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Oregon Health Authority Condemned by Scientists For Scrubbing Report on Wireless Hazards in Schools

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PHOTO CREDIT:

Tim Lauer. iPads used by fourth graders in Portland, Oregon.

This first article in a two-part series examines the fraught process of generating Oregon’s report on wireless tech’s risk in schools. The second will plumb the published research employed.

As to credibility, “You only have that when you bring together the strongest voices from opposite poles. Otherwise, the outcomes are suspect. If you want to be seen as open and honest, you’ve got to do the hard work of bringing combatants together, and then see how things sort out. What does the data say? That last part is not something you can control.”—George W. Bush’s Treasury Secretary Paul O’Neill to Ron Suskind in [The Price of Loyalty](#).

No way round it: Oregon’s public health agency, the Oregon Health Authority (OHA), has issued a shoddy, biased report on the potential harm to the state’s roughly 600,000 schoolkids from the wireless devices proliferating in classrooms. The risk, for example, to a classroom full of 25 nine-year-olds along with 25 tablets, each with perhaps two or more wireless transmitters (Bluetooth and WiFi) pumping out Radiofrequency Radiation (RFR), a WiFi router stronger than the one in your home.

Even in the watered-down version that ultimately passed—with OHA and the Oregon Department of Education (ODE) effectively vetoing several stringent provisions in the bill’s original language—[the OHA review](#) of the scientific literature was still a high-stakes affair. The

law engendering it, [SB 283](#), required that if OHA determined that exposing students hours a day to RFR was “harmful,” the state would have to tell Oregon’s public and private schools that they should turn to “alternative technologies that would reduce students’ exposure.” ODE, which the law’s backers say wanted nothing to do with it, would have to “develop recommendations” to comply.

Said State Senator Michael Dembrow, Chair of the Senate Committee on Education, “If the report had shown evidence of increased risk, it may have led to immediate action.” Dembrow added, “If OHA had found a problem, then the Department of Education would have had to develop a policy to address it, and the legislature would have come back to the issue.”

One legislative observer said, “I was shocked it passed—it was a real uphill climb. Whatever the bill’s flaws, to even get the wireless risk issue raised in the [Capitol] building is worthwhile.”

Perhaps. But the whole issue of kids’ potential risk became moot after the report’s lead author, Ali Hamade, Ph.D., Oregon’s Deputy State Epidemiologist, dropped a statement into the last paragraph of the report’s Executive Summary, the sweet spot of the entire 100-page effort.

The report went through five drafts total, all completed in November 2020. The [first draft](#) was dated November 3, the last, November 20. Hamade’s sotto-voce addition to the [third draft](#) of the report—the sole draft that eschewed the use of track-change to highlight additions to the text – states that OHA found insufficient evidence that wireless radiation in schools “is associated with adverse health effects.” A key finding if true, obviously, yet the summary offers no clue what it’s based on – as the report’s critics note.

(In a post-release defense of the report – “[Frequently Asked Questions](#)” – OHA took matters a step beyond its insufficient evidence finding when it rationalized the Oregon Department of Education having no need to mitigate potential risk. See below.)

Said Dembrow, the Oregonian with the most sway on how the report was received, “I remember seeing the report. I scanned the Executive Summary.” He’s not to blame for taking a state agency’s formal report at face value.

Dembrow added, “If there are flaws in the report, they need to be remedied. The report is important to get a clear assessment of the science.” He said, “What we got was a first step in an ongoing process. We need to have a hearing to hear both a critique of the report and OHA’s defense. Then the legislature needs to come up with funding to do a more in-depth report.”

He added, “It was a mistake on OHA’s part to make it look like a real study. It’s more like a memo.” Unlike a scientific journal article, “There were no reviewers as such.”

Dembrow is correct, though OHA does list four reviewers on page 2 of the public report. But two were heavily involved in the report’s design, execution and writing – plus they lack the rigorous scientific background to judge the report. One reviewer, David Howe, is an OHA Section manager with an MA degree whose job focuses on “Administration and Program

Support” helping to protect Oregonians from radiation from “X-ray equipment, radioactive materials, tanning beds and other radiation-generating devices.”

The report’s [fourth draft](#), dated November 18 is referred to in the URL as “Howe ... edits.” It features a couple of dozen salutary track-changed copy edits to the first eight pages of the text, presumably done by David Howe. There are none past page 8, none regarding the substance of OHA’s review of the literature. If this constituted Howe’s review, it’s fairly thin gruel.

A second reviewer was actually in charge of the report’s execution. Andre Ourso, JD, MPH, is a senior OHA administrator who previously managed the Oregon Medical Marijuana Program. Ourso offered a few editorial comments to both the first and second drafts, the latter affecting the report’s treatment of studies by Aydin and Elliott, as discussed below. But OHA would be hard-pressed to categorize his few comments on initial drafts as a *review* of the report.

OHA declined to comment when asked the date and substance of Ourso and Howe’s reviews. As far as we know, David Howe, who lacks the academic background to conduct a rigorous review of a formal state risk assessment, offered some copy edits of limited significance.

Andre Ourso’s comments on the first draft consisted of two real suggestion regarding the report’s overall organization and a note to fix or delete a sentence. His second-draft comments included mention of removing a trademark and to spell out abbreviations on their first use, as well as his comments on the Aydin and Elliott studies. But these contributions to the report’s early drafts certainly don’t approach a formal review justifying Ourso’s listing as a reviewer. If Ourso did more, neither he nor OHA will say.

The other two ‘reviewers,’ State Health Officer and State Epidemiologist, Dean E. Sidelinger, MD, and Duyen L. Ngo, Ph.D., OHA Surveillance Technical Lead, both did their reviews after the report was, as I was told, “set in stone.” After the report was finished.

According to OHA, Sidelinger had “no edits” and Ngo provided only “verbal comments” – in both cases after the report was done. It’s hard to see what they provided aside from the imprimatur of their names. And neither, of course, offered an actual independent review as both are senior staffers on the OHA payroll.

Given the apparent lack of any real review—OHA having refused to say otherwise—basic responsibility for the report can be laid at the feet of lead author Dr. Hamade.

Said Sen. Michael Dembrow, “The listing of reviewers on page two may be aimed at giving it more cachet than it deserves.”

In Dr. Sidelinger’s case, his name means something here in Oregon. He’s well known as the effective Covid-fighter in the distinctive bowtie; among his regular media appearances, he’s the expert Governor Kate Brown turns to at her Covid-news press conferences. His countenancing of the OHA risk review carries weight since his is the only name among the eight listed on page 2 as authors or reviewers that Oregonians might know.

The set-in-stone [fifth draft](#) was produced on November 20, and Ngo did her review on November 25. The report was facing a January 2 release deadline, and Sidelinger was enlisted for a review that occurred on December 18. (Again, he offered “no edits.”) Given the post-completion timeline, there’s no indication that either Sidelinger or Ngo influenced the report in any meaningful way. (Note that Sidelinger and Ngo’s names are missing from the reviewers’ listing on page 2 of the fifth draft, the report complete. Only Ourso and Howe are listed as reviewers.)

OHA Public Records Coordinator Jeanne Windham told me the only changes after the November 20 [fifth draft](#) were additions to two junior authors’ credentials, and some fiddling with fonts and margins. “But nothing was changed in the text.”

(As Windham said, there was an [undated draft](#) of the report after November 20, but the only changes from the November 20, set-in-stone version were the added credentials and the font and other design changes. OHA says it doesn’t know this draft’s exact date, but given the added credentials, it was after November 20.)

Having staffers review departmental reports is not unheard of in government agencies, though it’s not ideal, particularly when the two reviewers with the academic background to perform a credible review did theirs after the report was finished. (With the Christmas lull looming, followed by a quick January 2 deadline, one can readily imagine that the OHA team was seeking to boost the report’s credibility. OHA says Sidelinger “provided approval” on December 18.)

Devra Davis, Ph.D., founder of Environmental Health Trust, said the report would never have passed peer review or been published by the National Academy of Sciences where she held a senior post. She added, “It’s a highly selective, skewed analysis of a limited amount of literature that includes biased studies funded by industry.”

Independent review seems called for since the OHA effort suffered from being produced behind closed doors, without the benefit of outside experts with experience in RFR research. Nor was there an opportunity for public comment typical of the output of agencies such as the Oregon Department of Environmental Quality, the U.S. Environmental Protection Agency and many others.

Sub-rosa changes to the third draft

Added to the Executive Summary, the *Nothing to see here folks, let’s move along now*, third-draft statement on purported insufficient evidence achieved its goal. It was inserted in a long report with no track-changes, a departure from other pre-publication additions and deletions. In fact, the authors made at least four significant and similarly unheralded changes to the [third draft](#), dated November 16.

Among the four changes that ended up in the final report, one bit of text quietly added to OHA’s review of the literature downplayed a study on cell phone use and brain cancer in children. [Aydin, et al.](#) (2011), (OHA # 8) was published in the *Journal of the National Cancer Institute*. (NCI is part of the federal government’s National Institutes of Health.) The authors found a two-fold increased risk of brain cancer in a particular subset of subjects, children who had their

mobile phones the longest, and the first draft made reference to that. An “explanatory sentence” was added in the third draft lessening the impact of that increased cancer-risk finding.

