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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

Proceeding	91202162
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Submission	Motion for Summary Judgment
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD**

In the matter of trademark application Serial No. 85193003
For the mark: THE NEXT GENERATION RESVERATROL
Published in the Official Gazette on August 23, 2011

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BIOTIVIA, LLC

Opposer

Opposition No.: 91202162

v.

CHROMADEX, INC.

Applicant

-----x

OPPOSER BIOTIVIA, LLC'S

MOTION FOR SUMMARY JUDGMENT, OR IN THE ALTERNATIVE,

PARTIAL SUMMARY JUDGMENT

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1. Introduction and Summary of Argument

This Opposition arises out of a dispute between competitors with respect to the description of an ingredient used in products made by both. Specifically, the question is whether Chromadex, Inc. (“Chromadex” or “Applicant”), a company that manufactures and sells dietary supplements, may prevent other dietary supplement companies, including Biotivia, LLC (“Biotivia” or “Opposer”), from using the phrase “The Next Generation Resveratrol,” and similar phrases, to describe the compound pterostilbene.

As supported in more detail below, and by the attached exhibits, Pterostilbene is commonly described as an advancement or improvement on resveratrol. This description is based on certain physical characteristics of the two substances. Pterostilbene is a compound that is chemically related to resveratrol but has certain advantages over resveratrol, including higher bioavailability. Pterostilbene, as compared to resveratrol, is a newer product that is commonly marketed as a related compound with certain advantages over resveratrol, which is often cast as its predecessor. Pterostilbene is the “next generation” or “next level” of resveratrol, and a trademark preventing all other sellers of pterostilbene from stating this fact is descriptive and not appropriate for registration.

The two major reasons for not protecting descriptive marks are (1) to prevent the owner of a descriptive mark from inhibiting competition in the marketplace and (2) to avoid the possibility of costly infringement suits brought by the trademark or service mark owner. (*In re Abcor Dev. Corp.*, 588 F.2d 811, 813, 200 USPQ 215, 217 (C.C.P.A. 1978); TMEP §1209.) Businesses and competitors should be free to use descriptive

language when describing their own goods and/or services to the public in advertising and marketing materials. (*See In re Styleclick.com Inc.*, 58 USPQ2d 1523, 1527 (TTAB 2001).) In this case, Chromadex seeks to prevent competition in the marketplace by preventing Biotivia from describing pterostilbene as “the next generation of resveratrol,” “the next level of resveratrol,” or other similarly descriptive phrases, and Chromadex has already initiated one costly infringement suit against Biotivia based, in part, on this description.

This Opposition centers on a legal determination of whether the phrase “The Next Generation Resveratrol” (the “Mark”) is descriptive under 15 U.S.C. § 1052(e)(1). Unlike an Opposition based on likelihood of confusion, which is heavily dependent on factual issues, this Opposition raises few issues of fact – the chemical properties of pterostilbene are undisputed, the relationship between pterostilbene and resveratrol is undisputed, and the use of the phrase by companies other than Applicant is undisputed. Also, unlike many other marks containing the phrase “Next Generation,” the Mark is a literal description of the substance sold by Applicant and not simply a marketing slogan.

Chromadex and Biotivia were, until recently, engaged in settlement negotiations related to the case *Chromadex, Inc. v. Biotivia, LLC*, case number 8:11-cv-01273-CJC-MLG. At issue in that lawsuit was Biotivia’s use of phrases such as “the next generation of resveratrol” and “the next level of resveratrol” to describe pterostilbene (Exhibit 27,¹ *Chromadex response to RFA (2)(t)*; Declaration of Aaron Shechet, paragraph 2.) As

¹ All references to numbered exhibits are to those exhibits attached to the Declaration of Aaron Shechet filed concurrently herewith; all references to lettered exhibits are to those exhibits attached to the Request for Judicial Notice filed concurrently herewith.

noted in previous filings in this matter, the Parties hoped to resolve Biotivia's Opposition of the Mark. (Docket # 11.) However, the Parties were unable to do so.

Accordingly, based upon the facts and argument set forth below, Opposer respectfully requests that the Board grant this motion and refuse Chromadex's application.

2. Standing

Any person who believes that he would be damaged by the registration of a mark upon the principal register has standing to oppose. (15 U.S.C. § 1063; see also *Ritchie v. Simpson*, 170 F.3d 1092 (Fed. Cir. 1999).) Biotivia is a manufacturer and seller of dietary supplements and related materials, including those that contain resveratrol and pterostilbene, and it believes it will be harmed by the registration of the descriptive phrase "The Next Generation Resveratrol" by Chromadex, a competitor of Biotivia in the supplement and raw material market.

As further evidence of standing, Chromadex has objected, through the filing of a lawsuit, to Biotivia's use of phrases such as "the next level of resveratrol." (Exhibit 27, *Chromadex response to RFA (2)(t)*; Declaration of Aaron Shechet, paragraph 2). Chromadex seeks, through its registration of "The Next Generation Resveratrol," to prevent competitors, like Biotivia, from accurately describing the ingredient pterostilbene.

3. Summary of Undisputed Facts

The following facts are not in dispute:

1. On or about December 8, 2010, Applicant filed an intent-to-use application for the registration of the mark “The Next Generation Resveratrol,” with Serial No. 85193003, (the “Mark”) in International Class 001 for “Phytochemicals for use in the manufacturing of dietary supplements, nutritional supplements, nutritional beverages, pharmaceuticals and cosmetics.” (Exhibit A ¶ 1.)
2. The Mark was published for opposition on or about August 23rd, 2011. (Exhibit A ¶ 2.)
3. Biotivia sells one or more finished products that contain the ingredient Pterostilbene. (Declaration of James Betz ¶ 2.)
4. Biotivia also competes with Chromadex in the raw material market. (Exhibit A ¶ 6; Declaration of James Betz ¶ 2; Exhibits 2, 16, 22, and 23; Exhibit B ¶ 61.)
5. Chromadex sells one or more finished products that contain the ingredient Pterostilbene. (Exhibit 27 – *Chromadex Response to Request for Admission* (2)(f); Exhibit B – *Chromadex First Amended Complaint* ¶ 11.)
6. Chromadex is a direct competitor of Biotivia. (Exhibit B – *Chromadex First Amended Complaint* ¶ 27.)
7. Pterostilbene is a compound that is chemically related to resveratrol but has certain advantages over resveratrol. (Exhibits 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 25; Declaration of James Betz, ¶¶ 5, 6, and 7.)
8. Pterostilbene is commonly described as the next generation of resveratrol; as an improvement upon resveratrol; as a molecule that is similar to, but better than, resveratrol; and the like. (Exhibits 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 25; Declaration of James Betz, ¶¶ 5, 6, and 7.)

9. The phrase “Next Generation” is defined as “pertaining to the next generation in a family; also, pertaining to the next stage of development or version of a product, service, or technology;” and the USPTO uses that phrase in a similar fashion. (Exhibit 3; Exhibit 28; Exhibits 29, 30; Exhibits C, D, E; *Request for Judicial Notice*.)
10. Pterostilbene is described, in scientific and advertising literature, and by Chromadex, as a compound that is chemically related to resveratrol but has certain advantages over resveratrol. (Exhibits 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21 22, 23, 25; Declaration of James Betz ¶ 6.)
11. Chromadex applies “The Next Generation Resveratrol” to one or more product(s) containing pterostilbene. (Exhibits 2, 16, 18, 20, 22, 23, 24; Exhibit 27 – *Chromadex Response to Request for Admission* (2)(h).)
12. Chromadex has objected, through the filing of a lawsuit, to Biotivia’s use of phrases such as “the next generation of resveratrol” and “the next level of resveratrol” to describe pterostilbene (Exhibit B – *Chromadex First Amended Complaint* ¶ 33; Exhibit 27 -- *Chromadex Response to Request for Admission* (2)(t); Declaration of Aaron Shechet ¶ 2.)

4. Legal Standard for Summary Judgment

Summary judgment is encouraged in *inter partes* trademark proceedings before the Board,² because the issues are limited to registrability and are therefore “particularly suitable” for disposition by summary judgment. (*Pure Gold, Inc. v. Syntex (U.S.A.) Inc.*,

² *Phoenix Closures, Inc. v. Yen Shaing Corp.*, 9 USPQ2d 1891, 1892 (TTAB 1988).

222 USPQ 741, 744 n.2 (Fed. Cir. 1984).) Summary judgment is appropriate where there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. (*Giant Food, Inc. v. Standard Terry Mills, Inc.*, 229 USPQ 955, 961 (TTAB 1986).)

No genuine issue for trial exists where the record taken as a whole could not lead a rational trier of fact to find for the non-moving party. (*Matsushita Electric Industrial Co. Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1987).) A dispute is genuine only if, on the entirety of the record, a reasonable trier of fact could resolve a factual matter in favor of the non-moving party. (*Sweats Fashion, Inc. v. Pannill Knitting Co.*, 833 F.2d 1560 (Fed. Cir. 1987), citing *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242 (1986).) Disputes over facts that will not affect the outcome under the governing law are immaterial and do not preclude summary judgment.

5. Legal Standard for Descriptiveness

A term is merely descriptive of goods, and therefore unregistrable under Trademark Act Section 2(e)(1), if it conveys an immediate idea of an ingredient, quality, characteristic, feature, function, purpose or use of the goods. (See, e.g., *In re Gyulay*, 820 F.2d 1216, 3 USPQ2d 1009 (Fed. Cir. 1987); and *In re Abcor Development Corp.*, 588 F.2d 811, 200 USPQ 215, 217-18 (CCPA 1978).) A term need not immediately convey an idea of each and every specific feature of the applicant's or registrant's goods in order to be considered merely descriptive; it is enough that the term describes one significant attribute, function or property of the goods or services. (See *In re H.U.D.D.L.E.*, 216 USPQ 358 (TTAB 1982); and *In re MBAssociates*, 180 USPQ 338 (TTAB 1973).)

Whether a particular term is merely descriptive is determined not in the abstract, but in relation to the goods for which registration is sought, the context in which it is being used or is intended to be used on or in connection with those goods, and the possible significance that the term would have to the average purchaser of the goods because of the manner of its use or intended use. (*In re Tower Tech Inc.*, 64 USPQ2d 1314, 1316-17 (TTAB 2002) (“The question is not whether someone presented with only the mark could guess what the goods or services are. Rather, the question is whether someone who knows what the goods and services are will understand the mark to convey information about them.”))

6. The Undisputed Facts show that The Mark is descriptive of Pterostilbene

Pterostilbene is a resveratrol analog and exhibits certain advantages over resveratrol. The phrase “Next Generation” describes an advancement over a predecessor. The USPTO uses the phrase “next generation” to describe its new-style Official Gazette. The supplement industry uses the phrase “next generation resveratrol” to describe pterostilbene, and Chromadex uses the phrase “next generation resveratrol” to describe pterostilbene. Accordingly, the Mark is descriptive.

a. The phrase “Next Generation” means “the stage of development which occurs immediately after the present stage in terms of time, rank, or space.”

“The Next Generation Resveratrol,” as applied to Chromadex’s pterostilbene supplement “pTeroPure,” or referring generally to pterostilbene, is descriptive. A mark is descriptive if it describes an ingredient, quality, characteristic, function, feature, purpose,

or use of the specified goods or services. (*See In re Gyalay*, 820 F.2d 1216 (1987).) The determination of whether a mark is merely descriptive is made in relation to an applicant's goods and/or services, not in the abstract. (*In re The Chamber of Commerce of the U.S.*, 675 F.3d 1297, 1300, 102 USPQ2d 1217, 1219 (Fed. Cir. 2012); TMEP §1209.01(b); *see, e.g., In re Polo Int'l Inc.*, 51 USPQ2d 1061, 1062-63 (TTAB 1999). "Whether consumers could guess what the product [or service] is from consideration of the mark alone is not the test." *In re Am. Greetings Corp.*, 226 USPQ 365, 366 (TTAB 1985).)

In this case, "The Next Generation Resveratrol" is applied to products that contain pterostilbene, including Chromadex's "pteropure" product. (Exhibit 27 – *Chromadex Response to Request for Admission* (2)(h), (2)(i).) The Mark describes a significant quality, characteristic, function, attribute, or property of pTeroPure's main ingredient, pterostilbene.

The phrase "Next Generation" is defined as "pertaining to the next generation in a family; also, pertaining to the next stage of development or version of a product, service, or technology." (Exhibit 3.) In the Oxford English Dictionary, "Next" is defined as "coming immediately after the present one in order, rank, or space." (Exhibit 29; Exhibit D.) In the same dictionary, "Generation" is defined as "a single stage in the development of a type of product," and the phrase "a new generation of rear-engined sports cars" is offered by way of illustration. (Exhibit 30; Exhibit E.) The dictionary definitions of "Next Generation," "Next," and "Generation" are consistent, agreeing that "Next Generation" means "the stage of development which occurs immediately after the present stage in terms of time, rank, or space." (*Request for Judicial Notice.*)

The phrase “Next Generation” is commonly used to describe the next stage of a product. For example, the USPTO itself describes the new-style Trademark Official Gazette as “the Next Generation TMOG (eOG).” (Exhibit 28.) It appears that the USPTO uses the language “the Next Generation TMOG (eOG)” in trademark publication confirmations to indicate that the new-style Official Gazette is the next stage of development or version of its product, service, or technology.

b. Pterostilbene is the “next generation” of resveratrol.

Pterostilbene, as compared to resveratrol, is a newer product that is commonly marketed as the next stage of resveratrol. (Exhibits 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 25; Declaration of James Betz, ¶¶ 5, 6, and 7.)

Pterostilbene is a compound that is chemically related to resveratrol but has certain advantages over resveratrol,³ including higher bioavailability. (Exhibits 4, 9, 13; Declaration of James Betz, ¶¶ 5, 6, 7). Pterostilbene’s anti-cancer effects are similar to, but more potent than, resveratrol’s. (Declaration of James Betz, ¶ 7). It is relatively new as a dietary supplement due to advances in packaging, stability, and affordability, and resveratrol is often cast as its predecessor. (Declaration of James Betz, ¶¶ 6, 7).

Pterostilbene is accurately described as the next stage of development of resveratrol. (Declaration of James Betz, ¶¶ 5, 6, and 7). Words like “next generation of resveratrol” and “next level of resveratrol” are used to describe pterostilbene in general, and not any particular brand of pterostilbene, even when referring to pTeroPure.

³ Specifically, Pterostilbene is a double-methylated version of resveratrol exhibiting a higher bio-availability as it is more easily transported into cells and more resistant to degradation and elimination.

(Exhibits 1, 16, 20, 22, and 23). At least one article dating back to 2009, well before Chromadex's use of the Mark, touts pterostilbene as an advancement on resveratrol.

(Exhibit 8).

c. Chromadex acknowledges that pterostilbene is the next generation of resveratrol.

Chromadex itself has used "The Next Generation Resveratrol" and similar phrases for their proper, descriptive purpose, describing the compound pterostilbene, and not any particular product, as the next generation of resveratrol, as superior to resveratrol, and as an improvement on resveratrol. These descriptions appear in Chromadex press releases, news articles, presentations, and brochures. (Exhibits 1, 16, 20, 22, and 23). In one of its brochures, Chromadex states that "pterostilbene is the next generation resveratrol."

(Exhibit 24).

Chromadex describes pterostilbene's relationship with resveratrol in detail on its website, stressing that pterostilbene is similar to, but has several key advantages over, resveratrol, and that "pterostilbene is the next generation of resveratrol, as it [is] a methylated resveratrol analog...". (Exhibit 2.)

d. Others in the industry describe pterostilbene as the next generation of resveratrol.

Douglas Labs describes the ingredient pterostilbene as "the star" of a new supplement, and says pterostilbene "has been called a superior form of resveratrol" and that "pterostilbene, a methylated form of resveratrol, is considered the next generation of resveratrol." (Exhibits 5 and 21.)

Many other sources describe the relationship between resveratrol and pterostilbene, confirming that the two compounds are related but that pterostilbene has advantages over resveratrol. (Exhibits 4, 9, and 13, Declaration of James Betz, ¶¶ 5, 6, and 7.) One source says, about pterostilbene, "...which some have started calling the next generation resveratrol." (Exhibit 13.) In another article describing the advantages of pterostilbene over resveratrol, pterostilbene was called "the other resveratrol," an "anti-oxidant powerhouse" which might be "even better than its famous cousin," resveratrol. (Exhibit 14.) It has been described as "the next generation brain booster" as compared to resveratrol. (Exhibit 14.)

Other supplement marketers and manufacturers have also used "The Next Generation Resveratrol" and similar to describe pterostilbene, and not to describe any particular product. (Exhibits 6, 7, and 10.) Some supplement marketers have actually used the words "next generation of resveratrol" to describe pterostilbene. (Exhibits 11, 12, 15, 17, and 25.) One advertisement states, "Pterostilbene, a structural analog of resveratrol, has been called the next generation of resveratrol." (Exhibit 15.) Another describes its pterostilbene product as "the next generation resveratrol." (Exhibits 17 and 25.) While some of these supplements may contain the ingredient Pteropure, the exhibits referenced in these paragraphs demonstrate the use of the Mark and similar phrases to describe pterostilbene, not to describe Pteropure.

To identify Chromadex's pTeroPure product as "The Next Generation Resveratrol" is to describe the pTeroPure product as pterostilbene; to identify pterostilbene as "The Next Generation Resveratrol" is to merely describe the molecule. (Declaration of James Betz, ¶¶ 5, 6, and 7).

7. The Mark is laudatory and informational, and thus is descriptive under Trademark Act section (e)(1); 15 U.S.C. § 1052(e)(1)

Additionally, laudatory terms, which “attribute quality or excellence to goods or services, are merely descriptive.” (*See In Re Nett Designs Inc.*, 236 F.3d 1339, 2001.) Terms that “are considered to be merely informational in nature, or to be common laudatory phrases or statements that would ordinarily be used in business or in the particular trade or industry, are not recognizable.” (*In re Boston Beer Co. L.P.* 198 F3d 1370 (1999).) “The Next Generation Resveratrol,” by indicating that pTeroPure, or pterostilbene in general, is an improvement over existing resveratrol supplements, which is both laudatory and informational, is descriptive.

8. Conclusion

Pterostilbene is a resveratrol analog and it exhibits certain advantages over resveratrol. As a result, describing pterostilbene as “the next generation resveratrol,” has become common in the industry, and is an accurate description of the molecule. Thus, this motion should be granted and Chromadex’s application refused.

Dated January 22, 2014

Respectfully submitted,



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CERTIFICATE OF TRANSMITTAL

This is to certify that a true copy of the foregoing **OPPOSER BIOTIVIA, LLC'S MOTION FOR SUMMARY JUDGMENT, OR IN THE ALTERNATIVE, PARTIAL SUMMARY JUDGMENT**, is being filed electronically with the T.T.A.B. via ESTTA on this day, January 24, 2014.



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CERTIFICATE OF SERVICE (37 C.F.R. §§ 2.101, 2.119)

I, AARON SHECHET, Attorney of Record for Opposer, Biotivia, LLC, hereby certify that a true and correct copy of the foregoing **OPPOSER BIOTIVIA, LLC'S MOTION FOR SUMMARY JUDGMENT, OR IN THE ALTERNATIVE, PARTIAL SUMMARY JUDGMENT**, was served by:

1. transmission by Certified first class mail service of the United States Postal Service,

on the attorney of record for the opposed application, at the correspondence address of record in the USPTO for said person as of the date of service, as set forth below:

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Date of Mailing: January 24, 2014



Aaron Shechet

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD**

In the matter of trademark application Serial No. 85193003
For the mark: THE NEXT GENERATION RESVERATROL
Published in the Official Gazette on August 23, 2011

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Opposer

Opposition No.: 91202162

v.

CHROMADEX, INC.
Applicant
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**OPPOSER BIOTIVIA, LLC'S MOTION TO SUSPEND PENDING DECISION ON
MOTION FOR SUMMARY JUDGMENT**

Opposer Biotivia, LLC hereby moves that this opposition proceeding be suspended with respect to all matters not germane to Opposer's motion for summary judgment, filed concurrently herewith, pending the Board's ruling on that motion.

37 C.F.R. § 2.127(d) provides, in part, that "When any party files a motion to dismiss, or a motion for judgment on the pleadings, or a motion for summary judgment, or any other motion which is potentially dispositive of a proceeding, the case will be suspended by the Trademark Trial and Appeal Board with respect to all matters not germane to the motion and no party should file any paper which is not germane to the motion except as otherwise specified in the Board's suspension order...."

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Accordingly, suspension is appropriate in that Opposer's motion for summary judgment is potentially dispositive of this proceeding.

Dated January 22, 2014

Respectfully submitted,



CHANDLER & SHECHET, LLP
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CERTIFICATE OF TRANSMITTAL

This is to certify that a true copy of the foregoing **OPPOSER BIOTIVIA, LLC'S MOTION TO SUSPEND PENDING DECISION ON MOTION FOR SUMMARY JUDGMENT**, is being filed electronically with the T.T.A.B. via ESTTA on this day, January 24, 2014.



