UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

In re Elysium Health-ChromaDex Litigation	Civil Case No. 1:17-cv-07394

MEMORANDUM OF LAW IN SUPPORT OF ELYSIUM HEALTH INC.'S MOTION FOR SUMMARY JUDGMENT

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Pursuant to Federal Rule of Civil Procedure 56, Elysium Health, Inc. ("Elysium") Elysium respectfully submits its memorandum of law, along with accompanying declarations, the Joint Rule 56.1 Statement ("Undisputed Facts"), and Elysium's Rule 56.1 Statement of Material Facts in Support of Its Motion for Summary Judgment, filed concurrently herewith, in support of its motion for summary judgment dismissing ChromaDex Inc.'s ("ChromaDex") claims in its Second Amended Complaint (Dkt. No. 139) ("SAC") in their entirety, and its motion for partial summary judgment finding liability against ChromaDex for Elysium's claims in its Fourth Amended Counterclaims (Dkt. No. 192) regarding ChromaDex's "counterfeit" advertising campaign against Basis.

I. PRELIMINARY STATEMENT

ChromaDex wants to eliminate its competition. Lacking the ability to decimate Elysium in the marketplace, ChromaDex asks the Court to do it by bringing a specious action against Elysium for false advertising. ChromaDex has scoured the internet and beyond for any statement that ChromaDex could misconstrue as false or misleading—from obscure magazine articles dating back to 2017 to a 2019 morning talk show in Cleveland. None of these statements are false or misleading, however, nor is there any evidence that any of these statements—much less *all* of them—caused ChromaDex any harm. Yet, ChromaDex asks the Court to award ChromaDex damages for *every sale* of Elysium's product since ChromaDex began competing in March 2017, highlighting the egregiousness of ChromaDex's claims. There is no genuine dispute over any material fact relating to ChromaDex's claims. As set forth below, Elysium is entitled to summary judgment dismissing ChromaDex's claims as a matter of law.

Elysium, through the life's work of its co-founder and Chief Scientist, MIT professor Dr. Leonard Guarente, designed a supplement, called Basis, that combined the molecules nicotinamide riboside (NR) and pterostilbene (PT) to improve cellular heath, as clinical studies confirmed. ChromaDex, which was exclusively a wholesaler when Elysium launched Basis, was Elysium's supplier of NR (sold under the brand name, Niagen) and PT. After witnessing Elysium's success with Basis in the direct-to-consumer market, ChromaDex decided to enter that market. In March

2017, ChromaDex acquired the direct-to-consumer NR supplement, TruNiagen. To clear away TruNiagen's competitors, ChromaDex ended its supply agreements with most of its wholesale customers, including Elysium. Elysium, however, found alternative NR and PT suppliers, continued its clinical studies, and Basis continued to succeed. Undeterred, ChromaDex, using its leverage as an established public company against a young start-up, turned to the courts to destroy Elysium. First, ChromaDex sued Elysium in California for breach of contract. Then, ChromaDex sued Elysium in New York for false advertising. Finally, ChromaDex sued Elysium in Delaware for patent infringement.

The issue here is ChromaDex's false advertising claims. But not a single claim has merit, for several reasons.

First, none of the statements identified by ChromaDex is false or misleading. Although the SAC attempts to characterize numerous statements attributed to Elysium, it rarely quotes the statements directly. Examining the actual statements reveals that they often do not convey the messages that ChromaDex claims. And even where ChromaDex accurately identifies the statements, the evidence demonstrates that they are true and there is no evidence showing that consumers take away an untrue message.

Second, in addition to ChromaDex's failure to prove that any statement is false or misleading, ChromaDex cannot show that a substantial percentage of consumers would have been deceived even if a statement were deceptive. In fact, ChromaDex's survey expert, who sought to test this very question for four specific statements, *refused to opine* that a substantial number of consumers were deceived by any one of the alleged misstatements.

Third, the alleged misstatements were not material to consumers. ChromaDex's only evidence of materiality is from its survey expert, who again tested only four alleged misstatements and conducted a fatally flawed survey, which is addressed in Elysium's concurrently filed motion to exclude. Regardless, the survey results showed that most respondents did not say that the four tested statements would influence their purchasing decisions even if untrue. And for those whose

so said their decisions would be affected, as many, and often more, said they would be *more likely* to buy the product if the statement were untrue than those who said they would be less likely.

Fourth, ChromaDex cannot show that any of the alleged misstatements caused it any harm. None of the statements even referenced ChromaDex. Moreover, ChromaDex's sales of TruNiagen *improved* during the time of the alleged misstatements. Even ChromaDex's damages expert conceded that he had no independent basis or analysis to show that any of the alleged misstatements—much less all of them—caused ChromaDex any harm.

Elysium is entitled to summary judgment dismissing ChromaDex's false advertising claims if even *one* of these shortcomings were present. But *every* element of ChromaDex's affirmative claims fails, requiring dismissal.

In addition, ChromaDex attempted to undermine Elysium's sales by running affirmative ads targeting Elysium and falsely claiming that the NR in Basis was counterfeit, unsafe, and ineffective. Unlike ChromaDex's false advertising claims, these statements—which directly targeted Elysium and therefore the harm to Elysium is presumed—were literally false and impugned the inherent qualities of Elysium's product, and were therefore material. There is no genuine factual dispute that Elysium is entitled to summary judgment on ChromaDex's liability for this claim.

Accordingly, for the reasons set forth below, Elysium respectfully requests that the Court grant its motion for summary judgment dismissing ChromaDex's claims and for partial summary judgment on Elysium's claim regarding ChromaDex's "counterfeit" advertising campaign against Basis.

II. STATEMENT OF RELEVANT FACTS

A. Dr. Guarente's Study of Aging

Dr. Guarente is a co-founder and Chief Scientist of Elysium who has dedicated his career to studying the genetics of aging. Declaration of Leonard Guarente ("Guarente Decl.") ¶¶ 1, 5. In 1981, the Massachusetts Institute of Technology (MIT) invited Dr. Guarente to open his own lab at the university and he has been the Director of The Paul F. Glenn Center for Biology of Aging

Research at MIT since 2008. *Id*. ¶¶ 3, 4. The Guarente Lab at MIT focused its research on the genetic and molecular basis of aging, [redacted] *Id*. ¶ 5; Declaration of Tiffany Caterina ("Caterina Decl."), Ex. A (Deposition of Charles Brenner, dated February 9, 2021 ("Brenner Tr.")) at 26:18-28:25.

In particular, Dr. Guarente studied role of sirtuins, a class of proteins, in the aging process. Guarente Decl. ¶ 6. Dr. Guarente's research revealed that SIR2, a sirtuin in yeast, controls aging in yeast cells, and demonstrated that nicotinamide adenine dinucleotide (NAD+), a coenzyme found in all living cells, was necessary for SIR2 activity. *Id*. ¶ 7.

Scientists have known about NAD+ since it was first discovered in 1906; however, after Dr. Guarente's breakthrough discovery, many other scientists became interested in studying NAD+ and its precursors (i.e., the molecules or compounds that come before NAD+ in a series of chemical transformations). *Id*. ¶¶ 8-12.

NR, a naturally occurring form of Vitamin B3 found in foods like milk, was first described by scientists in 1944. Undisputed Facts ¶ 7; Caterina Decl. ¶ 13. Approximately 60 years later, following Dr. Guarente's discovery of NAD+'s critical role in activating sirtuins in yeast cells, Dr. Charles Brenner added to Dr. Guarente's research by demonstrating NR increased NAD+, and thereby activated sirtuins, in yeast cells. *Id*. ¶ 14, Ex. B.

Separately, in 2003, scientists discovered that resveratrol, a compound that can be found in grapes, blueberries, and other small fruits, showed health benefits in yeast. Declaration of Ryan Dellinger ("Dellinger Decl."). ¶ 4. Resveratrol activates NAD+-dependent sirtuins by binding to them and altering their affinity for their protein substrates, thereby increasing the sirtuins' activity. *Id*. Research into resveratrol declined, however, due to its limited bioavailability. *Id*.

Pterostilbene, or PT, is chemically related to resveratrol. Like resveratrol, PT is a sirtuin activating compound, but PT's molecular structure makes it more bioavailable in humans. In laboratory tests, PT has shown promise for improving cardiovascular health, glucose levels, anti-ageing and cognitive function; and, for possessing cancer-fighting properties. *Id*. ¶ 5.

B. Dr. Guarente Formulates Basis

Dr. Guarente wanted to formulate a product to help stimulate sirtuins. Guarente Decl. ¶ 17. In 2013, he partnered with Eric Marcotulli and Dan Alminana, who were aware of Dr. Guarente's research and were interested in starting a dietary supplement company grounded in science. *Id.* ¶ 16. Dr. Guarente started with NR, which had been shown to stimulate sirtuins by increasing NAD+ levels, and combined it with PT, which had been shown to activate sirtuins in preclinical studies at a lower dose than resveratrol. *Id.* ¶ 17.

In 2014, Elysium entered into supply agreements for NR and PT with ChromaDex. Declaration of Dan Alminana ("Alminana Decl.") ¶ 8, Ex. A; ¶ 10, Ex. B. ChromaDex, a publicly traded company founded in 1999, sold ingredients wholesale to dietary supplement, food, beverage, animal health, cosmetic, and pharmaceutical companies. Undisputed Facts ¶¶ 1-2; Caterina Decl., Ex. B. ChromaDex had been selling PT under the brand name pTeroPure to manufacturers in the food, beverage, and dietary supplement industries since 2010, and had been selling NR under the brand name Niagen to the same industries since 2013. Undisputed Facts ¶ 3; Caterina Decl., Ex. C. An independent expert panel, on behalf of ChromaDex, determined that pTeroPure (PT) was "generally recognized as safe" ("GRAS") under the Food, Drug and Cosmetic Act on or around May 23, 2011 and that Niagen (NR) was GRAS on or around December 21, 2015. *Id.* ¶¶ 5-6, Exs. D-E.

On or around February 3, 2015, Elysium launched the dietary supplement, Basis. Undisputed Facts ¶ 22; Alminana Decl. ¶ 11. Elysium commenced a clinical study of Basis for safety and efficacy over the course of eight weeks beginning in January 2016, the results of which were published on November 17, 2017 (the "Dellinger Study"). Dellinger Decl. ¶ 12, Ex. C. The Dellinger Study not only proved that Basis increases NAD+ levels, but sustained such increases over the course of the eight-week trial, which had never been shown before. *Id.* No serious adverse side effects were reported by any of the participants in the Dellinger Study. *Id.*

C. ChromaDex Decides to Compete Directly with Elysium

Following Elysium's initial success selling Basis directly to consumers, [redacted] Caterina Decl., Ex. I. On March 12, 2017, ChromaDex acquired Healthspan, which sold the NR product, Tru Niagen, directly to consumers. Undisputed Facts ¶ 5; Caterina Decl., Ex. J (Declaration of Frank Jaksch dated Feb. 5, 2021 ("Jaksh Tr.")) at 66:18-68:1213; Ex. L at 4. [redacted] Caterina Decl., Ex. J (Jaksch Tr.) at 71:1-78:17; Ex. K (Deposition Transcript of Will Black ("Black Tr.")) at 85:2-86:11; Ex. M at CDXCA_00172619 [redacted] ChromaDex did not anticipate, however, that Elysium would invest considerable resources in developing its own method of manufacturing NR to keep Basis on the market.

[redacted] ("Morris Decl.") ¶¶ 4-7. An independent panel of experts concluded that Elysium's NR is GRAS in foods at the usage level of 250mg/day. Undisputed Facts ¶ 39; Morris Decl. ¶¶ 9-12, Ex. C. Then, in 2018, Elysium conducted a "Phase I" study to evaluate the safety of Basis (using Elysium's NR) in patients with acute kidney injury (AKI) at Massachusetts General Hospital (the "Simic Study"). Dellinger Decl. ¶ 14, Ex. E. Based upon the success of the Simic Study, the FDA accepted Elysium's Investigational New Drug (IND) application for Basis in 2019. Morris Decl. ¶¶ 17-19; Dellinger Decl. ¶ 14. The IND approval allowed for a "Phase II" AKI clinical trial currently being conducted at the Mayo Clinic to evaluate the efficacy of Basis for kidney protection against AKI in surgical cardiac patients. Dellinger Decl. ¶ 14, Ex. F. In addition, a toxicology study assessing the safety of Elysium's NR, and comparing the results to ChromaDex's previously published toxicology study, was published in 2020 (the "Marinescu Study"). Dellinger Decl. ¶ 13, Ex. D. The Marinescu Study demonstrated that Elysium's NR has a higher (i.e., better) "no observed adverse effect level" (NOAEL) than ChromaDex's NR. *Id.*

D. ChromaDex Focuses On Destroying Elysium

Faced with the reality that cutting off Elysium's supply of NR could not eliminate the competition, ChromaDex launched an assault on Elysium.

On December 29, 2016, ChromaDex sued Elysium in the U.S. District Court, Central District of California (8:16-cv-02277-CJC-DFM), after refusing to honor the terms of the supply agreement and deciding to enter the direct-to-consumer market as Elysium's direct competitor (the "California Litigation"). Nearly four and a half years later, the California Litigation persists.

On August 18, 2017, ChromaDex filed a publicly available "Citizen Petition" with the FDA alleging that Elysium's NR was "adulterated" because it contained toluene, [redacted] Caterina Decl., Ex. N; Ex. K (Black Tr.) at 170:5-20. The toluene levels were within the International Council for Harmonisation's guidelines, which [redacted] Alminana Decl. ¶ 20, Ex. F at 7; Caterina Decl., Ex. O (Deposition Transcript of Aron Erickson dated February 2, 2021 ("Erickson Tr.")) at 51:9-52:4. The FDA took no action against Elysium. Alminana Decl. ¶¶ 22-23.

On October 25, 2017, ChromaDex sued Elysium in this Court for false advertising. The SAC reveals ChromaDex's sense of entitlement to the market. ChromaDex alleges that Dr. Brenner "discovered" NR in 2004 (SAC ¶ 58), despite the fact that NR exists in nature, was identified in 1944, and over 50 studies using NR were published before 2004. Undisputed Facts ¶ 7; Caterina Decl., Ex. P. ChromaDex uses the SAC as a public relations attack. It claims Elysium's product is not safe, effective, or pure (SAC ¶ 122), even though published studies and Certificates of Analysis have shown the opposite. Dellinger Decl. ¶¶ 13-14, Exs. D-F; Morris Decl. ¶¶ 7-8, Exs. A-B. ChromaDex complains of innocuous, truthful statements—such as references to Dr. Guarente's association with MIT (SAC ¶ 63(b)(xi))—and properly attributed client testimonials. SAC Exs. R, S, T, HH. ChromaDex also sues over truthful statements in trivial forums, such as unknown Internet blogs, "Clad" (SAC Ex. F), "CEO/CFO Magazine" (SAC Ex. D), "99u" (SAC Ex. DD), and "The Proof" (SAC Ex. EE), and a single sentence uttered in a five-

minute interview on "LIVE on Lakeside," a local morning talk show in Cleveland, Ohio. SAC ¶ 63(a)(i).

Next, ChromaDex sued Elysium on September 17, 2018 in the U.S. District Court, District of Delaware (1:18-cv-01434-CFC-JLH) for patent infringement relating to Elysium's sale of Basis containing NR (the "Delaware Litigation"). Following the Markman hearing, the court granted Elysium's motion to dismiss ChromaDex's claims arising after March 13, 2017 and denied ChromaDex's motion for reconsideration. Caterina Decl., Ex. Q at pp.12-13; Ex. R. ChromaDex nevertheless persists in the Delaware Litigation despite its acknowledgement that Elysium was still selling Basis containing ChromaDex's NR as of July 2017. Alminana Decl. ¶ 19, Ex. E at 4.

ChromaDex then attacked PT—because Basis's combination of NR and PT sets it apart from Tru Niagen. ChromaDex publicly announced that it would stop taking new orders for PT as of July 31, 2018—[redacted]—now claiming that PT increases LDL cholesterol. Caterina Decl., Exs. D, H at CDX_0006917-20.

Most recently, ChromaDex dedicated a page of its website to attacking Elysium, by name, with blatant falsehoods. Caterina Decl., Ex. T. ChromaDex claims Elysium's product is "counterfeit," even though the FDA took no action in response to the Citizen Petition and the Delaware court dismissed ChromaDex's patent infringement claims. Caterina Decl., Exs. Q-R; Alminana Decl. ¶¶ 22-23. It states that Basis is unsafe and ineffective, even after the Marinescu Study, the Simic Study, and Elysium's IND status. Dellinger Decl. ¶¶ 13-4, Exs. D-F. ChromaDex states that "there is no published, peer-reviewed human data on 'NR-E' [a trade name for Elysium's NR]," notwithstanding that Elysium's NR was used in the Simic Study. ChromaDex also draws a false comparison by touting a GRAS notification and NDI that do not apply to Tru Niagen, while claiming that Elysium's NR has not been "reviewed by any regulatory bodies," despite [redacted] Caterina Decl., Exs. U-V; Ex. W (Deposition Transcript of Claire Kruger dated February 8, 2012 ("Kruger Tr.")) at 52:14-58:9.

The Court should not permit ChromaDex to continue its campaign to destroy Elysium and eliminate competition through baseless false advertising claims against Elysium and ChromaDex's own deceptive advertising targeting Basis.

III. LEGAL STANDARD

A moving party is entitled to summary judgment when the record shows that there is no genuine dispute as to any material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322–23 (1986). While Elysium must establish that no genuine issue of material fact exists, "only disputes over facts that might affect the outcome of the suit under governing law will properly preclude the entry of summary judgment." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986).

Courts routinely grant summary judgment against false advertising claims that fail to satisfy the requisite elements. *See, e.g.*, *ITC Ltd. v. Punchgini, Inc.*, 482 F.3d 135, 169 (2d Cir. 2007) (affirming summary judgment in favor of defendants); *Therapy Prods. v. Bissoon*, 623 F. Supp. 2d 485, 496-97 (S.D.N.Y. 2009) (summary judgment in favor of defendants where insufficient evidence to raise question of material fact that photographs taken during testing of product misrepresent the process by which the product works).

The Court should grant Elysium summary judgment because ChromaDex has failed "to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial." *Celotex*, 477 U.S. at 322. Similarly, Elysium has established that there is no genuine issue of material fact as to ChromaDex's liability for its advertising that Basis is counterfeit, unsafe, and ineffective, and is entitled to judgment as a matter of law.

IV. CHROMADEX CANNOT ESTABLISH ITS FALSE ADVERTISING CLAIMS

ChromaDex asserts causes of action under Section 43(a) of the Lanham Act for false advertising (First Cause of Action) and unfair competition (Second Cause of Action) based on alleged misstatements by Elysium. None of ChromaDex's allegations have merit. "To prevail on a Lanham Act false advertising claim, a plaintiff must establish that the challenged message is (1) either literally or impliedly false, (2) material, (3) placed in interstate commerce, and (4) the cause

of actual or likely injury to the plaintiff." *Church & Dwight Co. v. SPD Swiss Precision Diagnostics, GmbH*, 843 F.3d 48, 65 (2d Cir. 2016). Because ChromaDex cannot establish the first, second, and fourth requirements, its Lanham Act false advertising claim must be dismissed.

ChromaDex's Second Cause of Action, styled as "Federal Unfair Competition" under the Lanham Act, should also be dismissed. "[U]nder Section 43 of the Act, there is no specific Federal cause of action for unfair competition. Instead unfair competition under the Lanham Act is a category of claims consisting primarily of causes of action for false designation of origin and false advertising." *Pot Luck, L.L.C. v. Freeman*, 06 Civ.10195, 2009 WL 693611, at *4 (S.D.N.Y. Mar. 10, 2009). This claim should therefore be dismissed for the same reasons as ChromaDex's false advertising claim. *See Sussman-Automatic Corp. v. Spa World Corp.*, 15 F. Supp. 3d 258, 273 (E.D.N.Y. 2014) (dismissing "Plaintiff's unfair competition claim under the Lanham Act as duplicative of the Plaintiff's trademark infringement and false advertising claims under that statute").

A. None of Elysium's Statements Are False or Misleading

ChromaDex must establish falsity "under either of two theories: '(1) the advertising is literally false as a factual matter, or (2) although the advertisement is literally true, it is likely to deceive or confuse customers."' *Gameologist Grp., LLC v. Sci. Games Int'l, Inc.*, 838 F. Supp. 2d 141, 165 (S.D.N.Y. 2011) (quoting *S.C. Johnson & Son, Inc. v. Clorox Co.*, 241 F.3d 232, 238 (2d Cir. 2001)). A "plaintiff bears the burden of showing that the challenged advertisement is false and misleading." *Procter & Gamble Co. v. Chesebrough-Pond's, Inc.*, 747 F.2d 114, 119 (2d Cir. 1984). To establish a claim that advertising is implicitly false or misleading, ChromaDex must present extrinsic evidence of consumer confusion, usually in the form of a consumer survey. *See McNeilab, Inc. v. American Home Products Corp.*, 501 F. Supp. 517, 524-525 (S.D.N.Y. 1980). A court must "examine consumer data to determine first the messages conveyed in order to determine ultimately the truth or falsity of the messages." *American Home Products Corp. v. Johnson & Johnson*, 577 F.2d 160, 166 (2d Cir. 1978). Even if the advertising could convey a deceptive message, ChromaDex must show that "a statistically

significant part of the commercial audience holds the false belief allegedly communicated by the challenged advertisement." *Johnson & Johnson v. Smithkline Beecham Corp.*, 960 F.2d 294, 298 (2d Cir. 1992).

ChromaDex's SAC identifies numerous topics on which ChromaDex claims that Elysium made false or misleading statements. As set forth below, the statements are either literally true or grossly mischaracterized by ChromaDex such that ChromaDex's claim does not match the actual statement. As to implied falsity, ChromaDex commissioned a survey testing an implied message for only four specific statements. Caterina Decl., Ex. HH (Deposition Transcript of Bruce Isaacson dated April 13, 2021 ("Isaacson Tr.")) at 22:12-22:22. Even those four allegedly implied messages, however, are true, as discussed below. And ChromaDex's survey expert concedes that his survey did not attempt to show whether a statistically significant percentage of respondents took away that implied message, as required. *Id*. at 27:11-18 ("I haven't run in my survey any statistical testing. So the question of statistical significance is not relevant as far as my survey goes."). In fact, he refused to opine on whether even a substantial percentage of consumers took away the implied message from any individual statement tested. *Id.* at 24:1-25:22 ("I haven't offered an opinion in my report on which of these specific measures are substantial and which of these specific measures are not, and I'm going to stay – I'm going to maintain that position."). Accordingly, ChromaDex cannot show that any of Elysium's alleged misstatements are false or misleading.

1. Elysium's Safety and Purity Claims

ChromaDex alleges that Elysium's statements that Basis is "safe" and "pure" are false (the "Safety and Purity Claims").[1] Because "safe" and "pure" are "susceptible to more than one

[1] ChromaDex identifies the following alleged misstatements in its SAC: (1) Elysium's statement in a *CEOCFO Magazine* article published on or around **December 11, 2017** that "We also needed to develop the supply chain so that we have the highest quality material possible and in the purest form possible'" (SAC ¶ 98, Ex. P); (2) Elysium's statement in a *Proof Wellness* article published on or around **August 13, 2019** that "we wanted to set a new standard for quality and purity for consumer products by establishing a supply chain that exceeded guidelines set by the FDA and was validated by third-parties" (SAC ¶ 98, Ex. EE); (3) Elysium's statement in a *Techcrunch* article published on or around **August 29, 2019** that "[b]y and large [Basis] is one of the safest products we've ever seen" (SAC ¶ 114, Ex. GG); (4) Elysium's

reasonable interpretation, the Court must look to consumer data to determine what 'the person to whom the advertisement is addressed find[s] to be the message[.]'" *Time Warner Cable, Inc. v. DIRECTV, Inc.*, 497 F.3d 144, 158 (2d Cir. 2007) ("only an *unambiguous* message can be literally false"). ChromaDex, however, did not conduct a survey to determine what consumers find the message of the Safety and Purity Claims to be. Caterina Decl., Ex. GG.

Regardless, Elysium's product *is* "safe" and "pure"—and ChromaDex cannot carry its burden to prove otherwise. The primary ingredients in Basis—NR and PT—are both GRAS. Undisputed Facts ¶¶ 39-40; Morris Decl. ¶¶ 12-13, Exs. C-D. And Elysium's toxicology study showed Elysium's NR is more safe and pure than ChromaDex's NR. Dellinger Decl. ¶ 13, Ex. D.

ChromaDex instead attempts to prove that the Safety and Purity Claims are false by pointing out that, [redacted] SAC ¶ 99; Morris Decl. ¶¶ 4-7. The mere presence of acetamide in Basis would not render it unsafe or unpure. [redacted] Caterina Decl., Ex. O (Erickson Tr.) at 55:4-22. [redacted] Morris Decl. ¶ 7, Ex. A. Elysium, however, made its Safety and Purity Claims [redacted] making ChromaDex's argument of acetamide as the basis for its claim irrelevant. Nor is there any evidence that consumers interpret the Safety and Purity Claims to mean that Basis contained (or did not contain) a certain amount of acetamide.

ChromaDex also alleges that the Safety and Purity Claims are false because the Dellinger Study showed a statistically significant increase in participants' LDL cholesterol levels. SAC ¶¶ 113-115. The Dellinger Study showed a 3.5% increase in LDL levels for participants taking a single dose of Basis when compared to placebo at Day 60. Dellinger Decl. ¶ 12, Ex. C. There is no evidence, however, that Basis (or PT) *caused* the increase in LDL levels. Numerous factors

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statement first published on its website on or around **February 23, 2019** that Basis is "Setting A New Standard or Quality and Purity" (SAC ¶ 98, Ex. G).

unrelated to Basis could explain the LDL results, including the very small sample sizes, differences in baseline characteristics of the patients in the different trial arms, and normal variations in LDL levels. Declaration of Marguerite Brackley ("Brackley Decl.") ¶ 4. In fact, [redacted] Dellinger Decl. ¶ 12, Ex. C; Caterina Decl., Ex. A (Brenner Tr.) at 179:15-20.

Moreover—and significantly—there is no evidence that the changes in LDL reported in the Dellinger Study render Basis unsafe. In particular, [redacted]. Brackley Decl., Ex A at ¶ 81; Caterina Decl., Ex. X (Deposition Transcript of Kurt Hong Dated April 14, 2021 ("Hong Tr.")) at 101:5-21; 118:9-119:9; 138:10-21; 148:23-149:7; 157:12-23.[2] There were no serious adverse events reported in the Dellinger Study. Dellinger Decl. ¶ 12, Ex. C. ChromaDex cannot establish that Basis causes clinically meaningful increases in LDL levels or that the Dellinger Study results render Basis unsafe.

2. Elysium's Clinical Study Claims

ChromaDex makes several baseless claims related to Elysium's statements regarding its clinical studies. As with the Safety and Purity Statements, ChromaDex cannot show that any of these statements are false or misleading.

(a) Source of Ingredients Used in the Dellinger Study

ChromaDex alleges that Elysium's statement that Basis is clinically proven to increase and sustain NAD+ levels is false because Elysium does not currently source its NR from ChromaDex, but at the time Elysium conducted the Dellinger Study, Basis sourced its NR and PT from ChromaDex. SAC ¶ 63(d)(iii)-(v). Relatedly, ChromaDex alleges that Elysium gives consumers "the false impression that its clinical trials were conducted on the same ingredients in Basis today." SAC ¶ 63(d)(i). Basis, however, has always used the same primary ingredients: NR and PT. To

[2] Further supporting this point, Dr. Kruger, the Managing Partner of Spherix Consulting Group (ChromaDex's regulatory consultant) [redacted] Caterina Decl., Ex. W (Kruger Tr.) at 203:10-205:13.

the extent ChromaDex is referring to the *sourcing* of ingredients, there is no evidence that consumers are misled that Elysium has never changed the source of its ingredients. Caterina Decl., Ex. GG.

In addition, ChromaDex cannot prove, as it must, that the Dellinger Study does not support Elysium's claim that Basis increases and sustains NAD+ levels. *See Castrol, Inc. v. Quaker State Corp.*, 977 F.2d 57, 63 (2d Cir. 1992). To do so, ChromaDex must demonstrate that the Dellinger Study is "'not sufficiently reliable to permit one to conclude with reasonable certainty that [it] established' the claim made." *McNeil-P.C.C., Inc. v. Bristol-Myers Squibb Co.*, 938 F.2d 1544, 1549 (2d Cir. 1991) (quoting *Procter & Gamble Co. v. Chesebrough–Pond's Inc.*, 747 F.2d 114, 119 (2d Cir.1984)). ChromaDex does not even attempt to meet this burden. Indeed, [redacted] Caterina Decl., Ex. K (Black Tr.) at 159:5-15; Ex. O (Erickson Tr.) at 124:6-126:6. It simply argues, without support, that Elysium cannot use a clinical study of Basis to support its statements once it changed its NR supplier. But NR is a naturally occurring molecule. [redacted].[3] Morris Decl. ¶ 5; Caterina Decl., Ex. W (Kruger Tr.) at 49:12-52:3. Accordingly, ChromaDex's claims based on this statement fails.

(b) "Only" Clinical Study Claim

ChromaDex next alleges that Elysium falsely claims that "Basis is the "only supplement clinically proven effective." SAC ¶ 12, 63(a), Ex. D. Elysium never made such a statement. Rather, upon publication of the Dellinger Study, Elysium accurately stated that Basis was the "only supplement proven to increase ***and sustain*** NAD+ levels in humans" because the Dellinger Study was the first clinical study to show an increase in NAD+ levels over the course of eight weeks. Dellinger Decl. ¶ 12, Ex. C. Prior to the Dellinger Study, clinical studies of NR only examined

[3] [redacted] Morris Decl. ¶ 5; Caterina Decl., Ex. W (Kruger Tr.) at 49:12-52:3. Elysium, however, demonstrated that the residual solvent profile for its NR is less toxic than the residual profile of ChromaDex's NR. Dellinger Decl. ¶ 13, Ex. D. Regardless, the use of Elysium's NR instead of ChromaDex's NR would not change the results of the Dellinger Study.

NAD+ levels after a single administration. Dellinger Decl. ¶ 9, Ex. A; 12. "[A] district court evaluating whether an advertisement is literally false 'must analyze the message conveyed in full context[.]'" *Time Warner Cable*, 497 F.3d at 158 (citation omitted). It must "consider the advertisement in its entirety and not ... engage in disputatious dissection. The entire mosaic should be viewed rather than each tile separately." *Avis Rent A Car Sys., Inc. v. Hertz Corp.*, 782 F.2d 381, 385 (2d Cir. 1986). Elysium's challenged statement was literally true—and there is no evidence that consumers were otherwise misled.

(c) "Synergy" Claim

ChromaDex also alleges that Elysium falsely claims that the NR and PT in Basis have a synergistic effect. SAC ¶ 88-94. Again, Elysium never claimed that there is a proven synergistic effect between NR and PT. Rather, in an interview with *MIT Technology Review*, Dr. Guarente stated "[w]e *expect* a synergistic effect [from] combining them," and further explained:

> The problem, Guarente says, is that it's nearly impossible to prove, in any reasonable time frame, that drugs that extend the lifespan of animals can do the same in people; such an experiment could take decades.

SAC ¶ Ex. X. When Dr. Guarente's actual statements are reviewed, not only are they literally true, but no reasonable consumer could be misled—and no evidence demonstrates otherwise. These claims likewise fail.

3. Elysium's Regulatory Claims

ChromaDex alleges that "Elysium falsely claims that the FDA has approved or endorsed Basis" based upon the following statement: "We conduct rigorous safety studies for new dietary ingredient (NDI) submissions to the FDA. The Federal Food, Drug, and Cosmetic Act (FD&C) requires that we submit studies to demonstrate the safety of 'new dietary ingredients.'" SAC ¶ 63(c)(iv), Ex. K. This statement appeared on Elysium's website from around July 22, 2016 until August 10, 2018. Caterina Decl., Ex. Y.

Until July 2017, the NR in Basis was supplied by ChromaDex, which had NDI status for its NR. Undisputed Facts ¶¶ 17-18. After Elysium began manufacturing its own NR, it initially planned to submit an NDI notification, but later transitioned to seek IND status in 2018. Morris

Decl. ¶¶ 14-21. [redacted] Caterina Decl., Ex. Z (Deposition Transcript of Steven Weisman dated April 20, 2021 ("Weisman Tr.")) at 33:6-34:17. There is no evidence that consumers understand—or care about—the distinction between an NDIN and an IND. Caterina Decl., Ex. GG. Nor is there evidence that a statistically significant or even substantial percentage of consumers took away an implicitly false message from this statement. Caterina Decl., Ex. HH (Isaacson Tr.) at 24:1-25:22, 27:11-18. ChromaDex, therefore, cannot show that this statement is false or misleading either.

4. Miscellaneous Claims

In addition to the above alleged misstatements, ChromaDex identifies a host of sundry statements allegedly made by Elysium that, again, ChromaDex cannot prove are false or misleading.

(a) First to Market

ChromaDex alleges that "Elysium falsely claims to be 'first' to market[.]" SAC ¶ 12. Elysium, however, never made that claim.[4] Nor would such a statement be false. Elysium was the first to sell NR and PT in combination as a single product and ChromaDex did not enter the direct-to-consumer market until after Elysium. Elysium, thus, was first to market with Basis and the first of the two companies to market directly to consumers. Alminana Decl. ¶ 11; Caterina Decl., Ex. J (Jaksh Tr.) at 66:18-68:1213. *See Hassell v. Chrysler Corp.*, 982 F. Supp. 515, 526 (S.D. Ohio 1997) (granting summary judgment for defendant where "first" claim was reasonably interpreted to mean the first in the advertiser's class of goods).

[4] ChromaDex identifies the following advertisements in its SAC: (1) a statement by a journalist published in a CLAD article that Basis was 'the world's first cellular health product informed by genomics" (SAC 63(a)(i), Ex. F), and (2) Elysium's statement in a January 7, 2019 Cleveland morning show interview that Basis is "first product out there, available now, that comes out of basic rigorous research on aging." (SAC ¶ 63.(a)).

(b) Elysium's Involvement In Research

ChromaDex alleges that Elysium falsely implies that it was materially involved in, and responsible for, the research and science behind the ingredients in Basis.[5] SAC ¶ 63(b). Dr. Guarente *was* materially involved in, and responsible for, the research and science underlying Basis (and Tru Niagen). Guarente Decl. ¶¶ 6-7, 14; Caterina Decl., Ex. B. Over the course of over 30 years of research, Dr. Guarente demonstrated the connection between aging and sirtuins, and then demonstrated the connection between sirtuins and NAD+. Guarente Decl. ¶¶ 5, 7. Without Dr. Guarente's research, there is no reason to study or develop NAD+ precursors such as NR. Even if Elysium implied such a claim, it is, therefore, true.

(c) Exclusive Licensee of a Patent

ChromaDex alleges that Elysium misled consumers in a press release by falsely implying that "Elysium is the exclusive licensee of a patent obtained by Harvard and the Mayo Clinic and is now the only party that can sell NR supplements for use in connection with aging or age-related diseases." SAC ¶ 63(e), Ex. O. As an initial matter, there is no evidence that consumers took away such a message from Elysium's press release. Caterina Decl., Ex. GG. Nor could any reasonable consumer have been misled. Elysium's press release expressly states that it is licensing a "pending patent" for the "CD38 pathway" invented by Dr. Eduardo Chini, and says nothing about being the exclusive seller of all NR products. SAC ¶ 63(e), Ex. O. Thus, ChromaDex's claim fails here as well.

[5] ChromaDex identifies the following advertisements in its SAC: (1) Elysium's statements its website that Basis is "[t]he culmination of more than 25 years of aging research," that "Elysium turns critical scientific advancements in aging research into health solutions you can access today," and it encourages consumers to "take a tour of the science and history that led to Basis" (SAC 63(b)(ii), Ex. D, G), (2) Elysium's statement in an *Allure* article published on October 18, 2017 that "[w]ith regard to Basis, the pill seems simple, but the amount of science behind it is quite extensive" (SAC 63(b)(iii), Ex. H), and (3) Elysium's statement on social media that "Basis is revolutionary because it's the first product to come out of really good aging research" (SAC 63(b)(iv), Ex I).

(d) Amount of NR in Basis

ChromaDex alleges that Elysium falsely advertised Basis as containing 250 mg of NR, but that as many as a third of Basis doses sold to consumers contain materially less NR. SAC ¶ 95. ChromaDex has no evidence to support this claim. Indeed, Elysium's Basis is tested by third parties that verify the dosage of ingredients meets or exceeds the dosage claimed by Elysium. *See, e.g.*, Morris Decl. ¶ 8, Ex. B. This claim, therefore, also fails.

(e) Scientific Advisory Board and Client Testimonials

Lastly, ChromaDex alleges that Elysium's statement that its Scientific Advisory Board (SAB) "guides the scientific direction of Elysium"—a literally true statement (Alminana Decl. ¶¶ 5-6)— gives "consumers the false impression" that the SAB was involved in the science behind Basis, active in research and development at Elysium, and vouches for Basis' safety and efficacy. SAC ¶¶ 64-70. Similarly, ChromaDex alleges the client testimonials on Elysium's website are misleading to consumers. SAC ¶¶ 71-74. These claims rest upon the messages implied to consumers, but ChromaDex has no evidence that consumers received such an implied message from these statements—or that such implied messages would be false. Caterina Decl., Ex. GG. All of ChromaDex's allegations of deception, therefore, lack merit.

B. <u>None of the Challenged Statements are Material</u>

A plaintiff "must establish materiality even when a defendant's advertisement has been found literally false." *Johnson & Johnson Vision Care, Inc. v. 1-800 Contacts, Inc.*, 299 F.3d 1242, 1251 (11th Cir. 2002). ChromaDex can establish that an alleged misstatement is material if it can prove that "the deception is likely to influence the purchasing decision" of consumers. *Id.* (*quoting Nat'l Basketball Ass'n v. Motorola. Inc.*, 105 F.3d 841, 855 (2d Cir. 1997)).

ChromaDex does not present evidence that any of Elysium's statements influenced consumers' purchasing decisions. For most of the statements at issue, ChromaDex did not even attempt to establish materiality. It did not run consumers surveys or otherwise present evidence showing materiality for the Safety and Purity Statements, the former presence of acetamide in Basis within ICH guidelines, the increase in LDL levels in the Dellinger Study within normal daily

fluctuations, the source of ingredients used in the Dellinger Study, the statement of expected synergy between NR and PT, the press release announcing Elysium's license agreement with Harvard or the Mayo Clinic, or the alleged amount of NR per capsule of Basis.

Although ChromaDex did attempt to test the materiality of four specific statements through a consumer perception survey, that survey was so flawed as to render it unreliable, so much so that even ChromaDex's own expert was unwilling to opine that any one of those statements was material.[6] Caterina Decl., Ex. HH (Isaacson Tr.) at 30:16-23, 32:4-15, 33:17-34:3. Specifically, ChromaDex retained Bruce Isaacson to design, administer and analyze a survey to test the materiality of the following statements: (1) "Clinical Trial Results Published. Our scientific article presenting the results of our study on the safety and efficacy of Basis was published in *Nature Partner Journals: Aging and Mechanisms of Disease*, a peer-reviewed journal covering the world's most important research in the fields of aging," which appeared on Elysium's website in February 2019 (the "2019 Homepage"); (2) "Inside this bottle is 25 years of research," which was in a video on Facebook (the "Facebook Page and Video"); (3) "We conduct rigorous safety studies for a new dietary ingredient (NDI) submission to the FDA," which appeared on Elysium's website in 2017 (the "2017 Homepage and Mission Page"); and (4) "Basis is clinically proven to increase NAD+ levels, which decline with age," which appeared in a social media post (the "Post"). Caterina Decl., Ex. GG at 3, ¶ 4.

Although ChromaDex commissioned the survey to establish materiality, the survey results demonstrated the opposite. When respondents were asked whether they would change their purchasing decisions if they learned an allegedly deceptive statement were not true, less than half said yes: only a net 43.3% percent said yes for the 2019 Homepage; a net 36% for the Facebook Page and Video; a net 32.4% for the 2017 Homepage and Mission Page; and a net 42.2% for the Post. *Id.* at 42-43, ¶¶ 105-109. Further, of those respondents who did say yes, just as many *or more* said they would be *more likely* to purchase the product if the allegedly deceptive statement

[6] Contemporaneously with this motion, Elysium has filed a motion seeking to exclude the materiality portion of, as well as certain conclusions in, Dr. Isaacson's Expert Report.

were not true. For example, for the 2019 Homepage: 26.6% were more likely to purchase the product if the statement were false, compared to 27.5% who were less likely. For the Facebook Page and Video, 30.8% were more likely, compared to only 19.2% who were less likely. Declaration of Brian M. Sowers, Ex. A (Sowers Rebuttal) at 29, ¶ 74. At worst, these results indicate that the survey was so flawed as to be unreliable and not probative of materiality. At best, they demonstrate that there is no evidence that any one of the statements tested caused a meaningful number of consumers to purchase Basis when they otherwise would not have.

Tellingly, Dr. Isaacson refused to opine as to the materiality of any one of the statements tested. Caterina Decl., Ex. HH (Isaacson Tr.) at 30:16-23, 32:4-15, 33:17-34:3. He was only willing to aggregate all of the statements together—even though he conceded that there was no evidence that any consumer had seen all of the statements, which were made at different times in different media (*id.* at 182:2-8)—and conclude that a substantial percentage of respondents would be less likely to purchase the product if "certain" unidentified messages, as a whole, were not true. Caterina Decl., Ex. GG at 51, ¶ 129ii-iii; Ex. HH (Isaacson Tr.) at 33:17-34:3. Dr. Isaacson's silence on the materiality of the individual statements suggests that even he does not believe that the survey is evidence of the materiality of any one of the statements.

Without evidence of materiality, ChromaDex's false advertising claims fail.

C. None of the Challenged Statements Caused ChromaDex Injury

ChromaDex has no evidence of either causation or any damages it suffered from the alleged misstatements. "In a false-advertising case, it is a plaintiff's burden to demonstrate causation between the misleading advertisements and resulting damages." *Dependable Sales & Serv., Inc. v. TrueCar, Inc.*, 311 F. Supp. 3d 653, 656 (S.D.N.Y. 2018). On a motion for summary judgment, "[a] plaintiff must submit specific evidence that the defendant's advertising causes direct harm to the product in which the plaintiff claims a pecuniary interest." *Enzymotec Ltd. v. NBTY, Inc.*, 754 F. Supp. 2d 527, 547 (E.D.N.Y. 2010) (quoting *PDK Labs, Inc. v. Friedlander*, 103 F.3d 1105, 1112–113 (2d Cir. 1997)). "[M]ere 'conclusory statements, conjecture, or speculation by the party resisting the motion will not defeat summary judgment.'" *Id.* (quoting *Kulak v. City of New York*,

88 F.3d 63, 71 (2d Cir.1996)) (dismissing Lanham Act claim where plaintiff lacked evidence of causation or damages).

As set forth in detail in Elysium's Motion to Exclude ChromaDex's Expert Reports and Testimony (Dkt. No. 197), ChromaDex failed to put forward any evidence of causation. [redacted] (Caterina Decl., Ex. AA (Deposition of Lance Gunderson, dated April 15, 2021 ("Gunderson Tr.")) at 44:12-17) [redacted] *Id*. at 50:12-18. [redacted] (*id.* at 62:15-63:5), [redacted] *Id.* at 50:19-51:3, 55:13-16. [redacted] Nor does ChromaDex dispute that both Basis and TruNiagen contain NR—and, therefore, consumers could choose Elysium over ChromaDex simply because they have the same ingredient, not because of any alleged misstatement. *See* Undisputed Facts, ¶¶ 4, 6, 23.

[redacted] Declaration of Colin Weir ("Weir Decl."), Ex. A ("Weir Report"), at 10. [redacted] Weir Decl. ¶ 5; Weir Report ¶¶ 9, 16. There is no evidence supporting these assumptions of causation.

To the contrary, the evidence confirms that the alleged misstatements did not cause ChromaDex any harm. [redacted] *See* Caterina Decl., Ex. BB (Deposition of Brianna Gerber, dated Feb. 12, 2021 ("Gerber Tr.")) at 27:8-

28:21. [redacted] *See* Caterina Decl., Ex. CC.

Further, [redacted] *See* Weir Report at 30-31 & Ex. 4. [redacted] *See id.*

A plaintiff cannot recover damages by simply presuming that a challenged statement caused actionable harm. *See, e.g., Alzheimer's Disease & Related Disorder Ass'n, Inc. v. Alzheimer's Found. of Am.*, 307 F. Supp. 3d 260, 303 (S.D.N.Y. 2018) (counterclaim plaintiff had no entitlement to damages where it assumed, but did not show, that 100% of counterclaim defendant's revenue would have gone to counterclaim plaintiff). ChromaDex has presented no evidence of actual injury from Elysium's advertising—and indeed, the evidence indicates otherwise—and its false advertising claim thus fails for this additional reason. *See UPS Store, Inc. v. Hagan*, No. 14 Civ. 1210, 2017 WL 3309721, at *8 (S.D.N.Y. Aug. 2, 2017) ("Because [Plaintiff] submit no evidence connecting Defendants' alleged false advertising with injury to [Plaintiff], Defendants are entitled to summary judgment."); *Borghese Trademarks Inc. v. Borghese*, No. 10 Civ. 5552, 2013 WL 143807, at *17 (S.D.N.Y. Jan. 14, 2013) (granting summary judgment dismissing false advertising claim where "Defendants have proffered no evidence that they have lost sales or suffered some other concrete harm as a result of Plaintiffs' advertising"); *Conte v. Newsday, Inc.*, No. 06 Civ. 4859, 2013 WL 978711, at *1 (E.D.N.Y. Mar. 13, 2013) (granting summary judgment dismissing false advertising claim where plaintiff had no evidence it had been damaged or that plaintiff would have received increased revenue absent the misstatement).

D. ChromaDex Is Not Entitled to Disgorgement of Elysium's Profits

Nor is ChromaDex entitled to disgorgement of Elysium's profits from Basis. In *Dependable Sales & Serv., Inc. v. TrueCar, Inc.*, the court granted summary judgment to the defendant on disgorgement due to the absence of proof of actual injury, ruling that "where, as here,

a misleading advertisement does not make comparative claims about a direct competitor, a plaintiff must demonstrate actual injury and causation." 394 F. Supp. 3d 368, 374 (S.D.N.Y. 2019); *see also Burndy Corp. v. Teledyne Indus. Inc.*, 748 F.2d 767, 773 (2d Cir.1984) (accounting of defendant's profits "precluded" where plaintiff had not shown that it was injured by defendant's actions). As noted above, ChromaDex has not put forth any proof of actual injury and its request for disgorgement as a form of relief should be dismissed for this same reason.

In addition to the unavailability of disgorgement as a remedy due to ChromaDex's lack of actual injury, there is no evidence that any of Elysium's actions were willful, further precluding disgorgement as a remedy under the Lanham Act. *See Romag Fasteners, Inc. v. Fossil Group, Inc.*, 590 U.S. ___, 140 S.Ct. 1492, 1497 (2020) (although a finding of willfulness is no longer an absolute precondition to disgorgement, a defendant's mental state nevertheless remains "a highly important consideration in determining whether an award of profits is appropriate").

E. ChromaDex's State Law Claims Fail

Because ChromaDex's Lanham Act claim fails, its companion state law claims fail as well. *See, e.g., Johnson & Johnson-Merck Consumer Pharm. Co. v. Smithkline Beecham Corp.*, No. 91 Civ. 960, 1991 WL 206312, at *9 (S.D.N.Y. Oct. 1, 1991), *aff'd*, 960 F.2d 294 (2d Cir. 1992) (dismissing GBL claims on the same grounds as Lanham Act claims because "[t]he legal test for liability under §§ 349 and 350 of the New York General Business Law is the same as the test for violation of § 43(a) of the Lanham Act"); *see also Samsung Display Co. v. Acacia Research Corp.*, No. 14 Civ. 1353, 2014 WL 6791603, at *5-6 (S.D.N.Y. Dec. 3, 2014) (dismissing GBL. § 349 and New York common law claims and noting the "analysis applied under § 43(a) of the Lanham Act ... is 'substantially the same"').

V. CHROMADEX VIOLATED THE LANHAM ACT AND NEW YORK LAW

A. ChromaDex Falsely Claims that Basis is Counterfeit, Unsafe, and Ineffective

Elysium is also entitled to partial summary judgment on liability for its affirmative false advertising claims against ChromaDex. ChromaDex dedicates a page of its website to attacking

Elysium.[7] It states that any NR product that is not sold by ChromaDex is "counterfeit" and that NR is only sold as Niagen (the "Counterfeit Page"). Caterina Decl., Ex. T. The Counterfeit Page further directs customers to question any other NR product's authenticity, safety, and effectiveness. *Id.* [redacted] Caterina Decl., Ex. J (Jaksch Tr.) at 87:22-90:2. And, to ensure that consumers were clear that the claims regarding inauthenticity, ineffectiveness, and safety were disparaging Basis, ChromaDex updated the website to expressly refer to Basis in its false comparison. Caterina Decl., Exs. S, T. The message is clear: TruNiagen is authentic, safe and effective, Basis is not. Caterina Decl., Ex. J (Jaksch Tr.) at 89:14-16 [redacted]

1. The NR in Basis is not Counterfeit

The NR in Basis is not "counterfeit" or "inauthentic." NR exists in nature. [redacted] Caterina Decl., Ex. J (Jaksch Tr.) at 168:2-25; 174:13-175:7. It licenses a patent for one method of manufacturing NR. Caterina Decl., Ex. DD. [redacted] Morris Decl. ¶ 5; Caterina Decl., Ex. W (Kruger Tr.) at 49:12-52:3. The NR in Basis is tested for quality and purity, including by an independent third-party lab. *See,* Morris Decl., Exs. A-B. Elysium also conducted a toxicology study that demonstrates Basis's NR is safer than TruNiagen's NR. Dellinger Decl. ¶ 13, Ex. D.

The FDA is responsible for taking action against any unsafe dietary supplement product after it reaches the market. Caterina Decl., Ex. EE. ChromaDex previously requested that the FDA take action against Elysium by filing a "Citizen Petition," alleging that Elysium's NR is "adulterated." Alminana Decl. ¶ 19, Ex. E at 2. The FDA, however, took no action against Elysium and never has. Alminana Decl. ¶¶ 22-23. By contrast, the FDA has issued warning letters to ChromaDex for selling "Unapproved and Misbranded Products Related to Coronavirus Disease 2019 (COVID-19)." Caterina Decl., Ex. FF.

[7] Use of the internet satisfies the Lanham Act's interstate commerce requirement. *See C=Holdings B.V. v. Asiarim Corp.*, 992 F. Supp. 2d 223, 240 (S.D.N.Y. 2013).

2. Basis is Safe and Effective

The NR in Basis is safe. An independent panel of experts determined that Elysium's NR is GRAS. Undisputed Facts ¶ 39; Morris Decl. ¶ 12, Ex. C. The FDA accepted Elysium's IND application, w [redacted] Dellinger Decl. ¶ 14; Caterina Decl., Ex. W (Kruger Tr.) at 44:8-46:19.

The NR in Basis is effective. Elysium has conducted multiple studies, including in humans, demonstrating the safety and efficacy of Elysium's NR and Basis. Dellinger Decl. ¶ 13-14, Exs. D-F. [redacted] Caterina Decl., Ex. K (Black Tr.) at 159:5-15; Ex. O (Erickson Tr.) at 124:6-126:6.

Accordingly, the statements in the Counterfeit Page claiming that Basis is counterfeit, inauthentic, unsafe, and ineffective are literally false or false by necessary implication, requiring no further evidence of deception. *See Apotex Inc. v. Acorda Therapeutics, Inc.*, 823 F.3d 51, 63 (2d Cir. 2016) (recognizing that where an advertisement is false on its face or false by necessary implication, "consumer deception is presumed" and "no extrinsic evidence of consumer confusion is required") (citing *Time Warner Cable*, 497 F.3d at 153).

B. <u>ChromaDex's False Statements Are Material</u>

ChromaDex's advertising asserting that the NR in Basis is counterfeit, inauthentic, unsafe, and ineffective is material to consumers. The Second Circuit has repeatedly held that a false or misleading statement that relates to an "inherent quality or characteristic" of a product is material. *S.C. Johnson & Son, Inc. v. Clorox Co*, 241 F.3d 232, 238 (2d Cir. 2001). ChromaDex's claims that TruNiagen's NR is superior to Basis's NR is a representation regarding the inherent quality of the products. *See Vidal Sassoon, Inc. v. Bristol-Myers Co.*, 661 F.2d 272, 278 (2d Cir. 1981) (advertising about superiority of competitive product "surely" a representation regarding inherent quality); *Nat'l Ass'n of Pharmaceutical Mfrs., Inc. v. Ayerst Labs.*, 850 F.2d 904, 917 (2d Cir. 1988) (that drug is "therapeutically superior" to another related to inherent quality); *Coca-Cola Co. v. Tropicana Products, Inc.*, 690 F.2d 312, 318 (2d Cir. 1982) (statement about juice product

"contains only fresh-squeezed, unprocessed juice" related to inherent quality). The false statements on the Counterfeit Page are, therefore, material.

C. ChromaDex's False Statements Caused Elysium Injury

ChromaDex's false advertisement is presumed to cause Elysium harm because the Counterfeit Page makes a false comparison to Elysium's product, which it identifies by name and image. Where the advertisement makes a materially false comparison to a specific, competing product, the false ad "necessarily diminishes" the competing product in the minds of consumers, and "injury may be presumed, because there was not the same concern of awarding damages for merely speculative injury...." *Merck Eprova A.G. v. Gnosis, S.p.A.*, 760 F.3d 247, 259 (2d Cir. 2014). That is because there is "a 'logical causal connection between the alleged false advertising and [plaintiff's] own sales position.'" *Church & Dwight*, 843 F.3d at 71 (quoting *Johnson & Johnson v. Carter-Wallace, Inc.*, 631 F.2d 186, 190 (2d Cir. 1980)).

There is, therefore, no genuine dispute as to any material fact regarding ChromaDex's violation of Section 43(a) of the Lanham Act for the Counterfeit Page, and Elysium is entitled to judgment on liability as a matter of law.

D. ChromaDex Violated New York GBL 349 and 350

ChromaDex has violated New York General Business Law (GBL) Sections 349 and 350 as well. GBL 349 prohibits "[d]eceptive acts or practices in the conduct of any business, trade or commerce or in the furnishing of any service in this state." GBL 350 prohibits "[f]alse advertising in the conduct of any business, trade or commerce or in the furnishing of any service in this state." To establish a claim under either section, a plaintiff must demonstrate that "that a defendant has engaged in (1) consumer-oriented conduct that is (2) materially misleading and that (3) plaintiff suffered injury as a result of the allegedly deceptive act or practice." *Can't Live Without It, LLC v. ETS Express, Inc.*, 287 F.Supp.3d 400, 412 (S.D.N.Y. 2018). "The standards for bringing a claim under § 43(a) of the Lanham Act are substantially the same as those applied to claims brought under . . . §§ 349 and 350 of the NY GBL." *Avon Prod., Inc. v. S.C. Johnson & Son, Inc.*, 984 F. Supp. 768, 800 (S.D.N.Y. 1997).

"[T]he New York Court of Appeals and the Second Circuit have repeatedly held that the 'the 'consumer-oriented' requirement may be satisfied by showing that the conduct at issue 'potentially affect[s] similarly situated consumers.'" *Casper Sleep, Inc. v. Mitcham*, 204 F. Supp. 3d 632, 642 (S.D.N.Y. 2016) (quoting *Wilson v. Nw. Mut. Ins. Co.*, 625 F.3d 54, 64 (2d Cir. 2010)). The posting of statements on a consumer-oriented website—like the statements posted by ChromaDex on the Counterfeit Page—satisfies the "consumer-oriented" requirement because consumers are likely to be deceived by the statements. *See id.* at 644. In addition, Elysium has established above that ChromaDex's advertising asserting that the NR in Basis is counterfeit, inauthentic, unsafe, and ineffective is materially misleading and that Elysium suffered injury as a result.

Accordingly, there is no genuine dispute regarding any material fact relating to ChromaDex's liability under the Lanham Act and N.Y. GBL 349 and 350 for its false statements on the Counterfeit Page. Elysium is therefore entitled to summary judgment that ChromaDex is liable on those claims.

VI. CONCLUSION

For the reasons set forth above, Elysium respectfully requests that the Court grant its motion for summary judgment dismissing ChromaDex's claims in their entirety, and its motion for partial summary judgment finding liability against ChromaDex for Elysium's claims regarding ChromaDex's Counterfeit Page.

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