A second quiet change regarding cancer and children ([Elliott et al. \(2010\)](#), OHA # 9) deleted the first draft’s mention that the British government “and the mobile telecommunications industry jointly funded this study and approved its design.” According to OHA, Elliott et al. investigated 1,400 cases of “early childhood cancers such as brain, central nervous system [and] non-Hodgkin’s lymphoma” in children age four and younger. That’s 1,400 very young British kids, their lives in the thresher before they’ve begun.

The no-notice addition to the Aydin paper downplaying increased brain cancer risk and the deletion of the mention of the Elliott study’s industry funding both occurred in the third draft a week following editorial comments by OHA’s Andre Ourso – one of the report’s reviewers. Regarding Aydin et al., Ourso commented in the margins of the November 9 [second draft](#): *“Maybe an explanatory sentence of why we would see this increase? (i.e., over time we will see an increase in cancer incidence in a population and that this observation is not related to a causal factor).”*

Sure, more brain cancer in kids “over time” – but certainly not related to a causal factor.

And so new text appeared in the third draft the following week downplaying the two-fold increased risk of children getting brain cancer.

(The OHA report’s bottom 50 pages feature five tables summarizing most of the studies. Not incidentally, the table-entry on the Aydin paper lists the “Funding Source” as “Government.” This despite the fact that it was funded in part by a Swiss foundation supported by numerous telecom companies, including currently, Ericsson and Huawei, who also have seats on the foundation’s board. See the discussion below of funding bias and OHA’s improper use of industry funded studies. For a start, OHA should simply identify the papers’ correct funding. But in 21 of 27 cases, it obscured the studies’ industry funding.)

Regarding the report’s admission of Elliott et al.’s industry funding, given that SB 283 directed OHA to review independently funded scientific studies, that was a stark admission right there in the text of the first draft. (Technically speaking, approval of the study’s design as well as comments on a draft of the manuscript were done by an intermediary body, but ultimately the paper was indeed funded by industry.) The industry-money prohibition was prominent on SB 283’s single page of directives—it was mentioned twice—and Ourso wrote in the second-draft margin, *“Just a note, we may get questions that this is not an independent study.”*

And thus, the mention of the Elliott study’s telecom funding disappeared without notice from the third draft and the final report.

Sure, Andre Ourso’s comments were couched gently, as Management 101 dictates: “Maybe an explanatory sentence” and “Just a note.” But given his perch high atop OHA’s pecking order, his subordinates (plus the report’s lead author) appear to have interpreted them as de facto directives. As Administrator of OHA’s Center for Health Protection, Ourso runs six OHA departments and oversees many scores of OHA employees. He also, as an April 2020 email

indicates, oversaw the report's production. (David Howe's email directed a subordinate to draft the report's Action Plan "for Andre's review/approval.")

So, however gracefully he framed his notes, Ourso got what he asked for, silently, a week later in the third draft.

The report's lead author, Dr. Ali Hamade, Oregon's Deputy State Epidemiologist, doesn't actually report to Ourso. But running six departments, Ourso certainly outranks Hamade in the OHA hierarchy.

OHA found insufficient evidence that wireless radiation in schools "is associated with adverse health effects." The insertion of that finding plopped into the third draft changed the entire complexion and significance of the OHA report. Senator Dembrow presumably read this statement in the Executive Summary and tossed the report in his Out Box.

A report with teeth, however, might conceivably have forced Oregon's schools to hard-wire their classrooms and limit exposure to radiofrequency radiation, since digital curricula are clearly here to stay. It would prove a chore, sure, though not wildly expensive. A change akin, perhaps, to the regulations governing smoking in public. (Some will recall the horror of being assigned a seat in the rear of the cabin near the smoking section on cross-country flights, and the relief when smoking on planes was finally banned.)

Hard-wiring our schools is feasible, but apparently not on OHA's watch. The agency dropped its review of the scientific literature 4:55 p.m. on New Year's Eve (!) and bent over backwards to downplay evidence of RFR's link to adverse health effects. It bent so far as to flat-out misrepresent some of the scholarly papers involved.

Along with the embarrassing treatment of the Aydin and Elliott papers, see the mishandling of Momoli et al. (2017) (OHA # 51), Fang et al. (2016) (OHA # 85) and Miller et al. (2018) (OHA # 149). OHA's misleading treatment of these papers, as well as the Aydin study, are discussed below.

Animal studies caged

Contradicting its own initial plan, the OHA team by fiat chopped off one of the three legs of the evidence-stool on links to adverse health effects – a move that has left the report's critics around the world up in arms. Setting aside one's views of the debate over the testing of animals, OHA considered no experimental animal studies, no rats and mice dosed with RFR. That meant it excluded a \$30-million, 10-year, U.S. [government study](#) conducted by the National Toxicology Program (NTP) that found "clear evidence" of cancer in what the government described in November 2018 as "the most comprehensive assessment, to date, of health effects in animals exposed to RFR."

In a [formal statement](#) from the American Cancer Society, Inc. – not generally considered an organization of radical firebrands – the society's Chief Medical Officer, Otis W. Brawley, M.D., responded to the 2016 release of partial results from the NTP study:

For years, the understanding of the potential risk of radiation from cell phones has been hampered by a lack of good science. This report from [NTP] is good science. The NTP report linking radiofrequency radiation (RFR) to two types of cancer [including brain cancer] marks a paradigm shift in our understanding of radiation and cancer risk.... It's interesting to note that early studies on the link between lung cancer and smoking had similar resistance, since theoretical arguments at the time suggested that there could not be a link.

Brawley added, *“The fact that this finding was observed only in male rats has some wondering if the data is not reliable. It's important to note that these sorts of gender differences often appear in carcinogenic studies, so the fact they show up here should not detract from the importance of the findings.”*

Although the OHA team initially discussed including the NTP and other animal studies, it ended up excluding all animal research from consideration. According to an [exhaustive critique](#) of the OHA report by the scientific environmental health think tank, [Environmental Health Trust](#), OHA has relied on animal experiments frequently in past risk assessments. EHT lists more than a dozen instances where the agency relied on animal studies, including presentations by lead author Hamade.

The animal-research exclusion violates the norms of numerous U.S. agencies' research protocols, including the Environmental Protection Agency, the Food and Drug Administration and the Centers for Disease Control and Prevention.

In its discussion of its [Monographs on the Identification of Carcinogenic Hazards to Humans](#), the World Health Organization says its “three streams of evidence” include “cancer in experimental animals.” And it notes that “Consideration is given to all available long-term studies of cancer in experimental animals with the agent under review....” Also – and this refers fairly directly to the NTP study – “Exceptionally, a single study in one species and sex may be considered to provide sufficient evidence of carcinogenicity....” Finally, “[I]t is biologically plausible that agents for which there is sufficient evidence of carcinogenicity in experimental animals ... present a carcinogenic hazard to humans.”

The American Public Health Association's Public Health Code of Ethics tells us: “Using the strongest and most appropriate evidence available helps public health practitioners and organizations achieve their obligations of fidelity and accountability, as well as transparency.”

But OHA counters in its FAQ apologia that it excluded animal studies “due to limited resources and a lack of funding for the bill. OHA utilized limited existing resources to complete the review.”

Yet in an email sent in April 2020 to a wireless safety advocate, David Howe, the OHA Radiation Protection Services Section Manager who seemingly ran the project day-to-day, bragged of the “two highly qualified graduate student researchers,” individuals with a “biostatistics/epidemiology” background who were “on-boarded.” They weren't “limited existing resources,” they were “on-boarded.”

Referring to the grad students plus the two OHA staffers overseeing their efforts, Howe's email concluded, "OHA is confident that we have the needed resources to complete the review and report the results to the Oregon Legislature." Yet the agency found a pretext based on limited resources for excluding the important NTP animal study and, the federal government said, its "clear evidence" of cancer. That's reason enough alone to retract the study, its critics assert. (See the discussion of worldwide condemnation below.)

Similarly, OHA essentially ignored the W.H.O.'s 2011 International Agency for Research on Cancer's 481-page monograph classifying RFR as "possibly carcinogenic to humans," plus a W.H.O. advisory group's "high priority" call to update the assessment by 2024 due to significant research in the last decade. (OHA alights glancingly on the IARC evaluation in the boxes summarizing three papers in the report's tables; in all cases, OHA is dismissive of the W.H.O. declaration. There's no real discussion, and no mention of IARC's classification of RFR as a possible carcinogen in the body of the report's text.)

No mention of NTP, no real consideration of IARC. Two of the heftiest findings in the literature – one by the federal government, the other by the W.H.O. – are ushered from the stage with nary a backward glance.

Swinging an axe

The [first draft](#) of the report was apparently initially written by two Oregon State University graduate students interning at OHA who provided numerous evidentiary statements and assertions of RFR's association with adverse health effects.