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CERTIFICATE OF SERVICE (37 C.F.R. §§ 2.101, 2.119)

I, AARON SHECHET, Attorney of Record for Opposer, Biotivia, LLC, hereby certify that a true and correct copy of the foregoing **OPPOSER BIOTIVIA, LLC'S MOTION TO SUSPEND PENDING DECISION ON MOTION FOR SUMMARY JUDGMENT**, was served by:

1. transmission by Certified first class mail service of the United States Postal Service,

on the attorney of record for the opposed application, at the correspondence address of record in the USPTO for said person as of the date of service, as set forth below:

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Date of Mailing: January 24, 2014



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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD**

In the matter of trademark application Serial No. 85193003
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BIOTIVIA, LLC
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Applicant
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REQUEST FOR JUDICIAL NOTICE IN SUPPORT OF OPPOSER’S MOTION

FOR SUMMARY JUDGMENT

Opposer Biotivia, LLC (“Biotivia”) hereby requests that the Board take judicial notice of the following documents attached as Exhibits A through E. This request is made pursuant to Rule 201 of the Federal Rules of Evidence. This request is made in connection with Biotivia’s Motion for Summary Judgment, filed concurrently herewith.

Exhibit	Description
A	Applicant’s Answer to Notice of Opposition filed in this proceeding. (Dkt. 4.)
B	Applicant’s First Amended Complaint in <i>Chromadex v. Biotivia</i> 8:11-CV11-01273 CJC (MLGx) (C.D. Cal. filed Aug. 30, 2011).
C	USPTO “Trademark Official Gazette Publication Confirmation” for the trademark “POTENSHAA.”

D	Oxford dictionary website definition of “Next.”
E	Oxford dictionary website definition of “Generation.”

A court may take judicial notice of matters of public record in accordance with Federal Rule of Evidence 201. Exhibit A is Applicant’s Answer to Notice of Opposition filed in this proceeding. Exhibit B is the First Amended Complaint filed by Applicant against Opposer and was also submitted as an exhibit by Applicant in Applicant’s Motion to Suspend Pending Outcome of Civil Litigation filed in this proceeding on March 23, 2012. (Dkt. 5.) Exhibit C is the USPTO “Trademark Official Gazette Publication Confirmation” for the trademark “POTENSHAA.” Exhibit D is the Oxford dictionary website definition of “Next.” Exhibit E is the Oxford dictionary website definition of “Generation.” Thus, these exhibits can be accurately and readily determined from sources whose accuracy cannot reasonably be questioned.

Additionally, Opposer requests that the Board take judicial notice of the definition of “Next Generation” as: “(adjective) the stage of development which occurs immediately after the present stage in terms of time, rank, or space.” This is similar to the definition that was provided for the phrase by dictionary.com, which is a commonly-used website for looking up definitions of words or phrases. It is also consistent with the Oxford definitions of “next” and “generation.” Lastly, it is such a widely understood definition of the phrase “Next Generation,” that the Board may take judicial notice of this definition pursuant to FRCP 201(b)(1), (2).

Dated January 22, 2014

Respectfully submitted,



CHANDLER & SHECHET, LLP

Aaron Shechet

Counsel for Opposer,

BIOTIVIA, LLC

1844 Bagley Ave.,

Los Angeles, CA 90035

(310) 339-1354

CERTIFICATE OF TRANSMITTAL

This is to certify that a true copy of the foregoing **REQUEST FOR JUDICIAL NOTICE IN SUPPORT OF OPPOSER'S MOTION FOR SUMMARY JUDGMENT**, along with all Exhibits thereto, is being filed electronically with the T.T.A.B. via ESTTA on this day, January 24, 2014.



CHANDLER & SHECHET, LLP
Aaron Shechet
Counsel for Opposer,
BIOTIVIA, LLC

1844 Bagley Ave.,
Los Angeles, CA 90035
(310) 339-1354

CERTIFICATE OF SERVICE (37 C.F.R. §§ 2.101, 2.119)

I, AARON SHECHET, Attorney of Record for Opposer, Biotivia, LLC, hereby certify that a true and correct copy of the foregoing **REQUEST FOR JUDICIAL NOTICE IN SUPPORT OF OPPOSER'S MOTION FOR SUMMARY JUDGMENT**, along with all Exhibits thereto, was served by:

1. transmission by Certified first class mail service of the United States Postal Service,

on the attorney of record for the opposed application, at the correspondence address of record in the USPTO for said person as of the date of service, as set forth below:

JOSEPH T. NABOR
FITCH EVEN TABIN & FLANNERY
120 S LASALLE ST STE 1600
CHICAGO, IL 60603-3590

Date of Mailing: January 24, 2014



Aaron Shechet

EXHIBIT A

ESTTA Tracking number: **ESTTA443368**

Filing date: **11/28/2011**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

Proceeding	91202162
Party	Defendant ChromaDex Inc.
Correspondence Address	JOSEPH T. NABOR FITCH EVEN TABIN & FLANNERY 120 S LASALLE ST STE 1600 CHICAGO, IL 60603-3590 trademark@fitcheven.com
Submission	Answer
Filer's Name	Joseph T. Nabor
Filer's e-mail	trademark@fitcheven.com
Signature	/Joseph T. Nabor/
Date	11/28/2011
Attachments	8788-100902 Biotivia LLC v ChromaDex Inc Answer to Notice of Opposition_1.pdf (6 pages)(222862 bytes)

8788-100902

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

Biotivia, LLC)	OPPOSITION NO. 91/202,162
Opposer,)	
v.)	
)	
ChromaDex, Inc.,)	
Applicant.)	
<hr/>		
Serial No.: 85/193,003)	
Filed: December 8, 2010)	
Mark: THE NEXT GENERATION RESVERATROL)	
Published: August 23, 2011)	

ANSWER TO NOTICE OF OPPOSITION

ChromaDex, Inc., Applicant in the above-identified Opposition, hereby responds to the Notice of Opposition filed by Biotivia, LLC (hereinafter "Biotivia") opposing registration of the THE NEXT GENERATION RESVERATROL Application Serial No. 85/193,003.

In response to the Notice of Opposition of Opposer, Applicant states as follows:

I. According to the Trademark Office records, on or about December 8, 2010, Applicant, Chromodex, Inc. ("Chromadex"), filed an intent-to-use application, under section 1B, for the registration of the mark "The Next Generation Resveratrol," with Serial No. 851.93003, (the "Mark") in International Class 001 for "Phytochemicals for use in the manufacturing of dietary supplements, nutritional supplements, nutritional beverages, pharmaceuticals and cosmetics."

ANSWER: Admitted.

2. The Mark was published for opposition on or about August 23rd, 2011.

ANSWER: Admitted

3. Opposer, Biotivia, LLC ("Biotivia"), has timely filed for, and the Trademark Trial and Appeal Board has granted, a 30-day extension of time to file an opposition to the registration of the Mark until October 22, 2011.

ANSWER: Applicant admits only that an Extension of Time to file a Notice of Opposition was filed with the Trademark Trial and Appeal Board against Applicant's mark. Applicant denies each and every other allegation remaining in Paragraph 3 of the Notice of Opposition.

4. Biotivia is a Delaware Limited Liability Company with a principal place of business at 1 River Place, Ste. 1001, New York, NEW YORK 10036 and manufactures and sells a variety of dietary supplements, including supplements which contain resveratrol and/or pterostilbene ingredients.

ANSWER: Applicant is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in Paragraph 4 of the Notice of Opposition, and on that basis denies each and every allegation contained therein.

5 Biotivia sells one or more finished products which contain the ingredient Pterostilbene.

ANSWER: Applicant is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in Paragraph 5 of the Notice of Opposition, and on that basis denies each and every allegation contained therein.

6. Chromodex sells one or more finished products which contain the ingredient Pterostabene, and is a direct competitor of Biotivia.

ANSWER: ChromaDex admits that it sells certain pterostilbene products but is with knowledge or information sufficient to form a belief as to the truth of the remaining allegations contained in Paragraph No. 6 of the Notice of Opposition and on that basis denies each and every allegation not specifically admitted.

7. Chromodex applies the Mark, on its website and in its advertising, to pterostilbene products.

ANSWER: Denied.

8. The phrase "Next Generation" is defined as "pertaining to the next generation in family; also, pertaining to the next stage of development or version of a product, service, or technology." (See Exhibit A).

ANSWER: Applicant is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in Paragraph 8 of the Notice of Opposition, and on that basis denies each and every allegation contained therein.

9. Pterostilbene is described, in scientific and advertising literature, as a compound which is chemically related to resveratrol but has certain advantages over resveratrol, including higher bioavailability. Specifically, Pterostilbene is "a double-methylated version of resveratrol exhibiting a higher bioavailability as it is more easily transported into the cell and more resistant to degradation and elimination." (See Exhibit B).

ANSWER: Applicant is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in Paragraph 9 of the Notice of Opposition, and on that basis denies each and every allegation contained therein.

10. Pterostilbene is often described as the next stage of development of resveratrol. Words like "next generation of resveratrol" and "next level of resveratrol" are used to describe pterostilbenes in general, and not any particular brand of pterostilbene, even when referring to Chromadex's products.

ANSWER: Applicant is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in Paragraph 10 of the Notice of Opposition, and on that basis denies each and every allegation contained therein.

11. At least one article dating back to 2009, well before Applicant's use of the Mark, touts pterostilbene as an advancement on resveratrol.

ANSWER: Applicant is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in Paragraph 11 of the Notice of Opposition, and on that basis denies each and every allegation contained therein.

12. The Mark "The Next Generation Resveratrol," by indicating that Chromadex's products, or pterostilbene in general, is an improvement over existing resveratrol supplements, is laudatory and informational, and thus is descriptive. Trademark Act section (e) (1); 15 U.S.C. § 1052(e)(1).

ANSWER: Denied.

13. The Mark consists primarily of a combination of words which, when applied to the goods of Chromadex, is merely descriptive under Section 2(e)(1) of the Trademark Act, 15 U.S.C. § 1052(e)(1), in that the Mark describes an ingredient, quality, characteristic, function, feature, purpose, or use of the goods identified in the application for registration of the Mark, and/or is merely laudatory, and has no acquired distinctiveness or secondary meaning sufficient to support registration.

ANSWER: Denied.

14. The Mark does not function to identify Chromadex's goods and distinguish them from those offered by others and has no acquired distinctiveness or secondary meaning sufficient to support registration.

ANSWER: Denied.

15. Registration of the Mark will prevent Biotivia, a seller of pterostilbene supplements, from using phrases which are descriptive of pterostilbene, and will inhibit Biotivia's ability to accurately describe and effectively market its products.

ANSWER: Denied.

16. Chromadex seeks to prevent Biotivia from using phrases it deems "similar" to the Mark, and has filed a lawsuit in the Central District of California, case number 8:11-CV11-01273 CJC (MLGx), partly based on Biotivia's use of phrases such as "taking resveratrol to the next level," which are descriptive of pterostilbene.

ANSWER: ChromaDex admits that it has filed the specified lawsuit which claims speak for themselves.

17. Because the Mark is descriptive, registration should be refused.

ANSWER: Denied.

Applicant hereby denies each and every allegation contained in the Notice of Opposition which is not otherwise herein responded to.

AFFIRMATIVE DEFENSES

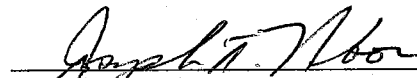
For its affirmative defenses to the Opposition, Applicant states as follows:

1. The Notice of Opposition fails to adequately state a claim upon which relief maybe granted.
2. On information and belief, Opposer lacks standing to bring the Notice of Opposition.

THEREFORE, Applicant respectfully prays that opposition to registration of it's THE NEXT GENERATION RESVERATROL mark, Application Serial No. 85/193,003, be dismissed, that a Notice of Allowance for Application Serial No. 85/193,003 be issued, and that Applicant be granted such other and further relief as the Board deems just and proper.

Respectfully submitted,
ChromaDex Inc.

November 28, 2011



Joseph T. Nabor
FITCH, EVEN, TABIN & FLANNERY
120 South LaSalle Street, Suite 1600
Chicago, IL 60603-3406
Telephone: 312.577.7000
Facsimile: 312.577.7007

Attorney for Applicant

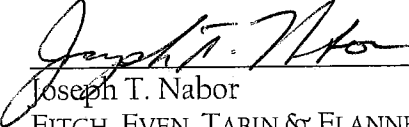
CERTIFICATE OF SERVICE

I, Joseph Nabor, Attorney for the Applicant, hereby certify that a copy of the foregoing ANSWER TO NOTICE OF OPPOSITION was served by first class mail, postage prepaid, upon:

Aaron Shechet, Esq.
Chandler & Shechet, LLP
1844 Bagley Ave.
Los Angeles, CA 90035

Attorneys for Opposer

on this 28th day of November 2011.



Joseph T. Nabor
FITCH, EVEN, TABIN & FLANNERY
120 South LaSalle Street, Suite 1600
Chicago, IL 60603-3406
Telephone: 312.577.7000
Facsimile: 312.577.7007

EXHIBIT B

CT

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CHROMADEX, INC., a California corporation,

CASE NUMBER

SACV11-01273 CJC (MLGx)

PLAINTIFF(S)

v.

BIOTIVIA LLC, a Delaware Limited Liability Company, BIOTIVIA BIOCEUTICALS, LLC, a Delaware Limited Liability Company,

SUMMONS

DEFENDANT(S)

TO

DEFENDANT(S): BIOTIVIA LLC and BIOTIVIA BIOCEUTICALS, LLC

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it), you must serve on the plaintiff an answer to the attached complaint First amended complaint counterclaim cross-claim or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff's attorney, Erik L. Jackson, Esq., whose address is COZEN O'CONNOR, 601 South Figueroa Street, Suite 3700, Los Angeles, CA 90017. If you fail to do so, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

Clerk, U.S. District Court

Dated: AUG 31 2011

By: ROLLS ROYCE REAGAN
Deputy Clerk

(Seal of the Court)

[Use 60 days if the defendant is the United States or a United States agency, or is an officer or employee of the United States. Allowed 60 days by Rule 12(c)(3).]

NAME, ADDRESS & TELEPHONE NUMBER OF ATTORNEY(S) FOR OR PLAINTIFF OR DEFENDANT IF PLAINTIFF OR DEFENDANT IS PRO PER

Erik L. Jackson, State Bar No. 166010
ejackson@cozen.com
COZEN O'CONNOR
601 South Figueroa Street, Suite 3700
Los Angeles, CA 90017
Telephone: 213.892.7900
ATTORNEYS FOR: CHROMADEX, INC.

BY:

CLERK OF DISTRICT COURT
CENTRAL DISTRICT OF CALIF.
LOS ANGELES

11 AUG 24 PM 4:05

FILED

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CHROMADEX, INC., a California corporation

CASE NUMBER:

SACV11-01273 CTL (ML6x)

Plaintiff(s)

v.
BIOTIVIA BIOCEUTICALS, LLC, a Delaware corporation

CERTIFICATION AND NOTICE
OF INTERESTED PARTIES
(Local Rule 7.1-1)

Defendant(s)

TO: THE COURT AND ALL PARTIES APPEARING OF RECORD:

The undersigned, counsel of record for CHROMADEX, INC.
(or party appearing in pro per), certifies that the following listed party (or parties) may have a direct, pecuniary interest in the outcome of this case. These representations are made to enable the Court to evaluate possible disqualification or recusal. (Use additional sheet if necessary.)

PARTY

CONNECTION

(List the names of all such parties and identify their connection and interest.)

CHROMADEX, INC.

Plaintiff

BIOTIVIA BIOCEUTICALS, LLC

Defendant

August 24, 2011

Date



ERIK L. JACKSON

Attorney of record for or party appearing in pro per

FILED

11 AUG 24 PM 4:04

CLERK U.S. DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
LOS ANGELES

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

Chromadex, Inc

CASE NUMBER:

8:11-cv-01273 CJC MLGx

PLAINTIFF(S),

v.

Biotivia Biocentials, LLC

**NOTICE TO COUNSEL RE: COPYRIGHT,
PATENT, AND TRADEMARK
REPORTING REQUIREMENTS**

DEFENDANT(S).

TO: COUNSEL OF RECORD and PRO SE LITIGANTS:

Pursuant to Local Rule 3-1 of this court, in all cases where jurisdiction is invoked in whole or in part under 28 U. S. C. Section 1338 (regarding patents, plant variety protection, copyrights and trademarks), counsel shall, at the time of filing of the complaint, provide the Clerk with an original and two (2) copies of the required notice (AO 120) to the Patent and Trademark Office in patent, plant variety protection and trademark matters and / or an original and two (2) copies of the required notice (AO 121) in copyright matters. The required forms of notice to the Patent and Trademark and Copyright Offices are enclosed for your convenience.

- Counsel: Please complete the enclosed form and electronically file within ten (10) days.
- Pro Se Litigants: Please complete the enclosed form(s) and return to: Clerk, U. S. District Court, ATTN: Civil New Actions, at the following address within ten (10) days:

312 N. Spring Street
Main Floor, Room G-8
Los Angeles, CA 90012
Phone: (213)894-2215

411 West Fourth St.
Suite 1053
Santa Ana, CA 92701-4516
Phone: (714)338-4750

3470 Twelfth Street
Room 134
Riverside, CA 92501
Phone: (951)328-4450

CLERK, U. S. DISTRICT COURT

Dated: 8/24/11

By: J.Prado

Deputy Clerk

Note: Please refer to the court's Internet website at www.cacd.courts.gov for local rules and applicable forms.

FILED

AUG 24 PM 4:07

CLERK U.S. DISTRICT COURT
CENTRAL DIST. OF CALIF.
LOS ANGELES

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

<p>CHROMADEX, INC,</p>	<p>CASE NUMBER SACV11- 1273 CJC (MLGx)</p>
<p>PLAINTIFF(S) v. BOTIVIA BIOCEUTICALS, LLC DEFENDANT(S).</p>	<p>NOTICE TO PARTIES OF ADR PROGRAM</p>

Dear Counsel,

The district judge to whom the above-referenced case has been assigned is participating in an ADR Program. All counsel of record are directed to jointly complete the attached ADR Program Questionnaire, and plaintiff's counsel (or defendant in a removal case) is directed to concurrently file the Questionnaire with the report required under Federal Rules of Civil Procedure 26(f).

Clerk, U.S. District Court

08/24/11

Date

By: JPRADO

Deputy Clerk

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CHROMADEX, INC,

PLAINTIFF(S)

v.

BOTIVIA BIOCEUTICALS, LLC

DEFENDANT(S).

CASE NUMBER

SACV11- 1273 CJC (MLGx)

ADR PROGRAM QUESTIONNAIRE

(1) What, if any, discovery do the parties believe is essential in order to prepare adequately for a settlement conference or mediation? Please outline with specificity the type(s) of discovery and proposed completion date(s). Please outline any areas of disagreement in this regard. Your designations do not limit the discovery that you will be able to take in the event this case does not settle.

(2) What are the damage amounts being claimed by each plaintiff? Identify the categories of damage claimed [e.g., lost profits, medical expenses (past and future), lost wages (past and future), emotional distress, damage to reputation, etc.] and the portion of the total damages claimed attributed to each category.

(3) Do the parties agree to utilize a private mediator in lieu of the court's ADR Program?

Yes No

(4) if this case is in category civil rights - employment (442), check all boxes that describe the legal bases of plaintiff claim(s).

Title VII

Age Discrimination

42 U.S.C. section 1983

California Fair Employment and Housing Act

Americans with Disabilities Act of 1990

Rehabilitation Act

Other _____

I hereby certify that all parties have discussed and agree that the above-mentioned responses are true and correct.

Date

Attorney for Plaintiff (Signature)

Attorney for Plaintiff (Please print full name)

Date

Attorney for Defendant (Signature)

Attorney for Defendant (Please print full name)

Court Reporters Office

Ordering Transcripts

District court civil and criminal transcripts may be ordered by making financial arrangements with the individual court reporters. To identify which reporter to contact for a specific in-court matter before April 2002, please refer to the appropriate docket entry on the civil or criminal dockets, which is now electronically available on PACER. For matters specific in-court matters after April 2002, the court reporter assignment schedule is on the website. Go to Court Reporter Schedule, then view all and select the date you want to check. Transcript orders from magistrate judge court should be placed with the Court Recording Section of the Records Department. Please refer to the website for the necessary telephone numbers, applicable fees, and identification of court reporter assignments. For more information, you can call the court reporter scheduler's office at 213-894-0658.

Ordering Realtime Connection

Realtime reporting connection shall be made in advance of the trial. Please contact the court reporter or the clerk's office to request the realtime connection. There is a separate charge for the realtime connection. Please refer to the transcript rates to determine the cost. The only court reporter who may connect to realtime and charge for it is a federally appointed realtime court reporter. Many court reporters do not have realtime connections. We will not be able to connect you to a realtime court reporter if you do not have a realtime connection. Please refer to the transcript rates for more information.

Ordering Daily

Ordering daily transcripts is subject to the availability of court reporters. It is not possible to order daily transcripts from the court reporter schedule. Please refer to the transcript rates to determine the cost. Please do not call in to request a daily transcript. Please refer to the transcript rates for more information.

Touch Screens

A touch screen is available in the lobby of each division. This device provides court addresses, hours, telephone numbers, a daily master calendar, and the weekly Post Indictment Arraignment calendar.

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

WESTERN DIVISION

U.S. Courthouse

Clerk's Office, Room 608

312 North Spring Street

Los Angeles, California 90012

213-894-1565

SOUTHERN DIVISION

U.S. Courthouse

Clerk's Office, Room 1050

312 North Spring Street

Los Angeles, California 90012

213-894-1565

EASTERN DIVISION

U.S. Courthouse

Clerk's Office, Room 1050

312 North Spring Street

Los Angeles, California 90012

213-894-1565

www.caed.uscourts.gov

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA



Clerk's Office
Services for Attorneys
and the
General Public

October 2010

The United States District Court, Central District of California is one of the largest federal courts in the nation. The clerk's office has now brought together some of the most useful information available in one place. The services that are featured include: calendars, and suggestions as to how you may be of service. Your assistance is always appreciated.

Website

Information about the district court may be obtained online. Users can gather information about attorney admissions and filing procedures; review master and daily calendars; requirements for court appearances; Local Rules; General Orders; and recently issued and published opinions. Obtain extensive attorney assistance information and available court services; download court forms; and keep apprised of recent innovations in the clerk's office. Visit the court's website at www.cacd.uscourts.gov.

Office Hours

The clerk's office hours are 9:00 a.m. to 5:00 p.m., Monday through Friday, excluding court-observed holidays. The clerk's office services have been discontinued for the hours in between, 4:00 p.m. to 5:00 p.m. For the Western Division, call 213-253-9413; Southern Division, call 714-543-8123; Eastern Division, call 951-328-4470. A fee of \$3000 is assessed for each day.

WebPACER

The Public Access to Court Electronic Records (PACER) is a browser-based electronic retrieval system that provides criminal and civil summaries and docket information using a computer terminal. PACER also provides access to images of electronically filed court documents. The PACER service is available 24 hours a day, including weekends. For a PACER account, contact the PACER Service Center, 800-675-3856.

Records

All pending criminal, civil, magistrate, and multi-district litigation (MDL) cases may be reviewed, in whole or in part, in the clerk's office. Case files and docket sheets may be viewed on any business day requested unless the requested materials are unavailable. Certain closed cases are located at the court's storage facility and may be ordered, viewed and copies obtained directly from National Archives and Records Administration. New Rules 6001, 6002, 6003, and 6004 provide the retrieval location and directions for retrieval. For more information, inquire at the court's website at www.cacd.uscourts.gov or call the clerk's office at 213-253-9413.

to records_cacd@acd.uscourts.gov; Southern Division: 714-338-4785; Eastern Division: 951-328-4450. To identify which clerk's office maintains the case file you wish to view, please refer to the prefix of the case number (two digits after the letters represent the filing year; for example, 09 is year 2009) as follows:

Western Division (Los Angeles)

GV 09-0000 - civil CR 09-0000 - criminal

Southern Division (Santa Ana)

SACV 09-0000 - civil SACR 09-0000 - criminal

Eastern Division (Riverside)

EDGV 09-0000 - civil ERDGR 09-0000 - criminal

There is a charge for copies, certifications, and exemplifications. For more information on closed or archived court records, visit the court's website at www.cacd.uscourts.gov/records.

Photocopy Service

Photocopy services are available from outside copy services. Please note that exemplifications and certifications must still be obtained from the clerk's office. For payment options, contact the appropriate vendors: Western Division: 213-253-9413; Southern Division: 714-543-8123; Eastern Division: 951-328-4470.

Interpreter Services

The interpreter services section of the clerk's office provides interpreters for all court proceedings instituted by the United States that require the use of a language other than English. The section also makes interpreter referrals in response to inquiries from law firms and the general public in cases where court-appointed interpreters are not indicated. For further information, please call 213-894-4370 or visit the court's website at www.cacd.uscourts.gov/interpreters.

Jury Section

The court's website offers valuable information to prospective jurors. You may see responses to frequently asked questions, read the General Order 07-10 regarding the selection of Grand and Petit jurors; download the jury handbook; review jury information for all three divisions; and verify your status/instructions utilizing the Automated Juror Information System (AJIS). Submit questions or comments to the jury section at jury@acd.uscourts.gov. Wired and wireless Internet access is available in jury assembly rooms.

Attorney Work Room

For attorneys, a work room is located on the second floor of the Spring Street Courthouse, on the first floor of the

Royal Federal Building, on the tenth floor of the Royal Regan Federal Building, and U.S. Courthouse, and on the third floor of the Riverside Courthouse. A network of attorneys, court reporters, and court clerks are available to provide services to attorneys, including: photocopying, and other services.

Evidence Presenters

The clerk's office has evidence presenters available for attorneys to use in court proceedings. This technology connects an overhead projector to monitors which display pictures for the judge, attorneys, and the jury. There is no charge for using the equipment, however, due to the high demand for its use, the equipment is reserved on a first-come, first-served basis. For more information or to reserve the equipment, visit the court's website or contact the appropriate divisions: Western Division, 213-253-9413; Southern Division, 714-543-8123; Eastern Division, 951-328-4470.

Videoconferencing

Videoconferencing allows parties from different locations to appear at court hearings by way of a video and audio system. The appropriate court clerk will provide information on how to use the equipment. The equipment is located in the courtroom. For more information or to reserve the equipment, visit the court's website or contact the appropriate divisions: Western Division, 213-253-9413; Southern Division, 714-543-8123; Eastern Division, 951-328-4470.

E-Filing

With limited exceptions, all cases filed by attorneys are filed by General Order 02-02, as amended by General Order 08-04. Please visit the CM/ECF website at www.cacd.uscourts.gov/cmecf or call the CM/ECF Help Desk at 213-894-0270.

Pro Se

The Federal Pro Se (Self-Represented Litigant) Clinic is located on the first floor, Room 105 in the Federal Courthouse at 312 North Spring Street, Los Angeles, California. The Pro Se Clinic, which is staffed by lawyers, offers non-suit information and guidance to individuals who are self-represented. For more information, visit the court's website at www.cacd.uscourts.gov/prose or call the Pro Se Clinic at 213-253-9413.

UNITED STATE DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

NOTICE TO COUNSEL

The court has directed that the following rules be specifically called to your attention:

- I. Continuing Obligation to Report Related Cases (Local Rule 83-1.3.3)
- II. Service of Papers and Process (Local Rule 4)

I. CONTINUING OBLIGATION TO REPORT RELATED CASES

Parties are under the continuing obligation to promptly advise the Court whenever one or more civil actions or proceedings previously commenced and one or more currently filed appear to be related.

Local Rule 83-1.3.3 states: "It shall be the continuing duty of the attorney in any case promptly to bring to the attention of the Court, by the filing of a Notice of Related Case(s) pursuant to Local Rule 83-1.3, all facts which in the opinion of the attorney or party appear relevant to a determination whether such action and one or more pending actions should, under the criteria and procedures set forth in Local Rule 83-1.3, be heard by the same judge."

Local Rule 83-1.2.1. states: "It is not permissible to dismiss and thereafter refile an action for the purpose of obtaining a different judge."

Local Rule 83-1.2.2 provides: Whenever an action is dismissed by a party or by the Court before judgment and thereafter the same or essentially the same claims, involving the same or essentially the same parties, are alleged in another action, the later-filed action shall be assigned to the judge to whom the first-filed action was assigned. It shall be the duty of every attorney in any such later-filed action to bring those facts to the attention of the Court in the Civil Cover Sheet and by the filing of a Notice of Related Case(s) pursuant to L.R. 83-1.3.

II. SERVICE OF PAPERS AND PROCESS

Local Rule 4-2 states: "Except as otherwise provided by order of Court, or when required by the treaties or statutes of the United States, process shall not be presented to a United States Marshal for Service." Service of process must be accomplished in accordance with Rule 4 of the Federal Rules of Civil Procedure or in any manner provided by State Law, when applicable. Service upon the United States, an officer or agency thereof, shall be served pursuant to the provisions of FRCP 4 (i). Service should be promptly made; unreasonable delay may result in dismissal of the action under Local Rule 41 and Rule 4(m) of the Federal Rules of Civil Procedure. Proof of service or a waiver of service of summons and complaint must be filed with the court.

This notice shall be given by the Clerk to the plaintiff at the time an action is filed (or to the defendant at the time a notice of removal is filed), and by the plaintiff to other parties as attachments to copies of the complaint and summonses, or by the defendant to other parties as attachments to copies of the notice to plaintiffs of removal to federal court, when served.

UNITED STATES DISTRICT COURT CENTRAL DISTRICT OF CALIFORNIA CIVILITY AND PROFESSIONALISM GUIDELINES

Preamble

In its purest form, law is simply a societal mechanism for achieving justice. As officers of the court, judges and lawyers have a duty to use the law for this purpose, for the good of the people. Even though "justice" is a lofty goal, one which is not always reached, when an individual becomes a member of the legal profession, he or she is bound to strive towards this end.

...there is a growing sense that lawyers regard their livelihood as a business, rather than a profession.

Unfortunately, many do not perceive that achieving justice is the function of law in society today. Among members of the public and lawyers themselves, there is a growing sense that lawyers regard their livelihood as a business, rather than a profession. Viewed in this manner, the lawyer may define his or her ultimate goal as "winning" any given case, by whatever means possible, at any cost, with little sense of whether justice is being served. This attitude manifests itself in an array of obstinate discovery tactics, refusals to accommodate the reasonable requests of opposing counsel re: dates, times, and places; and other needless, time-consuming conflicts between and among adversaries. This type of behavior tends to increase costs of litigation and often leads to the denial of justice.

The Central District recognizes that, while the majority of lawyers do not behave in the above-described manner, in recent years there has been a discernible erosion of civility and professionalism in our courts. This disturbing trend may have severe consequences if we do not act to reverse its course. Incivil behavior does not constitute effective advocacy; rather, it serves to increase liti-

gation costs and fails to advance the client's lawful interests. Perhaps just as importantly, this type of behavior causes the public to lose faith in the legal profession and its ability to benefit society. For these reasons, we find that civility and professionalism among advocates, between lawyer and client, and between bench and bar are essential to the administration of justice.

The following guidelines are de-

signed to encourage us, the members of the bench and bar, to act towards each other, our clients, and the public with the dignity and civility that our profession demands. In formulating these guidelines, we have borrowed heavily from the efforts of others who have written similar codes for this same purpose. *The Los Angeles County Bar Association Litigation Guidelines*, guidelines issued by other county bar associations within the Central District, the *Standards for Professional Conduct within the Seventh Federal Judicial Circuit*, and the *Texas Lawyer's Creed* all provide excellent models for professional behavior in the law.

We expect that judges and lawyers will voluntarily adhere to these standards as part of a mutual commitment to the elevation of the level of practice in our courts. These guidelines shall not be used as a basis for litigation or for sanctions or penalties.

Nothing in these guidelines supersedes or modifies the existing Local Rules of the Central District, nor do they alter existing standards of conduct wherein lawyer negligence may be determined and/or examined.

I. Guidelines

A. Lawyers' Duties to Their Clients

1. We will practice our profession with a continuing awareness that our role is to advance the legitimate interests of our clients. We will endeavor to achieve our clients' lawful objectives in legal transactions and in litigation as quickly and economically as possible.
2. We will be loyal and committed to our clients' lawful objectives, but we will not permit that loyalty and commitment to interfere with our duty to provide objective and independent advice.
3. We will advise our clients that civility and courtesy are expected and are not a sign of weakness.
4. We will treat adverse parties and witnesses with fairness and due consideration. A client has no right to demand that we act in an abusive manner or indulge in any offensive conduct.
5. We will advise our clients that we will not pursue conduct that is intended primarily to harass or drain the financial resources of the opposing party.
6. We will advise our clients that we reserve the right to determine whether to grant accommodations to opposing counsel in all matters that do not adversely affect our clients' lawful objectives. Clients have no right to instruct us to refuse reasonable requests made by other counsel.
7. We will advise our clients regarding availability of mediation, arbitration, and other alternative meth-

ods of resolving and settling disputes.

8. We will advise our clients of the contents of this creed when undertaking representation.

B. Lawyers' Duties to Other Counsel

1. Communications with Adversaries

- a. We will adhere to all express promises and to agreements with other counsel, whether oral or in writing, and will adhere in good faith to all agreements implied by the circumstances or local customs.
- b. When we reach an oral understanding on a proposed agreement or a stipulation and decide to commit it to writing, the drafter will endeavor in good faith to state the oral understanding accurately and completely. The drafter will provide the other counsel with the opportunity to review the writing. As drafts are exchanged between or among counsel, changes from prior drafts will be identified in the draft or otherwise explicitly brought to the attention of other counsel. We will not include in a draft matters to which there has been no agreement without explicitly advising other counsel in writing of the addition.
- c. We will not write letters for the purpose of ascribing to opposing counsel a position he or she has not taken, or to create "a record" of events that have not occurred. Letters intended only to make a record should be used sparingly and only when thought to be necessary under all of the circumstances. Unless specifically permitted or invited by the court, letters between counsel should not be sent to judges.

2. Scheduling Issues

- a. We will not use any form of discovery or discovery scheduling as a means of harassment.
- b. We will consult other counsel regarding scheduling matters in a good faith effort to avoid scheduling conflicts.
- c. We will endeavor to accommodate previously scheduled dates for hearings, depositions, meetings, conferences, vacations, seminars, or other functions that produce good faith calendar conflicts on the part of other counsel, where it is possible to do so without prejudicing the client's rights. If we have been given an accommodation because of a calendar conflict, we will notify those who have accommodated us as soon as the conflict has been removed.
- d. We will notify other counsel and, if appropriate, the court or other persons, at the earliest possible time when hearings, depositions, meetings, or conferences are to be canceled or postponed. Early notice avoids unnecessary travel and expense of counsel and may enable the court to use the previously reserved time for other matters.
- e. Unless time is of the essence, as a matter of courtesy we will grant first requests for reasonable extensions of time to respond to litigation deadlines. After a first extension, any additional requests for time will be considered by balancing the need for expedition against the deference one should ordinarily give to an opponent's schedule of personal and professional engagements, the reasonableness of the length of extension requested, the opponent's willingness to grant reciprocal extensions, the time actually needed for the task, and whether it is likely a court would grant the extension if asked to do so.

- f. We will not request an extension of time solely for the purpose of unjustified delay or to obtain a tactical advantage.

- g. We will not attach to extensions unfair and extraneous conditions. We may impose conditions for the purpose of preserving rights that an extension might jeopardize, or for seeking reciprocal scheduling concessions. We will not, by granting extensions, seek to preclude an opponent's substantive rights, such as his or her right to move against a complaint.

3. Service of Papers

- a. We will not time the filing or service of motions or pleadings in any way that unfairly limits another party's opportunity to respond.
- b. We will not serve papers sufficiently close to a court appearance so as to inhibit the ability of opposing counsel to prepare for that appearance or, where permitted by law, to respond to the papers.
- c. We will not serve papers in order to take advantage of an opponent's known absence from the office or at a time or in a manner designed to inconvenience an adversary, such as late on a Friday afternoon or the day preceding a secular or religious holiday.
- d. When it is likely that service by mail, even when allowed, will prejudice the opposing party, we will effect service personally or by facsimile transmission.

4. Depositions

- a. We will take depositions only when actually needed to ascertain facts or information or to perpetuate testimony. We will not take depositions

for the purpose of harassment or to increase litigation expense.

- b. We will not engage in any conduct during a deposition that would be inappropriate in the presence of a judge.
- c. During depositions we will ask only those questions we reasonably believe are necessary for the prosecution or defense of an action. We will not inquire into a deponent's personal affairs or question a deponent's integrity where such inquiry is irrelevant to the subject matter of the deposition. We will refrain from repetitive or argumentative questions or those asked solely for purposes of harassment.
- d. When defending a deposition, we will limit objections to those that are well founded and necessary to protect our client's interests. We recognize that most objections are preserved and need be interposed only when the form of a question is defective or privileged information is sought.
- c. When a question is pending, we will not, through objections or otherwise, coach the deponent or suggest answers.
- f. We will not direct a deponent to refuse to answer questions unless they seek privileged information or are manifestly irrelevant or calculated to harass.
- g. When we obtain documents pursuant to a deposition subpoena, we will make copies of the documents available to opposing counsel at his or her expense, even if the deposition is canceled or adjourned.

5. Document Demands

- a. We will carefully craft document production requests so they are limited to those documents we reason-

ably believe are necessary for the prosecution or defense of an action. We will not design production requests to harass or embarrass a party or witness or to impose an undue burden or expense in responding.

- b. We will respond to document requests in a timely and reasonable manner and not strain to interpret the request in an artificially restrictive manner to avoid disclosure of relevant and non-privileged documents.
- c. We will withhold documents on the grounds of privilege only where it is appropriate to do so.
- d. We will not produce documents in a disorganized or unintelligible manner, or in a way designed to hide or obscure the existence of particular documents.
- e. We will not delay document production to prevent opposing counsel from inspecting documents prior to scheduled depositions or for any other tactical reason.

6. Interrogatories

- a. We will carefully craft interrogatories so that they are limited to those matters we reasonably believe are necessary for the prosecution or defense of an action, and we will not design them to harass or place an undue burden or expense on a party.
- b. We will respond to interrogatories in a timely and reasonable manner and will not strain to interpret them in an artificially restrictive manner to avoid disclosure of relevant and non-privileged information.
- c. We will base our interrogatory objections on a good faith belief in their merit and not for the purpose of withholding or delaying the disclosure of relevant information. If

an interrogatory is objectionable in part, we will answer the unobjectionable part.

7. Settlement and Alternative Dispute Resolution

- a. Except where there are strong and overriding issues of principle, we will raise and explore the issue of settlement in every case as soon as enough is known about the case to make settlement discussion meaningful.
- b. We will not falsely hold out the possibility of settlement as a means for adjourning discovery or delaying trial.
- c. In every case, we will consider whether the client's interest could be adequately served and the controversy more expeditiously and economically disposed of by arbitration, mediation, or other forms of alternative dispute resolution.

8. Written Submissions to a Court, Including Briefs, Memoranda, Affidavits, Declarations, and Proposed Orders.

- a. Before filing a motion with the court, we will engage in more than a mere *pro forma* discussion of its purpose in an effort to resolve the issue with opposing counsel.
- b. We will not force our adversary to make a motion and then not oppose it.
- c. In submitting briefs or memoranda of points and authorities to the court, we will not rely on facts that are not properly part of the record. We may present historical, economic, or sociological data, if such data appears in or is derived from generally available sources.

- d. In civil actions, we will stipulate to relevant matters if they are undisputed and if no good faith advocacy basis exists for not stipulating.
- e. Unless directly and necessarily in issue, we will not disparage the intelligence, morals, integrity, or personal behavior of our adversaries before the court, either in written submissions or oral presentations.
- f. We will not, absent good cause, attribute bad motives or improper conduct to other counsel or bring the profession into disrepute by unfounded accusations of impropriety.
- g. We will not move for court sanctions against opposing counsel without first conducting a reasonable investigation, and unless fully justified by the circumstances and necessary to protect our client's lawful interests.
- h. We will not cause any default or dismissal to be entered without first notifying opposing counsel, when we know his or her identity.
- i. When a draft order is to be prepared by counsel to reflect a court ruling, we will draft an order that accurately and completely reflects the court's ruling. We will promptly prepare and submit a proposed order to other counsel and attempt to reconcile any differences before the draft order is presented to the court.

9. Ex Parte Communications With the Court

- a. We will avoid *ex parte* communication on the substance of a pending case with a judge (or his or her law clerk) before whom such case is pending.
- b. Even where applicable laws or rules permit an *ex parte* application or communication to the court, before making such an application or com-

munication we will make diligent efforts to notify the opposing party or his or her attorney. We will make reasonable efforts to accommodate the schedule of such attorney, so that the opposing party may be represented on the application.

- c. Where the rules permit an *ex parte* application or communication to the court in an emergency situation, we will make such an application or communication only where there is a *bona fide* emergency such that the lawyer's client will be seriously prejudiced by a failure to make the application or communication on regular notice.

C. Lawyers' Duties to the Court

- 1. We will speak and write civilly and respectfully in all communications with the court.
- 2. We will be punctual and prepared for all court appearances so that all hearings, conferences, and trials may commence on time; if delayed, we will notify the court and counsel, if possible.
- 3. We will be considerate of the time constraints and pressures on the court and court staff inherent in their efforts to administer justice.
- 4. We will not engage in any conduct that brings disorder or disruption to the courtroom. We will advise our clients and witnesses appearing in court of the proper conduct expected and required there and, to the best of our ability, prevent our clients and witnesses from creating disorder or disruption.
- 5. We will not write letters to the court in connection with a pending action, unless invited or permitted by the court.

- 6. Before dates for hearing or trials are set, or if that is not feasible, immediately after such date has been set, we will attempt to verify the availability of necessary participants and witnesses so we can promptly notify the court of any likely problems.
- 7. We will act and speak civilly to court marshals, court clerks, court reporters, secretaries, and law clerks with an awareness that they, too, are an integral part of the judicial system.

D. Judges' Duties to Others

- 1. We will be courteous, respectful, and civil to the attorneys, parties, and witnesses who appear before us. Furthermore, we will use our authority to ensure that all of the attorneys, parties, and witnesses appearing in our courtrooms conduct themselves in a civil manner.
- 2. We will do our best to ensure that court personnel act civilly toward attorneys, parties and witnesses.
- 3. We will not employ abusive, demeaning, or humiliating language in opinions or in written or oral communications with attorneys, parties, or witnesses.
- 4. We will be punctual in convening all hearings, meetings, and conferences.
- 5. We will make reasonable efforts to decide promptly all matters presented to us for decision.
- 6. While endeavoring to resolve disputes efficiently, we will be aware of the time constraints and pressures imposed on attorneys by the exigencies of litigation practice.
- 7. Above all, we will remember that the court is the servant of the people, and we will approach our duties in this fashion.

ORIGINAL

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CLERK, U.S. DISTRICT COURT
AUG 30 2011
CENTRAL DISTRICT OF CALIFORNIA
BY

10 Attorneys for Plaintiff
11 ChromaDex, Inc.

12 UNITED STATES DISTRICT COURT
13 FOR THE CENTRAL DISTRICT OF CALIFORNIA

BY FAX

14 CHROMADDEX, INC., a California
15 Corporation,

16 Plaintiff,

17 vs.

18 BIOTIVIA LLC, a Delaware Limited
19 Liability Company; BIOTIVIA
20 BIOCEUTICALS, LLC, a Delaware
21 Limited Liability Company,

22 Defendants.

Case No.: SACV11-01273 CJC (MLGx)

**FIRST AMENDED COMPLAINT
FOR:**

- (1) Trademark Infringement;
- (2) Federal Unfair Competition/False Advertising;
- (3) Copyright Infringement;
- (4) Unfair Competition per Cal.Bus. & Prof. Code § 17200;
- (5) Common Law Unfair Competition; and
- (6) Unjust Enrichment

JURY TRIAL DEMANDED

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BUT NOT FILED
AUG 30 2011
CLERK, U.S. DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION
DEPUTY

23 Plaintiff ChromaDex, Inc. brings this action against Defendants Biotivia LLC
24 and Biotivia Bioceuticals, LLC (collectively, "Defendants") and alleges as follows:

JURISDICTION AND VENUE

25 1. This action arises under the Acts of Congress under the Trademark and
26 Lanham Acts, Title 15 U.S.C. § 1051, et seq., Copyright Act, 17 U.S.C. § 101 et seq.,
27 and common law. As such, this Court has subject matter jurisdiction under the
28

1 provisions of Title 28 U.S.C. §§ 1331 and 1338 because this action involves federal
2 questions of law. A substantial part of the events giving rise to this action have
3 occurred and continue to occur in this judicial district. As such, this court has subject
4 matter jurisdiction under the provisions of Title 28 U.S.C. §§ 1331 and 1338 because
5 this action involves federal questions of law. A substantial part of the events giving
6 rise to this action have occurred and continue to occur in this judicial district. As
7 such, Defendants should reasonably expect that their activities might have
8 consequences herein.

9 2. This Court has original jurisdiction over the claims brought under federal
10 law pursuant to 28 U.S.C. §§ 1331 and 1338(b) and 15 U.S.C. § 1121.

11 3. This Court has supplemental jurisdiction over the claims in this
12 Complaint that arise under state statutory and common law in the State of California
13 pursuant to 28 U.S.C. §1367(a), because the state law claims are so related to the
14 federal claims that they form part of the same case or controversy and derive from a
15 common nucleus of operative facts.

16 4. This Court has personal jurisdiction over Defendants and each of them
17 because they reside in the Central District of California, have a place of business
18 within this judicial district and conduct substantial business within this judicial district
19 related to the unlawful activity at issue in this Complaint.

20 5. Venue is proper in this court pursuant to 28 U.S.C. §1391 because
21 Defendants reside in this judicial district, conducts business in this business district,
22 and because a substantial part of the events or omissions giving rise to ChromaDex's
23 claims occurred and are continuing to occur in this judicial district.

24 **THE PARTIES**

25 6. Plaintiff ChromaDex Inc. ("Plaintiff" or "ChromaDex") is a California
26 corporation with its principal place of business at 10005 Muirlands, Suite G, Irvine,
27 California 92618.

1 7. Upon information and belief, Defendant Biotivia LLC is a Delaware
2 Limited Liability Company, with a principal place of business at 1 River Place, Ste.
3 1001, New York, NY 10036 and offices in Los Angeles, California.

4 8. Upon information and belief, Defendant Biotivia Bioceuticals LLC
5 is a Delaware Limited Liability Company, with a principal place of business at 1
6 River Place, Ste. 1001, New York, NY 10036 and offices in Los Angeles, California.
7 Upon information and belief, Defendant Biotivia Bioceuticals LLC is a dba of or
8 otherwise is directly affiliated with Biotivia LLC.

9 **BACKGROUND AS TO CHROMADDEX'S**
10 **BUSINESS AND ITS INTELLECTUAL PROPERTY**

11 9. ChromaDex was established in 1999 and is an innovative natural products
12 company that provides proprietary, science-based solutions and ingredients to the
13 dietary supplement, food and beverage, cosmetic and pharmaceutical industries.

14 10. On April 26, 2010, ChromaDex launched pTeroPure® Pterostilbene
15 (hereafter PTEROPURE®), a proprietary, ultrapure formulation of the naturally
16 occurring compound pterostilbene, found in blueberries. PTEROPURE® is a
17 synthetic pterostilbene, which is a dietary supplement to support anti-aging, heart
18 health, oxidative stress, and memory.

19 11. On June 13, 2011, ChromaDex launched BluScience, a line of dietary
20 supplements which feature PTEROPURE®. The BluScience line of pterostilbene-
21 based products is distributed through GNC at more than 7,300 locations throughout
22 the United States and via the internet.

23 12. ChromaDex is the owner of certain intellectual property rights, including
24 numerous federally registered trademarks and copyrights, as well as common law
25 trademark and copyright rights.

26 13. ChromaDex is the owner of trademark rights in and to the
27 PTEROPURE®, CHROMADDEX®, THE NEXT GENERATION RESVERATROL,
28 BLUSCIENCE and BLUSCIENCE THE FUSION OF BLUEBERRIES AND

1 SCIENCE marks including the following registrations and applications with the
2 United States Patent and Trademark Office:- U.S. Reg. No. 3932510 for pTeroPure
3 for "Phytochemicals for use in the manufacturing of dietary supplements and
4 nutritional products" in International Class 1 attached as Exhibit A;

5 - U.S. Reg. No 3999086 for CHROMADEX for "Chemical reagents for non-
6 medical purposes; Chemical test kits for analytical measurement of raw material
7 identify, potency and formulation consistency for laboratory or research use;
8 Chemicals for use in industry and science; Chemicals for use in the biochemical and
9 chemical industry; Assays for research purposes" in International Class 1, and for
10 "Chemical, biochemical, biological and bacteriological research and analysis;
11 Consulting in the field of product development in the field of chemicals; Development
12 and establishment of testing specifications and procedures in the field of chemicals;
13 Development and test of chemical production methods; Development of voluntary
14 standards for chemicals; Executing of chemical analyses; Industrial research in the
15 field of chemicals; Pharmaceutical research and development; Product research and
16 development; Research and development and consultation related thereto in the field
17 of chemicals; Testing of raw materials" in International Class 42 attached as Exhibit
18 B;

19 - U.S. App. Serial No. 85193003 for THE NEXT GENERATION
20 RESVERATROL for "Phytochemicals for use in the manufacturing of dietary
21 supplements, nutritional supplements, nutritional beverages, pharmaceuticals and
22 cosmetics," in International Class 1;

23 - U.S. App. Serial No. 85306142 for BLUSCIENCE for "Dietary and
24 nutritional supplements," in International Class 5; and

25 - U.S. App. Serial No. 85306158 for BLUSCIENCE THE FUSION OF
26 BLUEBERRIES AND SCIENCE (stylized) for "Dietary and nutritional
27 supplements," in International Class 5.
28

1 14. Since at least March 11, 2010, ChromaDex has used the PTEROPURE®
2 trademark in commerce.

3 15. ChromaDex has expended significant time, energy, and resources in the
4 protection and promotion of its PTEROPURE® mark.

5 16. Since at least October 1999, ChromaDex has used the CHROMADDEX®
6 trademark in commerce with regard to International class 001, and at least June 2000,
7 in International class 042.

8 17. ChromaDex has expended significant time, energy, and resources in the
9 protection and promotion of its CHROMADDEX® mark.

10 18. ChromaDex filed for trademark registration under section 1B on
11 December 8, 2010 for the mark THE NEXT GENERATION RESVERATROL. The
12 mark is currently in use on ChromaDex's website and is to be published for
13 opposition on August 23, 2011.

14 19. ChromaDex filed for trademark registration under section 1B for the mark
15 BLUSCIENCE on April 27, 2011.

16 20. ChromaDex filed for trademark registration under section 1B for the mark
17 BLUSCIENCE THE FUSION OF BLUEBERRIES AND SCIENCE on April 27,
18 2011.

19 21. ChromaDex uses the BLUSCIENCE and BLUSCIENCE THE FUSION
20 OF BLUEBERRIES AND SCIENCE marks on its website, chromadex.com, in
21 connection with the advertising and sale of its BluScience line of products, all of
22 which utilize the PTEROPURE®.

23 22. ChromaDex is the owner of certain copyrighted works including as
24 relevant here:

25 - U.S. Copyright Reg. No. TXu001746330 for a work entitled "pTeroPure
26 Brochure;" attached as Exhibit C; and
27
28

1 - U.S. Copyright Reg. No. TXu001745172 for a work entitled "pTeroPure
2 Pterostilbene: The Next Generation Resveratrol (Complete Presentation)," attached as
3 Exhibit D.

4 DEFENDANTS' UNLAWFUL CONDUCT

5 23. Defendants own and operate at least two websites which target the United
6 States market, Biotivialabs.com and Biotivia.com ("Biotivia Websites").

7 24. Defendants sell various nutraceutical supplements on the Biotivia
8 Websites and through other third-party stores such as drugstores and other vendors of
9 dietary supplements. Defendants' products are available for purchase both from
10 internet websites and at local third-party stores.

11 25. The Biotivia Websites are active websites through which Defendants
12 solicit business throughout the United States, and sell products to consumers
13 throughout the United States, including consumers in the Central District of
14 California.

15 26. In or about December 2010, via the Biotivia Websites, Defendants began
16 advertising and selling a product called PteroMax that contains pterostilbene.

17 27. Defendants' PteroMax product directly competes with ChromaDex's
18 BluScience line of products.

19 28. No association or relationship exists between ChromaDex and
20 Defendants.

21 29. The PteroMax product sold by Defendants is not manufactured or
22 affiliated in any way with ChromaDex, PTEROPURE® or ChromaDex's BluScience
23 line of products.

24 Defendants' False Advertising and Unfair Competition on its Websites

25 30. The Biotivia Websites contain numerous false and misleading statements
26 regarding Defendants' PteroMax product which are intended to deceive the
27 purchasing public and/or cause confusion with the purchasing public. Examples of
28

1 the myriad false and misleading statements reflected on Defendants' Websites
2 include:

3 a) Defendants falsely state that there is a partnership between
4 ChromaDex and Defendants;

5 b) Defendants falsely claim that their PteroMax product was
6 developed prior to the PTEROPURE® product;

7 c) Defendants falsely claim that they introduced the world to
8 pterostilbene when there were at least 15 pterostilbene-based products on the market
9 before the PteroMax product;

10 d) Defendants falsely claim that the PTEROPURE® product was
11 created "based on the Biotivia Labs' formulation for PteroMax";

12 e) Defendants falsely claim that the PTEROPURE® formulation is a
13 "weakened version" of the competing PteroMax product;

14 f) Defendants falsely claim that the price of PteroMax is substantially
15 less than PTEROPURE®;

16 g) Defendants falsely state that their PteroMax product has hundreds
17 of times the amount of pterostilbene contained in other pterostilbene-based products,
18 including PTEROPURE®;

19 h) Defendants falsely state that PteroMax is 100% pure pterostilbene;

20 i) Defendants falsely claim that PteroMax contains over 100 times
21 the potency of competing supplements;

22 j) Defendants falsely state that PteroMax is cheaper than other
23 similar products;

24 k) Defendants falsely state that only PteroMax contains Polydatin;

25 l) Defendants falsely state that more of the world's leading medical
26 research institutions chose Defendants for human clinical trials than all other suppliers
27 combined;

28

1 m) Defendants falsely claim that PteroMax is the result of over four
2 year of Defendants' research, testing and analysis;

3 n) Defendants falsely claim that PteroMax has the highest antioxidant
4 rating of any supplement ever tested, and more that double that of any competing
5 pterostilbene product ever tested;

6 o) Defendants falsely claim that PteroMax is the only pterostilbene
7 supplement designed by health scientists to match the specific proportions and
8 concentrations found to be most effective in published scientific studies;

9 p) Defendants falsely claim that PteroMax contains the highest
10 amount of pterostilbene in its product;

11 q) Defendants falsely claim that dosages of less than 100 mg per
12 capsule have not been shown effective in humans;

13 r) Defendants falsely claim that no company or institution has more
14 experience and expertise in the development and manufacturing of resveratrol than
15 Defendants; and

16 s) Defendants falsely state that their product, PteroActiv, is a "pure"
17 pterostilbene and has something to do with SIRT1 activation.

18 31. Defendants also used PteroMax in connection with words and phrases
19 similar to ChromaDex's THE NEXT GENERATION RESVERATROL mark on the
20 Biotivia Websites.

21 32. Defendants uses their PteroMax name in connection with the phrase
22 "Pterostilbene has been described as the taking Resveratrol to the next level" on the
23 Biotivialabs.com website. Defendants also use the phrase "PteroMax, in many
24 important ways, takes resveratrol to a new level," on the Biotivia.com website.

25 33. The combined use of the PteroMax name and the phrases incorporating
26 "taking resveratrol to the next level," and "takes resveratrol to a new level" are likely
27 to confuse consumers based on the similarity of the name and phrases to the
28 PTEROPURE® and THE NEXT GENERATION RESVERATROL marks.

1 34. Defendants are unfairly competing with ChromaDex through the
2 unauthorized and unlawful use of ChromaDex's marks.

3 35. Defendants' conduct is willful in nature.

4 **Defendants' Conduct In Unlawfully Directing**
5 **Internet Users to Their Websites by Using ChromaDex's Trademarks**

6 36. Defendants, without authorization, used ChromaDex's CHROMADDEX®,
7 PTEROPURE® and BLUSCIENCE marks as ad keywords on various search engines
8 so as to unlawfully deceive consumers into believing that there was an affiliation
9 between ChromaDex and Defendants.

10 37. Defendants purchased keywords utilizing ChromaDex's marks to drive
11 web traffic to its competing website to sell its products on at least Google.com,
12 Ask.com, and Answer.com.

13 38. Defendants purchased several of ChromaDex's trademarks, including,
14 *inter alia*, ChromaDex's CHROMADDEX®, PTEROPURE® and BLUSCIENCE
15 marks, as keywords on internet search engines Google.com and Ask.com, among
16 other internet search engines.

17 39. By purchasing ChromaDex's identical trademarked terms as keywords,
18 Defendants are seeking to drive consumer traffic to its own websites through the
19 unauthorized and infringing use of ChromaDex's marks. As a result, consumers are
20 likely to be confused as to whether Defendants' PteroMax product is affiliated with
21 ChromaDex and its products, including PTEROPURE®.

22 40. Defendants' purchase of ChromaDex's CHROMADDEX®,
23 PTEROPURE® and BLUSCIENCE marks as key ad words for the sale of products in
24 the same fields is likely to cause confusion to consumers and constitutes trademark
25 infringement.

26 41. In addition to the purchase of ChromaDex's marks as key ad words,
27 Defendants used ChromaDex's CHROMADDEX®, PTEROPURE® and
28 BLUSCIENCE marks in their metadata with the intent to use the ChromaDex marks

1 to drive ChromaDex customers to the Biotivia Websites through general internet
2 searches.

3 42. Defendants' use of ChromaDex's marks in their metadata is likely to
4 confuse consumers as to the source and affiliation of ChromaDex's products.

5 43. Defendants unlawfully used the CHROMADDEX®, PTEROPURE® and
6 BLUSCIENCE marks in commerce in connection with the sale or advertising for the
7 sale of Defendants' competing products. Such use in commerce in connection with
8 the sale or advertising for Defendants' products was and is unauthorized.

9 44. Defendants are unfairly competing with ChromaDex through the
10 unauthorized and unlawful use of ChromaDex's marks.

11 45. Defendants' conduct is willful in nature.

12 **Defendants' Copyright Infringement of ChromaDex's Promotional Materials**

13 46. In September 2010, ChromaDex emailed PTEROPURE® and
14 pterostilbene materials, including a brochure, to Defendants. An updated and revised
15 version of the PTEROPURE® brochure is accessible on the ChromaDex
16 pTeroPure.com website.

17 47. The brochure sent to Defendants in September 2010 and the updated
18 version on the ChromaDex website are protected by copyright.

19 48. As the owner of the United States Copyright Registration Nos.
20 TXu001746339 and TXu001746330, ChromaDex has the exclusive right to
21 reproduce, distribute, display, and prepare derivative works based on the copyrighted
22 work. 17 U.S.C. §§ 106 and 113.

23 49. The Biotivia Websites contain statements regarding PteroMax, including
24 how it was developed, how it is made, benefits of taking the supplement, and
25 comparing the product to other similar products.

26 50. Many of the statements found on The Biotivia Websites were copied in
27 whole or in part from ChromaDex's copyrighted works. For example, the
28 ChromaDex copyrighted brochures contain the following statements:

1 pTeroPure is a nature identical form of trans-pterostilbene.
2 Pterostilbene is the next generation of resveratrol:

- 3 • **a methylated resveratrol analog naturally found in berries**
- 4 • **superior biological activity**
- 5 • **better oral bioavailability**
- 6 • **metabolizes more slowly in the body, allowing more time for its antioxidant activities to act.**

7 The Biotivia Website contains the following statements, among others, which reflect
8 copying of the statements in the copyrighted ChromaDex materials:

9 Found in plants like blueberries, pterostilbenes have been a
10 feature of Ayurvedic medicine for hundreds of years. The
11 highlights of pterostilbenes are:

- 12 • **a methylated resveratrol analog naturally found in berries**
- 13 • **superior biological activity**
- 14 • **better oral bioavailability**
- 15 • **metabolizes more slowly in the body.**

16 51. Defendants have used ChromaDex's copyrighted materials, including the
17 examples above, without ChromaDex's authorization or consent. Defendants used the
18 materials to promote their competing pterostilbene and resveratrol products.

19 52. The continued use of ChromaDex's copyrighted materials on Defendants'
20 websites has caused and is causing ChromaDex to suffer serious and substantial
21 damages resulting from Defendants' acts of copyright infringement, and the damages
22 are causing irreparable injury to ChromaDex for which there is no adequate remedy at
23 law.

24 **ChromaDex's Attempts to Have Defendants Cease Their Infringing Activity**

25 53. In or about April 28, 2011, ChromaDex sent a letter to Defendants
26 demanding that they cease the use of ChromaDex's intellectual property. To date,
27 Defendants have failed to comply with ChromaDex's demands.

28 54. Defendants have not received authorization, a license, or any other
authority to utilize any of ChromaDex's trademarks or other intellectual property for

1 any purpose, nor has ChromaDex acquiesced to Defendants' use of any of its
2 intellectual property.

3 55. Defendants' infringing activities are likely to cause confusion or mistake
4 among prospective consumers and are likely to mislead and/or deceive prospective
5 consumers with respect to the origin and quality of ChromaDex's products.

6 **FIRST CLAIM FOR RELIEF**

7 **Trademark Infringement under the Lanham Act -15 U.S.C. §1114 Against**
8 **Biotivia LLC and Biotivia Biocenticals, LLC**

9 56. ChromaDex realleges and incorporates by this reference each and every
10 allegation set forth in paragraphs 1 through 55, above.

11 57. Defendants own and operates at least two websites which target the
12 United States market, Biotivialabs.com and Biotivia.com.

13 58. Defendants sell various nutraceutical supplements on the Biotivia
14 Websites and through other third-party stores such as drugstores and other vendors of
15 dietary supplements. Defendants' products are available for purchase both from
16 internet websites and at local third-party stores.

17 59. The Biotivia Websites are active websites that solicit business throughout
18 the United States, and sell products to consumers throughout the United States,
19 including consumers in the Central District of California.

20 60. On or about December 2010, via the Biotivia Websites, Defendants began
21 advertising and selling a product called PteroMax that contains pterostilbene.

22 61. Defendants' PteroMax product directly competes with ChromaDex's
23 BluScience line of products.

24 62. No association or relationship exists between ChromaDex and
25 Defendants.

26 63. The PteroMax product sold by Defendants is not manufactured or
27 affiliated in any way with ChromaDex, PTEROPURE® or ChromaDex's BluScience
28 line of products.

1 64. Defendants, without authorization, used ChromaDex's CHROMADDEX®,
2 PTEROPURE® and BLUSCIENCE marks as ad keywords on various search engines
3 so as to unlawfully deceive consumers into believing that there was and is an
4 affiliation between ChromaDex and Defendants.

5 65. Defendants purchased keywords utilizing ChromaDex's marks to drive
6 web traffic to its competing website to sell its products on at least Google.com,
7 Ask.com, and Answer.com.

8 66. Defendants purchased several of ChromaDex's trademarks, including,
9 *inter alia*, ChromaDex's CHROMADDEX®, PTEROPURE® and BLUSCIENCE
10 marks, as keywords on internet search engines Google.com and Ask.com, among
11 other internet search engines.

12 67. By purchasing ChromaDex's identical trademarked terms as keywords,
13 Defendants are seeking to drive consumer traffic to its own website through the
14 unauthorized and infringing use of ChromaDex's marks. As a result, consumers are
15 likely to be confused as to whether PteroMax is affiliated with ChromaDex and with
16 its ChromaDex's PTEROPURE®.

17 68. Defendants' purchase of ChromaDex's CHROMADDEX®,
18 PTEROPURE® and BLUSCIENCE marks as key ad words for the sale of products in
19 the same fields is likely to cause confusion to consumers and constitutes trademark
20 infringement.

21 69. In addition to the purchase of ChromaDex's marks as key ad words,
22 Defendants used ChromaDex's CHROMADDEX®, PTEROPURE® and
23 BLUSCIENCE marks in its metadata with the intent to use the ChromaDex marks to
24 drive ChromaDex customers to Defendants' website through general internet searches.

25 70. Defendants' use of ChromaDex's marks in Defendants' metadata is likely
26 to confuse consumers as to the source and affiliation of ChromaDex's products.

27 71. Defendants unlawfully used the CHROMADDEX®, PTEROPURE® and
28 BLUSCIENCE marks in commerce in connection with the sale or advertising for the

1 sale of Defendants' competing products. Such use in commerce in connection with
2 the sale or advertising for Defendants' products was and is unauthorized.

3 72. The federal registrations of ChromaDex's CHROMADEX® and
4 PTEROPURE® mark evidences ChromaDex's exclusive right to use its
5 CHROMADEX® and PTEROPURE® marks in connection with Phytochemicals for
6 use in the manufacturing of dietary supplements and nutritional products. 15 U.S.C. §
7 1115.

8 73. Defendants purchased ad words through Google and other internet search
9 engines for ChromaDex's CHROMADEX® and PTEROPURE® marks.

10 74. Defendants used ChromaDex's CHROMADEX® and PTEROPURE®
11 marks in their metadata with the intent to use the ChromaDex marks to drive
12 ChromaDex customers to Defendants' Websites through general internet searches.

13 75. Defendants' wrongful and unauthorized use of the CHROMADEX® and
14 PTEROPURE® marks as delineated above constitutes trademark infringement
15 pursuant to 15 U.S.C. § 1114.

16 76. Defendants' unauthorized use of the CHROMADEX® and
17 PTEROPURE® marks in connection with the sale of the competing PteroMax product
18 is likely to cause confusion, or mistake, or to deceive as to the source, affiliation, or
19 sponsorship with ChromaDex, in violation of 15 U.S.C. § 1051 et seq.

20 77. Defendants' use and adoption of ChromaDex's exact marks, which are
21 utilized in the same field as ChromaDex's marks, constitutes infringement of
22 ChromaDex's registered CHROMADEX® and PTEROPURE® marks, in violation of
23 15 U.S.C. §§ 1051 et seq., to the substantial and irreparable injury of the public and of
24 ChromaDex's marks, business, reputation, and goodwill.

25 78. Defendants' conduct has caused and will continue to cause damage to
26 ChromaDex in an amount to be proved at trial, and if not enjoined, will cause
27 irreparable harm to ChromaDex for which there is no adequate remedy at law.
28

1 79. ChromaDex is further entitled to recover damages and to recover its other
2 costs herein. Defendants will be irreparably harmed if the unlawful, fraudulent and
3 unfair conduct is not stopped and damages are an insufficient remedy. Accordingly,
4 ChromaDex is also entitled to injunctive relief against Defendants.

5 80. ChromaDex is further entitled to recover statutory damages, treble
6 damages and attorneys' fees.

7 **SECOND CLAIM FOR RELIEF**

8 **Unfair Competition/False Advertising Under the Lanham Act**
9 **15 U.S.C. §1125(a) against Defendants Biotivia LLC and**
10 **Biotivia Biocenticals, LLC**

11 81. ChromaDex realleges and incorporates by this reference each and every
12 allegation set forth in paragraphs 1 through 80, above.

13 82. Defendants own and operate at least two websites which target the United
14 States market, Biotivialabs.com and Biotivia.com.

15 83. Defendants sell various nutraceutical supplements on the Biotivia
16 Websites and through other third-party stores such as drugstores and other vendors of
17 dietary supplements. Defendants' products are available for purchase both from
18 internet websites and at local third-party stores.

19 84. The Biotivia Websites are active websites that are used by Defendants to
20 solicit business throughout the United States and sell products to consumers
21 throughout the United States, including consumers in the Central District of
22 California.

23 85. In or about December 2010, via the Biotivia Websites, Defendants began
24 advertising and selling a product called PteroMax that contains pterostilbene.

25 86. Defendants' PteroMax product directly competes with ChromaDex's
26 BluScience line of products.

27 87. No association or relationship exists between ChromaDex and
28 Defendants.

1 88. The PteroMax product sold by Defendants is not manufactured or
2 affiliated in any way with ChromaDex, PTEROPURE® or ChromaDex's BluScience
3 line of products.

4 89. The Biotivia Websites contain numerous false and misleading statements
5 regarding its PteroMax product and ChromaDex and its products which are intended
6 to deceive the purchasing public and/or cause confusion with the purchasing public.
7 Examples of the myriad false and misleading statements reflected on the Biotivia
8 Websites include:

9 a) Defendants falsely state that there is a partnership between
10 ChromaDex and Defendants;

11 b) Defendants falsely claim that PteroMax product was developed
12 prior to the PTEROPURE® product;

13 c) Defendants falsely claim that Defendants introduced the world to
14 pterostilbene when there were at least 15 pterostilbene-based products on the market
15 before the PteroMax product;

16 d) Defendants falsely claim that the PTEROPURE® product was
17 created "based on the Biotivia Labs' formulation for PteroMax";

18 e) Defendants falsely claim that the PTEROPURE® formulation is a
19 "weakened version" of the competing PteroMax;

20 f) Defendants falsely claim that the price of PteroMax is substantially
21 less than PTEROPURE®;

22 g) Defendants falsely state that the PteroMax product has hundreds of
23 times the amount of pterostilbene than what is contained in other pterostilbene
24 supplements, including PTEROPURE®;

25 h) Defendants falsely state that PteroMax is 100% pure pterostilbene;

26 i) Defendants falsely claim that PteroMax contains over 100 times
27 the potency of competing supplements;

28

1 j) Defendants falsely state that PteroMax is cheaper than other
2 similar products;

3 k) Defendants falsely state that only PteroMax contains Polydatin;

4 l) Defendants falsely state that more of the world's leading medical
5 research institutions chose Defendants for human clinical trials than all other suppliers
6 combined;

7 m) Defendants falsely claim that PteroMax is the result of over four
8 year of Defendants' researching, testing and analysis;

9 n) Defendants falsely claim that PteroMax has the highest antioxidant
10 rating of any supplement ever tested, and more that double that of any competing
11 pterostilbene product ever tested;

12 o) Defendants falsely claim that PteroMax is the only pterostilbene
13 supplement designed by health scientists to match the specific proportions and
14 concentrations found to be most effective in published scientific studies;

15 p) Defendants falsely claim that PteroMax contains the highest
16 amount of pterostilbene in its product;

17 q) Defendants falsely claim that dosages of less than 100 mg per
18 capsule have not been shown effective in humans;

19 r) Defendants falsely claim that no company or institution has more
20 experience and expertise in the development and manufacturing of resveratrol than
21 Defendants; and

22 s) Defendants falsely state that the product, PteroActiv, is a "pure"
23 pterostilbene and has something to do with SIRT1 activation.

24 90. Defendants also used PteroMax in connection with words and phrases
25 similar to ChromaDex's THE NEXT GENERATION RESVERATROL mark on the
26 Biotivia Websites.

27 91. Defendants use their PteroMax name, in connection with the phrase,
28 "Pterostilbene has been described as the taking Resveratrol to the next level," on its

1 Biotivialabs.com website. Defendants also use the phrase "PteroMax, in many
2 important ways, takes resveratrol to a new level," on the Biotivia.com website.

3 92. The combined use of the PteroMax name and the phrases incorporating
4 "taking resveratrol to the next level," and "takes resveratrol to a new level" are likely
5 to confuse consumers based on the similarity to the PTEROPURE® and THE NEXT
6 GENERATION RESVERATROL marks.

7 93. Defendants are unfairly competing with ChromaDex through the
8 unauthorized and unlawful use of ChromaDex's marks and through the use of false
9 and misleading statements and copyright infringement alleged herein.

10 94. Defendants' conduct is willful in nature.

11 95. Defendants, without authorization, used ChromaDex's CHROMADDEX®,
12 PTEROPURE® and BLUSCIENCE marks as ad keywords on various search engines
13 so as to unlawfully deceive consumers into believing that there was an affiliation
14 between ChromaDex and Defendants.

15 96. Defendants purchased keywords utilizing ChromaDex's marks to drive
16 web traffic to its competing website to sell its products on at least Google.com,
17 Ask.com, and Answer.com.

18 97. Defendants purchased several of ChromaDex's trademarks, including,
19 *inter alia*, ChromaDex's CHROMADDEX®, PTEROPURE® and BLUSCIENCE
20 marks, as keywords on internet search engines Google.com and Ask.com, among
21 other internet search engines.

22 98. By purchasing ChromaDex's identical trademarked terms as keywords,
23 Defendants are seeking to drive consumer traffic to their own websites through the
24 unauthorized and infringing use of ChromaDex's marks. As a result, consumers are
25 likely to be confused as to whether PteroMax is affiliated with ChromaDex's
26 PTEROPURE® and with ChromaDex in general.

27 99. Defendants' purchase of ChromaDex's, CHROMADDEX®,
28 PTEROPURE® and BLUSCIENCE marks as key ad words for the sale of products in

1 the same fields as well as the false and misleading statements on the Biotivia Websites
2 are likely to cause confusion to consumers and constitutes trademark infringement.

3 100. In addition to the purchase of ChromaDex's marks as key ad words,
4 Defendants used ChromaDex's CHROMADEx®, PTEROPURE® and
5 BLUSCIENCE marks in their metadata with the intent to use the ChromaDex marks
6 to drive ChromaDex customers to Defendants' website through general internet
7 searches.

8 101. Defendants' use of ChromaDex's marks in their metadata and the false
9 and misleading statements on the Biotivia Websites are likely to confuse consumers as
10 to the source and affiliation of ChromaDex's products.

11 102. Defendants unlawfully used the CHROMADEx®, PTEROPURE® and
12 BLUSCIENCE marks in commerce in connection with the sale or advertising for the
13 sale of Defendants' competing products. Such use in commerce in connection with
14 the sale or advertising for Defendants' products was unauthorized.

15 103. Defendants are unfairly competing with ChromaDex through the
16 unauthorized and unlawful use of ChromaDex's marks and through the false and
17 misleading statements set forth on the Biotivia Websites.

18 104. Defendants' conduct is willful in nature.

19 105. Defendants' conduct is likely to cause confusion, or to cause mistake, or
20 to deceive customers as to the nature of the goods, causing great harm to ChromaDex.

21 106. Defendants are unfairly benefiting from the false or intentionally
22 misleading statements on its website and marketing materials to the detriment of
23 ChromaDex.

24 107. ChromaDex has been damaged by these acts in an amount to be proven at
25 trial.

26 108. ChromaDex will be irreparably harmed if the improper conduct is not
27 stopped and damages are an insufficient remedy. ChromaDex is also entitled to
28 injunctive and equitable relief against Defendants.

THIRD CLAIM FOR RELIEF

Copyright Infringement against Defendants Biotivia LLC and Biotivia Bioceuticals LLC

109. ChromaDex realleges and incorporates by this reference each and every allegation set forth in paragraphs 1 through 108, above.

110. Defendants without authorization copied portions, in whole or in part, of ChromaDex's copyright protected materials.

111. ChromaDex has registered the works in Exhibits C and D with the United States Copyright Office as reflected in the attached registrations.

112. ChromaDex has complied in all respects with 17 U.S.C. §§ 101 et seq., and secured the exclusive rights and privileges in and to the copyrights of the above reference works. ChromaDex is the rightful and sole owner of all rights, title, and interest in and to the copyrights and their respective works.

113. Defendants' conduct violates ChromaDex's exclusive rights as owners of the copyrights under 17 U.S.C. § 106.

114. Defendants' unauthorized use of ChromaDex's copyright-protected works on their websites constitutes copyright infringement under 17 U.S.C. § 101 et. seq.

115. As a direct and proximate result of Defendants' wrongful conduct, Defendants have realized and continue to realize profits and other benefits rightly belonging to ChromaDex.

116. ChromaDex seeks an award of damages pursuant to 17 U.S.C. §§ 504 and 505, including actual damages, or, in the alternative, statutory damages.

117. ChromaDex will be irreparably harmed if the infringing conduct is not stopped and damages are an insufficient remedy and as such is entitled to injunctive relief.

118. Upon information and belief, Defendants have engaged in willful infringement of the rights owned exclusively by ChromaDex, and ChromaDex is therefore, entitled to the maximum statutory damages available.

FOURTH CLAIM FOR RELIEF

**Unfair Competition- CAL. BUS. & PROF. CODE §17200 et. seq. against
Defendants Biotivia LLC and Biotivia Bioceuticals, LLC**

119. ChromaDex realleges and incorporates by this reference each and every allegation set forth in paragraphs 1 through 118, above.

120. Defendants own and operate at two websites which target the United States market, Biotivialabs.com and Biotivia.com.

121. Defendants sell various nutraceutical supplements on the Biotivia Websites and through other third-party stores such as drugstores and other vendors of dietary supplements. Defendants' products are available for purchase both from internet websites and at local third-party stores.

122. The Biotivia Websites are active websites through which Defendants solicit business throughout the United States, and sell products to consumers throughout the United States, including consumers in the Central District of California.

123. In or about December 2010, via the Biotivia Websites, Defendants began advertising and selling a product called PteroMax that contains pterostilbene.

124. Defendants' PteroMax product directly competes with ChromaDex's BluScience line of products.

125. No association or relationship exists between ChromaDex and Defendants.

126. The PteroMax product sold by Defendants is not manufactured by ChromaDex or affiliated in any way with ChromaDex, PTEROPURE® or ChromaDex's BluScience line of products.

127. The Biotivia Websites contain numerous false and misleading statements regarding the PteroMax product which are intended to deceive the purchasing public and/or cause confusion with the purchasing public. Examples of the myriad false and misleading statements reflected on the Biotivia Websites include:

1 a) Defendants falsely state that there is a partnership between
2 ChromaDex and Defendants;

3 b) Defendants falsely claim that PteroMax product was developed
4 prior to the PTEROPURE® product;

5 c) Defendants falsely claim that Defendants introduced the world to
6 pterostilbene when there were at least 15 pterostilbene-based products on the market
7 before the PteroMax product;

8 d) Defendants falsely claim that the PTEROPURE® product was
9 created "based on the Biotivia Labs' formulation for PteroMax";

10 e) Defendants falsely claim that the PTEROPURE® formulation is a
11 "weakened version" of the competing PteroMax;

12 f) Defendants falsely claim that the price of PteroMax is substantially
13 less than PTEROPURE®;

14 g) Defendants falsely state that the PteroMax product has hundreds of
15 times the amount of pterostilbene than what is contained in other pterostilbene
16 supplements, including PTEROPURE®;

17 h) Defendants falsely state that PteroMax is 100% pure pterostilbene;

18 i) Defendants falsely claim that PteroMax contains over 100 times
19 the potency of competing supplements;

20 j) Defendants falsely state that PteroMax is cheaper than other
21 similar products;

22 k) Defendants falsely state that only PteroMax contains Polydatin;

23 l) Defendants falsely state that more of the world's leading medical
24 research institutions chose Defendants for human clinical trials than all other suppliers
25 combined;

26 m) Defendants falsely claim that PteroMax is the result of over four
27 year of Defendants' researching, testing and analysis;

28

1 n) Defendants falsely claim that PteroMax has the highest antioxidant
2 rating of any supplement ever tested, and more that double that of any competing
3 pterostilbene product ever tested;

4 o) Defendants falsely claim that PteroMax is the only pterostilbene
5 supplement designed by health scientists to match the specific proportions and
6 concentrations found to be most effective in published scientific studies;

7 p) Defendants falsely claim that PteroMax contains the highest
8 amount of pterostilbene in the product;

9 q) Defendants falsely claim that dosages of less than 100 mg per
10 capsule have not been shown effective in humans;

11 r) Defendants falsely claim that no company or institution has more
12 experience and expertise in the development and manufacturing of resveratrol than
13 Defendants; and

14 s) Defendants falsely state that the product PteroActiv, is a "pure"
15 pterostilbene and has something to do with SIRT1 activation.

16 128. Defendants also used PteroMax in connection with words and phrases
17 similar to ChromaDex's THE NEXT GENERATION RESVERATROL mark on the
18 Biotivia Websites.

19 129. Defendants use the PteroMax name in connection with the phrase,
20 "Pterostilbene has been described as the taking Resveratrol to the next level," on its
21 Biotivialabs.com website. Defendants also use the phrase "PteroMax, in many
22 important ways, takes resveratrol to a new level," on *inter alia* the Biotivia.com
23 website.

24 130. The combined use of the PteroMax name and the phrases incorporating
25 "taking resveratrol to the next level," and "takes resveratrol to a new level" are likely
26 to confuse consumers based on the similarity to the PTEROPURE® and THE NEXT
27 GENERATION RESVERATROL marks.

28

1 131. Defendants are unfairly competing with ChromaDex through the
2 unauthorized and unlawful use of ChromaDex's marks.

3 132. Defendants' conduct is willful in nature.

4 133. Defendants, without authorization, used ChromaDex's CHROMADDEX®,
5 PTEROPURE® and BLUSCIENCE marks as ad keywords on various search engines
6 so as to unlawfully deceive consumers into believing that there was an affiliation
7 between ChromaDex and Defendants.

8 134. Defendants purchased keywords utilizing ChromaDex's marks to drive
9 web traffic to its competing website to sell its products on at least Google.com,
10 Ask.com, and Answer.com.

11 135. Defendants purchased several of ChromaDex's trademarks, including,
12 inter alia, ChromaDex's CHROMADDEX®, PTEROPURE® and BLUSCIENCE
13 marks, as keywords on internet search engines Google.com and Ask.com, among
14 other internet search engines.

15 136. By purchasing ChromaDex's identical trademarked terms as keywords,
16 Defendants are seeking to drive consumer traffic to its own website through the
17 unauthorized and infringing use of ChromaDex's marks. As a result, consumers are
18 likely to be confused as to whether PteroMax is affiliated with ChromaDex's
19 PTEROPURE®.

20 137. Defendants' purchase of ChromaDex' CHROMADDEX®, PTEROPURE®
21 and BLUSCIENCE marks as key ad words for the sale of products in the same fields
22 is likely to cause confusion to consumers and constitutes trademark infringement.

23 138. In addition to the purchase of ChromaDex's marks as key ad words,
24 Defendants used ChromaDex's CHROMADDEX®, PTEROPURE® and
25 BLUSCIENCE marks in its metadata with the intent to use the ChromaDex marks to
26 drive ChromaDex customers to Defendants' websites through general internet
27 searches.
28

1 139. Defendants' use of ChromaDex's marks in Defendants' metadata is likely
2 to confuse consumers as to the source and affiliation of ChromaDex's products.

3 140. Defendants unlawfully used the CHROMADEx®, PTEROPURE® and
4 BLUSCIENCE marks in commerce in connection with the sale or advertising for the
5 sale of Defendants' competing products. Such use in commerce in connection with
6 the sale or advertising for Defendants' products was unauthorized.

7 141. Defendants are unfairly competing with ChromaDex through the
8 unauthorized and unlawful use of ChromaDex's marks.

9 142. Defendants' conduct is willful in nature.

10 143. The acts and conduct of Defendants as alleged above constitute unfair
11 competition as defined by California Business and Professions Code §17200 et. seq.
12 as the conduct is unlawful, unfair and fraudulent.

13 144. The acts and conduct of Defendants are likely to cause confusion and
14 mistake among customers and the public as to the origin or association of Defendants'
15 infringing products.

16 145. Defendants' unlawful, unfair, and deceptive trade practices, and other
17 conduct described above, constitutes unfair competition in violation of California
18 Business and Professions Code §17200 et. seq.

19 146. ChromaDex will be irreparably harmed if the unlawful, fraudulent and
20 unfair conduct is not stopped and damages are an insufficient remedy. As a result,
21 ChromaDex is entitled to injunctive and equitable relief against Defendants.

22
23 **FIFTH CLAIM FOR RELIEF**

24 **Common Law Unfair Competition against Defendants Biotivia LLC and Biotivia
25 Biocenticals, LLC**

26 147. ChromaDex realleges and incorporates by this reference each and every
27 allegation set forth in paragraphs 1 through 146 above.

28 148. The acts and conduct of Defendants as alleged above in this Complaint
constitute unfair competition pursuant to the common law.

1 149. ChromaDex's marks are distinctive and were distinctive at the time of all
2 acts alleged herein. As a result of ChromaDex's substantial investment, the
3 ChromaDex marks have developed extensive goodwill in the market. Accordingly,
4 the ChromaDex marks are extremely valuable to ChromaDex.

5 150. Defendants are not affiliated with or sponsored by ChromaDex and have
6 not been authorized by ChromaDex to use any mark that is identical to the
7 ChromaDex marks.

8 151. Defendants' activities complained of herein constitute willful and
9 intentional tort, in derogation of ChromaDex's rights. Acts of unfair competition
10 commenced and have continued in spite of the Defendants' knowledge that the use of
11 the ChromaDex marks were and are in contravention of ChromaDex's rights.

12 152. ChromaDex's damages from the aforesaid unlawful actions of
13 Defendants, to the extent ascertainable, have not yet been determined.

14 153. ChromaDex seeks attorney's fees and costs given the willful conduct of
15 Defendants.

16 154. Defendants' actions were committed intentionally, maliciously, willfully
17 and, wantonly. ChromaDex is entitled to an award of punitive damages.

18 **SIXTH CLAIM FOR RELIEF**

19 **Unjust Enrichment against Defendants Biotivia LLC and Biotivia Biocentials,**
20 **LLC**

21 155. ChromaDex realleges and incorporates by this reference each and every
22 allegation set forth in paragraphs 1 through 154 above.

23 156. The acts of Defendants complained of herein constitute unjust enrichment
24 at ChromaDex's expense in violation of the common law of California.

25 157. ChromaDex has suffered and is continuing to suffer irreparable injury for
26 which there is no adequate remedy at law.

27 158. ChromaDex has been damaged in an amount to be proven at trial.
28

PRAYER FOR RELIEF

1
2 WHEREFORE, ChromaDex respectfully requests that the Court enter judgment
3 against Defendants as follows:

4 1. That the Court issue temporary and permanent injunctive relief against
5 Defendants and each of them and that Defendants, their officers, agents,
6 representatives, servants; employees, attorneys, successors and assignees, and all
7 others in active concert or participation with Defendants, and each of them, be
8 enjoined and restrained from:

9 a) using ChromaDex's trade names, trademarks, or copyrights in
10 connection with the description, marketing, promotion, advertising, or sale of any of
11 Defendants' products;

12 b) infringing ChromaDex's trademarks and service marks

13 c) infringing ChromaDex's copyrights;

14 d) engaging in any acts or activities directly or indirectly calculated to
15 infringe ChromaDex's CHROMADEx®, PTEROPURE®, BLUSCIENCE, and THE
16 NEXT GENERATION RESVERATROL marks.

17 e) otherwise competing unfairly with ChromaDex in any manner
18 whatsoever;

19 2. That the Court award ChromaDex actual damages, liquidated damages,
20 statutory damages and punitive damages, in amount to be proven at trial;

21 3. That the Court Order Defendants and each of them to account for an pay
22 over to ChromaDex all profits received by Defendants and each of them from the
23 unlawful acts, and for the unjust enrichment;

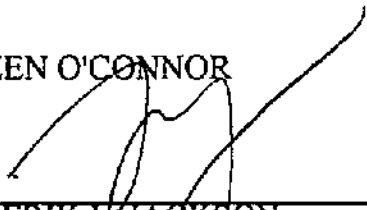
24 4. That the Court enter an order placing reasonable but effective restrictions
25 on the future transactions and activities of Defendants and each of them so as to
26 prevent fraud on the Court and so as to ensure the capacity of Defendants, and each of
27 them, to pay, and the prompt payment of, any judgment entered against Defendants in
28 this action;

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- 5. That the Court award ChromaDex its compensatory, incidental, and consequential damages;
- 6. That the Court award ChromaDex treble damages in an amount to be proven at trial;
- 7. That the Court award ChromaDex its attorneys' fees and costs incurred herein, including prejudgment and post judgment interest; and
- 8. That the Court grant ChromaDex all other relief to which it' is entitled and such other or additional relief as is just and proper under these circumstances.

DATED: August 30, 2011

COZEN O'CONNOR

By: 

ERIK L. JACKSON
KYLE VOS STRACHE
Attorneys for Plaintiff,
CHROMADEx, INC.

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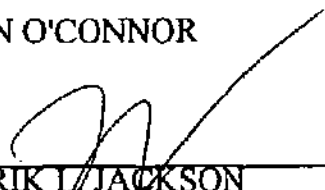
DEMAND FOR JURY TRIAL

ChromaDex demands a trial by jury on all triable issues of fact.

DATED: August 30, 2011

COZEN O'CONNOR

By:



ERIK L. JACKSON
KYLE VOS STRACHE
Attorneys for Plaintiff,
CHROMADDEX, INC.

EXHIBIT A

United States of America

United States Patent and Trademark Office

pTeroPure

Reg. No. 3,932,510

Registered Mar. 15, 2011

Int. Cl.: 1

TRADEMARK

PRINCIPAL REGISTER

CHROMADEx INC. (CALIFORNIA CORPORATION)
10005 MUIRLANDS SUITE G
IRVINE, CA 92618

FOR: PHYTOCHEMICALS FOR USE IN THE MANUFACTURING OF DIETARY SUPPLEMENTS AND NUTRITIONAL PRODUCTS, IN CLASS 1 (U.S. CLS. 1, 5, 6, 10, 26 AND 46).

FIRST USE 3-11-2010; IN COMMERCE 3-11-2010.

THE MARK CONSISTS OF STANDARD CHARACTERS WITHOUT CLAIM TO ANY PARTICULAR FONT, STYLE, SIZE, OR COLOR.

SN 77-939,875, FILED 2-19-2010.

MARY BOAGNI, EXAMINING ATTORNEY



David J. Kappas

Director of the United States Patent and Trademark Office

EXHIBIT B

United States of America

United States Patent and Trademark Office

CHROMADEX

Reg. No. 3,999,086

Registered July 19, 2011

Int. Cls.: 1 and 42

TRADEMARK

SERVICE MARK

PRINCIPAL REGISTER

CHROMADEX INC. (CALIFORNIA CORPORATION)
10005 MUIRLANDS SUITE G
IRVINE, CA 92618

FOR: CHEMICAL REAGENTS FOR NON-MEDICAL PURPOSES; CHEMICAL TEST KITS FOR ANALYTICAL MEASUREMENT OF RAW MATERIAL IDENTITY, POTENCY AND FORMULATION CONSISTENCY FOR LABORATORY OR RESEARCH USE; CHEMICALS FOR USE IN INDUSTRY AND SCIENCE; CHEMICALS FOR USE IN THE BIOCHEMICAL AND CHEMICAL INDUSTRY; ASSAYS FOR RESEARCH PURPOSES, IN CLASS 1 (U.S. CLS. 1, 5, 6, 10, 26 AND 46).

FIRST USE 10-0-1999; IN COMMERCE 10-0-1999.

FOR: CHEMICAL, BIOCHEMICAL, BIOLOGICAL AND BACTERIOLOGICAL RESEARCH AND ANALYSIS; CONSULTING IN THE FIELD OF PRODUCT DEVELOPMENT IN THE FIELD OF CHEMICALS; DEVELOPMENT AND ESTABLISHMENT OF TESTING SPECIFICATIONS AND PROCEDURES IN THE FIELD OF CHEMICALS; DEVELOPMENT AND TEST OF CHEMICAL PRODUCTION METHODS; DEVELOPMENT OF VOLUNTARY STANDARDS FOR CHEMICALS; EXECUTING OF CHEMICAL ANALYSES; INDUSTRIAL RESEARCH IN THE FIELD OF CHEMICALS; PHARMACEUTICAL RESEARCH AND DEVELOPMENT; PRODUCT RESEARCH AND DEVELOPMENT; RESEARCH AND DEVELOPMENT AND CONSULTATION RELATED THERETO IN THE FIELD OF CHEMICALS; TESTING OF RAW MATERIALS, IN CLASS 42 (U.S. CLS. 100 AND 101).

FIRST USE 6-0-2000; IN COMMERCE 6-0-2000.

THE MARK CONSISTS OF STANDARD CHARACTERS WITHOUT CLAIM TO ANY PARTICULAR FONT, STYLE, SIZE, OR COLOR.

SN 77-939,870, FILED 2-19-2010.

MARY BOAGNI, EXAMINING ATTORNEY



David J. Kappas

Director of the United States Patent and Trademark Office

EXHIBIT C

Certificate of Registration



This Certificate issued under the seal of the Copyright Office in accordance with title 17, *United States Code*, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

Maria A. Pallante

Register of Copyrights, United States of America

Registration Number
TXu 1-746-330

Effective date of
registration:

February 14, 2011

Title

Title of Work: pTeroPure Brochure

Completion/Publication

Year of Completion: 2010

Author

Author: ChromaDex, Inc., dba pTeroPure

Author Created: text, compilation

Work made for hire: Yes

Citizen of: United States

Copyright claimant

Copyright Claimant: ChromaDex, Inc., dba pTeroPure

10005 Muirlands Boulevard, Suite G, Irvine, CA, 92618, United States

Limitation of copyright claim

Material excluded from this claim: text, artwork

Now material included in claim: text, compilation

Rights and Permissions

Organization Name: ChromaDex, Inc.

Telephone: 949-419-0288

Address: 10005 Muirlands Boulevard

Suite G

Irvine, CA 92618 United States

Certification

Name: Durrell Washington

Date: January 21, 2011

EXHIBIT D

Certificate of Registration



This Certificate issued under the seal of the Copyright Office in accordance with title 17, *United States Code*, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

Maurin A. Pallante
Register of Copyrights, United States of America

Registration Number
TXu 1-745-172

Effective date of
registration:
January 14, 2011

Title

Title of Work: pTeroPure Pterostilbene: The Next Generation Resveratrol
(Complete Presentation)

Completion/Publication

Year of Completion: 2010

Author

Author: ChromaDex, Inc., dba pTeroPure
Author Created: text, compilation
Work made for hire: Yes
Citizen of: United States

Copyright claimant

Copyright Claimant: ChromaDex, Inc., dba pTeroPure
10005 Muirlands Boulevard, Suite G, Irvine, CA, 92618, United States

Limitation of copyright claim

Material excluded from this claim: text, artwork

New material included in claim: 2-dimensional artwork, compilation, text

Rights and Permissions

Organization Name: ChromaDex, Inc.
Telephone: 949-419-0288
Address: 10005 Muirlands Boulevard
Suite G
Irvine, CA 92618 United States

Certification

1 Erik L. Jackson (SBN 166010)
2 Kyle Vos Strache (SBN 261807)
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6 Los Angeles, California 90017
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9 Facsimile: 213.892.7999

10 Attorneys for Plaintiff
11 ChromaDex Inc.

BY: _____
CLERK U.S. DISTRICT COURT
CENTRAL DISTRICT OF CALIF.
LOS ANGELES

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FILED

12 UNITED STATES DISTRICT COURT
13 FOR THE CENTRAL DISTRICT OF CALIFORNIA

14 CHROMADEX, INC., a California
15 Corporation,

16 Plaintiff,

17 vs.

18 BIOTIVIA BIOCEUTICALS, LLC, a
19 Delaware Limited Liability Company,

20 Defendant.

21 **SACV11-01273 CTC(MLK)**
22 Case No.:

23 **COMPLAINT FOR**

- 24 (1) **Trademark Infringement;**
25 (2) **Federal Unfair
Competition/False
Advertising;**
26 (3) **Copyright Infringement;**
27 (4) **Unfair Competition per
Cal.Bus. & Prof. Code §
17200;**
28 (5) **Common Law Unfair
Competition; and**
(6) **Unjust Enrichment**

JURY TRIAL DEMANDED

29 Plaintiff ChromaDex, Inc. ("Chromadex") brings this action against Defendant
30 Biotivia Bioceuticals, LLC ("Biotivia") and alleges as follows:

31 **JURISDICTION AND VENUE**

32 1. This action arises under the Acts of Congress under the Trademark and
33 Lanham Acts, Title 15 U.S.C. § 1051, et seq., Copyright Act, 17 U.S.C. § 101 et seq.,
34 and common law. As such, this Court has subject matter jurisdiction under the

1 provisions of Title 28 U.S.C. §§ 1331 and 1338 because this action involves federal
2 questions of law. A substantial part of the events giving rise to this action have
3 occurred and continue to occur in this judicial district. As such, this court has subject
4 matter jurisdiction under the provisions of Title 28 U.S.C. §§ 1331 and 1338 because
5 this action involves federal questions of law. A substantial part of the events giving
6 rise to this action have occurred and continue to occur in this judicial district. As
7 such, Biotivia should reasonably expect that its activities might have consequences
8 herein.

9 2. This Court has original jurisdiction over the claims brought under federal
10 law pursuant to 28 U.S.C. §§ 1331 and 1338(b) and 15 U.S.C. § 1121.

11 3. This Court has supplemental jurisdiction over the claims in this
12 Complaint that arise under state statutory and common law in the State of California
13 pursuant to 28 U.S.C. §1367(a), because the state law claims are so related to the
14 federal claims that they form part of the same case or controversy and derive from a
15 common nucleus of operative facts.

16 4. This Court has personal jurisdiction over Biotivia because it resides in the
17 Central District of California, has a place of business within this judicial district and
18 conducts substantial business within this judicial district related to the unlawful
19 activity at issue in this Complaint.

20 5. Venue is proper in this court pursuant to 28 U.S.C. §1391 because
21 Biotivia resides in this judicial district, conducts business in this business district, and
22 because a substantial part of the events or omissions giving rise to Chromadex's
23 claims occurred and are continuing to occur in this judicial district.

24 **THE PARTIES**

25 6. Plaintiff ChromaDex Inc. ("Plaintiff" or "ChromaDex") is a California
26 corporation with its principal place of business at 10005 Muirlands, Suite G, Irvine,
27 California 92618.

28

1 7. Upon information and belief, Defendant Biotivia Bioceuticals, LLC
2 ("Defendant" or "Biotivia") is a Delaware Limited Liability Company, with a
3 principal place of business at 1 River Place, Ste. 1001, New York, NY 10036 and
4 offices in Los Angeles, California.

5 **BACKGROUND AS TO CHROMADEx'S**
6 **BUSINESS AND ITS INTELLECTUAL PROPERTY**

7 8. ChromaDex was established in 1999 and is an innovative natural products
8 company that provides proprietary, science-based solutions and ingredients to the
9 dietary supplement, food and beverage, cosmetic and pharmaceutical industries.

10 9. On April 26, 2010, ChromaDex launched pTeroPure® Pterostilbene
11 (hereafter PTEROPURE®), a proprietary, ultrapure formulation of the naturally
12 occurring compound pterostilbene, found in blueberries. PTEROPURE® is a
13 synthetic pterostilbene, which is a dietary supplement to support anti-aging, heart
14 health, oxidative stress, and memory.

15 10. On June 13, 2011, ChromaDex launched BluScience, a line of dietary
16 supplements which feature PTEROPURE®. The BluScience line of pterostilbene-
17 based products is distributed through GNC at more than 7,300 locations throughout
18 the United States and via the internet.

19 11. ChromaDex is the owner of certain intellectual property rights, including
20 numerous federally registered trademarks and copyrights, as well as common law
21 trademark and copyright rights.

22 12. ChromaDex is the owner of trademark rights in and to the
23 PTEROPURE®, CHROMADEx®, THE NEXT GENERATION RESVERATROL,
24 BLUSCIENCE and BLUSCIENCE THE FUSION OF BLUEBERRIES AND
25 SCIENCE marks including the following registrations and applications with the
26 United States Patent and Trademark Office:- U.S. Reg. No. 3932510 for pTeroPure
27 for "Phytochemicals for use in the manufacturing of dietary supplements and
28 nutritional products" in International Class 1 attached as Exhibit A;

1 - U.S. Reg. No 3999086 for CHROMADEx for "Chemical reagents for non-
2 medical purposes; Chemical test kits for analytical measurement of raw material
3 identify, potency and formulation consistency for laboratory or research use;
4 Chemicals for use in industry and science; Chemicals for use in the biochemical and
5 chemical industry; Assays for research purposes" in International Class 1, and for
6 "Chemical, biochemical, biological and bacteriological research and analysis;
7 Consulting in the field of product development in the field of chemicals; Development
8 and establishment of testing specifications and procedures in the field of chemicals;
9 Development and test of chemical production methods; Development of voluntary
10 standards for chemicals; Executing of chemical analyses; Industrial research in the
11 field of chemicals; Pharmaceutical research and development; Product research and
12 development; Research and development and consultation related thereto in the field
13 of chemicals; Testing of raw materials" in International Class 42 attached as Exhibit
14 B;

15 - U.S. App. Serial No. 85193003 for THE NEXT GENERATION
16 RESVERATROL for "Phytochemicals for use in the manufacturing of dietary
17 supplements, nutritional supplements, nutritional beverages, pharmaceuticals and
18 cosmetics," in International Class 1;

19 - U.S. App. Serial No. 85306142 for BLUSCIENCE for "Dietary and
20 nutritional supplements," in International Class 5; and

21 - U.S. App. Serial No. 85306158 for BLUSCIENCE THE FUSION OF
22 BLUEBERRIES AND SCIENCE (stylized) for "Dietary and nutritional
23 supplements," in International Class 5.

24 13. Since at least March 11, 2010, ChromaDex has used the PTEROPURE®
25 trademark in commerce.

26 14. ChromaDex has expended significant time, energy, and resources in the
27 protection and promotion of its PTEROPURE® mark.
28

1 15. Since at least October 1999, ChromaDex has used the CHROMADEx®
2 trademark in commerce with regard to International class 001, and at least June 2000,
3 in International class 042.

4 16. ChromaDex has expended significant time, energy, and resources in the
5 protection and promotion of its CHROMADEx® mark.

6 17. ChromaDex filed for trademark registration under section 1B on
7 December 8, 2010 for the mark THE NEXT GENERATION RESVERATROL. The
8 mark is currently in use on ChromaDex's website and is to be published for
9 opposition on August 23, 2011.

10 18. ChromaDex filed for trademark registration under section 1B for the mark
11 BLUSCIENCE on April 27, 2011.

12 19. ChromaDex filed for trademark registration under section 1B for the mark
13 BLUSCIENCE THE FUSION OF BLUEBERRIES AND SCIENCE on April 27,
14 2011.

15 20. ChromaDex uses the BLUSCIENCE and BLUSCIENCE THE FUSION
16 OF BLUEBERRIES AND SCIENCE marks on its website, chromadex.com, in
17 connection with the advertising and sale of its BluScience line of products, all of
18 which utilize the PTEROPURE®.

19 21. ChromaDex is the owner of certain copyrighted works including as
20 relevant here:

21 - U.S. Copyright Reg. No. TXu001746330 for a work entitled "pTeroPure
22 Brochure;" attached as Exhibit C; and

23 - U.S. Copyright Reg. No. TXu001745172 for a work entitled "pTeroPure
24 Pterostilbene: The Next Generation Resveratrol (Complete Presentation)," attached as
25 Exhibit D.

26 **BIOTIVIA'S UNLAWFUL CONDUCT**

27 22. Biotivia owns and operates at least two websites which target the United
28 States market, Biotivialabs.com and Biotivia.com ("Biotivia Websites").

1 23. Biotivia sells various nutraceutical supplements on the Biotivia Websites
2 and through other third-party stores such as drugstores and other vendors of dietary
3 supplements. Biotivia's products are available for purchase both from internet
4 websites and at local third-party stores.

5 24. The Biotivia Websites are active websites through which Biotivia solicits
6 business throughout the United States, and sells products to consumers throughout the
7 United States, including consumers in the Central District of California.

8 25. In or about December 2010, via the Biotivia Websites, Biotivia began
9 advertising and selling a product called PteroMax that contains pterostilbene.

10 26. Biotivia's PteroMax product directly competes with ChromaDex's
11 BluScience line of products.

12 27. No association or relationship exists between ChromaDex and Biotivia.

13 28. The PteroMax product sold by Biotivia is not manufactured or affiliated
14 in any way with ChromaDex, PTEROPURE® or ChromaDex's BluScience line of
15 products.

16 **Biotivia's False Advertising and Unfair Competition on its Websites**

17 29. The Biotivia Websites contain numerous false and misleading statements
18 regarding its PteroMax product which are intended to deceive the purchasing public
19 and/or cause confusion with the purchasing public. Examples of the myriad false and
20 misleading statements reflected on Biotivia's Websites include:

21 a) Biotivia falsely states that there is a partnership between
22 ChromaDex and Biotivia;

23 b) Biotivia falsely claims that its PteroMax product was developed
24 prior to the PTEROPURE® product;

25 c) Biotivia falsely claims that Biotivia introduced the world to
26 pterostilbene when there were at least 15 pterostilbene-based products on the market
27 before the PteroMax product;

28

- 1 d) Biotivia falsely claims that the PTEROPURE® product was
2 created “based on the Biotivia Labs’ formulation for PteroMax”;
- 3 e) Biotivia falsely claims that the PTEROPURE® formulation is a
4 “weakened version” of the competing PteroMax product;
- 5 f) Biotivia falsely claims that the price of PteroMax is substantially
6 less than PTEROPURE®;
- 7 g) Biotivia falsely states that its PteroMax product has hundreds of
8 times the amount of pterostilbene contained in other pterostilbene-based products,
9 including PTEROPURE®;
- 10 h) Biotivia falsely states that PteroMax is 100% pure pterostilbene;
- 11 i) Biotivia falsely claims that PteroMax contains over 100 times the
12 potency of competing supplements;
- 13 j) Biotivia falsely states that PteroMax is cheaper than other similar
14 products;
- 15 k) Biotivia falsely states that only PteroMax contains Polydatin;
- 16 l) Biotivia falsely states that more of the world’s leading medical
17 research institutions chose Biotivia for human clinical trials than all other suppliers
18 combined;
- 19 m) Biotivia falsely claims that PteroMax is the result of over four year
20 of Biotivia research, testing and analysis;
- 21 n) Biotivia falsely claims that PteroMax has the highest antioxidant
22 rating of any supplement ever tested, and more that double that of any competing
23 pterostilbene product ever tested;
- 24 o) Biotivia falsely claims that PteroMax is the only pterostilbene
25 supplement designed by health scientists to match the specific proportions and
26 concentrations found to be most effective in published scientific studies;
- 27 p) Biotivia falsely claims that PteroMax contains the highest amount
28 of pterostilbene in its product;

1 q) Biotivia falsely claims that dosages of less than 100 mg per
2 capsule have not been shown effective in humans;

3 r) Biotivia falsely claims that no company or institution has more
4 experience and expertise in the development and manufacturing of resveratrol than
5 Biotivia; and

6 s) Biotivia falsely states that its product, PteroActiv, is a "pure"
7 pterostilbene and has something to do with SIRT1 activation.

8 30. Biotivia also used PteroMax in connection with words and phrases
9 similar to ChromaDex's THE NEXT GENERATION RESVERATROL mark on the
10 Biotivia Websites.

11 31. Biotivia uses its PteroMax name in connection with the phrase
12 "Pterostilbene has been described as the taking Resveratrol to the next level" on its
13 Biotivialabs.com website. Biotivia also uses the phrase "PteroMax, in many
14 important ways, takes resveratrol to a new level," on its Biotivia.com website.

15 32. The combined use of the PteroMax name and the phrases incorporating
16 "taking resveratrol to the next level," and "takes resveratrol to a new level" are likely
17 to confuse consumers based on the similarity of the name and phrases to the
18 PTEROPURE® and THE NEXT GENERATION RESVERATROL marks.

19 33. Biotivia is unfairly competing with ChromaDex through the unauthorized
20 and unlawful use of ChromaDex's marks.

21 34. Biotivia's conduct is willful in nature.

22 **Biotivia's Conduct In Unlawfully Directing**

23 **Internet Users to Its Websites by Using ChromaDex's Trademarks**

24 35. Biotivia, without authorization, used ChromaDex's CHROMADEx®,
25 PTEROPURE® and BLUSCIENCE marks as ad keywords on various search engines
26 so as to unlawfully deceive consumers into believing that there was an affiliation
27 between ChromaDex and Biotivia.

28

1 36. Biotivia purchased keywords utilizing ChromaDex's marks to drive web
2 traffic to its competing website to sell its products on at least Google.com, Ask.com,
3 and Answer.com.

4 37. Biotivia purchased several of ChromaDex's trademarks, including, *inter*
5 *alia*, ChromaDex's CHROMADEx®, PTEROPURE® and BLUSCIENCE marks, as
6 keywords on internet search engines Google.com and Ask.com, among other internet
7 search engines.

8 38. By purchasing ChromaDex's identical trademarked terms as keywords,
9 Biotivia is seeking to drive consumer traffic to its own websites through the
10 unauthorized and infringing use of ChromaDex's marks. As a result, consumers are
11 likely to be confused as to whether its PteroMax is affiliated with ChromaDex and its
12 products, including PTEROPURE®.

13 39. Biotivia's purchase of ChromaDex's CHROMADEx®, PTEROPURE®
14 and BLUSCIENCE marks as key ad words for the sale of products in the same fields
15 is likely to cause confusion to consumers and constitutes trademark infringement.

16 40. In addition to the purchase of ChromaDex's marks as key ad words,
17 Biotivia used ChromaDex's CHROMADEx®, PTEROPURE® and BLUSCIENCE
18 marks in its metadata with the intent to use the ChromaDex marks to drive
19 ChromaDex customers to Biotivia's websites through general internet searches.

20 41. Biotivia's use of ChromaDex's marks in Biotivia's metadata is likely to
21 confuse consumers as to the source and affiliation of ChromaDex's products.

22 42. Biotivia unlawfully used the CHROMADEx®, PTEROPURE® and
23 BLUSCIENCE marks in commerce in connection with the sale or advertising for the
24 sale of Biotivia's competing products. Such use in commerce in connection with the
25 sale or advertising for Biotivia's products was and is unauthorized.

26 43. Biotivia is unfairly competing with ChromaDex through the unauthorized
27 and unlawful use of ChromaDex's marks.

28 44. Biotivia's conduct is willful in nature.

1 **Biotivia's Copyright Infringement of ChromaDex's Promotional Materials**

2 45. In September 2010, ChromaDex emailed PTEROPURE® and
3 pterostilbene materials, including a brochure, to Biotivia. An updated and revised
4 version of the PTEROPURE® brochure is accessible on the ChromaDex
5 pTeroPure.com website.

6 46. The brochure sent to Biotivia in September 2010 and the updated version
7 on the ChromaDex website are protected by copyright.

8 47. As the owner of the United States Copyright Registration Nos.
9 TXu001746339 and TXu001746330, ChromaDex has the exclusive right to
10 reproduce, distribute, display, and prepare derivative works based on the copyrighted
11 work. 17 U.S.C. §§ 106 and 113.

12 48. The Biotivia Websites contain statements regarding PteroMax, including
13 how it was developed, how it is made, benefits of taking the supplement, and
14 comparing the product to other similar products.

15 49. Many of the statements found on Biotivia's website were copied in whole
16 or in part from ChromaDex's copyrighted works. For example, the ChromaDex
17 copyrighted brochures contain the following statements:

18 pTeroPure is a nature identical form of trans-pterostilbene.
19 Pterostilbene is the next generation of resveratrol:

- 20 • **a methylated resveratrol analog naturally found in berries**
21 • **superior biological activity**
22 • **better oral bioavailability**
23 • **metabolizes more slowly in the body, allowing more time for its
antioxidant activities to act.**

24 The Biotivia website contains the following statements, among others, which reflect
25 copying of the statements in the copyrighted ChromaDex materials:

26 Found in plants like blueberries, pterostilbenes have been a
27 feature of Ayurvedic medicine for hundreds of years. The
28 highlights of pterostilbenes are:

- 1 • **a methylated resveratrol analog naturally found in berries**
- 2 • **superior biological activity**
- 3 • **better oral bioavailability**
- 4 • **metabolizes more slowly in the body.**

5 50. Biotivia has used ChromaDex's copyrighted materials, including the
6 examples above, without ChromaDex's authorization or consent. Biotivia used the
7 materials to promote its competing pterostilbene and resveratrol products.

8 51. The continued use of ChromaDex's copyrighted materials on Biotivia's
9 website has caused and is causing ChromaDex to suffer serious and substantial
10 damages resulting from the Biotivia's acts of copyright infringement, and the damages
11 are causing irreparable injury to ChromaDex for which there is no adequate remedy at
12 law.

13 **ChromaDex's Attempts to Have Biotivia Cease Its Infringing Activity**

14 52. In or about April 28, 2011, ChromaDex sent a letter to Biotivia
15 demanding that it cease its use of ChromaDex's intellectual property. To date,
16 Biotivia has failed to comply with ChromaDex's demands.

17 53. Biotivia has not received authorization, a license, or any other authority to
18 utilize any of ChromaDex's trademarks or other intellectual property for any purpose,
19 nor has ChromaDex acquiesced to Biotivia's use of any of its intellectual property.

20 54. Biotivia's infringing activities are likely to cause confusion or mistake
21 among prospective consumers and are likely to mislead and/or deceive prospective
22 consumers with respect to the origin and quality of ChromaDex's products.

23 **FIRST CLAIM FOR RELIEF**

24 **Trademark Infringement under the Lanham Act -15 U.S.C. §1114**

25 55. ChromaDex realleges and incorporates by this reference each and every
26 allegation set forth in paragraphs 1 through 54, above.

27 56. Biotivia owns and operates at two websites which target the United States
28 market, Biotivialabs.com and Biotivia.com.

1 57. Biotivia sells various nutraceutical supplements on the Biotivia's
2 Websites and through other third-party stores such as drugstores and other vendors of
3 dietary supplements. Biotivia's products are available for purchase both from internet
4 websites and at local third-party stores.

5 58. The Biotivia Websites are active websites that solicit business throughout
6 the United States, and sell products to consumers throughout the United States,
7 including consumers in the Central District of California.

8 59. On or about December 2010, via the Biotivia Websites, Biotivia began
9 advertising and selling a product called PteroMax that contains pterostilbene.

10 60. Biotivia's PteroMax product directly competes with ChromaDex's
11 BluScience line of products.

12 61. No association or relationship exists between ChromaDex and Biotivia.

13 62. The PteroMax product sold by Biotivia is not manufactured or affiliated
14 in any way with ChromaDex, PTEROPURE® or ChromaDex's BluScience line of
15 products.

16 63. Biotivia, without authorization, used ChromaDex's CHROMADDEX®,
17 PTEROPURE® and BLUSCIENCE marks as ad keywords on various search engines
18 so as to unlawfully deceive consumers into believing that there was and is an
19 affiliation between ChromaDex and Biotivia.

20 64. Biotivia purchased keywords utilizing ChromaDex's marks to drive web
21 traffic to its competing website to sell its products on at least Google.com, Ask.com,
22 and Answer.com.

23 65. Biotivia purchased several of ChromaDex's trademarks, including, *inter*
24 *alia*, ChromaDex's CHROMADDEX®, PTEROPURE® and BLUSCIENCE marks, as
25 keywords on internet search engines Google.com and Ask.com, among other internet
26 search engines.

27 66. By purchasing ChromaDex's identical trademarked terms as keywords,
28 Biotivia is seeking to drive consumer traffic to its own website through the

1 unauthorized and infringing use of ChromaDex's marks. As a result, consumers are
2 likely to be confused as to whether PteroMax is affiliated with ChromaDex and with
3 its ChromaDex's PTEROPURE®.

4 67. Biotivia's purchase of ChromaDex's CHROMADDEX®, PTEROPURE®
5 and BLUSCIENCE marks as key ad words for the sale of products in the same fields
6 is likely to cause confusion to consumers and constitutes trademark infringement.

7 68. In addition to the purchase of ChromaDex's marks as key ad words,
8 Biotivia used ChromaDex's CHROMADDEX®, PTEROPURE® and BLUSCIENCE
9 marks in its metadata with the intent to use the ChromaDex marks to drive
10 ChromaDex customers to Biotivia's website through general internet searches.

11 69. Biotivia's use of ChromaDex's marks in Biotivia's metadata is likely to
12 confuse consumers as to the source and affiliation of ChromaDex's products.

13 70. Biotivia unlawfully used the CHROMADDEX®, PTEROPURE® and
14 BLUSCIENCE marks in commerce in connection with the sale or advertising for the
15 sale of Biotivia's competing products. Such use in commerce in connection with the
16 sale or advertising for Biotivia's products was and is unauthorized.

17 71. The federal registrations of ChromaDex's CHROMADDEX® and
18 PTEROPURE® mark evidences ChromaDex's exclusive right to use its
19 CHROMADDEX® and PTEROPURE® marks in connection with Phytochemicals for
20 use in the manufacturing of dietary supplements and nutritional products. 15 U.S.C. §
21 1115.

22 72. Biotivia purchased ad words through Google and other internet search
23 engines for ChromaDex's CHROMADDEX® and PTEROPURE® marks.

24 73. Biotivia used ChromaDex's CHROMADDEX® and PTEROPURE®
25 marks in its metadata with the intent to use the ChromaDex marks to drive
26 ChromaDex customers to Biotivia's website through general internet searches.

1 74. Biotivia's wrongful and unauthorized use of the CHROMADEx® and
2 PTEROPURE® marks as delineated above constitutes trademark infringement
3 pursuant to 15 U.S.C. § 1114.

4 75. Biotivia's unauthorized use of the CHROMADEx® and PTEROPURE®
5 marks in connection with the sale of the competing PteroMax product is likely to
6 cause confusion, or mistake, or to deceive as to the source, affiliation, or sponsorship
7 with ChromaDex, in violation of 15 U.S.C. § 1051 et seq.

8 76. Biotivia's use and adoption of ChromaDex's exact marks, which are
9 utilized in the same field as ChromaDex's marks, constitutes infringement of
10 ChromaDex's registered CHROMADEx® and PTEROPURE® marks, in violation of
11 15 U.S.C. §§ 1051 et seq., to the substantial and irreparable injury of the public and of
12 ChromaDex's marks, business, reputation, and goodwill.

13 77. Biotivia's conduct has caused and will continue to cause damage to
14 ChromaDex in an amount to be proved at trial, and if not enjoined, will cause
15 irreparable harm to ChromaDex for which there is no adequate remedy at law.

16 78. ChromaDex is further entitled to recover damages and to recover its other
17 costs herein. Biotivia will be irreparably harmed if the unlawful, fraudulent and unfair
18 conduct is not stopped and damages are an insufficient remedy. Accordingly,
19 ChromaDex is also entitled to injunctive relief against Biotivia.

20 79. ChromaDex is further entitled to recover statutory damages, treble
21 damages and attorneys' fees.

22 **SECOND CLAIM FOR RELIEF**

23 **Unfair Competition/False Advertising Under the Lanham Act**

24 **15 U.S.C. §1125(a)**

25 80. ChromaDex realleges and incorporates by this reference each and every
26 allegation set forth in paragraphs 1 through 79, above.
27
28

1 81. Biotivia owns and operates at least two websites which target the United
2 States market, Biotivialabs.com and Biotivia.com.

3 82. Biotivia sells various nutraceutical supplements on the Biotivia Websites
4 and through other third-party stores such as drugstores and other vendors of dietary
5 supplements. Biotivia's products are available for purchase both from internet
6 websites and at local third-party stores.

7 83. The Biotivia Websites are active websites that are used by Biotivia to
8 solicit business throughout the United States and sell products to consumers
9 throughout the United States, including consumers in the Central District of
10 California.

11 84. In or about December 2010, via the Biotivia Websites, Biotivia began
12 advertising and selling a product called PteroMax that contains pterostilbene.

13 85. Biotivia's PteroMax product directly competes with ChromaDex's
14 BluScience line of products.

15 86. No association or relationship exists between ChromaDex and Biotivia.

16 87. The PteroMax product sold by Biotivia is not manufactured or affiliated
17 in any way with ChromaDex, PTEROPURE® or ChromaDex's BluScience line of
18 products.

19 88. The Biotivia Websites contain numerous false and misleading statements
20 regarding its PteroMax product and ChromaDex and its products which are intended
21 to deceive the purchasing public and/or cause confusion with the purchasing public.
22 Examples of the myriad false and misleading statements reflected on Biotivia's
23 Websites include:

24 a) Biotivia falsely states that there is a partnership between
25 ChromaDex and Biotivia;

26 b) Biotivia falsely claims that PteroMax product was developed prior
27 to the PTEROPURE® product;

28

- 1 c) Biotivia falsely claims that Biotivia introduced the world to
2 pterostilbene when there were at least 15 pterostilbene-based products on the market
3 before the PteroMax product;
- 4 d) Biotivia falsely claims that the PTEROPURE® product was
5 created “based on the Biotivia Labs’ formulation for PteroMax”;
- 6 e) Biotivia falsely claims that the PTEROPURE® formulation is a
7 “weakened version” of the competing PteroMax;
- 8 f) Biotivia falsely claims that the price of PteroMax is substantially
9 less than PTEROPURE®;
- 10 g) Biotivia falsely states that its PteroMax product has hundreds of
11 times the amount of pterostilbene than what is contained in other pterostilbene
12 supplements, including PTEROPURE®;
- 13 h) Biotivia falsely states that PteroMax is 100% pure pterostilbene;
- 14 i) Biotivia falsely claims that PteroMax contains over 100 times the
15 potency of competing supplements;
- 16 j) Biotivia falsely states that PteroMax is cheaper than other similar
17 products;
- 18 k) Biotivia falsely states that only PteroMax contains Polydatin;
- 19 l) Biotivia falsely states that more of the world’s leading medical
20 research institutions chose Biotivia for human clinical trials than all other suppliers
21 combined;
- 22 m) Biotivia falsely claims that PteroMax is the result of over four year
23 of Biotivia researching, testing and analysis;
- 24 n) Biotivia falsely claims that PteroMax has the highest antioxidant
25 rating of any supplement ever tested, and more that double that of any competing
26 pterostilbene product ever tested;
- 27
28

1 o) Biotivia falsely claims that PteroMax is the only pterostilbene
2 supplement designed by health scientists to match the specific proportions and
3 concentrations found to be most effective in published scientific studies;

4 p) Biotivia falsely claims that PteroMax contains the highest amount
5 of pterostilbene in its product;

6 q) Biotivia falsely claims that dosages of less than 100 mg per
7 capsule have not been shown effective in humans;

8 r) Biotivia falsely claims that no company or institution has more
9 experience and expertise in the development and manufacturing of resveratrol than
10 Biotivia; and

11 s) Biotivia falsely states that its product, PteroActiv, is a "pure"
12 pterostilbene and has something to do with SIRT1 activation.

13 89. Biotivia also used PteroMax in connection with words and phrases
14 similar to ChromaDex's THE NEXT GENERATION RESVERATROL mark on
15 Biotivia's Websites.

16 90. Biotivia uses its PteroMax name, in connection with the phrase,
17 "Pterostilbene has been described as the taking Resveratrol to the next level," on its
18 Biotivialabs.com website. Biotivia also uses the phrase "PteroMax, in many
19 important ways, takes resveratrol to a new level," on its Biotivia.com website.

20 91. The combined use of the PteroMax name and the phrases incorporating
21 "taking resveratrol to the next level," and "takes resveratrol to a new level" are likely
22 to confuse consumers based on the similarity to the PTEROPURE® and THE NEXT
23 GENERATION RESVERATROL marks.

24 92. Biotivia is unfairly competing with ChromaDex through the unauthorized
25 and unlawful use of ChromaDex's marks and through the use of false and misleading
26 statements and copyright infringement alleged herein.

27 93. Biotivia's conduct is willful in nature.
28

1 94. Biotivia, without authorization, used ChromaDex's CHROMADDEX®,
2 PTEROPURE® and BLUSCIENCE marks as ad keywords on various search engines
3 so as to unlawfully deceive consumers into believing that there was an affiliation
4 between ChromaDex and Biotivia.

5 95. Biotivia purchased keywords utilizing ChromaDex's marks to drive web
6 traffic to its competing website to sell its products on at least Google.com, Ask.com,
7 and Answer.com.

8 96. Biotivia purchased several of ChromaDex's trademarks, including, *inter*
9 *alia*, ChromaDex's CHROMADDEX®, PTEROPURE® and BLUSCIENCE marks, as
10 keywords on internet search engines Google.com and Ask.com, among other internet
11 search engines.

12 97. By purchasing ChromaDex's identical trademarked terms as keywords,
13 Biotivia is seeking to drive consumer traffic to its own websites through the
14 unauthorized and infringing use of ChromaDex's marks. As a result, consumers are
15 likely to be confused as to whether PteroMax is affiliated with ChromaDex's
16 PTEROPURE® and with ChromaDex in general.

17 98. Biotivia's purchase of ChromaDex's, CHROMADDEX®, PTEROPURE®
18 and BLUSCIENCE marks as key ad words for the sale of products in the same fields
19 as well as the false and misleading statements on the Biotivia Websites are likely to
20 cause confusion to consumers and constitutes trademark infringement.

21 99. In addition to the purchase of ChromaDex's marks as key ad words,
22 Biotivia used ChromaDex's CHROMADDEX®, PTEROPURE® and BLUSCIENCE
23 marks in its metadata with the intent to use the ChromaDex marks to drive
24 ChromaDex customers to Biotivia's website through general internet searches.

25 100. Biotivia's use of ChromaDex's marks in Biotivia's metadata and the false
26 and misleading statements on the Biotivia Websites are likely to confuse consumers as
27 to the source and affiliation of ChromaDex's products.

28

1 101. Biotivia unlawfully used the CHROMADDEX®, PTEROPURE® and
2 BLUSCIENCE marks in commerce in connection with the sale or advertising for the
3 sale of Biotivia's competing products. Such use in commerce in connection with the
4 sale or advertising for Biotivia's products was unauthorized.

5 102. Biotivia is unfairly competing with ChromaDex through the unauthorized
6 and unlawful use of ChromaDex's marks and through the false and misleading
7 statements set forth on the Biotivia Websites.

8 103. Biotivia's conduct is willful in nature.

9 104. Biotivia's conduct is likely to cause confusion, or to cause mistake, or to
10 deceive customers as to the nature of the goods, causing great harm to ChromaDex.

11 105. Biotivia is unfairly benefiting from the false or intentionally misleading
12 statements on its website and marketing materials to the detriment of ChromaDex.

13 106. ChromaDex has been damaged by these acts in an amount to be proven at
14 trial.

15 107. ChromaDex will be irreparably harmed if the improper conduct is not
16 stopped and damages are an insufficient remedy. ChromaDex is also entitled to
17 injunctive and equitable relief against Biotivia.

18 **THIRD CLAIM FOR RELIEF**

19 **Copyright Infringement -**

20 108. ChromaDex realleges and incorporates by this reference each and every
21 allegation set forth in paragraphs 1 through 107, above.

22 109. Biotivia without authorization copied portions, in whole or in part, of
23 ChromaDex's copyright protected materials.

24 110. ChromaDex has registered the works in Exhibits C and D with the United
25 States Copyright Office as reflected in the attached registrations.

26 111. ChromaDex has complied in all respects with 17 U.S.C. §§ 101 et seq.,
27 and secured the exclusive rights and privileges in and to the copyrights of the above
28

1 reference works. ChromaDex is the rightful and sole owner of all rights, title, and
2 interest in and to the copyrights and their respective works.

3 112. Biotivia's conduct violates ChromaDex's exclusive rights as owners of
4 the copyrights under 17 U.S.C. § 106.

5 113. Biotivia's unauthorized use of ChromaDex's copyright-protected works
6 on Biotivia's websites constitutes copyright infringement under 17 U.S.C. § 101 et.
7 seq.

8 114. As a direct and proximate result of Biotivia's wrongful conduct, Biotivia
9 has realized and continue to realize profits and other benefits rightly belonging to
10 ChromaDex.

11 115. ChromaDex seeks an award of damages pursuant to 17 U.S.C. §§ 504 and
12 505, including actual damages, or, in the alternative, statutory damages.

13 116. ChromaDex will be irreparably harmed if the infringing conduct is not
14 stopped and damages are an insufficient remedy and as such is entitled to injunctive
15 relief.

16 117. Upon information and belief, Biotivia has engaged in willful infringement
17 of the rights owned exclusively by ChromaDex, and ChromaDex is therefore, entitled
18 to the maximum statutory damages available.

19 **FOURTH CLAIM FOR RELIEF**

20 **Unfair Competition- CAL. BUS. & PROF. CODE §17200 et. seq.**

21 118. ChromaDex realleges and incorporates by this reference each and every
22 allegation set forth in paragraphs 1 through 117, above.

23 119. Biotivia owns and operates at two websites which target the United States
24 market, Biotivialabs.com and Biotivia.com.

25 120. Biotivia sells various nutraceutical supplements on the Biotivia's
26 Websites and through other third-party stores such as drugstores and other vendors of
27 dietary supplements. Biotivia's products are available for purchase both from internet
28 websites and at local third-party stores.

1 21. The Biotivia Websites are active websites that solicit business throughout
2 the United States, and sell products to consumers throughout the United States,
3 including consumers in the Central District of California.

4 22. In or about December 2010, via the Biotivia Websites, Biotivia began
5 advertising and selling a product called PteroMax that contains pterostilbene.

6 23. Biotivia's PteroMax product directly competes with ChromaDex's
7 BluScience line of products.

8 24. No association or relationship exists between ChromaDex and Biotivia.

9 25. The PteroMax product sold by Biotivia is not manufactured by
10 ChromaDex or affiliated in any way with ChromaDex, PTEROPURE® or
11 ChromaDex's BluScience line of products.

12 26. The Biotivia Websites contain numerous false and misleading statements
13 regarding its PteroMax product which are intended to deceive the purchasing public
14 and/or cause confusion with the purchasing public. Examples of the myriad false and
15 misleading statements reflected on Biotivia's Websites include:

16 a) Biotivia falsely states that there is a partnership between
17 ChromaDex and Biotivia;

18 b) Biotivia falsely claims that PteroMax product was developed prior
19 to the PTEROPURE® product;

20 c) Biotivia falsely claims that Biotivia introduced the world to
21 pterostilbene when there were at least 15 pterostilbene-based products on the market
22 before the PteroMax product;

23 d) Biotivia falsely claims that the PTEROPURE® product was
24 created "based on the Biotivia Labs' formulation for PteroMax";

25 e) Biotivia falsely claims that the PTEROPURE® formulation is a
26 "weakened version" of the competing PteroMax;

27 f) Biotivia falsely claims that the price of PteroMax is substantially
28 less than PTEROPURE®;

- 1 g) Biotivia falsely states that its PteroMax product has hundreds of
2 times the amount of pterostilbene than what is contained in other pterostilbene
3 supplements, including PTEROPURE®;
- 4 h) Biotivia falsely states that PteroMax is 100% pure pterostilbene;
- 5 i) Biotivia falsely claims that PteroMax contains over 100 times the
6 potency of competing supplements;
- 7 j) Biotivia falsely states that PteroMax is cheaper than other similar
8 products;
- 9 k) Biotivia falsely states that only PteroMax contains Polydatin;
- 10 l) Biotivia falsely states that more of the world's leading medical
11 research institutions chose Biotivia for human clinical trials than all other suppliers
12 combined;
- 13 m) Biotivia falsely claims that PteroMax is the result of over four year
14 of Biotivia researching, testing and analysis;
- 15 n) Biotivia falsely claims that PteroMax has the highest antioxidant
16 rating of any supplement ever tested, and more that double that of any competing
17 pterostilbene product ever tested;
- 18 o) Biotivia falsely claims that PteroMax is the only pterostilbene
19 supplement designed by health scientists to match the specific proportions and
20 concentrations found to be most effective in published scientific studies;
- 21 p) Biotivia falsely claims that PteroMax contains the highest amount
22 of pterostilbene in its product;
- 23 q) Biotivia falsely claims that dosages of less than 100 mg per
24 capsule have not been shown effective in humans;
- 25 r) Biotivia falsely claims that no company or institution has more
26 experience and expertise in the development and manufacturing of resveratrol than
27 Biotivia; and
- 28

1 s) Biotivia falsely states that its product, PteroActiv, is a “pure”
2 pterostilbene and has something to do with SIRT1 activation.

3 127. Biotivia also used PteroMax in connection with words and phrases
4 similar to ChromaDex’s THE NEXT GENERATION RESVERATROL mark on
5 Biotivia’s Websites.

6 128. Biotivia uses its PteroMax name in connection with the phrase,
7 “Pterostilbene has been described as the taking Resveratrol to the next level,” on its
8 Biotivialabs.com website. Biotivia also uses the phrase “PteroMax, in many
9 important ways, takes resveratrol to a new level,” on its Biotivia.com website.

10 129. The combined use of the PteroMax name and the phrases incorporating
11 “taking resveratrol to the next level,” and “takes resveratrol to a new level” are likely
12 to confuse consumers based on the similarity to the PTEROPURE® and THE NEXT
13 GENERATION RESVERATROL marks.

14 130. Biotivia is unfairly competing with ChromaDex through the unauthorized
15 and unlawful use of ChromaDex’s marks.

16 131. Biotivia’s conduct is willful in nature.

17 132. Biotivia, without authorization, used ChromaDex’s CHROMADDEX®,
18 PTEROPURE® and BLUSCIENCE marks as ad keywords on various search engines
19 so as to unlawfully deceive consumers into believing that there was an affiliation
20 between ChromaDex and Biotivia.

21 133. Biotivia purchased keywords utilizing ChromaDex’s marks to drive web
22 traffic to its competing website to sell its products on at least Google.com, Ask.com,
23 and Answer.com.

24 134. Biotivia purchased several of ChromaDex’s trademarks, including, inter
25 alia, ChromaDex’s CHROMADDEX®, PTEROPURE® and BLUSCIENCE marks, as
26 keywords on internet search engines Google.com and Ask.com, among other internet
27 search engines.

28

1 135. By purchasing ChromaDex's identical trademarked terms as keywords,
2 Biotivia is seeking to drive consumer traffic to its own website through the
3 unauthorized and infringing use of ChromaDex's marks. As a result, consumers are
4 likely to be confused as to whether PteroMax is affiliated with ChromaDex's
5 PTEROPURE®.

6 136. Biotivia's purchase of ChromaDex' CHROMADDEX®, PTEROPURE®
7 and BLUSCIENCE marks as key ad words for the sale of products in the same fields
8 is likely to cause confusion to consumers and constitutes trademark infringement.

9 137. In addition to the purchase of ChromaDex's marks as key ad words,
10 Biotivia used ChromaDex's CHROMADDEX®, PTEROPURE® and BLUSCIENCE
11 marks in its metadata with the intent to use the ChromaDex marks to drive
12 ChromaDex customers to Biotivia's website through general internet searches.

13 138. Biotivia's use of ChromaDex's marks in Biotivia's metadata is likely to
14 confuse consumers as to the source and affiliation of ChromaDex's products.

15 139. Biotivia unlawfully used the CHROMADDEX®, PTEROPURE® and
16 BLUSCIENCE marks in commerce in connection with the sale or advertising for the
17 sale of Biotivia's competing products. Such use in commerce in connection with the
18 sale or advertising for Biotivia's products was unauthorized.

19 140. Biotivia is unfairly competing with ChromaDex through the unauthorized
20 and unlawful use of ChromaDex's marks.

21 141. Biotivia's conduct is willful in nature.

22 142. The acts and conduct of Biotivia as alleged above constitute unfair
23 competition as defined by California Business and Professions Code §17200 et. seq.
24 as the conduct is unlawful, unfair and fraudulent.

25 143. The acts and conduct of Biotivia are likely to cause confusion and
26 mistake among customers and the public as to the origin or association of Biotivia's
27 infringing products.

28

1 144. Biotivia's unlawful, unfair, and deceptive trade practices, and other
2 conduct described above, constitutes unfair competition in violation of California
3 Business and Professions Code §17200 et. seq.

4 145. ChromaDex will be irreparably harmed if the unlawful, fraudulent and
5 unfair conduct is not stopped and damages are an insufficient remedy. As a result,
6 ChromaDex is entitled to injunctive and equitable relief against Biotivia.

7 **FIFTH CLAIM FOR RELIEF**

8 **Common Law Unfair Competition**

9 146. ChromaDex realleges and incorporates by this reference each and every
10 allegation set forth in paragraphs 1 through 145 above.

11 147. The acts and conduct of Biotivia as alleged above in this Complaint
12 constitute unfair competition pursuant to the common law.

13 148. ChromaDex's marks are distinctive and were distinctive at the time of all
14 acts alleged herein. As a result of ChromaDex's substantial investment, the
15 ChromaDex marks have developed extensive goodwill in the market. Accordingly,
16 the ChromaDex marks are extremely valuable to ChromaDex.

17 149. Biotivia is not affiliated with or sponsored by ChromaDex and has not
18 been authorized by ChromaDex to use any mark that is identical to the ChromaDex
19 marks.

20 150. Biotivia's activities complained of herein constitute willful and
21 intentional tort, in derogation of ChromaDex's rights. Acts of unfair competition
22 commenced and have continued in spite of the Biotivia's knowledge that the use of
23 the ChromaDex marks were and are in contravention of ChromaDex's rights.

24 151. ChromaDex's damages from the aforesaid unlawful actions of Biotivia, to
25 the extent ascertainable, have not yet been determined.

26 152. ChromaDex seeks attorney's fees and costs given the willful conduct of
27 the Biotivia.
28

1 153. Biotivia's actions were committed intentionally, maliciously, willfully
2 and, wantonly. ChromaDex is entitled to an award of punitive damages.

3 **SIXTH CLAIM FOR RELIEF**

4 **Unjust Enrichment**

5 154. ChromaDex realleges and incorporates by this reference each and every
6 allegation set forth in paragraphs 1 through 153 above.

7 155. The acts of Biotivia complained of herein constitute unjust enrichment at
8 ChromaDex's expense in violation of the common law of California.

9 156. ChromaDex has suffered and is continuing to suffer irreparable injury for
10 which there is no adequate remedy at law.

11 157. ChromaDex has been damaged in an amount to be proven at trial.

12 **PRAYER FOR RELIEF**

13 WHEREFORE, ChromaDex respectfully requests that the Court enter judgment
14 against Biotivia as follows:

15 1. That the Court issue temporary and permanent injunctive relief against
16 Biotivia and that Biotivia, its officers, agents, representatives, servants; employees,
17 attorneys, successors and assignees, and all others in active concert or participation
18 with Biotivia, be enjoined and restrained from:

19 a) using ChromaDex's trade names, trademarks, or copyrights in
20 connection with the description, marketing, promotion, advertising, or sale of any of
21 Biotivia's products;

22 b) infringing ChromaDex's trademarks and service marks

23 c) infringing ChromaDex's copyrights;

24 d) engaging in any acts or activities directly or indirectly calculated to
25 infringe ChromaDex's CHROMADEx®, PTEROPURE®, BLUSCIENCE, and THE
26 NEXT GENERATION RESVERATROL marks.

27 e) otherwise competing unfairly with ChromaDex in any manner
28 whatsoever;

1 2. That the Court award ChromaDex actual damages, liquidated damages,
2 statutory damages and punitive damages, in amount to be proven at trial;

3 3. That the Court Order Biotivia to account for an pay over to ChromaDex
4 all profits received by Biotivia from the unlawful acts, and for the unjust enrichment;

5 4. That the Court enter an order placing reasonable but effective restrictions
6 on the future transactions and activities of Biotivia so as to prevent fraud on the Court
7 and so as to ensure the capacity of Biotivias to pay, and the prompt payment of, any
8 judgment entered against Biotivia in this action;

9 5. That the Court award ChromaDex its compensatory, incidental, and
10 consequential damages;

11 6. That the Court award ChromaDex treble damages in an amount to be
12 proven at trial;

13 7. That the Court award ChromaDex its attorneys' fees and costs incurred
14 herein, including prejudgment and post judgment interest; and

15 8. That the Court grant ChromaDex all other relief to which it' is entitled
16 and such other or additional relief as is just and proper under these circumstances.
17

18 DATED: August 24, 2011

COZEN O'CONNOR

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20 By: 

ERIK L. JACKSON
KYLE VOS STRACHE
Attorneys for Plaintiff,
CHROMADEx INC.
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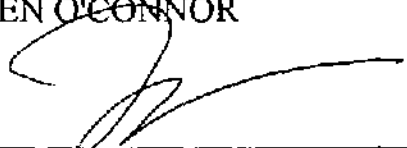
DEMAND FOR JURY TRIAL

ChromaDex demands a trial by jury on all triable issues of fact.

DATED: August 24, 2011

COZEN O'CONNOR

By:



ERIK L. JACKSON
KYLE VOS STRACHE
Attorneys for Plaintiff,
CHROMADEx INC.

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EXHIBIT A

United States of America

United States Patent and Trademark Office

pTeroPure

Reg. No. 3,932,510

Registered Mar. 15, 2011

Int. Cl.: 1

TRADEMARK

PRINCIPAL REGISTER

CHROMADEx INC. (CALIFORNIA CORPORATION)
10005 MUTRI LANDS SUITE G
IRVINE, CA 92618

FOR: PHYTOCHEMICALS FOR USE IN THE MANUFACTURING OF DIETARY SUPPLEMENTS AND NUTRITIONAL PRODUCTS, IN CLASS 1 (U.S. CLS. 1, 5, 6, 10, 25 AND 46).

FIRST USE 3-11-2010; IN COMMERCE 3-11-2010.

THE MARK CONSISTS OF STANDARD CHARACTERS WITHOUT CLAIM TO ANY PARTICULAR FONT, STYLE, SIZE, OR COLOR.

SN 77-939,875, FILED 2-19-2010.

MARY BOAGNI, EXAMINING ATTORNEY



David J. Kyfas

Director of the United States Patent and Trademark Office

EXHIBIT B

United States of America

United States Patent and Trademark Office

CHROMADEX

Reg. No. 3,999,086

Registered July 19, 2011

Int. Cls.: 1 and 42

TRADEMARK

SERVICE MARK

PRINCIPAL REGISTER

CHROMADEX INC. (CALIFORNIA CORPORATION)
10005 MUIRLANDS SUITE G
IRVINE, CA 92618

FOR: CHEMICAL REAGENTS FOR NON-MEDICAL PURPOSES; CHEMICAL TEST KITS FOR ANALYTICAL MEASUREMENT OF RAW MATERIAL IDENTITY, POTENCY AND FORMULATION CONSISTENCY FOR LABORATORY OR RESEARCH USE; CHEMICALS FOR USE IN INDUSTRY AND SCIENCE; CHEMICALS FOR USE IN THE BIOCHEMICAL AND CHEMICAL INDUSTRY; ASSAYS FOR RESEARCH PURPOSES. IN CLASS 1 (U.S. CLS. 1, 5, 6, 10, 26 AND 46).

FIRST USE 10-0-1999; IN COMMERCE 10-0-1999.

FOR: CHEMICAL, BIOCHEMICAL, BIOLOGICAL AND BACTERIOLOGICAL RESEARCH AND ANALYSIS; CONSULTING IN THE FIELD OF PRODUCT DEVELOPMENT IN THE FIELD OF CHEMICALS; DEVELOPMENT AND ESTABLISHMENT OF TESTING SPECIFICATIONS AND PROCEDURES IN THE FIELD OF CHEMICALS; DEVELOPMENT AND TEST OF CHEMICAL PRODUCTION METHODS; DEVELOPMENT OF VOLUNTARY STANDARDS FOR CHEMICALS; EXECUTING OF CHEMICAL ANALYSES; INDUSTRIAL RESEARCH IN THE FIELD OF CHEMICALS; PHARMACEUTICAL RESEARCH AND DEVELOPMENT; PRODUCT RESEARCH AND DEVELOPMENT; RESEARCH AND DEVELOPMENT AND CONSULTATION RELATED THERETO IN THE FIELD OF CHEMICALS; TESTING OF RAW MATERIALS. IN CLASS 42 (U.S. CLS. 100 AND 101).

FIRST USE 6-0-2000; IN COMMERCE 6-0-2000.

THE MARK CONSISTS OF STANDARD CHARACTERS WITHOUT CLAIM TO ANY PARTICULAR FONT, STYLE, SIZE, OR COLOR.

SN 77-939,870, FILED 2-19-2010.

MARY BOAGNI, EXAMINING ATTORNEY



David J. Kybas

Director of the United States Patent and Trademark Office

EXHIBIT C

Certificate of Registration



This Certificate issued under the seal of the Copyright Office in accordance with title 17, *United States Code*, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

Maria A. Pallante

Register of Copyrights, United States of America

Registration Number
TXu 1-746-330

Effective date of
registration:

February 14, 2011

Title

Title of Work: pTeroPure Brochure

Completion/Publication

Year of Completion: 2010

Author

Author: ChromaDex, Inc., dba pTeroPure

Author Created: text, compilation

Work made for hire: Yes

Citizen of: United States

Copyright claimant

Copyright Claimant: ChromaDex, Inc., dba pTeroPure

10005 Muirlands Boulevard, Suite G, Irvine, CA, 92618, United States

Limitation of copyright claim

Material excluded from this claim: text, artwork

~~New material included in claim:~~ text, compilation

Rights and Permissions

Organization Name: ChromaDex, Inc.

Telephone: 949-419-0288

Address: 10005 Muirlands Boulevard

Suite G

Irvine, CA 92618 United States

Certification

Name: Durrell Washington

Date: January 21, 2011

EXHIBIT D

Certificate of Registration



This Certificate issued under the seal of the Copyright Office in accordance with title 17, *United States Code*, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

Maria A. Pallante
Register of Copyrights, United States of America

Registration Number
TXu 1-745-172

Effective date of
registration:
January 14, 2011

Title

Title of Work: pTeroPure Pterostilbene: The Next Generation Resveratrol
(Complete Presentation)

Completion/Publication

Year of Completion: 2010

Author

Author: ChromaDex, Inc., dba pTeroPure
Author Created: text, compilation
Work made for hire: Yes
Citizen of: United States

Copyright claimant

Copyright Claimant: ChromaDex, Inc., dba pTeroPure
10005 Muirlands Boulevard, Suite G, Irvine, CA, 92618, United States

Limitation of copyright claim

Material excluded from this claim: text, artwork

New material included in claim: 2-dimensional artwork, compilation, text

Rights and Permissions

Organization Name: ChromaDex, Inc.
Telephone: 949-419-0288
Address: 10005 Muirlands Boulevard
Suite G
Irvine, CA 92618 United States

Certification

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

NOTICE OF ASSIGNMENT TO UNITED STATES MAGISTRATE JUDGE FOR DISCOVERY

This case has been assigned to District Judge Cormac J. Carney and the assigned discovery Magistrate Judge is Marc Goldman.

The case number on all documents filed with the Court should read as follows:

SACV11- 1273 CJC (MLGx)

Pursuant to General Order 05-07 of the United States District Court for the Central District of California, the Magistrate Judge has been designated to hear discovery related motions.

All discovery related motions should be noticed on the calendar of the Magistrate Judge

=====

NOTICE TO COUNSEL

A copy of this notice must be served with the summons and complaint on all defendants (if a removal action is filed, a copy of this notice must be served on all plaintiffs).

Subsequent documents must be filed at the following location:

Western Division
312 N. Spring St., Rm. G-8
Los Angeles, CA 90012

Southern Division
411 West Fourth St., Rm. 1-053
Santa Ana, CA 92701-4516

Eastern Division
3470 Twelfth St., Rm. 134
Riverside, CA 92501

Failure to file at the proper location will result in your documents being returned to you.

UNITED STATES DISTRICT COURT
for the
CENTRAL District of CALIFORNIA

CHROMADEX, INC., a California corporation

Plaintiff

v.

BIOTIVIA BIOCEUTICALS, LLC, a Delaware

Limited LIABILITY COMPANY

Defendant

SACV11-01273 (JLC/MLGK)

Civil Action No.

SUMMONS IN A CIVIL ACTION

To: (Defendant's name and address)

BIOTIVIA BIOCEUTICALS, LLC, a Delaware corporation

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are:

Erik L. Jackson, Esq.
COZEN O'CONNOR
601 South Figueroa Street, Suite 3700
Los Angeles, CA 90017

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

AUG 24 2011

CLERK OF COURT

SEAL

JULIE PRADO

Date: _____

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4(l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____.

I personally served the summons on the individual at *(place)* _____
_____ on *(date)* _____; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
_____, a person of suitable age and discretion who resides there,
on *(date)* _____, and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____, who is
designated by law to accept service of process on behalf of *(name of organization)* _____
_____ on *(date)* _____; or

I returned the summons unexecuted because _____; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ _____.

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

Printed name and title

Server's address

Additional information regarding attempted service, etc:

**UNITED STATES DISTRICT COURT, CENTRAL DISTRICT OF CALIFORNIA
CIVIL COVER SHEET**

I (a) PLAINTIFFS (Check box if you are representing yourself)

CHROMADEx, INC., a California corporation

DEFENDANTS

BIOTIVIA BIOCEUTICALS, LLC, a Delaware corporation

(b) Attorneys (Firm Name, Address and Telephone Number. If you are representing yourself, provide same.)

Erik L. Jackson, State Bar No. 166010
ejackson@cozen.com
COZEN O'CONNOR
601 South Figueroa Street, