in yellow, then our comment.

Page 1 of the report and introduction to our comments on the situation

"Aside from this heating effect, is exposure to radiofrequency likely to cause health effects, in the short or long term?"

-> Objection: In this report, we have the omission of a whole aspect of physical properties, notably Faraday's law, which also corresponds to the third of the four universally known and recognized properties of Maxwell, which no longer need to be proven. These laws greatly influence the organization of the universe.

The consequences are not solely carcinogenic.

As a reminder: Any electrically charged particle, like ions, is constrained by an electromagnetic field, particularly pulsed magnetic (brutality of variations in magnetic fields), which induces currents and sequesters these ions, preventing them from participating in biological reactions, where freedom of action and concentrations are necessary for homeostasis to maintain health.

In the far field with an electromagnetic wave, it is this phenomenon of induced current that occurs at the level of receptors, for example, to receive information on your phone, even at very low intensity (nanotesla).

The sensitivity of the human body, particularly of organs, cells, etc., is nothing to envy compared to the systems, electrical and electronic circuits of the devices' receivers.

By omitting these laws and wanting to instill doubt, ANSES does not fulfill its mission.

Page 21

"Aside from this heating effect, is exposure to radiofrequency likely to cause health effects, in the short or long term?"

Yes, of course. Below is the demonstration.

Page 21

"In the long term, numerous studies have been conducted for over twenty years to try to identify health effects on one hand, and biological action mechanisms on the other.

These studies have been conducted on humans, through clinical and epidemiological research, but also on animals, or even on cell cultures, and even on plants. The rate of publication of

scientific articles concerning radiofrequency effects or the search for potential action mechanisms has not slowed down since 2009, date of publication of the first report by Anses on the effects of radio frequencies on health."

-> Objection: Attempt I Yet they are not incompetent I The characteristic of a digital wave is to use all or nothing (0 and 1) to encode the transmission of data, translated into

a sudden variation of intensity or frequency or phase shift. This brutal variation of the modulation in EMF is amplified as a wave is multiplexed (OFDM) by an increasing number

of subcarriers (a few for 2G to over 500 for 5G) which, by adding together, multiply the peaks (generally in intensity) all over 20 milliseconds (where generally the measuring device

has difficulty capturing these peaks, thus smoothing the reality and only providing an approximate average). We therefore have "Bursts" that confer a waveform that is not sinusoidal but forms peaks through very fluctuating "micro-steps."

However, according to the properties of Faraday and Maxwell, the brutality of the variations in the fields of digital waves (also on our biological processes) generates induced effects

(the main harmfulness) following the impulses. The variable power comes into play as harmfulness but in a secondary manner. Power essentially translates to exposure. The question is: exposure to what kind of wave? If it is to a digital wave, then the main harmfulness can be determined by the PAPR indicator (Peak-to-Average Power Ratio) or the slope of the curve by its derivative. In other words, the more the wave transmits data, the greater the pulsed effect, the greater the dose of brutality of the received field variations, the more impact we will have on health.

For 20 years, most of the studies by Anses and the standards transcribed in France during the two presidential elections of 2002 have omitted this reality by only taking into account part of the harmfulness indicators, solely the power effect.

Indeed, many studies have an exposure protocol for rats with continuous analog wave emissions (thus without pulsed modulation) and conclude on very pulsed digital waves. This deception is largely the result of both independent and non-independent biologists' lack of understanding of the reality of the intrinsic characteristics of digital waves and due to the willingness within competent government agencies to hide this aspect in order to constantly declare a lie that they have not determined the cause-and-effect relationship.

page 22

"In 2013, Anses noted, in its opinion regarding the effects of radio frequencies on health, that it cannot be excluded that, under certain conditions, exposure to radiofrequencies may promote oxidation or induce DNA breaks, however without a lasting effect on the loss of DNA integrity."

-> Objection: reminder of the very peremptory conclusion without justification that sets the tone of this report

"Alongside these studies on the biological effects of exposure to radiofrequency electromagnetic fields, numerous epidemiological studies have examined the links between mobile phone use and the associated risk of brain tumors."

-> Note: when mentioning brain tumors, it implies cancer but also all the other effects that are no less serious which the report does not mention, even if the theme is cancer.

Page 22

"The mobile phone is indeed the source of electromagnetic field that represents the exposure (both in intensity, duration, and number of individuals concerned) by far the highest among the sources to which the general population is exposed in daily life".

-> Note: still this omission of the Dose variable of the brutality of field variations called pulsed effect. A low-power wifi with a lot of data transfers is generally more harmful than a high-power wifi with few data transfers. And thus it also depends on the data rate and therefore on the generations 2G, 3G, 4G, 5G which have a different increasing impact.

Page 22

"l'Anses also cited, in terms of carcinogenicity, a possible effect for "intensive" mobile phone users, that is to say those who have accumulated more than 1-640 hours of exposure (corresponding to the part of the population in which an excess risk is found in the Interphone study). l'Anses specified that an increase in the risk of rare types of glial tumors (less than 20% increase in incidence) could thus not be excluded"

Note: just 20% is a trifle, isn't it!  
While we know that 90% of cancers coming from environmental pollution

Page 23

"highlight for the moment, except in localized areas (the atypical points - ANFR, zOLg\, a relatively limited increase in the average level (temporally and spatially) of exposure."

-> Objection: in 20 years, an increase in the intensity of electro smog by 18,000,000,000,000.

Can we call this relatively limited? And the ANFR, exceeded in total lack of control, now wishes to raise the exposure threshold of atypical points from 6 to 9 V/m, which is an increase of 50%.

Still an unobjective orientation from ANSES to minimize the situation.

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"In addition to studies examining the carcinogenic effect of radio frequencies in humans and those conducted on mammalian models, the working group analyzed all studies, derived from bibliographic research results, on plants and animals other than mammals. Studies focused on non-mammalian models did not contribute to the development of the level of evidence for carcinogenicity; however, they do help to contribute to the general understanding of the interactions of radio frequencies with living organisms."

-> Objection: why? Is it to avoid including revealing studies of these pulsed waves on tomato plants, for example (moreover, with plants, it is difficult to say that the effect of the waves is psychosomatic)?

Page 25

"ANSES analyzes the declared conflicts of interest by experts before their appointment and throughout the work, in order to avoid the risks of conflicts of interest regarding the issues addressed in the context of the expertise."