These statements were simply crossed out—deleted—from the first draft, never to be seen again. One such statement regarding 33 studies suggesting adverse effects versus 19 suggesting no effects was deleted from a general summary statement in the first draft on page 36. Also, a statement observing that 13 studies found adverse effects while 7 did not was deleted from the section on mental health issues on page 43.

The person wielding the axe on these damaging statements—along with other deletions discussed below—was the report's lead author, Dr. Hamade.

Additionally, two of Hamade's emails indicate that he apparently pulled the strings to withhold that damning first draft from a public records request made by wireless-safety advocate, Cindy Franklin, who identified herself as an advocate in her request.

This first draft is, in fact, a document deeply embarrassing to OHA given that the sum of its deletions shoots holes in the final report's key, insufficient evidence finding. Had Franklin obtained this initial draft that discredited the final report, she would have trumpeted it to the skies to further her agenda—as is entirely her right. Allegedly withholding a public document in such circumstances is taken quite seriously here in Oregon.

Said Ginger McCall, Oregon's former Public Records Advocate who caused a stir resigning on principle rather than knuckle under to the governor's office seeking to limit her independence,

“Deliberately concealing documents is a profound violation” of public trust. Many of the report’s flaws, as the track-changes in the withheld first draft indicate, flowed as additions or deletions from Hamade’s pen.

This article is a critique of OHA’s review of the literature, it slashes deep into the weeds comparing changes between the five drafts of the report, all completed last November. The track-changes highlight additions, deletions and their authors in the drafts that precede and follow the third draft. But in that draft, Hamade added the report’s two key findings to the Executive Summary with no notice.

The first is the statement that state officials, school superintendents and industry can point to while washing their hands of the whole pesky, wireless-risk business. Ending the Executive Summary, any report’s prime real estate, it reads:

Overall, the available epidemiology research examining RFR health effects does not provide sufficient evidence to conclude that RFR exposure in school settings is associated with adverse health effects.

Aside from this summary statement, the report shies from the declarative. Indeed, despite its 100-page heft, it’s a rather vaporish effort that offers only 18 pages of actual review of the scientific literature. As stated in a letter from scientists worldwide urging the report’s retraction, “OHA did not grade, rate or weigh the evidence. OHA did not conclude by classifying RFR into hazard identification conclusion categories according to key questions, but merely concluded with a summary statement.” (See the scientists’ letter below.)

What’s more, in its post-release, Frequently Asked Questions [defense](#), OHA went further when absolving the Oregon Department of Education from the need to take any action.

Answering a question regarding its recommendations for ODE, OHA wrote: Because OHA’s review of the epidemiological literature did not determine these technologies cause specific adverse health effects associated with exposures that are specific to school settings, it would not be appropriate to make specific recommendations that are not based on the evidence.

“[D]id not determine these technologies cause...” That’s a step well past the language in the report that Hamade added to the Executive Summary. This horse of another color telling ODE to drop the whole RFR issue—not that ODE was eager to embrace it—exceeds what the report says. And this distorted summary appears in a short FAQ that may be all anyone reads.

Retired state senator Lurie Monnes Anderson, a Democrat who represented the Portland suburb of Gresham, flogged SB 283 over the finish line in the Senate, and suffered the indignity of having a fellow senator place a package of tin foil on her desk in the midst of her pre-vote speech urging passage. No, she won’t identify the jerk who insulted a woman of a certain age who served her constituents in the Oregon legislature for twenty years, but she’s miffed about it still. As to RFR’s potential risk, she believes “We are like ostriches with our heads in the sand.”

A shaky keystone

The report's keystone, the insufficient evidence statement, should be considered in light of Bandara and Carpenter's [2018 analysis](#) of 2,266 studies, their article published in one of *The Lancet* family of journals. They found that 68 percent of those studies "demonstrated significant biological or health effects associated with exposure to anthropogenic electromagnetic fields." (RFR is a range of frequencies within the Electromagnetic Field spectrum.) The authors add that the "weight of scientific evidence refutes the prominent claim that the deployment of wireless technologies poses no health risks...."

Further, an analysis of the papers included in the OHA report indicates that more of them actually indicate RFR's link to harm than those that do not. Of the 166 scientific articles (out of 218 total) where the report makes a yes/no determination as to whether the paper in question found RFR linked to an adverse health effect, there were 84 Yesses and 82 Nos. So, even by its own lights, if you trouble to scour the report—science being in part the weighing of evidence—there actually was sufficient evidence to conclude that RFR is associated with bad medical outcomes.

In Table 1 (67 papers) and Tables 3-5 (78 papers), OHA itself answered the yes/no question regarding an adverse effect by categorizing each paper's finding as to an adverse effect or not. Additionally, Table 2 featured 31 review articles with cancer as the endpoint and a statement on "Conclusions by Review Authors." Twenty-one of those could be categorized as yes/no; 10 were decidedly inconclusive. In one case, OHA fudged [Miller et al.](#) (2018) (OHA # 149) by offering only its own cavils and nothing of the authors' conclusions. I made the small leap to categorize it as a 'Yes' for the authors' strong statement arguing for RFR's unequivocal causal link to cancer. Miller and colleagues state:

When considered with recent animal experimental evidence, the recent epidemiological studies strengthen and support the conclusion that RFR should be categorized as carcinogenic to humans (IARC Group 1).

According to the World Health Organization's [International Agency for Research on Cancer](#), an agent is in Group 1 "whenever there is sufficient evidence of carcinogenicity in humans."

Finally, the 84 to 82 tally does not correctly reflect Momoli et al.'s findings. Categorizing that correctly (rather than OHA's false entry for it as a "No" adverse effect—see below) yields a final score of 85 yesses versus 81 nos.

Red pen runs wild

The November 3 [first draft](#) of the OHA report contained numerous assertions of RFR's link to increased risk. Many of these statements and evidence of concern were deleted by Deputy State Epidemiologist, Ali Hamade; they vanished from the 'truth-telling' first draft, never to be seen again. Had they made it to the final report, their presence would have hobbled the insufficient evidence claim.

Presented with internal evidence from the first draft that the deletions were by Hamade's hand, OHA confirmed it. (The agency ignored requests to interview Hamade, Ourso, Sidelinger, Ngo and others, and these individuals did not respond to numerous messages left for them. A junior author picked up the phone and then hung up, as did the OHA in-house government affairs lobbyist. The interns wouldn't talk, nor would their professors at Oregon State. I only got to speak with Public Records Coordinator Jeanne Windham a couple of times because that forthright soul actually answers her phone—until she stopped.)

The following first-draft assertions of RFR's link to adverse health outcomes were crossed out in red by lead author Hamade. All the italicized statements were deleted:

Citing five papers, the [first draft](#) (pg. 37) states that, "*All the studies that investigated the outcomes of general health and symptoms of ill health found that EMF exposure negatively impacted health.*" That disappeared. Of the five papers cited, two do not appear in the final report; the other three appear in the tables only—not the body of the report—where they are basically dismissed.

The first draft continues (pg. 37), "In the studies that examined EMF exposure and general health and symptoms of ill health, it is found that individuals with exposure to EMF are more likely to have poorer health outcomes."

Crossed out and deleted. The phrase "ill health" appears in the titles of papers in the final report's bibliographical end notes, and also in the tables summarizing these same papers. But nowhere does the phrase appear in the body of the final report.

This too was excised: "For example, all of the included studies had deemed that EMF exposure will affect the male reproductive system."

As mentioned, also gone was the first-draft statement that 33 studies in one category suggested adverse effects versus 19 suggesting no effects. Also deleted in the section on mental health issues such as stress and depression, the first draft said that 13 studies found adverse effects, while 7 did not.

Then there's this from page 37 of the first draft: "It is found that prenatal exposure of EMF and exposure during childhood could lead to adverse effects of childhood development...." The next sentence reads, "Exposure to EMF could lead to genotoxicity"—that is, mutation that can lead to cancer.

Critics of wireless proliferation in schools could make hay from those statements. Yet nothing like them appears in the final report. Regarding "childhood development," neither the phrase itself appears in the body of the final report, nor does the paper, [Sage & Burgio](#) (2018) that the first draft cites.

And the simple phrase, "adverse effects of childhood development" doesn't remotely do Sage and Burgio justice. Their abstract states:

Symptoms of retarded memory, learning, cognition, attention, and behavioral problems have been reported in numerous studies and are similarly manifested in autism and attention deficit hyperactivity disorders, as a result of EMF and RFR exposures where both epigenetic drivers and genetic (DNA) damage are likely contributors. Technology benefits can be realized by adopting wired devices for education to avoid health risk and promote academic achievement.

By now readers will probably not be shocked that findings involving “memory, learning, cognition, attention, and behavioral problems” akin to autism and addressed by “wired devices” in schools were deleted from the OHA report.

As to genotoxicity, the two papers referenced in the first draft do not appear in the final report. And the word genotoxicity appears twice in the final report, but solely in relation to a separate paper that actually found “no RFR cancer effect.”

One of the two genotoxicity papers deleted, [Kocaman et al. \(2018\)](#) said that “comprehensive interpretation” of the literature is “difficult.” It added, “However, evaluation of current studies suggests that EMF may represent a serious source of concern and may be hazardous to living organisms.” That also didn’t make the cut, OHA decided.

Such first-draft assertions contradicting the Executive Summary’s lack-of-evidence finding were literally crossed out, flushed down the Memory Hole, by Hamade.

Scientists in high dudgeon worldwide

The ill-stitched OHA report sparked letters of condemnation to Oregon officials urging its retraction from the [Environmental Health Trust](#), the Environmental Working Group and [Physicians for Safe Technology](#).

Signatories to [EHT’s letter](#) include scientists well known in RFR research from Germany, Sweden, Greece, Ireland, Australia and Brazil – as well as here in the U.S. Prominent among the Americans is Linda S. Birnbaum, Ph.D., the former director of both the National Institute of Environmental Health Sciences and the National Toxicology Program.

Said Devra Davis, Ph.D., EHT’s founder and president and founding director of an environmental unit of the National Academy of Sciences, the report “does not do an adequate job of covering all the relevant data.” Referring to OHA’s refusal to consider animal studies, Davis said the agency “excluded the experimental literature which is the bedrock for evaluating the potential of any agent to cause damage to humans.”

Other well-known researchers who signed EHT’s letter include Lennart Hardell, MD, Ph.D, retired from Sweden’s Orebro University and probably the world’s foremost researcher on RFR’s link to adverse health effects, and Anthony B. Miller, MD, formerly of the University of Toronto and the National Cancer Institute of Canada, and current advisor to the W.H.O.’s IARC. (He’s also lead author of the paper that OHA mishandled, paper # 149 discussed above.)

The 15 other EHT signatories come from every corner of the planet and with collectively more than 1,000 scientific papers under their belts. And all of them are in high dudgeon over sins against science, scholarship and the public interest committed here in Oregon. Their letter urges Oregon legislators, including Senator Michael Dembrow, chair of the Senate Committee on Education, and Gov. Kate Brown to ship the report back to OHA for a do-over.

The EHT letter concludes:

The lack of transparency and rigor in the development of the scope, flawed methodology and analysis as well as the numerous omissions and inaccuracies cast serious doubt on the validity of the review. These faults and omissions, in our view, warrant the retraction of the report.

Theodora Scarato, EHT's Executive Director, had several reasons to help spearhead the signatories' collective effort, chief among them: "The ramifications of this deeply flawed report go well beyond Oregon and will impact school children across the United States." Even internationally, Scarato said, school administrators, agency staff and telecom companies and other industry seeking exculpatory scientific reviews will deem it "proof of safety."

Scarato is the main author of a [full-bore takedown](#) of the OHA report. Her work is the basis for my analysis below of the 27 industry-funded papers OHA included. She notes that EHT devoted the resources to critique the OHA report given its potential for malign exploitation.

As a risk assessment mandated by law, the OHA effort is really the first of its kind. And, critics argue, it's something of a gift to industry. Said Davis, "It's worse than worthless—it's a harmful failure given how it might be used." She added, "It's a betrayal of public health in its failure to prevent harm. That's the mission of public health, not just identifying years later the harm that's happened."

The second Executive Summary emanation

I've mentioned the insufficient-evidence addition that lead author Dr. Hamade inserted into the last paragraph of the Executive Summary. After the inevitable call for more (unfunded) research, he made a second quiet addition to the summary on page 5. And, according to EHT, it's plain incorrect. Making reference to the lack of evidence statement, Hamade also added this to the OHA report:

This is in line with conclusions on RFR exposures and health by the U.S. Food & Drug Administration, the Centers for Disease Control and Prevention, the National Cancer Institute and other agencies that work to protect population health.

This statement concludes the Executive Summary, in many instances the last (and only) thing a busy school administrator or state senator reads before tossing the report aside. It says, in effect, don't take OHA's word for the lack of evidence of harm. Why, it's "in line" with the stance, purportedly, of all these big-time federal agencies. (As mentioned, NCI is part of the National Institutes of Health.)

Only, according to EHT, that's not true. Theodora Scarato says that neither the FDA, the EPA, nor the CDC "has ever reviewed the full body of research on the health effects of wireless radiation in the last three decades."

EHT refers to this second OHA Executive Summary statement in its [printed evisceration](#) of the agency's report:

Contrary to what the OHA report asserts, OHA's conclusions are not 'in line' with other federal agencies. The Centers for Disease Control, National Cancer Institute and National Institutes of Health do not make safety determinations regarding wireless radiation, and contrary to what OHA seems to imply, these agencies have not undertaken any systematic review to make such a determination. In fact, the US does not have federally developed RFR safety standards.

The OHA report repeats this statement about being in line with federal agencies in the report's "Discussion" section on page 31. Only in this iteration of the statement, it provides footnotes for the purported confluence with the FDA ([end note # 114](#)); the CDC ([end note #115](#)); and with the National Cancer Institute ([end note # 116](#)). The links in this paragraph resulted from clicking on the report's end notes.

Clicking on 115 in the OHA endnotes takes you to a CDC page that has nothing on cell phones. Hitting the CDC page's index button for "C" yields no entry for cell phones, though the title of the citation is "Frequently Asked Questions about Cell Phones and Your Health." Clicking on the 'M' index button in search of mobile phones is no help either. Clicking on the topic "Radiation" elsewhere on the page yields nothing on phones. There's no there, there.

Asked about these OHA citations, and about EHT's statement on the overall lack of federal guidance, Scarato issued this statement, the links hers:

The [EHT report](#) (page 69) showcases how the OHA report citations prove that in fact, no US health agency—not the FDA, the EPA, or the CDC—has reviewed the full body of research on the health effects of wireless radiation in the last 30 years. The webpages of US federal agencies are a house of cards. There was no pre-market safety testing before Wi-Fi came on the market. There is no post-market surveillance. The EPA was [fully defunded](#) from [setting proper safety limits](#) in 1996, and the federal government adopted 'safety limits' created by groups dominated by industry. [These limits](#) did not consider long-term exposure, and they didn't incorporate research on health effects to children whose brains are developing. Yet despite over a [thousand studies](#) showing harm, these wireless radiation limits have not changed since 1996. This is why Environmental Health Trust has filed [legal action](#) against the FCC.

A reviewer steeped in RFR research would have been able to parse whether OHA falsely wrapped its report in a nonexistent federal research flag or not. But neither Ourso nor Howe, the report's only two actual reviewers according to the timeline of events (no matter the claims page 2 makes for Drs. Sidelinger and Ngo), fit that bill.

Allegedly withholding a public document embarrassing to OHA

Knowing nothing of the withheld first draft, I bugged OHA Public Records Coordinator Jeanne Windham to ensure that the report's fifth draft was indeed its last. Windham is a no-nonsense, forthright former one-term Montana state representative. Prompted by my questions, she not only checked with the report's lead author, Hamade, but also with the boss, Ourso. And so she learned there was a first draft that OHA did not send to a citizen named Cindy Franklin, who'd made a formal public request for all drafts. And Windham forwarded the first draft along to me.

Bitterly disappointed about the OHA risk assessment, in early January, wireless-safety advocate Franklin had asked for "ALL draft versions" of the report, the caps hers. Her request stated her affiliation with the organization she leads, Consumers for Safe Cell Phones. In due course, she was sent the final four drafts, but not the first one that contained all the assertions regarding RFR's links to adverse health effects – all the text that Hamade deleted. That the document was withheld is acknowledged by OHA.

Whether Ourso, a busy manager running six OHA departments, parsed the details of a records request or not, Hamade's January email copying him might seem to rope him in—or at least that seems Hamade's intent. It was foisted on Ourso whether he acknowledged it or not, that he, Ourso, was granting tacit approval to withholding the first draft. Or that's at least how Hamade's emails might subsequently appear.

At stake was a potential violation of [ORS 162.305](#), the Oregon law that governs tampering with public records. It's the heaviest misdemeanor, a class A, punishable (theoretically) by up to a year in jail. It applies, however rarely, when someone knowingly "conceals" a public record. I quoted Ginger McCall, Oregon's former Public Records Advocate saying, "Deliberately concealing documents is a profound violation" of public trust. Senator Dembrow said, "If there was deliberate withholding of a draft of the report, that's a big problem." He added, "There's a tendency on OHA's part to circle the wagons. They're very paranoid about releasing information."

Cindy Franklin views the proliferation of wireless tech as "a growing public health disaster." Had she been sent the initial draft as was legally required, she certainly would have acted to expose what it said. But she didn't get it. Franklin said, "Of course I'm outraged, but I'm not at all surprised at this type of coverup by public officials." She filed her records request because "I knew something devious had been going on behind the scenes as the final report was just garbage."

Again, it's impossible to say if Ourso was paying enough attention to know what was going on when Franklin's request sparked Hamade's January 13 and January 20 emails. ([See here.](#))

In the first email—sent to Ourso, Windham and others—Hamade refers to drafts he put in a "folder" in the body of the email: "Please take a look and let me know if this makes sense or if you think some [drafts] should be added or removed."

