

C A N A D A
PROVINCE OF QUÉBEC
DISTRICT OF MONTREAL

(Class Action)
SUPERIOR COURT

No: 500-06-001018-197

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Tracey Arial, 7353 Dunver, Verdun, Qc., H4H 2H6; **Claire O'Brien**, 5975 Cote St Antoine, Apt. 17 Montreal, Qc., H4A 1S6; **Erika and Zoe Patton**, 665 Verdure, Brossard, Qc., J4W 1R5; **Alex Tasciyan**, 616 De Namur, Saint-Lambert, Qc., J4S 1Z4; **Mathew Nucciaroni**, 5552 Snowden Apt. 5, Montreal, Qc., H3X 1Y9 and **Vito DeCicco**, 222 Georges-Vanier Blvd., Montreal, Qc., H3J 2Z1

Plaintiffs/Petitioners

vs.

Apple Canada Inc., 120 Bremner Blvd. #1600, Toronto, Ont., M5J 0A8; **Apple Inc.**, 1 Infinite Loop, Cupertino, CA 95014, United States; **Samsung Electronics Canada**, 2050 Derry Rd. W. Mississauga, Ont., L5N 0B9; and **Samsung Electronics Co. Ltd.**, Suwon (HQ), Korea (Republic of) 129 Samsung-Ro, Maetan-3dong, Yeongtong-gu

Defendants/Respondents

**RE-AMENDED MOTION FOR AUTHORIZATION TO INSTITUTE
A COLLECTIVE ACTION AND TO OBTAIN THE STATUS OF REPRESENTATIVE**
(Articles 571 ff., C.C.P.)

INTRODUCTION

1. If a cellphone is marketed and sold to consumers, the device is never supposed to exceed the maximum allowable limit for radiofrequency (“RF”) radiation exposure.
2. Defendants [...] sell some of the most popular smartphones in the world, including Apple’s iPhones and Samsung’s Galaxy phones by marketing them as emitting less RF radiation than that set by standards and as being completely safe to carry and use on or in close proximity to the human body.
3. Hold your smartphone to your ear for a phone call? No problem, say Defendants. Carry your smartphone in your back pocket? Of course, say Defendants. Use your smartphone to conduct a sonogram of your unborn child in utero? That’s ok too, according to Samsung.

4. In fact, however, recent testing of Defendants' products shows that the potential exposure for an owner carrying the phone in a pants or shirt pocket was over the exposure limit, sometimes far exceeding it – in some instances by 500 percent.
5. Numerous recent scientific publications, supported by hundreds of scientists worldwide, have shown that RF radiation exposure affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans. Thus, Defendants' design, manufacture, and sale of smartphones that far exceed [...] applicable guidelines exacerbate the health risks to Plaintiffs and the Classes.
6. Plaintiffs thus bring this Complaint for negligence, breach of warranty, consumer fraud and unjust enrichment, seeking material, moral and punitive (treble) damages, the costs of medical monitoring, restitution and injunctive relief.

PARTIES

Plaintiffs

7. Tracey Arial is a creative entrepreneur who lives in Verdun, Montreal, Quebec. She purchased a Samsung Galaxy S8 (SM-G950W) in August of 2018, prior to this time she owned and used a Samsung Galaxy S5 (SM-G903W). Arial regularly carries and uses the phone on or near her body. Despite having taken precautionary measures to minimize her exposure, including choosing a cell phone model that expressly says it emits lower radiation than standards allow, that publicly presents itself as emitting lower radiation than other brands do, the use of air tube headphones, using speakerphone mode to avoid holding the phone to her head, and carrying the phone in a shielded radiation-reducing pouch when streaming media; Arial would not have purchased the phone and/or would not have paid as much for the phone had she understood the real risk of radiation exposure emitted. As a result of Samsung's actions as alleged herein, Arial has been damaged and is now at risk for problems associated with RF radiation exposure. Arial has a contract with Videotron for the lease of her Galaxy S8 as appears from Exhibit P-19 attached herewith¹.
8. Claire O'Brien leased a Samsung A-20 in June of 2019. Once she learned of the exposure caused by her phone, she decided to take protective measures including never carrying her phone directly against her body, always in a purse or bag. At night she places her phone away from her bed, on the dresser 4 (four) feet away. While talking on her phone she uses the speaker or earphones. She only turns on her data when necessary. She keeps her location indicator off, wi-fi off and keeps the blue light filter on. O'Brien has a contract with Videotron for the lease of her Galaxy S8 as appears from Exhibit P-20 attached herewith².
9. Erika Patton, a resident of Brossard, Quebec, previously owned an iPhone 6S plus for 1 year in 2018 and an iPhone 6s for two years in 2016. She then inherited her boyfriend's Samsung Galaxy S8 plus in August 2019, and regularly carries and uses the phone on or near her body. She would not have used the phone and/or would not have paid as much for the phone had she understood the risk of radiation exposure from the phone. She now takes extra precautions to protect herself from the

¹ https://www.dropbox.com/sh/ne1jfvfa4sdtsur/AAA5p1hSb-JcNxuuz_27pwwza?dl=0

² <https://www.dropbox.com/s/4ig5bdozi571wwj/Exhibit%20P-20%20O%27Brien%20Bills%20with%20Virgin.pdf?dl=>

exposure of the phone by using a protective pouch for the phone as well as airtube headphones in order to make calls and listen to music. Patton had a contract with Koodo Mobile for the lease of her iPhone 6S plus in 2017 as appears from Exhibit P-21 attached herewith³. Since August 2019, she uses Tasciyan's Galaxy S8 plus.

10. Alexander Tasciyan, who previously owned Erika Patton's Samsung Galaxy S8 plus since 2016, now owns a Samsung Galaxy S10 plus since August 2019, which he carries on his person for most of the day. He also owned an iPhone 5s for a period of 2 years back in 2014. Had he known in advance about the EMF dangers associated with his device, he wouldn't have purchased a newer version of the phone. Nevertheless, he is now taking extra precaution to protect himself from the device such as using a protective case and airtube headphones. Tasciyan has a contract with Rogers Communications for the lease of his Galaxy S10 plus as appears from Exhibit P-22 attached herewith⁴.
11. Matthew Nucciaroni purchased a Samsung Galaxy S7 in 2016. Nucciaroni has a contract with Videotron for his Galaxy S7.
12. Vito DeCicco bought an iPhone 7 about 3 years ago. Once he learned of the EMF risk of his phone, he decided to use a protective case and air tube headphones. DeCicco has a contract with Bell Mobility for the lease of his iPhone 7.
13. Zoe Patton owned an iPhone 5C in 2017, then owned an iPhone 6S plus for 2 years until she acquired her iPhone 8 plus, which she is currently using. Patton has a contract with Rogers Communications for the lease of her iPhone 8 plus as appears from Exhibit P-23 attached herewith⁵. She currently uses Chatr Mobile as her cellphone service provider.

Jurisdiction

14. Plaintiffs are collectively referred to as the "Apple Plaintiffs" and the "Samsung Plaintiffs". The Apple Plaintiffs and Samsung Plaintiffs are collectively referred to as "Plaintiffs." All Plaintiffs are Quebec residents and purchased, leased (or used) their cell phones in the province of Quebec, such that the contracts "were made" in Quebec and as such "the court of domicile of the consumer" has jurisdiction. Furthermore, recourses in warranty and applications for additional damages for bodily injury must be brought before the court hearing the principle application.

Defendants

15. Apple Inc. [...] is a California corporation and has an office in Ontario at 120 Bremner Boulevard #1600, Toronto, M5J A08. Apple designs, manufactures and sells various consumer electronics, computer software and online services. Apple's consumer electronics products include the iPhone 8 and iPhone X. Apple transacts substantial business throughout the Province of Quebec, through advertising, marketing and ownership of numerous Apple retail stores throughout Quebec. Apple also transacts business nationwide with 22 Apple stores in Canada, advertising, marketing, distributing and selling its iPhone products nationwide and ownership of Apple retail stores.

³ <https://www.dropbox.com/s/nvtzzv31a1pvlzn/Patton%20Customer%20Service%20Agreement%20-%20July%2012%2C%202017.pdf?dl=0>

⁴ <https://www.dropbox.com/s/rbiai5wbj68ug7z/Tasciyan%20Rogers%20Bill-2020-07-01.pdf?dl=0>

⁵ <https://www.dropbox.com/s/vsg4i36oq37bst3/Zoe%20Rogers%20Phone%20Bill.pdf?dl=0>

- a. Apple Inc. has a place of business at 1 Infinite Loop, Cupertino, CA 95014, United States.
- b. The back of an Apple iPhone indicates that the phones are designed by Apple in California and assembled in China:



Apple Canada Inc. and Apple Inc. are collectively referred to as "Apple".

- 16. Samsung Electronics Canada, Inc. ("Samsung") maintains its principal place of business at 2050 Derry Rd. W., Mississauga, Ontario.
- 17. Samsung transacts substantial business throughout Quebec and also transacts business nationwide, advertising, marketing, distributing and selling its smartphone products nationwide.

- a. Samsung Electronics Co. Ltd. also has a place of business at Suwon (HQ), Korea (Republic of) 129 Samsung-Ro, Maetan-3dong, Yeongtong-gu.
- b. The back of the Samsung Galaxy S8+ indicates that it was manufactured in China by Samsung:



- c. The back of the Samsung Galaxy S9 indicates that the phone was manufactured in Korea by Samsung:



- d. The back of the Samsung Galaxy S10 indicates that it was manufactured in Vietnam by Samsung:



Samsung Electronics Canada Inc. and Samsung Electronics Co. Ltd. are referred to collectively as “Samsung”.

SUBSTANTIVE ALLEGATIONS

The Role of Smartphones in North American Culture

18. Plaintiffs allege that Defendants’ cellphone SAR levels are falsely advertised, improperly tested and fail to warn of unhealthy levels of radiation. These class claims are summarized in three (3) syllogisms:
- i. Cellphone models, including certain Defendants’ models, when tested using the advertised separation distance emit EMF/SAR in excess of the FCC limit of 1,6 W/kg. This contradicts what is claimed and constitutes false advertising. Defendants are well aware of this fact.

- ii. Cellphone models, including all tested Defendants' models, when tested as used (i.e. separation distance of 2 mm or less) exceed the FCC limit of 1,6 W/kg by up to five (5) times FCC⁶.
- iii. Defendants' actions and omissions described above cause serious health damage to humans and the environment. These constitute a breach of fundamental rights, the Charters and justify the awarding of punitive damages. As this concerns the *quantum* of damages due the class, it is a matter for the Merits.

18 a. Defendant Manufacturers and Distributors are all liable pursuant to Articles 37, 41 to 43 and 53 of the *Consumer Protection Act* and via C.C.Q. Arts. 1442, 1457, 1458, 1468, 1469, 1726-1733.

- 19. According to Pew Research Center, 96 percent of Americans own a cellphone of some kind.⁷ Of those, 81 percent own smartphones,⁸ up from just 35% in Pew Research Center's first survey of smartphone ownership conducted in 2011.⁹
- 20. Roughly 20 percent of American adults are "smartphone-only" internet users, meaning they own a smartphone but don't otherwise subscribe to internet service.¹⁰
- 21. According to the August 22, 2019 article in the Chicago Tribune, filed herewith as **Exhibit P-3A**, there are currently an estimated 285 million smartphones in active use in the United States.¹¹
- 22. And, 29 percent of U.S. teens sleep with their cellphones in bed with them, according to a 2019 report by the non-profit organization Common Sense Media.

Defendants Market and Sell Their Smartphones as Being Safe to Use on and Close to the Human Body at All Times

- 23. Widely recognized as Apple's premier product line, iPhone is a line of industry-leading smartphones that debuted on June 29, 2007.