-> Note: An example among others that you can easily find for yourselves to illustrate the dependency link with ANSES and the industry:

I, the undersigned K G

Employment activity CNRS Address: 3 Rue Michel Ange 75016 PARIS 1-6 FRANCE

Position: Research Director Period: 01/10/2001,

Microwave Place of work: LAAS-CNRS 7.  
FRANCE

ANSES (PUBLIC FUNDING SOURCE) Subject: Coordination of a project on the Evaluation of co-exposure to nanomaterials with radiofrequency waves; academic partners CIRIMAT and industrial

AOP Compensation: To the organization (CNRS) Amount received  
(Organization): Total 216,428 euros Period: 12/2019 - 08/2023

ANSES (PUBLIC FUNDING) Subject: coordination of a project on the Evaluation of genotoxic effects of chronic exposure to radiofrequencies on 3D microtissues; partner ITAV-CNRS

Compensation: To the organization (CNRS) Amount received (Organization):  
Total 100,000 euros Period: 12/2016 - 12/2018

IEEE MICROWAVE THEORY AND TECHNIQUES SOCIETY Position held: Member of the MTT-10 Biological Effects and Medical Applications committee  
(participation in the organization of scientific

events (conferences, scientific presentations in my field of expertise)

Subject: Organization of IEEE International Microwave Biomedical

Conference (lMBioC) in 2020, participation in

the paper selection committee of IEEE IMS, IEEE lMBioC, IEEE BioWireless

Compensation: none. Period: 01/2012 to today

The Institute of Electrical and Electronics Engineers was born from the merger, on January 1, 1963, of the American Institute of Electrical Engineers (AIEE, founded in 1884) and the Institute of Radio Engineers (IRE, founded in 1912)

Page 45

"More than the new signals themselves, it is the new technologies associated with them, as well as the new uses, that will determine their impact on exposure to radiated fields.

By new signals, we mean signals whose characteristics, such as modulation, frequency band, shape, and power, are adapted to the evolution imposed by new technologies.

Understanding the impact of these new signals on exposure requires the continued development of the metrology means necessary for estimating exposure levels to electromagnetic fields.

The development of these systems is continuously progressing. They implement very different emission technologies, using a large part of the electromagnetic spectrum, at frequencies reaching up to several tens of GHz (1-100 Hz). The amplitudes and shapes of the useful signals also vary according to the devices that emit them. Exposure situations can be extremely complex, particularly in the case of the accumulation of multiple sources."

-> Objection: A shortcut, a subjective statement. The development of the nature of new signals is exponential, for example, with OFDM multiplexing. It is increasingly pulsed and less and less a continuous sinusoidal wave. It is false to say that the nature of the signals has little impact, especially when coupled with exponential uses.

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"In all areas of activity, professionals in the private and public sectors are developing applications that require increasingly higher data rates and demand wider bandwidths,

thus a broader spectrum. Trade-offs are then necessary between the new bandwidth needs and the developments of new technologies, particularly around 5G. High frequencies are generally associated with larger bandwidths, which allows for the transmission of higher information rates. These extensive high-speed needs across all activities in the spectrum are also observed

abroad. Until recent years, the radio networks deployed in France (broadcasting, television broadcasting, professional networks, mobile telephony, local wireless networks, etc.) primarily used frequencies between 9 kHz and 3 GHz, until the advent of 5G. Given the heavy use of this portion of the radio spectrum, the general trend in the evolution of wireless technologies and applications is to use higher frequencies, beyond 3 GHz."

-> Note: For high speed, wired is necessary. Always more electro smog, always more multiplexed, always more pulsed without any limits since police powers have been transferred to ARCEP (the president was a former director of France Télécom and vice versa for the president of the French Telecommunications Federation who just came from ARCEP) and to ANFR which washes its hands by designating ANSES every time a health issue is mentioned. Yet ANFR is made up of competent people who wouldn't know Faraday's law on inductions! How can they deny this variable and limit themselves only to that of power?

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" Classically, signals are classified as impulsive when they have a significant duty cycle, meaning that the signal is emitted for a very short duration compared to the repetition rate of the signal. This is typically a RADAR-type signal, with durations on the order of microseconds, for repetition frequencies around kHz, for example. The intensities of the pulses can be strong, but the average value remains low. Both parameters, peak power and average power, must be considered during experiments, and this type of signal is subject to specific treatment for defining exposure limits for individuals. It should be noted that these pulses consist of a sinusoidal signal, possibly modulated, and should not be confused with pulsed electric fields used particularly in therapeutic applications, such as electroporation or electrochemotherapy (ECT)".

-> Note: Here finally is the core of the subject of multiplexed pulsed digital waves. So why is this aspect always overlooked in the conclusions of studies on digital waves? Why do almost all studies use a sinusoidal exposure without pulsed modulation??? Power is the tree that hides the forest by all competent persons. Why do the standards not take into account the pulsed effect?

Page 47

"There are currently few applications that use very high power pulses that can expose the public. This type of device is inherently very directive, which implies a targeted orientation. One can mention the development of devices intended to neutralize individuals or electronic devices using an electromagnetic beam. Systems emitting very brief electromagnetic pulses (on the order of nanoseconds for the total duration of the pulse) and of high intensity (several hundred kilovolts per meter), called ultra-wideband high-power microwave pulses (MFP/ULB), are being developed for civil and military applications (from hundreds of MHz to tens of GHz). There has been no significant evolution regarding this type of signal in recent years."

-> Objection: They confirm that pulsed waves can be used as a combat weapon (somewhat similar to the way 5G MIMO technology works). Always this misplaced focus on power. If you have a strong magnet relative to a sinusoidal coil, nothing happens. We only have an induced effect if we have a sudden variation of the field (by moving the magnet relative to the coil) regardless of the power. However, with digital waves, we have many sudden variations of fields. So saying that there has been no significant evolution is semantically inaccurate by introducing the word power to try to minimize the situation. On the contrary, there is an explosion in the use of pulses exposing the public to a very serious danger regardless of the power, which only worsens the situation.

Page 49

"The levels of static fields also need to be analyzed in relation to the positions of the driver and passengers but are not taken into account in this expertise (frequencies above 9 kHz)."

-> Note: Who cares? Just like with 5G or RFID, we will see.

Page 49

"Their design is also evolving towards even lower levels, for reasons related to electromagnetic compatibility standards and immunity of electronics associated with smart grid devices."

-> Note: lower levels, which ones? power or CPL (pulsed)? We are concerned about the "immunity" of the health of electronic cards of devices against these waves, but what about the health of people!

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"The signal is of the pulsed type (pulse trains) at variable power levels depending on the frequency used and the duration of the pulses (maximum power typically between 0.01 W and 2 W).

The national RFID center, with the help of industrialists, has drafted a methodology for measuring electromagnetic fields based on the exposure limit values proposed in European

directives and recommendations. This document has been validated by the national commission 31- of Afnor (automatic identification and data capture). Anses published, in January 2009,

an opinion and an expert report dedicated to the assessment of health risks related to radio frequency identification (RFID)."

-> Note: once again, standards established by industrialists. And AFNOR does not provide any added value regarding health as it only concerns itself with technical compatibility standards.

Nothing on the pulsed effect!

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"Consequently, UWB (Ultra Wide Band) pulsed technology has become of interest due to its ease of use within buildings for information exchange in the context of low-rate personal networks;

it has been introduced in the IEEE 802.15.4 standard. These applications outside of public telecommunications are characterized by lower bandwidth and power requirements than mobile

telephony. Wireless sensor networks or "machine-to-machine" communications operate at low power levels".

->Objection: low pulsed powers, so we are saved! (Mixing rags and towels: low power that provides no guarantee of non-harmfulness because it is pulsed)

Page 52

"Direct measurement of the electromagnetic field being impossible, given the temporal and frequency shape of the signals, an estimation of the average value is made by measuring the peak value of the signal (invariable over time for system different of MIMO) that is corrected by a coefficient depending on the usage or the environment around the measurement point".

-> Objection: they always measure exposure via power and never the harmfulness by the PAPR. One might suspect that the objective of the ANSES would be to concern itself with harmfulness and not to limit itself to an exposure whose signal nature is nonetheless of utmost importance.

Failure of the ANSES by voluntary omission. Here, there is confusion between the peak value of maximum intensity and the dose of variations in peaks. Even so, what is the finding, the conclusion of the link between the peak value and biological effects?

Page 51

"With the latest communication standards using MIMO (versions called 802.11n and later), systems can use multiple channels and frequency bands simultaneously, and have the ability to change the distribution of power and gains on antennas; the assessment of exposure then becomes very complex."

-> Note: by only evaluating the power and antenna gain, the ANSES is actually only concerned with the worries of industrial technicians.

Page 56

"Numerous in vitro and in vivo experimental studies have already looked into the specific biological effects of modulated electromagnetic fields (in time, frequency, phase, etc.). The complexity of modulated signals is taken into account in some studies, but this is not always the case. Indeed, some studies will consider a significant carrier frequency of the signal, for example at 1.8 GHz, thus generating a so-called continuous electromagnetic wave (CW in English for Continuous Wave). Even if the effect of modulation remains an open question, taking into account a real signal is more representative of reality."

-> Note: Indeed, this is where the scandal lies, the smoke and mirrors of all the ANSES reports on digital waves and thus for assessing carcinogenesis.

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"The deployment of 5G has been strongly encouraged by European institutions, notably through the creation and funding, in 2013, of a public-private partnership dedicated to research on the subject (5G Public Private Partnership), with a budget of 700 million euros of public funds. The European Commission's action plan for the deployment presented in 2016 provided for a coordinated commercial launch in 2020"

-> Note: who authorized the distribution of public money to be broadcast (without a parliamentary vote) and to cover up this anti-democratic system that does everything to hide the reality?

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"On the other hand, these new systems adapt better to propagation conditions and can operate with nano or pico cell type relay antennas; a reduction in average exposure is therefore possible in the medium or long term; a large useful bandwidth of frequencies (the spectrum spread goes from 5 MHz for 3G to 20 MHz for 4G and even up to 160 MHz for new Wi-Fi systems), which implies greater variability in signal power."

-> Objection: once again a biased discourse. By multiplying antennas, a reduction would be possible. Who are we kidding? Knowing that an increase of 3 dBm means a doubling of power (logarithmic scale), here they are estimating an increase of 10 dBm (approximately a multiplication by 10)

Page 63

"It can be assumed that lower levels in UWB result in less exposure than signals operating at narrowband (GSM, UMTS, etc.);"

-> Note: ANSES is still concerned about exposure and nothing about actual harmfulness.

Page 63

"The use of the "packet" mode or the choice of a communication architecture based on the use of the Internet protocol "IP" implies a "burst" type emission leading to great variability in the sending of packets (appearance of power variation in case of demodulation instead of continuous signals for older systems)"

-> Note: Precisely, all the more reason, and what conclusion does ANSES draw from "burst" emissions?

Page 64

"The exposure of individuals to electromagnetic waves radiated by all these antennas is regulated. In particular, the specific absorption rate (SAR) for each model of phone must be below the regulatory limit values standard measurement conditions for uses close to the head, trunk, and limbs. The maximum SAR is 2 W/kg for the head and trunk, and 4 W/kg for the limbs. Research conducted on mobile phone exposure by numerous research teams, including academic ones, whether for 4G or 5G, has particularly focused on defining different antenna structures to minimize SAR and ensure maximum

radiation from the antenna into free space. Three-dimensional numerical modeling allows for the calculation of SAR at any point in the body close to the source, depending on the position of the phone and its orientation. For a MIMO configuration, SAR is calculated for all phase combinations of the signals feeding the different antennas, in order to assess the worst-case scenario and verify that this SAR remains below the applicable limit values".

-> Note: we are saved, great! And? aside from SAR?

Page 66

"These characteristics are generally: ..."

-> Objection: in Electromagnetic Field there is the word Magnetic. When it is pulsed, what about the tesla? because it is still he who induces the current in the receiver to achieve transmission!

Page 66

"SAR is the quantity to prioritize for accurate and representative dosimetry, as it truly and directly informs about the electromagnetic energy absorbed by all or part of the human body, an animal, or a biological model. "

-> Objection: no, it is a deception. SAR represents exposure, and only part of the harm by absorption and not the overall harm because SAR does not integrate the nature of the wave and thus the effects by induction.

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"This is one of the reasons why a typical quantity, namely the specific absorption rate (SAR, in W/kg), is the exposure quantity to be preferred for electromagnetic fields up to a frequency of 6 GHz, and the surface power density (in  $W/m^2$ ) for higher frequencies. SAR and surface power density are representative of the power actually absorbed in the tissues. "

-> Objection: a priori yes if we only consider power, exposure, and if we forget the existence of modulation. However, ANSES should be more concerned about harm rather than exposure. Another omission/diversion/ignorance regarding the highest frequencies. When we have a high-frequency digital wave with data transfer, the modulation occurs at low frequency even if the carrier is high frequency. The propagated energy of the electromagnetic field necessary for the carrier remains mostly on the surface of the tissues, but the propagated energy necessary for low-frequency modulation splits from that of the carrier and penetrates the tissues deeply. When ANSES says that high-frequency waves of digital signals have a low penetration rate, it is a lie because it omits the non-negligible low-frequency modulation energy, especially with multiplexing."

Page 102

"The question also arises for small animals depending on the frequencies or the intermittent or modulated nature of the signals."

-> Note: finally a stated reality. It's strange! It's said, but generally, ANSES forgets this aspect in the specifications of the study protocols (mandated or selected).

Page 103

"The analysis of the quality of publications was conducted exclusively on their methodological aspects (the described results do not intervene in the assessment of quality).

Evaluation criteria for methodological quality have been defined and collectively validated by the working group."

-> Objection: That is to say? In any case, not the harmfulness variable that is the pulsed effect of multiplexed digital waves, which is never taken into account. If the selection was truly carried out, then more than 80% of the studies referenced in this report would be excluded. For example, the meta-analysis highlighted in this report, conducted by the Basel researcher M Rá'osli, patented by ICNIRP, the mobile telephony interprofessional organization, excluding and selecting studies that suit it, without taking into account the reality of the protocols where we find the total absence of pulsed effect."

Page 107

"The criteria for analyzing the quality of in vivo and in vitro studies retained are:..."

-> Note: Many criteria are missing to be taken into account:

- The nature of the signal (continuous or pulsed)
- As suggested in a study by a member of this committee, Mr. Thierry DOUKI, while nothing is mentioned here. The "non-additive effect" (diminishing or increasing effect): One cannot simply add the effects of two studies, each with a study per wavelength. Because the effects due to one wavelength interfere with the effects of the other wavelength when we have a combination of waves of different wavelengths during the same experiment.
- The kinetic aspect/time lag of symptoms relative to the exposure period, as also suggested by Mr. Thierry Chouki, where numerous experiences are noted by EHS (effects sometimes up to two days after exposure). Reminder study fV T.CHOUKI: Time as a major parameter in predicting photobiological events. Time plays a major role in the onset of biological effects. Differences are often observed between the temporal evolution of different photobiological responses to UV radiation after exposure. Cascades of events may take place in the minutes

and hours after irradiation. Therefore, simultaneous events may not have the same intensity at different times following exposure.

We have a cascade of effects sometimes long after exposure that is not taken into account in the analysis.

- Whether the subject is accustomed to being irradiated or not. If the subject had time between two experiments to recover from their inflammation.
- Respect for statistical rules. As already seen at IANFR and with mobile telephony, which compare raw values and percentages.

Page 107

"In vitro and in vivo studies are conducted to investigate biological mechanisms, physiological functions, or alterations in living systems.

There is a very wide variety of protocols

and experimental procedures for conducting these studies. In the field of studying the toxicity of chemical substances, for example, internationally validated references exist to

precisely define the conditions for conducting tests, particularly to ensure comparability. Regarding physical agents, and specifically the study of the specific effects of radio frequencies, there is no reference protocol for the exposure of biological organisms. Very different parameters (frequencies of radiation, modulation of signals, duration of exposure, etc.)

are adopted from one experiment to another, making comparisons and the grouped analysis of results very difficult."

-> Note: Of course, there is no established reference protocol for the exposure specific to each type of wave since the objective has always been to reality and notably omitting certain indicators of harmfulness to only speak of a vague notion of exposure regardless of the nature of the wave.

Heterogeneity of study protocols but ANSES selects/weights studies without pulsed effect more.

If it is difficult to compare and conduct pooled analyses, then why highlight the meta-analysis by M Ráosli three times to try to support the conclusion of this report?

Page 136

"Exposure was assessed using questionnaire data, but some data from available telephone operators were also included in the study (D. Aydin et al. 2011-).

-> Note: Well, of course!"

"The CEFALO study has limited power, which could explain why some odds ratios are increased but not significant. Moreover, self-reported data such as the number of calls and their

duration may introduce classification bias. The use of operator data to determine exposure was probably useful in reducing this bias, but these data are not available for the entire sample and their availability is not random (D. Aydin et al. 2011)."

-> Note: Especially since calls could be made with wired landline phones. Nothing would surprise us.

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RÅ'Å'sli et al. (2019) conducted a meta-analysis of studies conducted up to December 31, 2017, on mobile phone use and the risk of intracranial tumors (cf. 5.1.1.1.2).

Regarding children, only one study on the association between mobile phone use and the risk of brain tumors (CEFALO study) is included, and therefore there is no calculation of meta-risk

(RÅ'Å'sli et al. 2019)."

-> Note : M RÅ"Å"SL| is part of IARC... just look at the protocols of the selected studies and you will understand the biases.

Page 141

"Sato et al. (2016) presented an analysis of incidence data for malignant tumors of the central nervous system in Japan. They are based on the results of regional registries, extrapolated to the entire country (Sato et al. 2016). Notable increases in annual incidence rates are observed. When these developments are put in link with those of exposure to mobile telephony, they appear incompatible (as too significant) with the risks associated with mobile telephony estimated in the Interphone case-control study.

The quality of regional cancer registries improved during the period 1990-2000, but this also had the effect of increasing the number of recorded cases and thus causing an apparent inflation in the annual number of cases."

-> Note: why too significant? The use and exposure in Japan would be different from those in Northern European countries!? Would having an improved record be detrimental to a conclusion?

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"due to the assumed start of mobile telephony use in 2005 ".

-> Note: the Swedish studies and the meta-study resulting from them between 1997 and 2005 show the sudden increase in diseases starting from 1997 after the massive introduction of mobile telephony in companies. Indeed, cancers appeared well after 1997.

Page 142

3The model underlying the analysis method is that of evaluating the impact of a sudden change (typically a marketing campaign). It therefore does not seem fully adapted to the analysis of the effect of the gradual development over a decade of mobile telephony use. Furthermore, the elements included in the counterfactual model are little discussed. Nevertheless,

the increase in the incidence of glioblastoma multiforme since 2005, particularly among people over 65, appears to be poorly compatible with the hypothesis of an effect from mobile telephony use."

-> Objection: Why? A very real assertion but a conclusion pulled out of a hat! Elderly people are not less exposed to DECT phones..

Page 150

"Jin et al. (2011) studied the induction of tumors in Sprague-Dawley rats (50% males and 50% females, 20 animals per group) exposed whole body to CDMA signals at 849 MHz and W-CDMA at 1.95 GHz simultaneously (Jin et al. 2011). The SAR was 2.0 W/kg for each signal, for a total of 4 W/kg. The exposure was delivered for 45 minutes per day, 5 days a week for 1 year. No tumors were observed in the brains of the control-exposed or exposed rats."

-> Note: CDMA is not pulse multiplexing like OFDM. CDMA relies on the principle of pseudo-multiplexing which divides the frequency band into several transmit information. Nothing to do with highly pulsed OFDM. So it makes sense that they do not find any effect on health.

Page 152

"The study on mice was conducted on young animals (5 to 6 weeks) exposed after a short acclimatization period. The preliminary study over 28 days was conducted on 10 males and 10 females with SARs of 5, 10, and 15 W/kg in GSM and CDMA. An exposure to an SAR of 15 W/kg inducing a significant increase in body temperature (of more than 1°C), the authors chose a maximum SAR of 10 W/kg for the "2-year" study. The other two SARs retained are 5 and 2.5 W/kg (National Toxicology Program 2018b)."

-> Note: CDMA is not highly pulsed OFDM. CDMA for irradiating rats that do not have a mobile phone and even less individual phone addressing to exchange data among themselves and thus "slice the wave" for multi-users... Nevertheless, a CDMA generator can perform a simulation that actually brings little specificity compared to a continuous wave. So without a pulsed effect, the result can only be somewhat inconclusive compared to reality.

Page 153

"A second point for which the working group expresses reservations is the final interpretation of the data and the classification of the carcinogenicity of radio frequencies proposed by the NTP. The authors assume that if an effect is observed in an organ for a single SAR without a dose-effect at the 3 levels of SAR in GSM and CDMA, the carcinogenic effect of

radio frequencies cannot be considered "proven." This hypothesis seems too rigid to the working group, which recalls that there are non-proportional relationships between exposure to toxic chemical substances and the resulting effects. This type of dose-response relationship cannot be ruled out for radio frequencies."

-> Note: Yes, precisely if there is a non-proportional dose-response relationship, this does not exclude that a tiny dose is sufficient to elicit a response. And it does not exclude that there may be a confounding variable at the SAR like the pulsed effect, which is very harmful even at low SAR.

Page 153

"However, it can be noted that with the CDMA signal, 3 cases of gliomas are observed at 1.5 W/kg and no tumors in the control-exposure group or at the other SARs; 1 case of meningioma, 1 case of neuroblastoma, and 1 case of sarcoma are observed for the exposed females and none in the control-exposure group. the induces are not statistically significant. With GSM and CDMA signals, only the schwannoma is observed in the trigeminal ganglion, with no link to the level of exposure.

-> Note: with CDMA, the nature of the emitted wave begins to show a pseudo-pulsed effect (even if this has nothing to do with the pulsed effect of OFDM) we are starting to see consequences.

Page 155

"Studies based on exposures for less than 3 months have shown genotoxicity of radiofrequency. In Gähler et al. (2010), mother rabbits and their newborns were exposed (or not) during pregnancy to a GSM signal at 1.8 GHz (1-B mW/kg for 7 days) (Gähler et al. 2010). The authors highlighted a statistically significant increase (+15%) of 8-oxodGuo, a biomarker of oxidative damage, in the DNA of the brains of exposed females but not in their offspring. Without exposure to radiofrequency, no effect was observed. Gähler et al. (2014) exposed the heads of male Wistar rats to a frequency signal of 2.45 GHz modulated at 217 Hz, at a SAR of 0.02 W/kg (Gähler et al. 2014). The exposure (1 h/day for 30 days) resulted in an increase in the level of 8-oxodGuo in brain DNA. The authors observed that the administration of a garlic extract prevented this increase. Kesari et al. (2010) exposed developing male Wistar rats 35 days after birth (PN) to radiofrequencies at 2.45 GHz modulated at 50 Hz, 2 h/day for 35 days, at a power density of 0.34 mW/cm<sup>2</sup>, resulting in a calculated SAR of 0.11 W/kg (Kesari et al. 2010a). In a whole brain analysis, they observed a significant increase by a factor of 4 by the neutral comet assay."

-> Reminder of what the pulsed effect is:

The cause-and-effect link is THE BRUTALITY OF THE FIELD VARIATIONS of the modulation (and not the amplitude of the intensity; indeed, to understand well, one must abstract from the power).

This brutality generates induced effects (universal properties of physics: Faraday's law and Maxwell's 3rd law).

It is therefore not related to the intensity/power level but to the brutality of the variations in intensity of the pulsed electromagnetic field.

Indeed, even if a magnet placed in front of a solenoid coil has a strong power, absolutely nothing happens.

If we move the magnet, then we create a variation of the field.

We have an induced current that is created.

Digital waves use a binary modulation (0 and 1) in steps, where the variations are abrupt, especially if we have a large number of subcarriers in multiplexing that add up to further

increase the peaks and the abruptness of their variations. The digital wave is no longer truly a sinusoidal wave but acts like a machine gun of intensity variations and frequency

variations. It should be noted that this pulsed modulation on a so-called high-frequency carrier is actually low frequency, which penetrates deeply into the body. The energy necessary

for modulation is split from that of the carrier and penetrates deeply, creating induced currents inside the body, skin effect, and ion

sequestration (electrically charged ions that

undergo field variations). The sequestered ions can no longer participate in concentration exchanges during biochemical processes that, however, require total freedom of action.

Homeostasis can no longer occur, leading to health problems. The power indicator mainly indicates exposure and only a part of the overall

harmfulness. However, this power indicator

of standards becomes a deception with digital waves because the main harmfulness lies in another variable, which is the pulsed effect. The most appropriate indicator is the PAPR

(Peak Factor x Peak Factor) (or the derivative of the slope of the curve to model the abruptness). Currently, with the power (SAR), we do not distinguish according to the type/nature

of the wave (without modulation or with pulsed modulation). The SAR is a deception because it is insufficient to qualify harmfulness. It is like measuring the amount of food

eaten/absorbed (one can become ill if one eats too much), but in reality, it is better to ask whether we are eating fresh fruits, fries, or poison (pulsed effect of digital).

In conclusion: The more we have data transfers, especially multiplexed, the more we will have abrupt peaks, and thus the more we have dangerous pulsed effects.

Let's resume the critical analysis of this pre-report, and notably what follows shows very well that the cause-and-effect link depends on the nature of the signal and here on the pulsed effect.

-> Note below: Eureka! Finally, studies presented by ANSES with exposures with modulations with a pulsed effect worthy of the reality of digital waves! And we observe consequences on health.

(For info, garlic is a blood thinner. Thinning the blood is suggested to EHS by the medical community to counteract the hypo-pulsatility observed in the brain following exhaustion due

to excessive adrenaline production (an ancestral reflex of the body to help escape a dangerous area) when individuals rendered EHS are exposed...)

Page 156

"Akdag et al. (2016) used adult male Wistar rats exposed whole body to 2.4 GHz radiation (SAR < 0.2 W/kg) for one year (Akdag et al. 2016). No increase in DNA damage (comet assay method)

was observed in the whole brain of the exposed rats. Khalil et al. (2011) worked with male Balb/c mice that they exposed to radio frequencies at 900 MHz; at a SAR of 1 W/kg (Khalil et al.

2011). The exposures were 30 min/day for 30 days. Twenty-four hours after exposure, they observed no increase in the level of 8-oxodGuo on DNA in the whole brain. Alkis et al. (2019)

exposed the heads of male Sprague-Dawley rats to radio frequencies at 900, 1,800, and 2.1 GHz (SAR < 0.17 W/kg), 2 h/day for 6 months (n = 7) (Mehmet Esref Alkis, Bilgin, et al. 2019).

Comet assays were performed on the whole brains. No significant difference was observed between the groups exposed to 900 and 1,800 MHz and the control-exposure. In contrast, an increase in comet tail density was observed in the group exposed to 2.1 GHz compared to the control-exposure group. "

-> Note: Of course, they found nothing since Akdag et al. (2016) and Khalil et al. (2011) did not use modulated pulsed waves in their exposure protocol as is required for a digital wave, and as GÄ¼rlar et al. (2014) did conversely (see page 155).

Page 158

"No DNA damage was observed by the comet assay method for the 2 SARs. Xu et al. (2010) also worked with primary cortical neuron cultures from newborn Sprague-Dawley rats (Xu, S. et al. 2010)

. They were exposed, after 8 days of culture, to radio frequencies at 1800 MHz with an average SAR of 2 W/kg, for 24 h with 5 min "on" and 10 min "off." No significant change in the level

of 8-oxodcuo was observed. A significant decrease in the number of mitochondrial DNA copies (50% of the control; p < 0.01) can also be noted."

-> Note: systematically when it is pulsed modulation we observe a significant increase in health problems initiated by cancer

Page 159

"the absence of apoptosis induction (caspase-3 activity measurement) after exposure of the heads of adult male rats (GSM signal at 900 MHz with a SAR of 0.1-7 and 0.58 W/kg for 10 months, 2 h/day (Dasdag et al. 2009) or after whole-body exposure of 14-month-old female mice (W-CDMA signal at 950 MHz, at a power of 52 W with a SAR of 5 W/kg for 8 months, 2 h/day (Jeone et al. 2018))."

-> Note: logical since the signal is not pulsed

Page 159

"none of these studies showed induction of cell death after exposures to a continuous signal (at 900 MHz, 0.26 W/m<sup>2</sup>, for 5, 10, and 20 min; at 900 MHz, at 0.25 W/kg, for 24 h)"

-> Note: Logical since it is a continuous signal thus not pulsed

Page 159

"which shows induction of apoptosis in neocortex neurons after exposure to pulses at 400 kV/m (Deng et al. 2014), rat embryos at E18)".

-> Note: PULSED, we have a health issue"

Page 159

"Zhang et al. (201-3b) showed that exposure to radiofrequency (at 2.45 GHz, pulsed signal at 2  $\mu$ s, SAR of 6 W/kg, duration 24 h) of primary cultures of cortical neurons from newborn rats is cytotoxic by decreasing cell viability and inducing apoptosis (Zhang et al. 201-3b)."

-> Note: Apoptosis (or programmed cell death) is the process by which cells trigger their self-destruction in response to a signal. Logical since it is pulsed

Page 159

"In contrast, Eghlidospour et al. (2017) did not observe apoptosis in neurospheres prepared from neural stem cells derived from adult male mice and exposed to 900 MHz for 5, 30, 60, and 120 minutes (SAR of 2.287 W/kg) (Eghlidospour et al. 2017)."

-> Note: Logical because the protocol conditions are different; here we do not have pulsed modulated wave emissions.

Page 160

"None of these studies showed an increase in cell death after continuous exposure (at 1,950 MHz, at a SAR of 0.3 W/kg for 20 h or at 1,460 MHz at a SAR of 4 W/kg, 4 h/day for 4 days

(Zeni et al. 2021; J. H. Kim et al. 2021b) or intermittent (at 935 MHz, 4 W/kg, for exposure cycles of 2 min "on" and 2 min "off" for 2 h and 24 h; at 1,800 MHz, at a SAR of 4.0 W/kg, for exposure cycles of 5 min "on" and 10 min "off" for 1, 6, or 24 h (Zielinski et al. 2020; Su et al. 2017)."

-> Note: Logical because this is continuous.

Page 160

"Hernández-Bule et al. (2019) observed an induction of apoptosis in the human neuroblastoma cell line N869 after sub-thermal electric exposure with 5 min pulses in the same 350-650 kHz range (Hernández-Bule et al. 2019)."

->Note: Health PB, logical since this is a pulsed exposure.

Page 163

"Thirty-eight studies were listed, including 21 on exposure times greater than or equal to 1 month, 13 studies conducted on exposure times less than 1 month, and 4 studies in which the authors studied exposures both below, above, or equal to 1 month. For 25 studies with exposure durations greater than or equal to 1 month (from 30 days to 1 year), at frequencies ranging from 900 MHz to 50 GHz, 16 describe an increase in oxidative stress, 5 in which radio frequencies have no effect, 1 for which radio frequencies decrease it, 2 with a decrease in antioxidant capacity (without measurement of oxidative stress (OS)) and 1 with an increase in antioxidant capacity but no effect on OS. For the 6 studies observing no effect on oxidative stress, 3 of them were conducted with exposure at a frequency of 900 MHz, the other 3 at frequencies from 1,950 to 2,450 MHz. For the 17 studies with durations less than 1 month (from 6 min to 28 days), 11 observe stress oxidant (4 at a frequency of 900 MHz, 5 at frequencies above 900 MHz), 3 a decrease in oxidative stress, 1 a decrease in antioxidant capacities without measurement of SO, 1- with an increase in antioxidant capacities without measurement of SO and 1 with no effect. No correlation between frequency or SAR and the effects of radiofrequency could be demonstrated, regardless of exposure time."

-> Note: no dichotomy between studies with exposure to pulsed modulated waves and those with continuous waves. Therefore, it is logical that nothing can be highlighted knowing that the cause-and-effect link is due to the pulsed effect as a study variable that has not been...

Page 165

"No effect on oxidative stress"

-> Notes: All studies on this page use continuous waves and therefore non-pulsed

which logically gives us a limited effect on oxidative stress. Many studies become misleading because they do not use pulsed waves of the digital type, they are not representative of the reality experienced, endured by the population. Most of these researchers do not know what a digital wave is and delegate their wave generator installation to a subcontractor who goes for the simplest and according to the specifications that do not specify the obligation to have pulsed modulated waves

Page 166

" at 2100 MHz (SAR between 0.57 and 0.95 W/kg; 2 h/day),"

-> Note: continuous wave...

Page 167

"In the hippocampus of male Wistar rats, exposure for 6 h or 1, 3, 7, 14, or 28 days to 2.856 GHz in pulsed mode (density of 30 mW/cm<sup>2</sup>) increased ROS production at 6 h, 1 day and 3 days"

-> Note: pulsed mode, health PB

Page 167

"In mice in which seizures are triggered by pentylenetetrazole, Esmekeya et al. (2016) observed that exposure to radiofrequencies emitted by a GSM phone in communication mode (900 MHz, at 1-4.3 +/- 3.44 V/m or 0.301 W/kg, for 15 or 30 minutes), lipid peroxidation and brain NO<sub>x</sub> levels increased while GSH levels were lower than in control-exposed (Esmekeya et al. 2016)."

-> Note: Finally, we find a study with pulsed wave as in communication. Most studies on this page and the one preceding it have results that have nothing to do with this report since they were conducted with continuous waves. Note: The high level of NO<sub>x</sub> is an inflammatory sign. NO<sub>x</sub> can be very toxic to neurons. In communication, we therefore have a pulsed emission and we notice health problems.

Page 167

"The exposure of 4-week-old male Wistar rats to consecutive (L h/L) had no effect on stress (Maaroufi et al., 2011). "

-> Note: continuous waves to a signal at 150 kHz for 21 days oxidizing in the hippocampus and cortex.

Page 168

"Primary cultures of rat cortical neurons (E1B) exposed to 200 pulses of 400 kV/m caused an increase in MDA with a decrease in SOD activity 24 hours after exposure (Deng et al. 2014)".

-> Note: confirmation of health PB with these pulsed waves and the appearance of symptoms delayed relative to exposure as all EHS mention.

Page 168

"The exposure of primary astrocytes taken from newborn Wistar rats, for 5, 10, or 20 minutes to a "continuous" signal at 900 MHz or to a 900 MHz signal modulated in amplitude at 50 Hz

(power density of 0.26 W/m<sup>2</sup>), resulted in an increase in ROS production in the cells exposed in amplitude-modulated mode after 20 minutes of exposure (Campisi et al., 2010)."

-> Note: comparison between the same study conducted twice, but one with continuous wave and the other with pulsed wave. The conclusion is unequivocal: danger with pulsed waves.

Page 168

"18 days at 1,800 MHz (SAR of 2 W/kg or 10 W/kg) for 24 hours had no effect"

-> Note: Continuous wave thus no effect

Page 168

"1,800 MHz (SAR of 3.0 W/kg) for 24 hours had no effect"

-> Note: Continuous wave

Page 168

"which resulted in an increase in COX-2 and NO, 12 hours after exposure (He et al. 2016)"

-> Note: Same confirmation of the delayed onset of symptoms relative to exposure, thus we understand that provocation tests must take into account the response time.

It's a bit like a sunburn; it's in the evening or the next day that the symptoms and suffering are present/observed.

Page 169

"No effect on oxidative stress"

-> Note: All studies on this page use continuous or quasi-continuous waves

Page 170

"It should also be noted the work of Pilla et al. (2012), who observed a 3 times stronger production of NO in response to LPS after exposure to pulsed radio frequencies (27 MHz, duration of 2 to 4 ms, repeated 1 to 5 times per second, for an incident field of V/m, for 1-5 minutes) (Pilla 2012)".

-> Note: Obviously since we have pulsed waves here

Page 170

"of 1 hour, 6 hours, and 24 hours at 1,800 MHz at a SAR of W/kg (Su et al. 2018)"

-> Note: Continuous wave, no issues detected

Page 170

"after 2 hours of exposure to 1,950 MHz (W-CDMA signal) with SARs of 0.2, 0.8, and 2.0 W/kg (Hirose et al. 2010)."

-> Note: Continuous wave, no issues detected

Page 171

"Mice were exposed whole body to electromagnetic fields at 900 MHz, at a SAR of 4 W/kg for 60 minutes (acute exposure) or 5 days a week for 104 weeks (long-term exposure).

The exposure did not produce any microglial activation (absence of marker expression Iba1) (Finnie et al. 2010)."

-> Note: Continuous waves

Page 171

"In 3 studies by He et al. (2014, 2016, 2020), the murine microglial embryonic cell line N9 was exposed to pulsed radiofrequencies (500 pulses of 2 ms per second) at 2.45 GHz at a SAR of 6 W/kg for 20 minutes (He et al. 2014; 2016; 2020). According to the authors, these results would explain the decrease in phagocytic abilities due to radiofrequencies."

-> Note: Pulsed waves, health Pb

etc etc see up to page 212 etc etc always dangers with pulsed waves and insignificant with continuous waves

Page 171

"radiofrequencies (1-950 MHz, SAR of 5.36 W/kg) before injection (Y. Liu et al. 2012). No subcutaneous tumor development was observed in animals xenografted with cells exposed to radiofrequencies".

-> Note: Continuous waves

Page 172

"Wang et al. (2015) also observe that exposure to pulsed microwaves (50 mW/cm<sup>2</sup>) at 2.856 GHz caused the widening and rupture of tight junctions between cells, with a decrease in trans-endothelial electrical resistance values and an increase in permeability assessed by the transmission of horseradish peroxidase (C. Wang et al)".

-> Note: Pulsed wave, Health limit

Page 172

"The absence of evidence (from high-quality data or with minor methodological limitations) does not allow for highlighting, in humans exposed in vivo, the induction by radio frequencies of a set of mechanisms involved in the carcinogenesis of brain tumors."

-> Note: FALSE. There is a selection bias of studies between those with continuous signal and those with pulsed signal. As if the protocol conditions were identical.

Those with continuous waves are not representative of the reality experienced by the population.

Moreover, the indicator of the severity of field variations creating the induced effects is non-existent, which would further help confirm the pulsed effect on health.

Page 180

"radio frequencies at 90 kHz at 93.36 mT for 2 and 4 hours without causing cellular apoptosis (Shi et al. 2014)."

-> Note: Continuous signal etc etc

Page 191

"Zhijian et al. 2010 (GSM, at 1-800 MHz modulated, SAR of 2 W/kg, for 24 hours). Gapeyev et al. 2014 also reported that this effect is not seen in continuous wave while it is clear with modulated signals."

-> Note: When still. And what does the ANSES conclude!

Page 192

"No induction of oxidative stress in human hematopoietic stem cells was observed by Gläser et al. (2016) after exposure to GSM signals (at 900 MHz), UMTS (at 1,950 MHz) or LTE (at 2,535 MHz), at SAR values of 0.5, 1 and 4 W/kg."

-> Note: Continuous wave

Page 193

"Szymański et al. (2020) suggest, through complex experiments involving numerous different culture conditions, an immunomodulatory effect of radio frequencies (at 900 MHz and pulses of 570  $\mu$ s with a recurrence frequency of 877 Hz, estimated SAR of 0.024 W/kg) in human blood mononuclear cells (Szymański et al. 2020)."

-> Note: Pulsed waves, health Pb

Page 193

"that there is no effect of an ex-vivo exposure to modulated radio frequencies (at 900 MHz, 2 hours/day, 5 days a week for 4 consecutive weeks, estimated SAR of 2 W/kg)

Note: Continuous waves

Page 198

Similarly, the same team (Laudisi et al. 2012) explored the consequences of exposure to a Wi-Fi signal during gestation on the immune system (and more specifically

on the T cell compartment) of newborn rats. The female rats were exposed to 2.45 GHz (SAR of W/kg) during the last 2 weeks of gestation. No abnormalities were observed

in the proliferation of thymocytes in males or females, whether at 5 weeks of age or later at 26 weeks. No differences due to Wi-Fi exposure were observed in the frequencies

of CD4+ and CD8+ T cells. Ouadah et al. (2018) reported an invasion of the immune infiltrate (lymphocytes and macrophages) when rats, which had glioblastoma-type brain tumors (C6 cells)

grafted, were exposed to the electromagnetic field (input powers of 0.17 and 0.33 W), compared to the control (Ouadah et al. 2018)."

-> Observation: When researchers are asked what type of signal it is, we realize that it is actually not Wi-Fi but a continuous wave at 2.45 GHz. See also the study conducted for ANSES presented in March 2023 where we had this deception (voluntary or not) at work.

Page 199

"The results of Moraitis et al. indicate that exposures to a continuous wave (CW) signal at low intensity levels (3 V/m) did not induce any significant DNA damage; however, a slight increase was observed for the very high level (76.4 V/m) (Moraitis et al. 2015)".

Note: continuous wave therefore logically finds nothing

Page 199

"Khalil, A. M., et al. (2011) exposed balb/c mice to a GSM signal (900 MHz, SAR of 1 W/kg) for 30 minutes a day for 30 days"

Note: without communication, and under continuous wave, none pulsed

Page 200

"Three studies on immunosuppression have been identified "

-> Note: Continuous waves for a conclusion on digital waves, but what are these studies doing in this preliminary report?

Page 202

"Three of the four identified studies on cell mortality in vivo and in vitro report no effect from exposure to radiofrequency. Only one study observes a mortality effect after one hour of exposure, but the exposure levels used are very high, well beyond the regulatory exposure limits for the general public and workers. It therefore seems that radiofrequencies do not impact cell mortality"

-> Note: Continuous non-pulsed waves

Page 202

"The only two in vitro studies on the response to DNA damage show a tendency of radiofrequencies to fragment DNA, but only with certain types of exposure (UMTS signal, as opposed to a continuous signal)"

Page 208

"In female rats, the incidence of adenomas in the pars distalis of the pituitary significantly decreases in groups exposed to a GSM signal with SARs of 1.5 W/kg (33/90 vs 31/90) and 6 W/kg (32/50 vs 43/90)."

Note: a GSM signal not in communication and not exchanging data then it is continuous waves

Page 212

"Valbonesi et al. (201-4) exposed rat cells to continuous waves of 1.8 GHz (carrier frequency without modulation) and to two GSM modulation schemes, GSM-217 Hz and GSM-Talk, at a SAR level of 2 W/kg, for 4, 16, or 24 hours (Valbonesi et al. 201,4). After exposure of PCL-2 cells to the GSM-217 Hz signal for 16 or 24 hours, the transcription of HSPT0 is significantly increased, while no effect was observed in cells exposed to continuous signals or GSM-Talk."

-> Note: As the saying goes: the mass is said regarding the harmfulness of these pulsed digital waves through all these experiments by comparing the continuous effect and the pulsed effect.

It is pointless to continue to demonstrate what has been demonstrated and that does not want to be seen by mixing studies, some of which use continuous waves that are not representative

of reality.