Of course, it is not Hamade or anyone else's place to add or remove drafts when fulfilling Franklin's request. As [ORS 192.329](#) puts it, to complete the request, an agency, "Provides access to or copies of all requested records within the possession or custody of the public body that [it] does not assert are exempt from public disclosure...."

ORS 192.329 adds that if an agency asserts that a record is exempt from disclosure, it has to inform the record requester. OHA sent Franklin no such statement.

Another law comes into play, [ORS 192.355](#). It states that a government agency's communications are exempt from disclosure if "they cover other than purely factual materials and are preliminary to any final agency determination of policy or action." And "the public interest in encouraging frank communication between officials and employees of public bodies clearly outweighs the public interest in disclosure."

Though the first draft was indeed "preliminary," there's no case to be made that frank communication between OHA staffers "outweighs the public interest in disclosure." The first draft was not "other than purely factual materials." Nor did it constitute "frank communication between officials and employees"—emails discussing personnel issues or some such. Rather, the report's authors were writing a formal review of the scientific literature, not communicating with each other. As to the issue of it being a preliminary draft, see the directive below from the Attorney General's public records manual.

What's more, that the first draft was not exempt from disclosure is borne out both by the fact that Franklin received no notice that it was being withheld, and by the fact that months after it was withheld from her in January, it was disclosed to this reporter in March.

OHA Central Operations Manager Keely L. West, a lawyer who oversees records requests, wrote me an email saying, "Staff provided those drafts [to Franklin] they understood to be responsive." Well, that's not the way the law works, as West well knows. Franklin asks for all drafts, that's what she gets. West added, "The response to a later request included the release of an additional draft." That's not true: to this day, Franklin has never received the first draft, and I didn't actually ask for it since I didn't know it existed. Windham simply provided it to me.

I was, however, asking a lot of questions of OHA Director Patrick Allen and on down the line about the alleged withholding of a document from a records request – a torpedo below the waterline. West sent me Hamade's two January emails after I sent Allen a detailed query memo on the withheld document. And Windham may have sent me the inimical first draft on her own initiative once she learned of it from Ourso or Hamade. I thank her for that.

As mentioned, in the first, January 13 email with the subject heading, "Draft versions of SB 283," Hamade wrote, "Please take a look and let me know if this makes sense or if you think some [drafts] should be added or removed."

He added, "I have put what I understood to be the relevant ones—close to final drafts—in the following folder."

The first draft apparently was not in that folder; neither Windham nor I could open it. It was superseded by Hamade's January 20 email with attachments that also lacked the first draft. The law does not permit Hamade to decide what's relevant or not, or to decide what, in Keely West's phrase, is "responsive." It's disturbing that West, a lawyer who oversees the records operation, tosses the law aside like that.

As to the issue of the “relevant” drafts, as Hamade would have it, being, he said, those “close to final drafts”—consider the state Attorney General’s [2019 Public Records and Meetings Manual](#) and its discussion of ORS 192.355 on pages 86 to 90. On page 87, the AG writes:

Public bodies sometimes mistakenly take the view that preliminary reports or recommendations may be withheld simply because they have not been reviewed or finalized. However, drafts or incomplete records are not inherently exempt from disclosure.

And on page 89, the Attorney General’s manual calls for disclosure since, “For example, we determined that a draft report on the costs of early shutdown of a nuclear power plant was not exempt where the final report containing essentially the same material was already public.” Though differences existed regarding the power plant “between the final and draft reports, the public body did not explain how disclosure of those specific differences would deter frank communications.”

Citing Oregon court precedent on page 88, the AG’s manual hits the bullseye when it observes that legal withholding must be “based on something more than potential embarrassment to the public body or staff.”

In the January 13 email quoted above, Hamade asks Ourso and the others to go along with withholding the embarrassing first draft without explaining why he believed only that draft was insufficiently “close to final” to include. (Again, as a senior administrator, the extent of Ourso’s focus on all this is unclear.)

The following week, on January 20, when Hamade sent the Public Records Coordinator the sanguine last four drafts of the report to ship out to Franklin—but not the embarrassing first draft—he wrote:

“I’m assuming that all are fine with the attached drafts.

If there are others [other drafts], please let me know.”

But Hamade can hardly claim ignorance of the first draft—if that was what he was attempting to do here. He made 29 editorial comments in red editorial bubbles with his initials in the first draft. He also made several comments in green editorial bubbles in that draft, according to OHA. (The green bubbles had no initials.)

He also made page after page of additions and deletions to that draft, OHA says. And, at its conclusion, from pages 124 to 138, there are 15 pages of format changes, font changes and the like—231 changes total— that are all listed in red with all of them bearing the label: “Hamade Ali K.”

Similarly—though on a vastly lesser scale—when Hamade asked Ourso if there were other drafts and to please let him know, that was Ourso’s cue to pipe up. A lawyer and the overall boss on the whole project, he also was aware of the first draft since, according to OHA, the three purple

bubble editorial comments in the first draft were Ourso's contribution. But in the email chain that OHA supplied, there was nothing from Ourso.

There's written evidence within the first draft itself that both Hamade (in spades) and Ourso were aware of its existence. Yet Hamade allegedly withheld it, and Ourso said nothing. With both ends beating against the middle, the principles of government transparency and accountability embodied in Oregon's public records laws got squeezed.

Ginger McCall, Oregon's former Public Records Advocate said, "The email exchange looks pretty damning—especially since Hamade made comments on that first draft, so he definitely knew of its existence."

According to his LinkedIn page, Hamade has a post-doc Certificate in Risk Sciences and Public Policy (was there any attention to records requests?) from Johns Hopkins, and he's previously worked in senior positions in public health for the City of New York and the state of Alaska before joining OHA in October 2018. He's not some naif unfamiliar with how public records requests work.

Speaking generally, Cindy Franklin noted what she termed "pressure by the wireless industry to repeat the lie that wireless radiation is safe, even for children," She urged Oregonians to call or email their representatives and, referring to the report, said, "OHA leadership has been implicated in this blatant, coordinated public health deception—how high up does this go? Governor Brown and the legislature must immediately hold investigative hearings."

Unprofessional

Asking various senior OHA staffers how it happened that the first draft was withheld from Cindy Franklin elicited an odd reply. OHA Lead Communications Officer Jonathan Modie replied with an implausible theory that he conjured without even checking with Jeanne Windham, the Public Records Coordinator. He didn't check with her even though he was under no deadline pressure from me. His statement was sent shortly before 7:00 p.m. on a Friday night, which is a good route to prop up balderdash—akin for example to releasing a report late in the day on New Year's Eve.

Modie wrote, "I can't confirm this as Jeanne is out of the office at the moment..." Again, I'd given him no deadline – I'm now finishing the opus many weeks later.

Then he wrote, "I suspect she [Windham] requested OHA's Information Systems do an 'eDiscovery' search of OHA's email, and that she did not request the material directly from OHA staff since that's unnecessary when an eDiscovery search is initiated."

Well, Modie's 'suspicions' had no bearing on reality. Windham got the records request from Franklin on January 12. On January 13, she copied Hamade, Ourso and the others on her reply to Franklin delineating the request and discussing the timeline of OHA's reply. Windham wrote to Hamade, Ourso and the others, "I copied you on the below initial response to the attached records request. Where might I find draft versions of this report? Let me know. Thank you!"

Windham didn't "do an 'eDiscovery' search of OHA's email." She did the normal thing and asked for help from the people who generated the report, including Ourso, who left his comments on the first draft in purple bubbles.

Aside from just being efficient, another reason Windham wouldn't do an email search is that the OHA Records Retention and Management Policy [states](#) (13.c.) that "The email system is not an archiving tool."

Referring to Modie's statement, Sen. Dembrow said, "The bit about the email makes no sense." He expressed his firm hope that OHA was not trying to blame Windham for the agency withholding the first draft.

Earlier, a different OHA press person told me all OHA could provide were the names of the report's authors and reviewers – which are stated in the public report. A detailed query memo got this reply: "We are unable to provide individual responses to your questions. However, here is a list of the authors and reviewers of the report." Such at one point was the agency's reply to serious questions about a legislatively mandated report on Oregon children's health.

And not at all in line with the American [Public Health Association's Public Health Code of Ethics](#):

Trust is built on ongoing transparency and accountability.... By giving an account of the reasoning and evidence behind a program, public health practitioners demonstrate respect for affected communities and stakeholders.... [R]etrospective transparency of evidence and ethical reasoning is almost always a good ethical practice.

In a [survey](#) just out from Harvard heavily colored by the response to Covid, less than half of adults (49%) "rate their state health department as doing an excellent or good job at protecting the public from health threats...." And "about one-third of adults" think the information provided by their state health department is "unreliable."

Turning a blind eye

That the reference to telecom industry funding was deleted from Elliott et al. (2010) (OHA # 9) was discussed above. Additionally, its "Funding Source" entry in the report's tables (pg. 62) offers the less than illuminating "Government and private"—though the report's authors knew unequivocally that telecom money was involved.

OHA turned a blind eye to the law's language to use "independently funded scientific studies" in OHA's review of the literature. That's what SB 283 said, twice in the one-page bill. And OHA said as much in its "Frequently Asked Questions" [defense](#) of the report issued in January after its release. In the FAQ's first sentence, OHA wrote that [SB 283](#) "directed OHA to review independently funded scientific studies of the health effect of exposure to microwave radiation," etc.

But it didn't quite work out that way. My analysis—which rests firmly on the heavy lifting done by EHT's Theodora Scarato—indicates that of the 218 papers in the review, 27 had industry funding. That's 12 percent of the total. And of those 27 papers, OHA acknowledged industry funding for only six.

Said former Rep. Alissa Keny-Guyer, the law's champion since 2016 and the person who ushered it through the Oregon House in 2019, "Using industry-funded studies does violate the intent of the law."

Asked about their use, the law's main backer in the senate, former Sen. Laurie Monnes Anderson, said, "That was certainly not my intent." She added, "We wanted to make sure the studies were independent."

With Keny-Guyer and Monnes Anderson's retirement, SB 283 lost its champions, and Committee on Education chair Sen. Michael Dembrow donned the oversight mantle. He said, "The clear intent was to use independently funded studies. Anyone looking at the bill can see that as the clear intent."

In 21 cases, the funding was either hidden—one paper listing "No funding" and two leaving the funding-source box blank—or disingenuously cloaked. The latter applies to the 17 papers where OHA resorted to artless obscurantism, using the term "private" in many cases to describe telecom industry funding. Pointing to the analysis by the University of Washington's Dr. Henry Lai (below) that indicates that industry funded studies tend to absolve RFR of any link to increased risk of harm, EHT's Devra Davis said, "Where you stand often depends on where you sit and who bought the chair."

In 17 cases, OHA kicked the chair under the table listing the funding as "private," even though private doesn't do justice to identifying telecom funding, whether through an intermediary body that 'greenwashes' the funds or not. My favorite bit of OHA funding obscurantism: the "private" listing for [Wiedemann et al.](#) (2011) (OHA # 161) that says right there on page 4 of its text, "We thank T-Mobile Germany, who supported this study."

The tag of "private" funding for the Elliott study, the OHA report's authors fully aware otherwise, has been mentioned.

Then there's [Johansen et al.](#) (2001) (OHA # 25) which OHA lists as "Government and NGO funding," though the paper states, "Supported by grants from the two Danish operating companies (TeleDanmarkMobil and Sonofon)."

A second Johansen paper, (OHA # 124) was listed in the table as "No funding." A glance at the paper indicates that "Financial support was provided by" six funders, including TeleDenmark, Sonofon and Danish Energy, a Danish electric power lobby group.

[Hepworth et al.](#) (2006) (OHA # 60) is listed by OHA as "Government and private" funding. Yet the paper notes funding by the Mobile Manufacturers Forum (founded, Wikipedia says, by Ericsson, Motorola, Nokia, Samsung and others) and by the GSM Association (which

“represents the interests of mobile network operators worldwide,” says Wikipedia). Funding was also provided, the Hepworth paper says, by “the UK network operators (O2, Orange, T-Mobile and Vodafone, 3).”

As to the two studies where the Funding Source box was left blank, they’re both by Lustenberger et al., OHA #s 209 and 210. They were funded by a Swiss telecom research foundation which in turn is funded by at least three Swiss phone companies.

There are other examples, including many of the 17 studies that OHA lists as privately funded that were funded by the Mobile Manufacturers Forum and the GSM Association.

There was also the hen’s-tooth rare, straightforward entry in the tables for Thomas et al. (2010) (OHA # 79) on page 89: “Government and mobile telecommunications industry.” There were a couple of others, including mention of funding from Ericsson (page 54) and the Electric Power Research Institute (page 85)—which go to show that a little transparency wouldn’t be so hard for the agency to digest.

Still, OHA doesn’t buy it. Its spokesperson, Jonathan Modie, wrote, “When a study that OHA reviewed was funded by a government, non-government or private (including industry) source, OHA disclosed that in the report. OHA is not required to describe the specific details of that funding in the report.”

It’s not required, OHA says, to actually impart information and practice transparency. Your public health agency in action, Oregonians. Agency leadership might give a glance to APHA’s *Public Health Code of Ethics* (see above)—something about public trust being built on transparency.

Sean Brennan, the legislature’s Deputy Legislative Counsel drafted SB 283 and its amendments. He said, “[A] review of studies that are not peer-reviewed, independently funded studies would *probably* not be within the agency’s powers under the bill language.” (Emphasis his.)

Asked about deleting the word “probably,” Brennan said, “I don’t think it would be accurate for me to say more than ‘probably’ here. My interpretation of what the bill language says is only a prediction of what a court would say....”

Asked why only 6 of the 27 industry funded studies acknowledged that fact, Modie threw the responsibility onto Oregonians’ shoulders. He said, “All references are appropriately cited. Anyone can look up the authors of a study listed in the report to determine who contributed to that particular study.”

Right. Track it down folks, worm your way to the free full text if it’s available because it often isn’t. If everything is kosher, as OHA maintains, then why did Ourso request something be done about the mention of Elliott’s telecom funding? Why was a paper listed as “No funding,” when it had support from two phone companies and an electric power lobby group? Why was another paper listed as “Government and NGO funding,” when it was also two phone companies ponying up the cash? If anyone can look up a study’s funding, as Modie cavalierly tells Oregon parents worried about their kids and cancer, then why didn’t OHA do so and then list it correctly?

Why does its table-entry on the Aydin paper list its funding as “Government” despite the fact it was funded in part by a foundation currently supported by several well-known telecoms?

It’s all just way too slippery.

As passed, SB 283 said the OHA report, “must, at a minimum, consist of a literature review of peer-reviewed, independently funded scientific studies that examine the health effects of exposure to microwave radiation on children.”

Modie said that by reviewing the papers it did, OHA “clearly met that minimum requirement.”

Referring to the law’s text, Keny-Guyer said, “My hope in stating ‘at a minimum’ was that OHA would go beyond reviewing literature, perhaps by contacting researchers and public health experts in the US, and/or reviewing mitigation efforts taken by public health entities and schools in other countries, such as in France.”

Summing up, Keny-Guyer added, “I believed then and now that reviewing independently-funded peer-reviewed studies rather than industry-funded studies is critical in obtaining unbiased information.”

Funding bias in action

Published research bolsters Keny-Guyer’s emphasis on “unbiased information.” Carpenter (2019) examined funding sources and their effect on research. He concludes:

When childhood leukemia studies are funded by governments or private sources they consistently find that elevated exposure increases risk. When those studies are funded by utilities they consistently do not find positive associations. In some cases the same investigators find positive associations when funded by government and then go on to report negative finding when funded by utilities.

Ponder that last a moment. Similarly, [Huss et al.](#) (2007) examined the effect of funding source on experimental studies of the health effects of RFR “emitted by handheld cellular telephones.”

The authors, “hypothesized that studies would be less likely to show an effect of the exposure if funded by the telecommunications industry, which has a vested interest in portraying the use of mobile phones as safe. We found that the studies funded exclusively by industry were indeed substantially less likely to report statistically significant effects on a range of end points that may be relevant to health.”

Of the 27 papers in the OHA report that benefited from industry cash, only 6 offered an affirmative conclusion as to RFR’s adverse effects; 21 studies, or 78 percent of the industry funded total, said there was no adverse effect. That almost 4 in 5 of OHA’s industry funded papers found no adverse effect is generally in line with the analysis done by Dr. Henry Lai of the University of Washington. Data he provided indicate that in a far larger sample of 326 total papers he generally termed, Cell Phone Biological Studies, 72 percent of the 96 papers funded by

industry found no effect. Of the 230 papers that were “non-industry-funded,” only 33 percent found no effect. That’s why SB 283 called for independent studies only.

Lai’s flipside-of-the-coin finding that 67 percent of the independent papers he analyzed did find an effect linked to RFR also raises obvious doubts about OHA’s insufficient evidence finding – the key takeaway statement ending the Executive Summary – that was dropped into the report’s third draft. As does the aforementioned Lancet journal’s finding that 68 percent of 2,266 studies “demonstrated significant biological or health effects” linked to EMF.

Unmentionable

Unmentionable as in the agency’s omission in its treatment of [Momoli et al.](#) (2017) (OHA # 51) in the tables that comprise the report’s bottom fifty pages. (Again, the OHA report is [here](#).) The entry for Momoli et al. on page 57 selectively mines the paper’s abstract in regard to various cancers for which no link to cell phone use was found: “Little evidence of an increase in the risk of meningioma, acoustic neuroma, or parotid gland tumors in relation to mobile phone use.” Yet right above the sentence OHA copied, the abstract notes that for the study’s subset of users with the highest lifetime cell phone use, there was a two-fold increased risk of gliomas – brain tumors that “account for 80% of all malignant brain tumors.” OHA unapologetically ignored the paper’s key finding of double the risk of aggressive brain cancer linked to cell phone use; it simply wasn’t mentioned.

Even more stark, in the cell in the table for “Adverse Effect: Yes/No,” the entry for Momoli et al. is “No.” Which is fairly mind-boggling. Meg Sears Ph.D., of the Ottawa Hospital Research Institute, pointed out OHA’s mangling of Momoli et al. She said, “Omitting the doubling of risks of aggressive brain tumours associated with cell phone use is at best incompetence, or at worse deliberately misleading. Overall, the Oregon report omits important information, while including unsubstantiated industry-friendly criticisms and innuendo.”

Veiled talk of cardio

Discussion in the literature of peoples’ hearts and their proper function will grab the attention of decision-makers of a certain age. [Fang et al.](#) (2016) (OHA # 85), studied EMF’s effect “on the human cardiac signal” and found a change in participants’ electrocardiograms after just 10 minutes of RFR exposure. This OHA first-draft statement on the Fang study was crossed-out and deleted: “This demonstrated the exposure to RFR can affect the properties of ECG [electrical] signals in the heart which could affect the function of the heart.”

In the paper itself, Fang and colleagues write that their data “suggest a possible bio-effect of [EMF] on ECG signals.” That bio-effect could be due to a “coupling” between the experiment’s EMF pulses and the human ECG signal. That’s right: messing with your heart’s electrical signals that help keep you alive.

But the OHA report didn’t get into any of that. It dwelled on the experiment’s admittedly unorthodox methods and then mentioned “a small change in the RR interval of the ECG” – which means all of nothing to an Oregon school superintendent. OHA made no mention of

something that might catch their eye: a possible effect on “the function of the heart.” Talk of that was in the first draft and then disappeared.

Downplaying an increased risk of brain cancer

As mentioned, [Aydin et al.](#) (2011) (OHA # 8) found a two-fold increased risk of brain cancer in a particular subset of subjects, children who had their mobile phones the longest. André Ourso wrote in one of his editorial bubbles in the margins of the [second draft](#): *“Maybe an explanatory sentence of why we would see this increase? (i.e., over time we will see an increase in cancer incidence in a population and that this observation is not related to a causal factor).”*

The description in the report that Ourso flagged was actually euphemistic. It described the two-fold risk increase as: “brain tumor risk was related to the time elapsed since the mobile phone subscription was started but not to the amount of use.” *Related*: that’s a nifty phrase for double the risk.

Either way, new text downplaying the finding appeared in the third draft on the QT (sans track-change) a week later and thus in the final report. Tilting the third-draft as he wished, someone added this to conclude OHA’s discussion of Aydin et al.: *“Given the aforementioned findings, despite the association with subscription length, the evidence is mixed, lacks meaningful exposure-response relationships, and is subject to recall bias; all factors which prevent a conclusion of a causal carcinogenic relationship.”*

These are faux weaknesses, and Ourso’s editorial directive introduced a false treatment of Aydin. In fact, for the subset of subjects discussed, the evidence was not mixed; there was an exposure-response relationship; and inclusion of operator recorded data precluded recall bias to a large extent.

EHT’s Devra Davis and others [wrote](#) of the Aydin paper in 2012: “Overall, the findings of Aydin et al. are supportive of a positive relationship between cell phone use in children and increased risk for brain tumors with shorter latency” than for adults.

As to the statement OHA added at Ourso’s request, Davis said, “That’s just a way to try to minimize it. Given the operator data, the mention of recall bias is nonsense. There must have been a lot of pressure on the people generating the report.”

In 2011, other prominent voices, including Sweden’s Lennart Hardell, [chimed in](#) on the Aydin study: “We consider that the data contain several indications of increased risk.... The information certainly cannot be used as reassuring evidence against an association....”

[More recently](#), Hardell and colleagues note that even the longest period of use considered in the Aydin study was limited to the first three years of use. That seems hard to justify given that the subjects were age 7 to 19. It’s the rare 12-year-old who will use a mobile phone to age 15 and then for some reason stop. This constraint on the data would tend to lower the rates of cancer that Aydin et al. found.

Consider also the paid [Plaintiff's Statement](#) filed in March in a lawsuit against Motorola. Of course, this can be accused of its own bias, but from a very distinguished scientist. Dr. Christopher J. Portier was the Director of the CDC's National Center for Environmental Health and also Director of the Agency for Toxic Substances and Disease Registry.

Portier was asked to do his own literature review. Summing up Aydin on page 29, he writes:

For ipsilateral and contralateral use, exposure-response relationships were seen for all exposure measures and the highest exposure groups had the biggest ORs, [Odds Ratios] many statistically significant.

He adds that, "The OR for regular use (one call per week for at least 6 months) versus not was 1.36 (0.92 – 2.92). All OR s for time since first use were above 1"—meaning there was some increased risk.

Note: "regular use" was described as one call per week. Such minimal use is not realistic in the Aydin study of children and adolescents – or anyone else.

Not incidentally, here's how Dr. Portier concludes his Plaintiff's statement on the overall issue of cancer risk from wireless devices (glioma is an aggressive brain cancer, neuroma is a form of nerve damage):

In my opinion, RF exposure probably causes gliomas and neuromas and, given the human, animal and experimental evidence, I assert that, to a reasonable degree of scientific certainty, the probability that RF exposure causes gliomas and neuromas is high.

You'd never know it from the treatment of the Aydin paper in the OHA report.

(It should be said, there's no law in Oregon requiring the use of track-change as a report wends its way to completion. It's just peculiar – and convenient when changing the report's significance without calling attention to that fact – that the third draft eschewed them. OHA says simply,

"In this case, we determined it wasn't necessary."

Still, said Andrea Chiapella, Communications Director for Oregon's Department of Administrative Services, "I don't believe there are policies or laws that specifically address tracking changes in drafting reports." She added, "There are no policy requirements on drafts as they move through the drafting progress as far as I am aware."

Todd Albert, Oregon's Public Records Advocate, agreed. Referring to track-change, he said, "I am unaware of anything in the public records law that requires this.")

Botching basic stuff

OHA could have benefited from accessing the expertise of someone who has studied RFR and its attendant risks. Various advocates wrote to David Howe with suggestions, studies that should be considered and the like. He patted them politely on the head and sent them on their way.

But OHA failed to get even some basic parameters of its study correct. The report notes that the agency “identified relevant RFR emissions to be in the frequency range of cell phones and Wi-Fi, or approximately between 1.6 gigahertz (GHz) and 30 Ghz.”

Yet the EHT critique said, “In contrast, the International Agency for Research on Cancer of the World Health Organization examined frequencies of 30 kHz to 300 GHz in their investigation of carcinogenicity of RFR. Modern technologies use many frequencies, including RF radiation of 700 megaHertz (MHz) and lower.” Thus, the IARC considered a much broader range of frequencies than did OHA.

Similarly, though the abbreviation “RFR” is used 254 times in the report, and the term “radiofrequency” is used 38 times, OHA used neither RFR nor radiofrequency radiation as search terms to identify studies to consider. In a six-line introduction to the tables on page 50, the report uses the term, “RFR” five times—yet not in searching the two databases used to identify the scientific papers under review.

In its Frequently Asked Questions defense mentioned above, OHA wrote in the first paragraph that it looked at studies “that examined an association between exposure to radiofrequency radiation (RFR) and cancer and noncancer health effects.” OHA lays it out pretty clearly, but just didn’t use the key term, RFR, in its literature search. As one of the team’s email early in the process stated, “The inclusion and exclusion criteria will be key.”

Unguarded bias

Despite a boat-load of failings, the OHA report does at least bear the trappings of a professional public policy document. It looks fine, long as you don’t peer too closely. The bottom half of the report consists of five tables that boil down 176 of the 218 total studies, with cells (or boxes) for title, author, funding source (have several grains of salt handy), endpoint examined, adverse effects: yes/no, etc. All well and good and typical of reviews of the literature.

Except when you get to Tables 3-5 and see a cell over to the far right with the heading, “My comments,” and you realize there’s no indication of who has written that. Who in the world is “My,” and just how odd is that in a supposedly scientific effort? There are 87 papers total summarized in Table 3 (Noncancer Toxicity), Table 4 (Mental Health) and Table 5 (Sleep). And of those 87 papers in the three tables, 61 are graced with snippy little “My comments” from an author unidentified to readers of the report. It’s Dr. Hamade says OHA, not that readers would know that.

Oddly, 58 of the 61 “My comments” are negative; only three can be described as even neutral in their assessment of the paper involved. Odd because the litany of criticism applies both to reports that found a link to adverse effects and those that did not. The four comments copied below, plus

the 54 others, make you wonder why the papers even made the cut for inclusion, since many studies did not:

“Highly subjective approach too.” “Small sample size and lacking generalizability.” “Highly subjective. No exposure assessment. No clinical diagnosis of symptoms. No conclusions can be made about RFR exposures and health.” And my favorite: “Intact skulls might prevent this observation.”

Asked about the “My comments” columns, EHT’s Theodora Scarato was taken aback. “When I saw it, I thought it must be a mistake. It exemplifies the unprofessionalism and lack of scientific rigor endemic to the report,” she said.