⁶ The 1 "Microwave Emissions from Cellphones Exceed Safety Limits in Europe and the U.S. When Touching the Body", Om P. Ghandi, IEEE. Access, April 18, 2019. Plaintiffs respectfully request Roberto Romeo v INAIL decisions (Turin, Court of Ivrea, 96-2017 Justice Lucca Fada and Turin Appeal decision 904/2019 published January 13, 2020 and the French cellphone decision Madame c. Maison Départementale des Personnes en Situation de Handicape 90 be filed as Plaintiffs' Exhibits. 2 testing regimen is fraudulent, solely intended to mislead, and constitutes diesel-gating. This is failure to warn, failure to inform, and knowingly marketing inherently dangerous products.

⁷ **Exhibit P-1:** <https://www.pewinternet.org/fact-sheet/mobile/>.

⁸ PC Magazine defines the term "smartphone" as "[a] cellphone and handheld computer that created the greatest tech revolution since the Internet. A smartphone can do everything a personal computer can do, and because of its mobility, much more . . . A smartphone combines a cellphone with e-mail and Web, music and movie player, camera, camcorder, GPS navigation, voice recorder, alarm clock, flashlight, photo album, address book and a lot more. It is also a personal assistant that delivers information and answers questions about almost everything . . . A lot more personal than a personal computer, a smartphone is generally within reach at all times." See **Exhibit P-2:** <http://www.pcmag.com/encyclopedia/term/51537/smartphone>

⁹ *Id.*

¹⁰ *Id.*

¹¹ **Exhibit P-3A:** <https://www.chicagotribune.com/investigations/ct-cell-phone-radiation-testing-20190821-72qgu4nzlfda5kyuhteiih4da-story.html>

24. When Steve Jobs introduced the iPhone in 2007, he described it as “the Internet in your pocket for the first time ever.” He emphasized that the “iPhone is like having your life in your pocket.”¹² And displayed behind Jobs as he launched the iPhone was the following picture:



25. In July of 2016, Apple celebrated the sale of its billionth iPhone.¹³ Apple included within the press release announcing that milestone sale the following quote from its CEO Tim Cook: “iPhone has become one of the most important, world-changing and successful products in history. It’s become more than a constant companion. iPhone is truly an essential part of our daily life and enables much of what we do throughout the day.”¹⁴
26. Throughout the years, Apple has continued to expound on the theme of keeping the iPhone in your pocket. In May 2018, Apple released a commercial for iPhone X, touting the phone’s camera and portrait lighting capabilities. In the ad, a woman is seen taking the iPhone X out of her pocket. Immediately, lights, umbrellas and all of the other trappings of a professional studio appear around her.¹⁵ The commercial ends with the slogan “Studio in Your Pocket”.¹⁶
27. Apple’s commercials also regularly show people listening to music through headphones with their iPhones in their pockets¹⁷ or using the iPhones while holding it in their bare hands.¹⁸
28. Apple’s commercials show people using iPhones in their beds,¹⁹ even being held against a person’s body as they fall asleep while watching a video.²⁰

¹² **Exhibit P-4:** <https://thenextweb.com/apple/2015/09/09/genius-annotated-with-genius/>

¹³ **Exhibit P-5:** <https://www.apple.com/newsroom/2016/07/apple-celebrates-one-billion-iphones.html>

¹⁴ *Id.*

¹⁵ **Exhibit P-6:** <https://youtu.be/HYO0zkdAqlc>

¹⁶ *Id.*

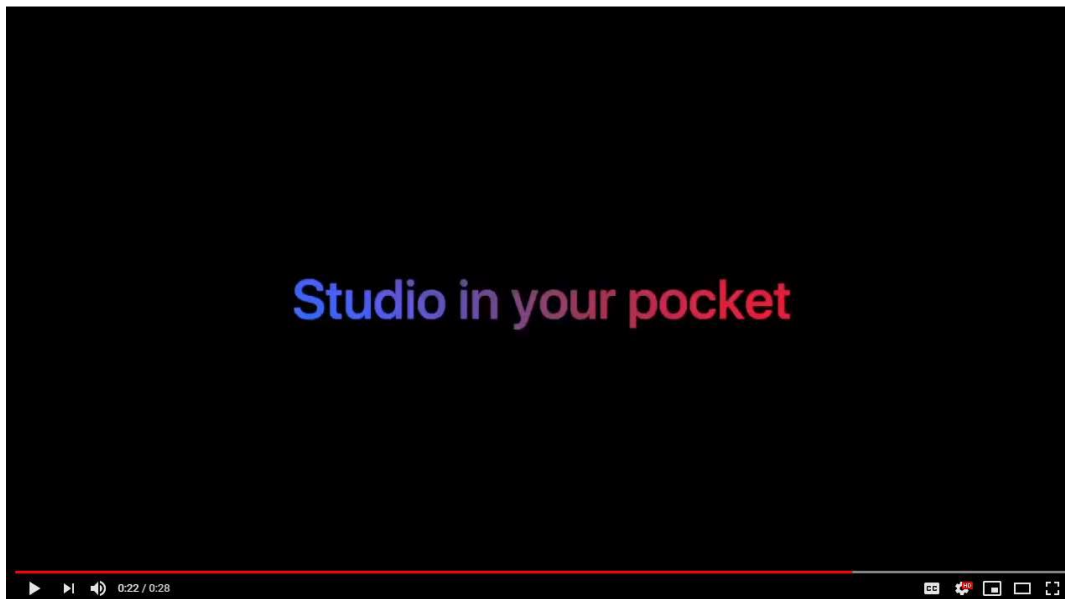
¹⁷ **Exhibit P-7:** <https://www.ispot.tv/ad/wC3Y/apple-iphone-x-sway-song-by-sam-smith>

¹⁸ **Exhibit P-8:** <https://www.ispot.tv/ad/I9eg/apple-iphone-privacy-on-iphone-inside-joke>

¹⁹ **Exhibit P-9:** <https://www.ispot.tv/ad/IjPm/apple-iphone-xr-and-xs-depth-control-alejandro> ;
https://www.ispot.tv/ad/I_8y/apple-iphone-private-side

²⁰ **Exhibit P-10:** <https://www.ispot.tv/ad/oVp4/apple-iphone-xr-battery-life-up-late-song-by-julie-andrews>

29. Following Apple's lead, Samsung launched the first android-based smartphone in April 2009. The Galaxy S series of smartphones has made Samsung the biggest seller of smartphones in the world.
30. Like Apple, Samsung advertises people using its smartphones in close proximity to their bodies.
31. For example, one commercial shows a pregnant woman lying in bed and touching the cell phone to her belly to take a sonogram of her child in utero. In the same commercial, a child has his smartphone tucked into his backpack.²¹



32. Another commercial shows a hiker taking the Samsung phone out of her back pants' pocket at the summit.²² Thus, at all relevant times, Defendants have touted the use of their smartphones as being safe and appropriate to use while touching or within close proximity to the human body.
33. Samsung's phones direct users to "Mobile Communications and Health" (<https://www.youtube.com/watch?v=OIEZ8Cj3YGk>) a nine-year-old video produced by the Mobile & Wireless Forum (The MWF is an international association of companies with an interest in mobile and wireless communications including the evolution to 5G and the Internet of Things).²³ That video shows its actors all holding their phones directly to their heads. The video is painfully misleading and pitches the propaganda that there are no adverse health effects from non-ionizing radiation. It claims there are "wide safety margins" to protect consumers. This propaganda video is patently false and based in false industry-funded science. This intentional misleading of consumers justifies the award of punitive and/or treble damages. *It claims "No scientific or health agency has concluded that there is any risk associate with the electromagnetic fields from wireless devices. This claim is false and intentionally misleading.*

²¹ **Exhibit P-11:** https://www.adsoftheworld.com/media/film/samsung_samsung_galaxy_the_future

²² **Exhibit P-12:** <https://www.bestadsonTV.com/ad/107658/Samsung-Do-What-You-Cant>

²³ **Exhibit P-3E:** <https://www.youtube.com/watch?v=OIEZ8Cj3YGk>

The Dangers of Cellphone Exposure

Radio Frequency (RF) Exposure

34. Cellphones use radio waves to communicate with a vast network of fixed installations called base stations or cell towers. These radio waves are a form of electromagnetic radiation, in the same frequency range used by TVs and microwave ovens.
35. The public relations position from cellphone manufacturers, including Defendants, is that this kind of radiation, also known as radio frequency (RF) exposure, is not the same as ionizing radiation, such as gamma rays and X-rays, which can strip electrons from atoms and cause serious biological harm, including cancer.
36. However, RF exposure, sometimes also called non-ionizing electromagnetic field exposure, at high levels can heat biological tissue and cause harm. Eyes and testes are especially vulnerable because they do not dispel heat rapidly.
37. In fact, in 2015, more than 150 scientists from around the world sent an appeal to the United Nations and World Health Organization, calling for more protective RF exposure guidelines, and education of the public concerning the attendant health risks, particularly to children and fetal development.
38. The appeal, titled “International Appeal: Scientists call for Protection from Non-ionizing Electromagnetic Field Exposure,” as of August 25, 2019 has been signed by 250 EMF scientists.²⁴
39. In relevant part, the appeal explained the risk of RF exposure:

Numerous recent scientific publications have shown that EMF affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans.
40. Moreover, the largest study to date indicates “clear evidence” of cancerous heart tumors in male rats exposed to cellphone radio-frequency radiation according to work published by the National Toxicology Program (“NTP”) research group within the National Institutes of Health, U.S. Department of Health and Human Services in the fall of 2018.
41. The NTP studies were conducted to test the assumption that cell phone radiofrequency radiation could not cause cancers or other adverse health effects (other than by tissue heating) because this type of radiation (non-ionizing) did not have sufficient energy to break chemical bonds.²⁵
42. The results of the NTP studies demonstrated that cell phone radiation caused Schwann cell cancers of the heart and brain gliomas in rats, as well as DNA damage in the brain.²⁶

²⁴ **Exhibit P-13:** <https://www.emfscientist.org/index.php/emf-scientist-appeal>

²⁵ **Exhibit P-14:** <https://thehill.com/opinion/healthcare/416515-theres-a-clear-cell-phone-cancer-link-but-fda-is-downplaying-it>

²⁶ *Id.*

43. Consistent with these findings, in May 2011, the International Agency for Research on Cancer (IARC), a part of the World Health Organization, classified radio-frequency radiation from wireless devices as a “possible human carcinogen” based largely on findings of increased risks of gliomas (a malignant type of brain cancer) and Schwann cell tumors in the brain near the ear in humans after long term use of cellphones.²⁷ Thus, the same tumor types are elevated in both animals and humans exposed to cell phone radiation.

Testing for RF Exposure

44. When cellphones hit the market in the 1980s, authorities set exposure limits to address heating risks of cellphones and did not consider other ill effects. Limits were based on studies showing adverse effects in animals exposed to enough radiofrequency radiation to raise their body temperature by 1 degree Celsius. Using this finding, authorities built in a 50-fold safety factor to calculate a safety limit for humans.
45. The final rule, adopted by the Federal Communications Commission (“FCC”) in 1996, stated that cellphone users cannot potentially absorb more than 1.6 watts per kilogram averaged over one gram of tissue. To demonstrate compliance, phone makers were told to conduct two tests: when the devices were held against the head and when held up to an inch from the body.
46. Before a new cellphone model can be brought to market, a sample phone must be tested and comply with an exposure standard for radiofrequency radiation.
47. Companies testing a new phone for compliance with the safety limit are permitted to position the phone up to 25 millimeters away from the body — nearly an inch — depending on how the device is used.
48. Nonetheless, on its website, in the “Legal” section, Apple warrants that it tests the iPhone at the “highest transmission levels and placed in positions that simulate uses against the head, with no separation, and when worn or carried against the torso of the body, with 10mm separation.”²⁸

²⁷ **Exhibit P-15:** https://www.iarc.fr/wp-content/uploads/2018/07/pr208_E.pdf

²⁸ **Exhibit P-16:** <https://www.apple.com/legal/rfexposure/iphone5,1/en/> (emphasis supplied); Apple also warrants that it tests its iPods at 5mm separation. <https://www.apple.com/legal/rfexposure/ipod5,1/en/>

iPhone 5 RF Exposure information

iPhone has been tested and meets applicable limits for radio frequency (RF) exposure.

Specific Absorption Rate (SAR) refers to the rate at which the body absorbs RF energy. The SAR limit is 1.6 watts per kilogram in countries that set the limit averaged over 1 gram of tissue and 2.0 watts per kilogram in countries that set the limit averaged over 10 grams of tissue. During testing, iPhone radios are set to their highest transmission levels and placed in positions that simulate uses against the head, with no separation, and when worn or carried against the torso of the body, with 10mm separation.

To reduce exposure to RF energy, use a hands-free option, such as the built-in speakerphone, the supplied headphones, or other similar accessories. Cases with metal parts may change the RF performance of the device, including its compliance with RF exposure guidelines, in a manner that has not been tested or certified.

Although this device has been tested to determine SAR in each band of operation, not all bands are available in all areas. Bands are dependent on your service provider's wireless and roaming networks.

The highest SAR values are as follows:

Model A1428, A1429

1.6 W/kg (over 1 g) SAR Limit

Head: 1.25

Body: 1.18

2.0 W/kg (over 10 g) SAR Limit

Head: 0.90

Body: 0.95

49. For some past models, Apple's website told users of the iPhone 4 and 4s: "Carry iPhone at least 10mm away from your body to ensure exposure levels remain at or below the as-tested levels." The site says those phones were tested at a distance of 10 millimeters.
50. When Apple submitted its application to the FCC to market the iPhone 7, the company included a similarly worded radiation statement, suggesting users carry the device at least 5 millimeters from the body, records show. But iPhone 7s (and subsequent models) sold to the public did not include that advice.²⁹
51. Similarly, [...] Samsung provides users the opportunity to check the RF emission levels on its website. Samsung represents not only that its smartphones meet federal requirements, but also that "Body-worn SAR testing has been carried out at a separation distance of 0.0 cm." Samsung thus implies that using,

²⁹ Exhibit P-3A *supra*.

carrying or wearing its smartphones on or in close proximity to the human body is completely safe.

Testing RF Exposure Shows Clear Risk to Plaintiffs and the Class

52. Beginning in or about August 2018, the Chicago Tribune hired RF Exposure Lab in San Marcos, California to measure eleven different cellphone models for radiofrequency radiation.³⁰
53. RF Exposure, an accredited testing lab recognized by the FCC, has conducted radiation tests for fifteen years for wireless companies seeking FCC approval for new products.³¹
54. In August and October 2018, twelve phones were tested: three iPhone 7s, an iPhone X, an iPhone 8, an iPhone 8 Plus, a Galaxy S9, a Galaxy S8, a Galaxy J3, a Moto e5 Play, a Moto g6Play and a Vivo 5 Mini (collectively, the “Affected Phones”).³²
55. According to the lab, all of the tests were done in accordance with FCC rules and guidelines.³³
56. In one phase of the testing, all phones were positioned at the same distance from the simulated body tissue that the manufacturers chose for their own tests — from 5 to 15 millimeters, depending on the model.³⁴
57. Prior to each test, the laboratory reviewed the publicly available testing data that phone manufacturers had submitted to the FCC to demonstrate compliance with radiofrequency radiation limits and gain permission to market the devices.³⁵
58. For each phone model, the laboratory determined which licensed band, frequency and channel yielded the highest radiofrequency radiation reading in the manufacturer’s own tests, and then replicated this configuration.³⁶
59. Plaintiffs expect that the list of smartphones included in this group will expand with discovery and reserve their right to amend accordingly. They currently seek conclusions concerning all phones sold or marketed by Defendants in Quebec [...] from 2013 forward.
60. To conduct the tests, each phone was placed underneath a tub containing specially formulated liquid intended to simulate the electrical properties of human body tissue.³⁷
61. The laboratory used a base station simulator to place a call to the phone and adjusted the base station’s settings to replicate the desired configuration, causing the phone to operate at full power.³⁸

³⁰ **Exhibit P-3A** *supra*

³¹ *Id.*

³² *Id.* Plaintiffs expect that the list of smartphones included in this group will expand with discovery.

³³ *Id.*

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.*

62. A probe attached to a robotic arm then moved in the liquid for eighteen minutes, taking 276 measurements of the radiofrequency radiation absorbed. The results constituted the Specific Absorption Rate, or SAR, which must be under the federal safety limit.³⁹
63. Two tests were conducted on each phone. In the first tests, each device was placed the same distance away from the outside of the tub that the manufacturers selected when they tested the phone.⁴⁰
64. In the second test, the phones were placed 2 millimeters from the tub, a smaller distance meant to reflect a phone being carried in a pants or shirt pocket, based on actual measurements of pieces of dress shirts, T-shirts, jeans, track pants and underwear.⁴¹
65. In a second round of testing in March 2019, a person touched or grasped the originally- tested iPhones, plus one additional one, for the duration of the process. This was action intended to activate sensors designed to reduce the phones' power.⁴²
66. The results by model follow.
67. For the iPhone 7 models, in the original or standard test at 5 millimeters, the RF exposure averaged 2.59 W/kg – more than the 1.6 W/kg limit. In the second or modified test at 5 millimeters, the RF exposure averaged 3.225 W/kg – more than twice the federal exposure limit.⁴³ At 2 millimeters, results from the original and modified tests ranged from 3.5 W/kg to 7.15 W/kg.


³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² *Id.*

⁴³ **Exhibit P-3A** *supra*

KEY:  Federal exposure limit of 1.6 W/kg

Apple iPhone 7



The Apple iPhone X and iPhone 8 each scored three out of four tests above the [...] federal limit of 1.6W/kg:

Apple iPhone X

Standard test

Test distance	W/kg
5mm from body	1.38
2mm from body	2.04

Modified test

Test distance	W/kg
5mm from body	2.19
2mm from body	2.01

Apple iPhone 8

Standard test

Test distance	W/kg
5mm from body	2.64
2mm from body	5.37

Modified test

Test distance	W/kg
5mm from body	1.1
2mm from body	2.64

When tested at 2 millimeters, the Samsung Galaxy S8 exceeded the federal limit by more than 500 percent:

Samsung Galaxy S9

Standard test

Test distance	W/kg
15mm from body	0.63
2mm from body	3.8



Samsung Galaxy S8

Standard test

Test distance	W/kg
10mm from body	1.53
2mm from body	8.22



Samsung Galaxy J3

Standard test

Test distance	W/kg
10mm from body	1.38
2mm from body	6.55



68. These results are not an aberration, but instead reflect actual emissions conducted by an FCC-accredited laboratory under the same conditions used by the manufacturers themselves.
69. Notwithstanding these results and the studies reflecting the dangers inherent at these levels, Defendants have failed to take steps to prevent this excessive RF radiation exposure or to warn Plaintiffs and the Class of the dangers associated with using their products.
70. Prior to the Chicago Tribune testing, two other sets of test results indicated similar fraudulent testing by Defendants:
 - (a) Worst case adult testing done for reporter Wendy Mesley's March 24 2017 CBC Marketplace, of 3 Smart Phones, including the iPhone 7 and Samsung Galaxy S7, alleging a failure to properly test

and inform consumers of health risks resulting from cell phone radiation levels which cause a higher incidence of brain, breast and other cancers in Canada, filed herewith as **Exhibit P-3B en liasse**⁴⁴;

- (b) The French “Phonegate” testing, made public in 2017, indicated that a number of European Smart Phone models, including the iPhone 5, failed to meet the far more restrictive European standards, as indicated in the studies filed herewith *en liasse* as **Exhibit P-3C**.⁴⁵ On October 21, 2019 the French regulator ANSES made public part of its July 2019 study “Mobile phones close to the body and health”, filed herewith as **Exhibit P-3D**⁴⁶, which called upon public authorities and the cell phone industry to face their health responsibilities and recommends, *inter alia*, software updates and phone recalls, which measures are sought in the present proceedings;
- (c) Defendants design and tune their phones to the threshold of FCC to maximize transmission power while still purportedly complying with it. The phone industry’s self testing, designed in the 1990’s for first generation phones, is so nonrepresentative of today’s cell phone use and manipulated, that this testing must be considered negligent and knowingly misleading;
- (d) The health effects and levels of exposure are described in the report prepared by Dr. Magda Havas, which, as well as her CV, is produced as **Exhibit P-3F en liasse**, and in the report prepared by Mr. Pedro Gregorio, which, as well as his CV, is produced as **Exhibit P-3G ii en liasse**⁴⁷.

THE PHONEY TESTING REGIMEN

- (e) In early May of 2020, Mr. Pedro Gregorio discovered the phoney testing regimen “by which defendants and other cellphone manufacturers, distributors and marketers rig the manner of SAR testing” such that each phone meets the F.C.C. “limit” but which testing regimen in no manner resembles the manner in which cellphones are actually used: Mr. Gregorio’s conclusions are as follows:

- 71. 1.6 W/Kg (1-gram average) declared exposure limit for FCC & Industry Canada (IC) licensed portable devices. In Europe, 2 W/kg, 10g average. These basic restrictions are independent of testing positions or methodologies.

FCC OET Bulletin 65 p.6 line 3: “Portable devices are evaluated with respect to SAR limits for RF exposure. The applicable SAR limit for portable transmitters used by consumers is 1.6 watts/kg, which is averaged over any one gram of tissue defined as a tissue volume in the shape of a cube.”

RSS-102 Chapter 4: “For the purpose of this standard, Industry Canada has adopted the SAR and RF field strength limits established in Health Canada’s RF exposure guideline, Safety Code 6.”

⁴⁴ **Exhibit P-3B**: <https://www.cbc.ca/marketplace/episodes/2015-2016/the-secret-inside-your-phone>

⁴⁵ **Exhibit P-3C**: <https://data.anfr.fr/explore/dataset/das-telephoniemobile/table/?disjunctive.marque&disjunctive.modele>).

⁴⁶ **Exhibit P-3D**: <https://ese-ara.org/mediatheque/telephones-mobiles-portes-pres-du-corps-et-sante-avis-de-lances-rapport-dexpertise>

⁴⁷ **Exhibit P3-F Havas Expert Testimony Quebec 2019** and **P3-G Gregorio Expert Testimony Quebec July 12, 2020**, modified to include Penumbra data.

Safety Code 6, 2015, p.4 line 2: “For exposures in uncontrolled environments, the peak spatially-averaged SAR limits are 4.0 W/kg for the limbs and 1.6 W/kg for the head, neck and trunk.”

Safety Code 6, 2015, p.13 line 1: “**basic restrictions**—Maximum allowable internal electrical quantities in the body, arising from exposure to incident external fields, that prevent the occurrence of all established adverse health effects.”

Safety Code 6, 2015, p.3 para 5: “Basic restrictions on peak spatially-averaged SAR have also been established in Safety Code 6 to avoid adverse thermal effects in localized human tissues (hot-spots).”

72. Portable devices defined with separation distance from contact (0 mm) to 20 cm separation distance.

FCC OET Bulletin 65 p.5 para. 3: “For purposes of RF exposure evaluation, a portable device is defined as a transmitting device designed to be used with any part of its radiating structure in direct contact with the user’s body or within 20 centimeters of the body of a user or bystanders under normal operating conditions.”

RSS-102 p. 2, para 6: “**Separation distance (per the power exemption limits)** refers to the minimum test separation distance based on the smallest distance between the antenna and radiating structures or the outer surface of the device, according to the most conservative exposure condition for the applicable module or host platform test procedure requirements, to any part of the body or extremity of a user or bystander”

73. Regulators and standards-setting bodies acknowledge the measurement challenge of SAR exposure evaluation since environment (hand or metal objects) can significantly impact SAR readings. Both FCC and Innovation, Science and Economic Development Canada require testing to identify the most conservative exposure cases. While SAR variability is discussed as a measurement concern, it is not addressed in terms of user exposure concern.

FCC OET Bulletin 65 p.10 para. 3: “**HANDSET AND OTHER TRANSMITTER TEST POSITIONS** Because of near-field coupling effects, small changes in the positioning of a test device may sometimes lead to unexpected changes in energy absorption in the tissue medium. To address this matter, the SCC-34/SC-2 has developed specific test positions for testing handsets. These test positions are described in Appendix D. As explained in the SCC-34/SC-2 SAR measurement document, handsets should be tested on the left and right side of a head phantom in a range of test configurations to obtain a conservative estimate of the exposures expected by the user population.”

74. Despite the risk of “unexpected changes in energy absorption”, rather than requiring a wide range of testing positions to capture maximum exposure scenarios, regulators have standardized three test positions; namely two pairs for the head (Cheek and Tilt) and one for the body (separation distance selected by manufacturer, typically 5 mm for iPhone products and 15 mm for Galaxy handsets). Very specific guidelines define measuring SAR in selected, precisely controlled phone positions during testing. FCC & Industry Canada defer to IEEE/IEC P62209-1528 measurement methodologies for

specific SAR evaluation methods including device under test (DUT) position relative to SAM head phantom. Nevertheless, both FCC and Industry Canada require manufacturers to test “conservatively” for “body-worn” devices at separation distances of 5 mm or less. Manufacturers’ advertising and promotional images (Exhibits P-3A, P-6, P-7, P-8, P-9, P-10) clearly demonstrate “body-worn” use configurations for these devices.

RSS-102 p. 9, line 2: “Body-worn devices that are designed to operate on the body using lanyards or straps shall be tested using a test separation distance of 5 mm or less.”

FCC KDB 447498 D01, section 4.2.2 c): “A conservative minimum test separation distance for supporting off-the-shelf body-worn accessories that may be acquired by users of consumer handsets should be used to test for body-worn accessory SAR compliance. ... Devices that are designed to operate on the body of users using lanyards and straps or without requiring additional body-worn accessories must be tested for SAR compliance using a conservative minimum test separation distance ≤ 5 mm to support compliance.”

75. Manufacturers falsely declare in their handset documentation that SAR testing is at maximum transmission power; however, Chicago Tribune testing demonstrates power reduction techniques are used in the handsets. Latest FCC SAR Evaluation Considerations allow such techniques that reduce transmitter power during SAR compliance testing.

FCC KDB 648474 D04, section 7: “Smart phone manufacturers have implemented different power reduction techniques **to maintain compliance**. The maximum output power of transmitters operating in data mode is often reduced or can be pulse-modulated with a periodic duty factor to reduce the time-averaged power during simultaneous transmission to maintain voice call quality and SAR compliance. ... power reduction mechanisms can become quite complex and dynamic. ... These types of power and SAR reduction implementations for simultaneous transmission operations have continued to evolve with no clearly established industry standards.”

Apple iPhone 7 RF Exposure Information

<https://www.apple.com/legal/rfexposure/iphone9,3/en/>: “During testing, iPhone radios are set to their highest transmission levels and placed in positions that simulate uses against the head, with no separation, and when worn or carried against the torso of the body, with 5mm separation.”

Samsung Galaxy S9 Health & Safety Information, Exhibit S-10, GH68-48856A Rev 1.1 Page 19, Para 4: “SAR tests are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands.”

76. Manufacturers required to provide instructions to the user (duty to inform)

RSS-102 section 2.6: “The applicant is responsible for providing proper instructions to the user of the radio device, and any usage restrictions, including limits of exposure durations. The user manual shall provide installation and operation instructions, as well as any special usage conditions (e.g. proper

accessory required, including the proper orientation of the device in the accessory, maximum antenna gain in the case of detachable antenna), in order to ensure compliance with SAR and/or RF field strength limits. For instance, compliance distance shall be clearly stated in the user manual.”

FCC KDB 447498 D01, section 4.2.2 d): “All supported body-worn accessory operating configurations must be clearly disclosed to users, through conspicuous instructions in the user guide and user manual, to ensure unsupported operations are avoided.”

Apple iPhone 7 RF Exposure Information

<https://www.apple.com/legal/rfexposure/iphone9,3/en/>: “To reduce exposure to RF energy, use a hands-free option, such as the built-in speakerphone, the supplied headphones, or other similar accessories. Cases with metal parts may change the RF performance of the device, including its compliance with RF exposure guidelines, in a manner that has not been tested or certified.”

Samsung Galaxy S7 Health & Safety Information, Exhibit S-8, Page 20, Para 5: “SAR values for body-worn devices are measured when used with an accessory that contains no metal and that positions the device a minimum of X.X cm from the body.”

77. Manufacturers adjust transmitter power to ensure SAR limit compliance only in the three defined test positions. These test positions demand precise alignment, separation distance, and angle relative to test mannequins (specific anthropomorphic mannequin – SAM head, and flat body) to ensure repeatable SAR measurements. They choose one of the 3 IEEE test positions that gives worst-case SAR and adjust (tune) the transmitter power to ensure these values comply to the 1.6 limit. These tuning values for each transmission mode then become the standard for that model and are used for all units sold to consumers; but there are other untested user positions whereby the phone will likely exceed 1.6 W/Kg.
78. Consumers hold phones in a variety of positions with a range of orientations and angles including in contact with the body (tucked into a bra or swimsuit). Such untested configurations are clearly demonstrated in manufacturers’ marketing images, in the photos of the Chicago Tribune article, and in the Marketplace video, among others.
79. Radiofrequency radiation intensity varies rapidly with separation distance especially for separation distances below 15 mm. SAR can increase 30% per mm of separation distance reduction below 5 mm separation distance per Gandhi, 2019.

Gandhi OP, IEEE Access, April 2019, Microwave Emissions From Cell Phones Exceed Safety Limits in Europe and the US When Touching the Body: “The increase in SAR for each millimeter of proximal placement of the wireless device varies from 10 to 30%”

80. Testing by Marketplace, Chicago Tribune, ANFR, and Penumbra shows handsets available in the marketplace can exceed IC, FCC, and European SAR limits especially when tested close to the body (separation distance below 5 mm). Other than commenting that such test configurations are not “standard”, no handset maker or regulatory body has challenged the validity of these test results. In fact, such measurements are consistent with the spirit of both IC & FCC regarding most “conservative” test scenarios.

81. Regulatory guidelines require manufacturers to test “conservatively” (“Worst Case”) including testing below 5 mm separation distance for “body-worn” devices. Manufacturers elect to only test in the very limited and tightly controlled positions (tilt, cheek, body separated) defined in by standards bodies (IEEE/IEC P62209-1528). While manufacturers’ user manuals and safety guidelines make no representations about use or SAR compliance outside tested configurations, their promotional materials actively display and encourage users to use devices in a variety of untested configurations including worn on or close to the body.
82. Present testing methods and practices do NOT ensure consumers’ real-world exposure remains below FCC limits or Health Canada Basic Restrictions.
83. Present testing method and practice does NOT represent most conservative (highest) consumer SAR exposure scenarios. When tested as used (2mm separation distance or in contact with the body) almost all portable devices tested exceed regulatory SAR limits.
- ANSES 2019, section 3.1.3 “...more than half of the mobile telephones tested were assessed with a maximum trunk SAR value in contact with the body above 2 W/kg [European standard].”*
84. Phones should be tested with no separation (Anses 2019)
- ANSES 2019, p. 15, para. 8 “...the Agency [French Agency for Food, Environmental and Occupational Health & Safety] recommends modifying the standard provisions relating to the distance of radio devices that can be placed close to the body to ensure that compliance verification measurements for SARs are carried out when the phone is in contact with the body (0 mm).”*
85. Handset manufacturers knew or should have known.
86. Testing regimen is designed for repeatability on consistency of measurements rather than to assess maximum SAR exposure in real-world use scenarios.
87. Mandate to test “Conservatively” (i.e. Worst Case) is not at all respected.
88. *SAR levels are therefore misrepresented to the consumer, who is given a knowingly misleading impression that the tested levels meet the 1.6 W/Kg limit (Syllogism 1). Where Defendants’ models are tested as actually used by the consumer, even given fraudulent misrepresentation in the testing regimen, they still fail in all cases to meet the level (Syllogism 2). The purpose of the intentionally deceptive and fraudulent testing regime is to hide from consumers the elevated level of non-ionizing radiation to which they are being exposed. The clear purpose of such intricate deception is to hide the health risks that are intentionally not being disclosed (Syllogism 3) as will be shown on the Merits.*

CLASS ACTION ALLEGATIONS

89. The Apple Plaintiffs bring this action as a class action pursuant to Article 575 of the Quebec *Code of Civil Procedure* on behalf of themselves and all others similarly situated as members of the following “Apple Class”: “All persons, at any time residing in Quebec, who purchased, leased or used an iPhone

5, 5C, 5S, 6, 6 Plus, 6S, 6S Plus, SE, 7, 7 Plus, 8, [...] 8 Plus, X XR, XS, SX Max, 11, 11 Pro, 11 Pro Max or SE for personal or household use or any other Apple phone from 2013 forward in the province of Quebec [...].”

90. The Samsung Plaintiffs bring this action as a class action on behalf of themselves and all others similarly situated as members of the following “Samsung Class”: “All persons who purchased, leased or used a Samsung Galaxy S7, S8, [...] S-9, S-10, S-20 or J3 for personal or household use or any other Samsung phone from 2013 forward in the province of Quebec [...].

Common Questions of Law and Fact.

91. Common questions of law and fact applicable to all members of the Class predominate over any questions affecting only individual Class members. These common legal and factual questions include, but are not limited to, the following:

- a. Whether Apple and Samsung properly tested their smartphones before selling them to the Plaintiffs and the Class;
- b. Whether Apple and Samsung represented and/or warranted that their smartphones were safe for ordinary use;
- c. Whether the smartphones were safe for ordinary use;
- d. Whether the RF radiation from the smartphones placed Plaintiffs and Class members at risk for cancer and other health problems;
- e. Whether Defendants owed a duty to Plaintiffs and Class members to disclose the dangers of their smartphones;
- f. Whether Defendants intentionally misrepresented the safety of the Plaintiffs’ and Class members’ smartphones to them and the public;
- g. Whether Plaintiffs or Class Members are entitled to medical monitoring;
- h. Whether Plaintiffs and the members of the Class have sustained financial loss, and the proper measure of any such financial loss;
- i. Whether Plaintiffs and the members of the Class are entitled to restitution;
- j. Whether Plaintiffs and the members of the Class are entitled to punitive damages, and the proper measure of any such damages; and
- k. Whether Plaintiffs and the members of the Class are entitled to material damages, and the proper measure of any such damages.

92. Representative Nature of Plaintiffs: Plaintiffs’ claims are typical of those held by the other members of the Class in that each of them owned, leased or used and/or own, lease or use one of Defendants’ smartphones that exceed federal RF radiation exposure limits or otherwise expose them to dangerous EMF exposure.

93. Adequacy of Representation: Plaintiffs will fairly and adequately protect the interests of the Class. Plaintiffs have retained trial counsel experienced in complex litigation including complex consumer class action litigation, and Plaintiffs intend to vigorously prosecute this action.

94. Plaintiffs have no interests in this action that are adverse or antagonistic to the interests of the Class.

95. Class action litigation is the only reasonable and proportionate recourse when compared with all other available means for the fair and efficient adjudication of this controversy. The damages, harm and

financial detriment suffered by individual members of the Class are relatively minor compared to the burden and expense that would be entailed by individual prosecution of their claims against Defendants.

96. It would thus be practically impossible for the members of the Class, on an individualized basis, to effectively seek and obtain redress for the wrongs committed against them.
97. In addition, even if the Class members could —and realistically would be willing—to pursue such individualized litigation, this Court likely could not reasonably sustain the imposition on resources that individualized litigation over this controversy would entail.
98. Further, individualized litigation would create the danger of inconsistent or contradictory judgments arising from the identical factual predicate.
99. Individualized litigation would also result in a substantial increase in the time and expense required of the parties and the Court to address the issues raised by this litigation.
100. By contrast, litigation of the Phonegate controversy outlined herein as a class action provides the benefits of adjudication of these issues in a single, unitary proceeding, provides substantial economies of scale, allows comprehensive supervision of the legal and factual issues raised herein by a single court, and presents no unusual management difficulties under the circumstances presented here.
101. Damages may be calculated from the data maintained in Defendants' and third-party carriers' records, so that the cost of administering a recovery for the Class can be minimized. The precise measure of damages available to Plaintiffs and the Class, however, is not a barrier to class certification.

THE AUTHORIZATION CRITERIA

Art 575 (1) Identical, Similar or Related issues of Law

Products unsafe for use as intended and provide insufficient warning of risk their use entails

102. A specific regime for hazardous consumer products and those with insufficient security warnings is established by the *Quebec Consumer Protection Act* and the *Civil Code of Quebec*. Article 906 of the *Quebec Civil Code* has been properly interpreted to extend that protection to electricity.⁴⁸ The relevant provisions of the *Quebec Consumer Protection Act* are:

37. Goods forming the object of a contract must be fit for the purposes for which goods of that kind are ordinarily used.
1978, c. 9, s. 37.

⁴⁸ Baudoin, Deslauriers et Moore, *La responsabilité du fabricant et du vendeur – l'évolution historique* 2-352 as concerns electrocution and explicitly tout doute sur la qualification des ondes et des diverses formes d'énergie qui sont réputés meubles corporels que leur source soit mobilière ou immobilière. As concerns electricity and Art. 609 *C.C.Q.* at *see* *Entreprise d'électricité du Centre-Ville c. Groupe Sedgeinc*, 2016 QCCQ 11464 at para. 36 holding that waves constitute a corporeal moveable good. In *3296008 Canada Inc. c. Groupe Commerce Cie. d'Assurances*, 2002 CanLII 10117 (QC CS) para. [32] L'électricité est considérée comme meuble corporel selon l'article 906 C.C.Q.

38. Goods forming the object of a contract must be durable in normal use for a reasonable length of time, having regard to their price, the terms of the contract and the conditions of their use.

1978, c. 9, s. 38.

53. A consumer who has entered into a contract with a merchant is entitled to exercise directly against the merchant or the manufacturer a recourse based on a latent defect in the goods forming the object of the contract, unless the consumer could have discovered the defect by an ordinary examination.

See also ss. 8, 219, 221, 223.1 and 228.

103. The same rule applies where there is a lack of instructions necessary for the protection of the user against a risk or danger of which he would otherwise be unaware.
104. The merchant or the manufacturer shall not plead that he was unaware of the defect or lack of instructions.
105. The rights of action against the manufacturer may be exercised by any consumer who is a subsequent purchaser of the goods.

Consumer Protection Act

272. *If the merchant or the manufacturer fails to fulfil an obligation imposed on him by this Act, by the regulations or by a voluntary undertaking made under section 314 or whose application has been extended by an order under section 315.1, the consumer may demand, as the case may be, subject to the other recourses provided by this Act,*

- (a) the specific performance of the obligation;
- (b) the authorization to execute it at the merchant's or manufacturer's expense;
- (c) that his obligations be reduced;
- (d) that the contract be rescinded;
- (e) that the contract be set aside; or
- (f) that the contract be annulled,

without prejudice to his claim in damages, in all cases. He may also claim punitive damages [emphasis added].

1978, c. 9, s. 272; 1992, c. 58, s. 1; 1999, c. 40, s. 234.

Civil Code of Quebec

906. Waves or energy harnessed and put to use by man, whether their source is movable or immovable, are deemed corporeal movables.

[...]

1468. The manufacturer of a movable thing is bound to make reparation for Injury caused to a third person by reason of a safety defect in the thing, even if it is incorporated with or placed in an immovable for the service or operation of the immovable.

1469. A thing has a safety defect where, having regard to all the circumstances, it does not afford the safety which a person is normally entitled to expect, particularly by reason of a defect in design or manufacture, poor preservation or presentation, or the lack of sufficient indications as to the risks and dangers it involves or as to the means to avoid them.

The same rule applies to a person who distributes the thing under his name or as his own and to any supplier of the thing, whether a wholesaler or a retailer and whether or not he imported the thing.

1473. The manufacturer, distributor or supplier of a movable thing is not bound to make reparation for injury caused by a safety defect in the thing if he proves that the victim knew or could have known of the defect or could have foreseen the injury.

Nor is he bound to make reparation if he proves that, according to the state of knowledge at the time that he manufactured, distributed or supplied the thing, the existence of the defect could not have been known, and that he was not neglectful of his duty to provide information when he became aware of the defect.

106. The *Consumer Protection Act* sections 2, 37, 53, 216, 218, 223.1, 228, 238A, 253 and 272 provides for a specific regime of proof as concerns warranties of quality and the duty to warn the consumer as concerns consumer products, which, pursuant to Arts. 906 and 1468-9 C.C.Q. includes *inter alia* cellular telephony.

107. Recourses relying on sections 37 and 53 of the *Consumer Protection Act* require the consumer to show *only* that the product was not fit for the use it was intended (i.e. poses a serious health risk) or failed to provide a reasonable security warning and that the defect was not self-evident upon casual inspection by the consumer.⁴⁹

108. This limited proof shifts the burden to the Defendant, who must show that there is no risk and that proper warnings were provided. The Defendant may *not* claim he was unaware of the defect or risk as he is presumed to have that knowledge.

109. « Le respect des normes par le commerçant ou le manufacturier ne met pas nécessairement ces parties à l’abri d’une conclusion de déficit d’usage »⁵⁰.

[...]

110. The “reasonable expectations” of the Representatives, and all Quebec consumers, when purchasing Defendants’ products or services was not to be exposed to dangerous levels of a toxic and addictive pollutant, namely non-ionizing radiation.

111. The manufacturers and vendors obligations are of result both pursuant to the *Consumer Protection Act* and the *Civil Code of Quebec*.

[...]

⁴⁹ Bourassa, Sylvie, *Consumer Protection Act and Regulation Concerning its Application*, Yvon Blais, 2018, annotations to Articles 37 and 53;

⁵⁰ *Fortin c Mazda Canada inc.* 2016 QCCA 31, cited in Bourassa, Baudouin *supra*. As concerns electrocution see *Hydro-Québec c. Boyer* [1985] R.L. 165 para. 37.

Failure to Warn

112. A second related category of liability, both under consumer protection legislation and at common law, is the failure to warn or to sufficiently warn of the danger posed or to provide instruction as to the manner of safe use of a product. The prevention of incorrect or dangerous use is one of the principle objectives of the duty to inform.⁵¹ It is a continuing obligation as the manufacturer is required to inform users of risks even after the product is sold, *Hollis v Dow Corning*, an application of the precautionary principle.⁵²

Fault-based Liability and Abuse of right: Articles 6, 7, 1457-8 and 1467-9 C.C.Q.

6. Every person is bound to exercise his civil rights in accordance with the requirements of good faith.

7. No right may be exercised with the intent of injuring another or in an excessive and unreasonable manner, and therefore contrary to the requirements of good faith.

CONDITIONS OF LIABILITY

§ 1. — General provisions

1457. Every person has a duty to abide by the rules of conduct incumbent on him, according to the circumstances, usage or law, so as not to cause injury to another.

Where he is endowed with reason and fails in this duty, he is liable for any injury he causes to another by such fault and is bound to make reparation for the injury, whether it be bodily, moral or material in nature.

He is also bound, in certain cases, to make reparation for injury caused to another by the act, omission or fault of another person or by the act of things in his custody.

1458. Every person has a duty to honour his contractual undertakings.

Where he fails in this duty, he is liable for any bodily, moral or material injury he causes to the other contracting party and is bound to make reparation for the injury; neither he nor the other party may in such a case avoid the rules governing contractual liability by opting for rules that would be more favourable to them.

113. Another common issue is whether Defendants' EMF emissions constitute an attractive nuisance or fall within the civil law definition of a trap.

[...]

114. It is self-evident that where a consumer product poses a significant undisclosed health risk, it is a "trap".

115. Abuse of rights was defined by the Supreme Court in *St. Lawrence Cement*:

[...]

[25] Article 7 *C.C.Q.* places two limits on rights: a right may be exercised neither with the intent of causing injury nor in an excessive and unreasonable manner.

⁵¹ Baudouin, Deslauriers and Moore, *infra* at para. 2-354 citing *Thibault c. St. Jude Medical Inc.* J.E. 2004-1924.

⁵² *Ibid* at para.2-355.

116. The Court then points out that in contradistinction to civil liability pursuant to Arts. 1457 and 1458 C.C.Q., the presumption that the act is lawful must first be rebutted by proving abuse. “Violation of a standard of conduct is therefore inextricably linked to the concept of abuse of rights”⁵³.
117. An owner causing abnormal annoyances without the intent to injure or excessive and unreasonable conduct does not abuse his or her rights as there is no wrongful conduct, as “abuse” implies blame⁵⁴. A finding of abnormal annoyances is insufficient to establish abuse of right. However, the owner who commits fault is liable even where the damage is insufficient to meet the standard of abnormal annoyances.
118. Environmental standards place limits on the exercise of rights⁵⁵. Plaintiffs allege the breach of sections 1 and 46.1 of the Quebec *Charter* and sections 19.1, 20, 21 and 22 of the *Environment Quality Act*.

[...]

“So dangerous an element as electricity”

119. The electrification cases hold those distributing electricity or selling electric products to a higher duty of care given the inherently dangerous nature of electricity. “Cette obligation est proportionnelle au danger inherent a l’utilisation du bien”.⁵⁶ Electricity, as a moveable, falls within the ambit of Art. 1468 C.C.Q. by operation of Art. 906 C.C.Q., as noted by Baudoin, Deslauriers and Moore at para. 2-382.

[...]

A breach of the “right to live in a healthful environment in which biodiversity is preserved” provided for by Section 46.1 of the Quebec Charter^[...]

A breach of the rights to Life, Liberty and Security of Person

120. Punitive damages should be awarded pursuant to section 272 the Quebec *Consumer Protection Act*, *The Canadian Charter of Rights and Freedoms* and the Quebec *Charter of Human Rights and Freedoms* C-12.

Injunctive relief

121. Given the considerable health risks, failure of Defendants to warn and their false advertising, Plaintiffs are entitled to claim injunctive relief of four (4) kinds, which are claimed herein:

First, class members are entitled to proper product warnings which indicate the actual SAR levels of the Affected phones, the likely upshot of that radiation, and warnings that are prominent and easily located including at the point of sale and when devices are powered up;

⁵³ *St. Lawrence Cement* at para 29.

⁵⁴ *Ibid* at para. 30.

⁵⁵ *Ibid* at para 32.

⁵⁶ Baudouin, Deslauriers et Moore, *La responsabilité du fabricant* (2014) para. 2-377;

Second, given members' overexposure, they are entitled to a software fix that reduces the level of radiation transmitted by the phones, to the lower of either the actual SAR advertised on the phones, or that which is safe. Such a software fix would create "polling only when required". The software fix would diminish i) frequency, i.e., how often the phone receives transmissions, ii) intensity, how strong the signal transmitted is and iii) volume, i.e., how much data is transmitted; In the alternative class members are entitled to replacement phones with similar functionality but emitting only a safe level of radiation (a consumer recall);

Third, for newly manufactured smartphones, all emf reduction, re-direction and avoidance of transmission at "11" must be met and tested to do so as used in real world conditions.

- i. As injunctive relief, for all phones sold, leased or used since 2013 and still in service, a phone cover that performs all of those re-directive functions; and

Fourth, the class members are entitled to an Order by this Honorable Court that Defendants seriously study the health effects of the affected phones and similar consumer products and report their findings for scientific review.

[...]

- a) In addition to the injunctive remedy sought herein, plaintiffs, petitioners also seek an order that:
 - ii. For newly manufactured smartphones, all emf reduction, re-direction and avoidance of transmission at "11" must be met and tested to do so as used in real world conditions.
 - iii. As injunctive relief, for all phones sold, leased or used since 2013 and still in service, a phone cover that performs all of those functions.

Medical Monitoring

122. The cost of medical monitoring in the present matter should be considered a legitimate claim based on U.S. environmental law precedent. Medical monitoring has not to our knowledge been recognized in Quebec as free healthcare is available. The situation is different as concerns Petitioners' claim as they and class members suffer from a non-recognized medical ailment. In particular, the Quebec Minister of Health instructed doctors not to find a causal relationship between EMF exposure and any health damages (**Exhibit P-18**⁵⁷). As such, the reason for which medical monitoring has not been recognized is inapplicable in the present circumstances, while the reasons for its being ordered in American environmental, pharmaceutical and implant jurisprudence is operative.

⁵⁷ April 15, 2015 letter from Horacio Arruda, M.D., Direction Générale de la santé publique, Ministère de la Santé et des Services sociaux du Québec to [confidential], accessible at : http://collectiveactionquebec.com/uploads/8/0/9/7/80976394/exhibit_r-4_letter_from_dr_horacio_arruda_15_apr_2015.pdf.

NEGLIGENT MISPRESENTATION AGAINST [...] SAMSUNG

123. The [...] Samsung Plaintiffs incorporate by reference all other paragraphs of this Complaint as if fully set forth here.
124. [...] Samsung had a duty to communicate accurate information to Plaintiffs about the RF exposure from their Galaxy Phones.
125. Defendant intentionally misrepresented the safety of affected Galaxy phones, assuring Class Members that they had been adequately tested, and were safe to use on and in close proximity to their bodies at all hours of the day and night, despite information within its knowledge indicating that the RF exposure was linked to cancer and other health risks.
126. Even when repeatedly faced with a wealth of warnings from scientists and the dangers associated with RF exposure from smartphones, Defendant continues to make no effort to protect or warn current or prospective owners of its affected Galaxy phones. Rather, Defendant has turned a blind eye to these inconvenient truths, opting to double-down on statements that the phones are safe to use without restriction on placement.
127. Plaintiffs, in reliance on Defendant's claims regarding the ways in which the affected Galaxy phones were safe to and should be used, continued to use and place the affected Galaxy phones on and in close proximity to their bodies.
128. Plaintiffs' reliance was justified given Defendant's superior position of authority and knowledge.
129. As a result, on information and belief, Plaintiffs have been exposed to harmful levels of RF radiation that could negatively affect their health for many years to come.
130. Plaintiffs and Class members are thus entitled to the establishment of a medical monitoring program that includes, among other things: (i) Establishing a trust fund, in an amount to be determined, to pay for the medical monitoring of all Class members; and (2) Notifying all Class members in writing that they may require frequent medical monitoring necessary to diagnose conditions resulting from RF radiation exposure.

NEGLIGENT MISPRESENTATION AGAINST APPLE

131. The Apple Plaintiffs incorporate by reference all other paragraphs of this Complaint as if fully set forth here.
132. Apple had a duty to communicate accurate information to Plaintiffs about the RF exposure from their iPhones.
133. Defendant intentionally misrepresented the safety of the iPhones, assuring Class Members that the iPhones had been adequately tested, and were safe to use on and in close proximity to their bodies at all hours of the day and night, despite information within its knowledge indicating that the RF exposure was linked to cancer and other health risks.

134. Even when repeatedly faced with a wealth of warnings from scientists and the dangers associated with RF exposure from smartphones, Defendant continues to make no effort to protect or warn current or prospective owners of its iPhones. Rather, Defendant has turned a blind eye to these inconvenient truths, opting to double-down on statements that the iPhones are safe to use without restriction on placement.
135. Plaintiffs, in reliance on Defendant's claims regarding the ways in which the iPhone was safe to and should be used, continued to use and place the iPhone on and in close proximity to their bodies.
136. Plaintiffs' reliance was justified given Defendant's superior position of authority and knowledge.
137. As a result, on information and belief, Plaintiffs have been exposed to harmful levels of RF radiation that could negatively affect their health for many years to come.
138. Plaintiffs and Class members are thus entitled to the establishment of a medical monitoring program that includes, among other things: (i) Establishing a trust fund, in an amount to be determined, to pay for the medical monitoring of all Class members; and (2) Notifying all Class members in writing that they may require frequent medical monitoring necessary to diagnose conditions resulting from RF radiation exposure.

NEGLIGENCE AGAINST APPLE

139. The Apple Plaintiffs incorporate by reference all other paragraphs of this Complaint as if fully set forth here.
140. Apple owed Plaintiffs a duty to exercise reasonable care in selling smartphones that emitted RF radiation at safe levels when placed on or in close proximity to their bodies.
141. Defendant failed to exercise reasonable care when, after knowingly designing and manufacturing iPhones whose RF exposure exceeded safe limits when used on or in close proximity to the human body, it did not take any measures to warn or protect Plaintiffs and Class members from RF exposure and, instead, covered up any risks by misrepresenting the safety of the smartphones.
142. Defendant knew or should have known that Plaintiffs and the Class members would foreseeably suffer injury from RF radiation exposure as a result of Defendant's failure to exercise ordinary care.
143. Defendant's negligence proximately caused Plaintiffs' and the Class members' damages and their increased risk of harm as documented herein.
144. Plaintiffs and Class members are therefore entitled to the establishment of a medical monitoring program that includes, among other things: (1) Establishing a trust fund, in an amount to be determined, to pay for the medical monitoring of all Class members; and (2) Notifying all Class members in writing that they may require frequent medical monitoring necessary to diagnose conditions resulting from RF radiation exposure.

NEGLIGENCE AGAINST SAMSUNG

145. The Samsung Plaintiffs incorporate by reference all other paragraphs of this Complaint as if fully set forth here.
146. Samsung owed Plaintiffs a duty to exercise reasonable care in selling smartphones that emitted RF radiation at safe levels when placed on or in close proximity to their bodies.
147. Defendant failed to exercise reasonable care when, after knowingly designing and manufacturing affected Galaxy phones whose RF exposure exceeded safe limits when used on or in close proximity to the human body, it did not take any measures to warn or protect Plaintiffs and Class members from RF exposure and, instead, covered up any risks by misrepresenting the safety of the smartphones.
148. Defendant knew or should have known that Plaintiffs and the Class members would foreseeably suffer injury from RF radiation exposure as a result of Defendant's failure to exercise ordinary care.
149. Defendant's negligence proximately caused Plaintiffs' and the Class members' damages and their increased risk of harm as documented herein.
150. Plaintiffs and Class members are therefore entitled to the establishment of a medical monitoring program that includes, among other things: (1) Establishing a trust fund, in an amount to be determined, to pay for the medical monitoring of all Class members; and (2) Notifying all Class members in writing that they may require frequent medical monitoring necessary to diagnose conditions resulting from RF radiation exposure.

VIOLATIONS OF THE CANADIAN COMPETITION ACT (CCA)

151. The Plaintiffs incorporate by reference all paragraphs as though fully set forth herein.
152. This claim is brought by the Plaintiffs on behalf of the Quebec and nationwide Class.
153. The *Canadian Competition Act (CCA)* proscribes acts of unfair competition, including any unlawful, unfair or fraudulent business act or practice and unfair, deceptive, untrue or misleading advertising. Defendant's conduct, as described herein, was and is in violation of the *CCA*.
154. Defendant's conduct violates the *CCA* in at least the following ways: Defendant failed to disclose that the Affected Phones (i) emitted RF radiation exposure when used or carried on or in close proximity to the human body at unsafe levels; and (ii) that the RF radiation exposure was far worse than a reasonable consumer would expect given the premium paid for these smartphones over a cellphone; (iii) defendants misleading advertising makes deceptive and false representations to promote their phones and have done so intentionally and fraudulently; (iv) defendants engage and have engaged in distorting test results and making false health claims misrepresenting the risks posed by their products (ss. 52, 74.01, 74.02 and 74.03 (5)). They proffer false science, by design.
155. Defendants intentionally and knowingly misrepresented material facts regarding the Affected Phones with an intent to mislead Plaintiffs and the Class.

156. In purchasing or leasing the Phones, Plaintiffs and the other Class members were deceived by Defendant's failure to disclose that the phones emitted RF radiation exposure when used or carried on or in close proximity to the human body at unsafe levels.
157. Plaintiffs relied upon Defendant's false misrepresentations when purchasing their phones and as a result suffered an injury-in-fact and lost money.
158. Plaintiffs relied on Defendant's material representations and/or omissions that the phones they were purchasing were safe to use and free from defects.
159. Defendant owed Plaintiffs and the Class a duty to disclose the truth about its the RF radiation exposure from its Affected Phones, because Defendant: (i) possessed exclusive knowledge of the levels of RF radiation exposure emitted from its phones; and (ii) misrepresented and/or made incomplete representations concerning the levels of RF radiation exposure when the phones were used or carried on or in close proximity to the body.
160. Plaintiffs and the other Class members were injured and suffered ascertainable loss, injury-in-fact, and/or actual damage as a proximate result of Defendant's conduct in that Plaintiffs and the other Class members overpaid for their smartphones, and/or their smartphones have suffered a diminution in value. These injuries are the direct and natural consequence of Defendant's misrepresentations and omissions.
161. Defendant's violations present a continuing risk to Plaintiffs as well as to the general public. Defendant's unlawful acts and practices complained of herein affect the public interest.
162. Absent those misrepresentations and omissions, Plaintiffs and the other Class members would not have purchased or leased these smartphones, would not have purchased or leased these smartphones at the prices they paid, and/or would have purchased or leased less expensive alternative cellphones that did not emit RF radiation exposure at unsafe levels.
163. Accordingly, Plaintiffs and the other Class members have suffered injury in fact, including lost money or property, as a result of Defendant's misrepresentations and omissions.
164. Plaintiffs request that this Court enter such orders or judgments as may be necessary to restore to Plaintiffs and members of the Class any money it acquired by unfair competition, including replacement of the devices with safe equivalent phones of equivalent functionality, a software patch to reduce emissions to a safe level, restitution and/or restitutionary disgorgement, punitive damages and for such other relief as may be appropriate.

VIOLATIONS OF THE QUEBEC CONSUMER PROTECTION ACT AGAINST APPLE

165. The Apple Plaintiffs incorporate by reference all paragraphs as though fully set forth herein.
166. This claim is brought by the Apple Plaintiffs on behalf the Province of Quebec and of the nationwide Apple Class.

167. Defendants violated the Quebec Consumer Protection Act (CPA) in numerous respects. Defendant failed to disclose that the Phones (i) emitted RF radiation exposure when used or carried on or in close proximity to the human body at unsafe levels; and (ii) that the RF radiation exposure was far worse than a reasonable consumer would expect given the premium paid for these smartphones over a cellphone, and falsely claimed their phones were safe in breach of sections 37, 218, 219, 223,1 and 228 CPA. Furthermore, Defendants breached their duty to make the phone safe for use as intended and the manner consumers use their devices.
168. Defendant intentionally and knowingly misrepresented material facts regarding the Phones with an intent to mislead Plaintiffs and the Class.
169. In purchasing, using or leasing the Phones, Plaintiffs and the other Class members were deceived by Defendant's failure to disclose that the phones emitted RF radiation exposure when used or carried on or in close proximity to the human body at unsafe levels.
170. Plaintiffs and Class members reasonably relied upon Defendant's false misrepresentations and omissions. They had no way of knowing that Defendant's representations were false and gravely misleading. Plaintiffs and Class members did not, and could not, unravel Defendant's deception on their own.
171. Defendants knew or should have known that its conduct violated the *CPA*.
172. Defendants owed Plaintiffs and the Class a duty to disclose the truth about its the RF radiation exposure from its Phones, because Defendant: (i) possessed exclusive knowledge of the levels of RF radiation exposure emitted from its phones; (ii) misrepresented and/or made incomplete representations concerning the levels of RF radiation exposure when the phones were used or carried on or in close proximity to the body; and (iii) knowingly mislead consumers that the phones posed no health risk.
173. Plaintiffs and the other Class members relied on Defendant's material representations and/or omissions that the Phones they were purchasing were safe to use and free from defects.
174. Defendant's conduct proximately caused injuries to Plaintiffs and the other Class members.
175. Plaintiffs and the other Class members were injured and suffered ascertainable loss, injury-in-fact, and/or actual damage as a proximate result of Defendant's conduct in that Plaintiffs and the other Class members overpaid for their smartphones, and/or their smartphones have suffered a diminution in value. These injuries are the direct and natural consequence of Defendant's misrepresentations and omissions.
176. Defendant's misrepresentations and omissions alleged herein caused Plaintiffs and the other Class members to make their purchases or leases of their Affected Phones.
177. Absent those misrepresentations and omissions, Plaintiffs and the other Class members would not have purchased, used or leased these smartphones, would not have purchased, used or leased these smartphones at the prices they paid, and/or would have purchased or leased less expensive alternative

cellphones that did not emit RF radiation exposure at unsafe levels and would have taken steps to minimize their exposure.

178. Plaintiffs were deceived by Apple's failure to disclose the true nature of its Smartphones.
179. Plaintiffs demand judgment against Defendant under the *CPA* for injunctive relief including a corrective software patch reducing emissions, deflective phone cases (described herein) for all Defendants phones from 2013 onward still in use, punitive damages, public notice of the risks posed as may be appropriate and an award of attorneys' fees and costs.
180. Defendants were given notice of its violations of the CLRA pursuant to CAL. CIV. CODE § 1782(a). The notice was transmitted to Defendants on August 23, 2019.

VIOLATIONS OF THE QUEBEC CONSUMER PROTECTION ACT AGAINST SAMSUNG

181. The Samsung Plaintiffs incorporate by reference all paragraphs as though fully set forth herein.
182. This claim is brought by the Samsung Plaintiffs on behalf of the Province of Quebec and the nationwide Samsung Class.
183. Defendants violated the Quebec *Consumer Protection Act* ("*CPA*") in numerous respects.
184. Defendants failed to disclose that the Phones (i) emitted RF radiation exposure when used or carried on or in close proximity to the human body at unsafe levels; and (ii) that the RF radiation exposure was far worse than a reasonable consumer would expect given the premium paid for these smartphones over a cellphone; (iii) intentionally mislead consumers that the phones posed no health risk and could be safely used in close proximity to the head and body.
185. Defendants intentionally and knowingly misrepresented material facts regarding the Phones with an intent to mislead Plaintiffs and the Class.
186. In purchasing, using or leasing the Phones, Plaintiffs and the other Class members were deceived by Defendant's failure to disclose that the phones emitted RF radiation exposure when used or carried on or in close proximity to the human body at unsafe levels.
187. Plaintiffs and Class members reasonably relied upon Defendant's false misrepresentations and omissions. They had no way of knowing that Defendant's representations were false and gravely misleading. Plaintiffs and Class members did not, and could not, unravel Defendant's deception on their own.
188. Defendant knew or should have known that its conduct violated the *CPA*.
189. Defendant owed Plaintiffs and the Class a duty to disclose the truth about its the RF radiation exposure from its Phones, because Defendant: (i) possessed exclusive knowledge of the levels of RF radiation exposure emitted from its phones; (ii) misrepresented and/or made incomplete representations concerning the levels of RF radiation exposure when the phones were used or carried

on or in close proximity to the body; and (iii) intentionally mislead consumers that the phones posed no health risk and could be safely used in close proximity to the head and body.

190. Plaintiffs and the other Class members relied on Defendant's material representations and/or omissions that the Phones they were purchasing were safe to use and free from defects.
191. Defendant's conduct proximately caused injuries to Plaintiffs and the other Class members.
192. Plaintiffs and the other Class members were injured and suffered ascertainable loss, injury-in-fact, and/or actual damage as a proximate result of Defendant's conduct in that Plaintiffs and the other Class members overpaid for their smartphones, and/or their smartphones have suffered a diminution in value. These injuries are the direct and natural consequence of Defendant's misrepresentations and omissions.
193. Defendant's misrepresentations and omissions alleged herein caused Plaintiffs and the other Class members to make their purchases or leases of their Phones.
194. Absent those misrepresentations and omissions, Plaintiffs and the other Class members would not have purchased, used or leased these smartphones, would not have purchased or leased these smartphones at the prices they paid, and/or would have purchased or leased less expensive alternative cellphones that did not emit RF radiation exposure at unsafe levels.
195. Plaintiffs were deceived by Samsung's failure to disclose the true nature of its Smartphones.
196. Plaintiffs demand judgment against Defendant under the CPA for injunctive relief as may be appropriate including the measures set out at para. 116 above, and an award of attorneys' fees and costs.
197. Defendant failed to disclose that the that the Phones (2013 forward) (i) emitted RF radiation exposure when used or carried on or in close proximity to the human body at unsafe levels; and (ii) that the RF radiation exposure was far worse than a reasonable consumer would expect given the premium paid for these smartphones over a cellphone and (iii) that a phoney testing regimen was employed to intentionally mislead consumers as concerns SAR exposure from Defendant phones.
198. Defendant caused to be made or disseminated throughout Quebec, through advertising, marketing and other publications, statements that were untrue or misleading, and which were known, or which by the exercise of reasonable care should have been known to Defendant, to be untrue and misleading to consumers, including Plaintiffs and the other Class members.
199. Defendant has violated the Consumer Protection Act because the misrepresentations and omissions regarding the functionality, reliability, and safety of the Phones as set forth in this Complaint were material and likely to deceive a reasonable consumer.
200. Plaintiffs and the other Class members have suffered an injury in fact, including the loss of money or property, as a result of Defendant's unfair, unlawful, and/or deceptive practices.

201. In purchasing, using or leasing their Phones, Plaintiffs and the other Class members relied on the misrepresentations and/or omissions of Defendant with respect to the functionality, reliability, and safety of the Phones.
202. Defendant's representations turned out not to be true because the Phones emit unsafe levels of RF radiation exposure when used or carried on or in close proximity to the body.
203. Had Plaintiffs and the other Class members known this, they would not have purchased, used or leased their smartphones and/or paid as much for them. Accordingly, Plaintiffs and the other Class members overpaid for their smartphones.
204. All of the wrongful conduct alleged herein occurred, and continues to occur, in the conduct of Defendant's business.
205. Defendant's wrongful conduct is part of a pattern or generalized course of conduct that is still perpetuated and repeated, both in Quebec and nationwide.
206. The facts concealed and omitted by Defendant to Plaintiffs and the other Class members are material in that a reasonable consumer would have considered them to be important in deciding whether to purchase, used or lease the Phones or pay a lower price. Had Plaintiffs and the other Class members known of the higher RF radiation exposure at the time they purchased or leased their Phones, they would not have purchased, used or leased those smartphones, or would have paid substantially less than they did. Plaintiffs' and the other Class members' injuries were proximately caused by Defendant's fraudulent and deceptive business practices.
207. Plaintiffs, individually and on behalf of the other Class members, request that this Court enter such orders or judgments as may be necessary to restore to Plaintiffs and the other Class members any money Defendant acquired by unfair competition, including restitution, replacement of the devices with safe equivalent phones, a software patch to reduce emissions to a safe level, and/or restitutionary disgorgement, punitive damages and for such other relief as may be appropriate.

575(2) the facts alleged appear to justify the conclusions sought;

208. The threshold here is also low; a *prima facie* case will suffice.⁵⁸ Hearsay evidence, including scientific studies are to be considered.⁵⁹

[...]

“Complexity”/Medical Causality

209. In *Krantz* defendants postulated incredible complexity to justify refusal of a noise class action: “No Expert or Judge will be able to consider all this data.” “The case should be split up into numerous individual suits” (which Plaintiffs could never afford) “or many separate Class Actions” (which

⁵⁸ See *Oratoire Saint-Joseph*, *supra* at para. 42, citing *Infineon* at para. 94.

⁵⁹ *Letourneau* at para. 43 citing *Bellavance c. Klein*, 1996 CanLII 6079 (QCCA); *Lambert (Gestion Peggy) c. Ecolait*.

would clog the legal system – and would perhaps be denied on the basis of causality). Not only is complexity no defense, the argument misrepresents the burden of proof. The plaintiff is not bound to prove scientific causality⁶⁰, but need only show an inference, which defendants must then rebut⁶¹.

[...]

210. Another version of the complexity argument is the straw man. By postulating a duty for plaintiffs to prove causality and resulting damages to the standard of scientific causality, they challenge class actions on the basis they are frivolous. There is no such duty on plaintiffs.
211. Lara Khoury addresses this issue in “Causation and Health in Medical, Environmental and Product Liability” 2007 (25:1) *Windsor Journal of Access to Justice*, 135. As concerns product liability she notes that factual presumptions have been employed as concerns health injuries in cases of animal health. The Court of Appeal has presumed causation based on the available facts with a particular emphasis on time concomitance and absence of alternative causes⁶². Defendants must then rebut the presumption. Scientific accuracy is not required in drawing a presumption of causation. It is sufficient to seek the most rational explanation of the injury. Factual presumptions only need to be established on the balance of probabilities, a standard that allows for a margin of doubt⁶³.
212. As concerns environmental liability Prof. Khoury notes that factual presumptions have been used sparingly as concerns causation. In *Ferme G. Maurice inc. v. Corp. municipale de St.-Claude* (S.C., 1993)⁶⁴ the court presumed the causal link between cattle miscarriages and fecal coliform contamination of a stream from which the cattle drank. As (i) there was a clear time concomitance between the pollution and the injury, (ii) when the animals were exposed to presumed source of pollution they became sick and miscarried, (iii) when the animals stopped being exposed to the presumed source good health returned, and (iv) there was no other explanation for the injury, causation was presumed.

[...]

213. Khouri at pages 162 to 165 justifies the use of inference or presumptive proof of causation in the fields of environmental and product liability as claims tend to be against commercial or industrial entities which operate for profit and have little incentive to better investigate the harmful effects of their products. She further notes that in many cases the polluter or manufacturer controls the information concerning the risks associated with their products. Reversal of the burden of proof is justified when the causal information is in the hands of the industry, in particular where the defendant, through his negligence, prevents the plaintiff from being able to make the causal demonstration (*Snell v Farrell*).

[...]

⁶⁰ Andrew A. and Lawrence E. Marino, “The Scientific Basis of Causality in Toxic Tort Cases”. *Dayton Law Review*, Vol. 21 pp. 1-62, 1995 and Lara Koury, “Causation and Health in Medical, Environmental and Product Liability” Vol. 25 (1) *Windsor Yearbook of Access to Justice*, 2007, pages 135-166.

⁶¹ *Snell v. Farrell*, [1990] 2 S.C.R. 311; *Benhaim c. St-Germain*, [2016] 2 S.C.R. 352; *McGee vs. National Coal Board* [1973] 1 W.L.R. 1 (H.L.); *Bonnington Castings Ltd. vs. Wardlaw* [1956] UKHL1.

⁶² Khouri at page 150, citing *Lacasse c. Octave Labrecque Ltée.*, [1995] R.R.A. 596 (C.A.),

⁶³ *Lacasse, infra, Ferme Denijoy inc. v. Co-op St.-Tite*, [1994] R.R.A. 240, *Ferme avicole Bernard v. Co-op agricole des Bois Francs*, [1991], R.R.A. 682.

⁶⁴ Khouri, *supra*, at pages 157-8.

575 (3) the composition of the class makes it difficult or impracticable to apply the rules for mandates to take part in judicial proceedings on behalf of others or for consolidation of proceedings;

214. The members of the Classes are so numerous as to render the rules of mandate difficult or impracticable. Although the precise number of Class members is unknown, based upon information and belief Plaintiffs allege that the Class contains a million members. The true number of Class members is known by Defendants, however, and, thus, may be notified of the pendency of this action through electronic mail, first class mail and/or by published notice or recall.