I asked OHA the following by email:

Is it appropriate to have 60 ‘My comment’ comments in a legislatively mandated, state public health agency formal review of the literature with no indication of who the author is (who ‘My’ is) and no indication of how or even if these comments were reviewed?

The agency’s reply, typical of its less is less approach to a reporter’s questions: “Yes.”

Bowdlerized if not disemboweled

Responding to a constituent’s push for action starting in 2016, former Rep. Alissa Keny-Guyer had a more robust bill in mind than the tattered remnant that ultimately passed. The original focus was on the Oregon Department of Education and, according to an early version of the bill, the requirement for ODE to “Prepare a statement that discloses the potential health risks of wireless network technology.”

For ODE was to see to it that all Oregon K-12 schools, public and private, were to disseminate information far and wide on “the hazards of exposure to microwave radiation”—disseminate in curricula, assemblies, parent-teacher meetings and also distributed annually to students, parents and staff. Imagine, every year, a brochure arriving in the mailbox outlining the “hazards” the kids—maybe very young kids with thin skulls full of more water by percentage than are adults’ heads and thus more susceptible to radiation—are encountering from the ever-multiplying devices found at school.

Even more remarkable, ODE was to “Develop recommendations ... for practices and alternative technologies that would eliminate students’ exposure to microwave radiation that the studies [OHA would review] identified as harmful.” Eliminate—not reduce.

Finally, ODE couldn’t buy or approve the purchase of “technologies that commercial insurance policies have deemed not insurable because of hazards or harmful effects that are inherent in the use of the technologies.”

Insurance for RFR risk in schools is not as cut-and-dried an issue as some think—it is available under some circumstances from a very few companies, as I’ll discuss in Part Two of this series.

But had the proposed prohibition on procurement without insurance become law, it would likely have forced Oregon schools to invest in safer technologies.

But of course none of that—the info dissemination; the hazards elimination, nor the insurance requirement—got within shouting distance of becoming law. As the bill made its way during the 2019 legislative session, its backers were well aware that someone or some entity could make a stink with leadership in the House, the Senate or the governor’s office to torpedo the bill. Certainly neither ODE nor the 2019 House Committee on Education leadership were conspicuously backing the bill.

One technical, but telling weakening of the law was the change from the original focus on “biological effects of exposure” to “health effects.” A detectable health effect is a far higher barrier to leap than a biological effect, which [according](#) to the W.H.O. “are measurable responses to a stimulus or to a change in the environment.”

Former Rep. Keny-Guyer doesn’t mince words in retirement. She noted she had been trying to get legislation passed in an American “political system that is corrupted by money.” She said if she and the bill’s chief senate backer, former Sen. Laurie Monnes Anderson, had dug their heels in on keeping the original language, “it never would have gotten out of committee.” Keny-Guyer had a tough slog since 2016 to even build awareness of the issue, likening it to countering the tobacco lobby way back when. It was a big step forward to enlist Monnes Anderson, veteran chair of the Senate Committee on Health Care. Both women Democrats, they’ve both since retired.

A former public health nurse passionate about Oregonians’ well-being, yet a realist after twenty years in the legislature, Monnes Anderson gave ground on the bill’s language to ensure 16 yeas in the Senate, huge, powerful executive-branch departments lurking with a de facto veto pen.

She told me by email, “In order to get the agencies, OHA and Dept. of Education, to stay neutral on the bill, the language had to be worded in the way the bill was drafted.” Monnes Anderson emailed an RFR-safety advocate back in 2019 about the loss of some of the original provisions: “The changes were made by my office, and I worked with ODE and OHA to get an amendment that was acceptable to the entities who would be implementing the bill.” Also, “We worked with OHA to fine tune how the study would need to be conducted.”

In other words, the executive-branch departments were driving the legislative train. The bill’s backers had to acquiesce or risk defeat. They adopted a half-a-loaf approach in the hope that bringing attention to the issue would ultimately prove worthwhile. If they had foreseen the report that emerged from OHA, might they have folded their tent and gone home?

Or was the report destined to be a small stone down a deep well anyway, what with the New Year’s Eve release while the legislature was not in session. Said one person who works in the Capitol building, “I saw the report when it came in. The committees do not typically do anything with an agency report. They file it away and that’s it.”

Monnes Anderson thought passage in the senate a long shot. “ODE and OHA were working together at the table. It was clear they can’t mandate, but they could request.” Worried about some last-minute effort to pull strings with leadership, she said, “We gave up quite a lot so it would not get killed at the last minute. It’s easy to get leadership to shoot it down, so we didn’t want the agencies opposed.”

One major red flag was all the notice ODE, and then subsequently, Oregon’s public and private schools would have to send out about RFR’s risks should OHA have succeeded in identifying them. Putting out that kind of widespread notice year after year means the state and the school districts are aware of the risks. And if they’re aware, they have the duty to do something about them.

Monnes Anderson said, “We had to take that out about alerting students and their parents. It was a liability issue. If ODE was alerting people about it, and was not able to buy new wireless equipment, and then a kid gets cancer, well, the state might be liable. If we’re giving out brochures, and we can’t buy insurance, that’s a real liability issue for the state. So we need to look at what needs to be done with the technology in schools.”

The weakened bill passed by a vote of 25 to 0 in the Senate. Why not give two retiring legislators a shell of what they wanted.

Though OHA had 17 months to work on its report from SB 283’s signing in August of 2019 till the report’s release in December 2020, field research was beyond it. Wasn’t mandated by law, and nope, they weren’t going to do it. It didn’t help that OHA squandered roughly nine months from the bill’s signing to when the project really kicked into gear in April 2020. They missed the entire pre-Covid 2019 fall semester, kids in class, devices humming, data there for the plucking. They could have gone to various schools for two weeks in November to get the data they needed.

The agency was charged to conduct a literature review, and that’s what Oregonians would get. Never mind that it relied on studies like the one that declared regular RFR exposure to be one cell phone call per week—a study that has no bearing on what’s happening in Oregon’s classrooms today.

And with funding sketchy, or almost non-existent in the United States, what chance is there for researchers to catch up? Though published just months ago in February, [Birks et al.](#) (2021), a study of kids’ wireless use from 2012 to 2016 says that, “This first large study of RF dose to the brain and body of children and adolescents, shows that mobile phone calls on 2G networks are the main determinants of brain dose....”

Right—2G—in the “first large study” published a couple of months ago. We don’t have a clue what’s happening in the largest experiment in human history, as 5G rolls out with massively increased exposure to higher concentrations of radiofrequency radiation – and with the regulatory agencies turning a blind eye.

Turning a blind eye while stuffing governments' pockets. My colleague, Barbara Koeppe, published a [groundbreaking article](#), "Wireless Hazards" in this magazine in December. Wrote Koeppe:

In fact, the U.S. federal government thrives on a thriving telecom industry. In *Captured Agency* (a [monograph](#) published in 2015 by Harvard's Center for Ethics), journalist Norm Alster wrote that the government had reaped nearly \$100 billion in prior years from selling space on the electromagnetic field spectrum, through which the companies send their signals. Alster says local governments also prosper, collecting an average of 19 percent from users' cellphone bills.

Arrayed against vast economic forces, a "small group of thoughtful, committed, citizens"—many with a bunch of letters after their names—are out to "change the world" (as Margaret Mead would have it). One immediate goal is to get Gov. Kate Brown to retract the OHA report and ship it back for revision.

More long-term, advocates await that one compelling study that indicates not a *link* to harm, or an *association* with increased risk, but something unambiguous and credible and alarming enough to wake the public and their representatives from their indifferent slumber. It's out there, the advocates tell themselves, the science ready to blossom, always a year or so away as the months roll by.

Perhaps. But a November 2020, U.S. Government Accountability Office "[Technology Assessment](#)" of "5G Wireless" stated 5G is so new there's been no studies on its "long-term health effects."

And, "even after high-band 5G technology has been put into use in the coming years, the long-term health effects on people, if any, may not be known for many years later because some health outcomes could take decades to develop

The GAO added:

Observational studies may be used to study health outcomes that take years and decades to develop, such as developmental, behavioral, and cancer outcomes. However, as mentioned above, there have been no observational studies on the long-term health effects of high-band 5G frequencies because the technology is still new.

And while safety advocates wait for their chimera to appear, the (not-so) grand experiment on all mankind continues, just about all of us willfully adding fuel to the fire. My teenager gets the jimmy-leg, we make him sit at the dinner table too long, talking, the plates clean, dinner obviously over, his computer beckoning. Calm down, son—have a cigarette: as was once said, they "soothe the throat."

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Sparked by his successful, free-speech federal lawsuit against Lincoln Center and the NYPD, Daniel Forbes is the author of [Derail this Train Wreck](#), from Fomite Press. His [20-article series](#) on Portland's Bullseye Glass helped spur state air toxics regulatory reform. (Bullseye paid its neighbors \$6.5 million to settle claims against it.) And he testified before the U.S. House and Senate at hearings he caused after [catching](#) the Drug Czar paying the TV networks \$24-million to demonize marijuana to influence voters. Directives, love letters and advice to ddanforbes@aol.com.