575 (4) the class member appointed as representative plaintiff is in a position to properly represent the class members.

215. The Court of Appeal has recognized that proportionality provides access to justice for related victims who otherwise cannot withstand the cost, complexity and expense of protracted proceedings.

[...]

216. As concerns toxic tort litigation, the refusal to limit the class due to the subjective nature of certain environmental damages was explained in *Arrouart c. Anacolor inc.* 2018 QCCS 650.

COLLECTIVE ACTION

217. The Plaintiffs bring this Collective Action, individually, and on behalf of all similarly situated consumers:

- a. Quebec Consumer Protection Act
- b. Quebec Civil Code
- c. Quebec Charter
- d. Canadian Charter
- e. Radiation Emitting Devices Act
- f. Canadian Competition Act

218. The acts, practices, misrepresentations and omissions by Defendants described above, and Defendants dissemination of deceptive and misleading advertising and marketing materials in connection therewith, occurring in the course of conduct involving trade or commerce, constitute unfair methods of competition and unfair or deceptive acts or practices within the meaning of each of the above-enumerated statutes.

219. Defendants acts and practices created a likelihood of confusion or of misunderstanding and misled, deceived or damaged Plaintiffs and members of the Class in connection with the sale or advertisement of the [...] Phones. Defendant's conduct also constituted the use or employment of deception, fraud, false pretense, false promise, misrepresentation, or knowingly concealing, suppressing, or omitting a material fact with intent that others rely upon the concealment,

suppression or omission in connection with the sale or advertisement of goods or services whether or not a person has in fact been misled, deceived or damaged in violation of each of the above-enumerated statutes.

220. Plaintiffs, on behalf of themselves and the other Class members, seek monetary damages, treble damages injunctive relief including a software patch limiting emissions to a safe level, defective shielding for all phones still in use, medical monitoring and such other and further relief as set forth in each of the above enumerated statutes.

UNJUST ENRICHMENT

221. At all times relevant hereto, Defendants designed, manufactured, produced, marketed and/or sold the [...] Phones.
222. Defendants benefitted from its unlawful acts by receiving payments for the sale of the Phones.
223. Plaintiffs and members of the Class conferred upon Defendants, without knowledge that the Phones emitted RF radiation exposure at unsafe levels when used or carried or in close proximity to the human body, benefits that were non-gratuitous.
224. Defendant appreciated, or had knowledge of, the non-gratuitous benefits conferred upon it by Plaintiffs and members of the Class. Defendant accepted or retained the non-gratuitous benefits conferred by Plaintiffs and members of the Class, with full knowledge and awareness that, as a result of Defendant's unconscionable wrongdoing, Plaintiffs and members of the Class were not receiving product of high quality, nature, fitness or value that had been represented by Defendant and reasonable consumers would have expected.
225. Retaining the non-gratuitous benefits conferred upon Defendant by Plaintiffs and members of the Class under these circumstances made Defendant's retention of the non-gratuitous benefits unjust and inequitable.
226. Because Defendant's retention of the non-gratuitous benefits conferred by Plaintiffs and members of the Class is unjust and inequitable, Plaintiffs and members of the Class are entitled to, and hereby seek disgorgement and restitution of Defendant's wrongful profits, revenue, and benefits in a manner established by the Court.

WHEREFORE, Plaintiffs and members of the Classes seek Authorization against Defendants, as follows:

- (a) Certifying the classes and subclasses and recognizing them as Representatives
- (b) Finding against Defendants as concerns the injunctive relief sought;
- (c) Awarding Plaintiffs and the Class the costs of medical monitoring, damages suffered by Plaintiffs and the Class, restitution to Plaintiffs and the Class of all monies wrongfully obtained by Defendant;
- (d) Award of Punitive damages pursuant to the *Quebec Consumer Protection Act*;

(e) Replacement of all models referred to with safe telephones of equivalent value and functionality, provision of re-directive shielding, and /or a software patch reducing emissions;

(f) Such other and further relief that the Court deems just and proper.

GRANT the present Motion;

AUTHORISE the present Collective Action;

ATTRIBUTE to Tracey Arial, Erika and Zoe Patton, Vito DeCicco, Alex Tasciyan, Mathew Nucciaroni and Claire O'Brien the status of Representatives and act for the following group:

All persons at any time residing in the Province of Quebec who purchased, leased and/or used the Phones, namely, iPhone 5s, iPhone 5C, iPhone 6, iPhone 6s, iPhone 6s Plus, iPhone SE, iPhone 7, iPhone 7 plus, iPhone 8, iPhone 8 Plus, iPhone X, iPhone XR, iPhone XS, iPhone, XS Max, iPhone 11, iPhone 11 Pro, iPhone 11 Pro Max, Samsung Galaxy S7, Samsung Galaxy S8, Samsung Galaxy S9, Samsung Galaxy S-10, Samsung Galaxy J3, Samsung Galaxy S20 [...] and all additional Samsung models sold from 2013 forward, and any other phones sold or marketed by Defendants from 2013 forward.

IDENTIFY as follows the principle questions of fact and law to be considered collectively:

1. Did Defendants mislead, fail to inform, or fail to warn as concerns the Affected Phones?
2. What amount of compensatory damages are due to class members for those failures?
3. Are the Class Representatives and members entitled to equitable disgorgement of all profits made by Defendants on the Affected Phones in the province of Quebec?
4. Are the designated Representatives and members of the group entitled to have Defendants replace the Affected Phones with equivalent models that when properly tested comply with all relevant norms, do not emit radiation and do not pose a significant health risk?
5. Are the Class Representatives and members entitled to medical monitoring and if so in what manner?
6. Do Defendants faults and emissions constitute a “contaminant”, “contaminant release”, “hazardous material”, “energy vector”, “plasma”, “ray” or “material wave” within the meaning of section 1 of the *Environment Quality Act*?
7. Do Defendants faults and omissions constitute a breach of sections 19.1 to 22 of the *Environment Quality Act*?
8. Do Defendants faults and omissions constitute intentional breaches of sections 1, 6, 7, 24, 39, 44, 46.1, 48 and 49 of the *Charte des droits et libertés de la personne*?

9. What punitive/exemplary damages are due by Defendants to class members for those breaches?
10. Did the Affected phones sold and marketed in Quebec by Defendants respect regulatory or other norms?
11. Are the Affected Phones sold and marketed by Defendants emitting into the environment emissions or pollutants exceeding prescribed norms?
12. Did Defendants, illicitly and intentionally, falsify their testing results for the Affected Phones?
13. Given the application of Article 1621 (2) C.C.Q., the gravity of Defendants unconscionable behaviour, their disproportionate patrimonial and informational advantage over consumer victim class members, what is the proper amount of punitive damages required to dissuade, denounce and prevent Defendants (and similar companies) future bad conduct?
14. Do Defendants faults and omissions constitute a breach of sections 8, 37, 53, 216, 218, 219, 223.1, 228, 238(a), 253, 272 of the *Consumer Protection Act*?
15. What compensatory damages are due by Defendants to class members for those breaches?
16. What punitive/exemplary damages are due by Defendants to class members for those breaches?
17. Arial et als. CPA Conclusions restated:
 - a) Did Apple and Samsung contravene their duty to inform consumers of the SAR levels and related health risks in the phones they manufactured and sold from 2013 onwards?
 - b) In the absence of such information, did Apple and Samsung contravene sections 37 et 38 CPA as concerns the SAR levels and related health risks in the phones they manufactured and sold from 2013 to today?
 - c) Did Apple and Samsung fail in their duty to inform Quebec consumers with their representations as concerns the SAR levels and related health risks in the phones they manufactured and sold from 2013 in violation of sections 37, 53, 216, 218, 219, 223.1, 238 (a), 253 and/or 228 CPA?
 - d) Without that adequate information concerning the SAR levels and related health risks in the phones they manufactured and sold from 2013 to today are Quebec consumers entitled to the recourse stipulated at section 272 CPA and if so which ones?
 - e) Should Apple and Samsung, pay compensatory and or punitive damages to class members and in what amount ?
18. Are the designated Representatives and members of the group entitled to have Defendants issue a software patch that would reduce the EMF/radiation emission on the Affected Phones and if so, what should be the content of that software patch?

19. Are the designated Representatives and members of the group entitled to have Defendants reimburse all sums spent in the present proceedings including Expert fees and disbursements?
20. To what amount of compensatory damages is each member of the group entitled?
21. Are the designated Representatives and members of the group entitled to have Defendants publicize Non-Ionizing Radiation Protection EMF hazard warning signs for wireless users of Affected mobile phones and what should be the content and location of those warnings?

IDENTIFY as the conclusions sought:

GRANT the Petitioners' Motion Seeking Authorization to Institute a Collective Action on behalf of all members;

DECLARE Defendants have contravened sections 2, 8, 37, 53, 216, 223,1, 218, 219, 228, 238(a), 253 and 272 of the *Consumer Protection Act*;

DECLARE Defendants have contravened article 1457 *C.C.Q.*;

DECLARE Defendants have contravened sections 19.1 to 22 of the *Loi sur la qualité de l'environnement*;

DECLARE Defendants have contravened sections 1, 6, 7, 24, 39, 46.1 et 49 de la *Charte des droits et libertés de la personne*;

CONDEMN Defendants to solidarily pay to group members the sum of thirteen thousand dollars per year (13 000 \$), per member, for the past three (3) years and for each additional year until such time as the radiation pollution is curtailed, with interest at the legal rate as well as the special indemnity provide for at article 1619 du *C.C.Q.* calculated from the date of Notice;

CONDEMN Defendants to pay to group members the cost of medical monitoring;

ORDER Defendants to publicize Non-Ionizing Radiation Protection EMF hazard warning signs for wireless users of Affected mobile phones and determine the content and location of those warnings;

THE WHOLE with costs, Expert fees, « d'enquêtes » as well as all costs of publishing Notice to Members;

FIX the delay to request exclusion from the class as 60 days following publication of the Notice to Members, after which members not requesting exclusion be deemed Class Members;

ORDER publication of a Notice to Members consistent with the requirements of the Art. 579 *C.C.P.* within sixty (60) days of a decision approving the Notice;

DECLARE that all members of the class who have not requested their exclusion from the class in the prescribed delay be bound by any judgment rendered on the class action to be instituted and

ORDER Defendant to pay for said publication costs;

- (a) **ORDER** collective recovery in accordance with articles 595 to 598 of the *Code of Civil Procedure*; **ORDER** that each member's claim be individually assessed, but if impracticable, **ORDER** la distribution of the *reliquat* collectively recovered to be used to implement measures for the benefit of Class Members to be determined by this Honourable Court;
- (b) **THE WHOLE** with interest and additional indemnity provided for in the *Civil Code of Quebec* and with full costs, including expert fees, notice fees and fees relating to administering the plan of distribution of the recovery in this action;
- (c) **ORDER** the publication of a notice to the class members in accordance with Article 579 of the *Code of Civil Procedure*, pursuant to a further order of the Court, and **ORDER** Defendant to pay for said publication costs;
- (d) **FIX** the delay for a class member to opt out of the class at 60 days from the date of the publication of the notice to the members and
- (e) Such further and other relief that this Honourable Court deems just.

DECLARE Defendants committed a fault in failing to take all necessary measures to disclose, cease or considerably diminish the radiation pollution suffered by class members;

DECLARE Defendants committed fraud by employing the Phoney SAR Testing Regimen to intentionally mislead consumers as concerns SAR exposure from Defendant phones;

ORDER Defendants lower the level of radiation pollution (SAR) to an acceptable level, in the manners set out at para. 116, at their sole expense and within six (6) months;

SOLIDARILY CONDEMN Defendants to pay interest and the special indemnity on all amounts awarded, from the date of Notice;

August 13th, 2020

Respectfully submitted,

Charles O'Brien
Lorax Litigation
for Plaintiffs/Petitioners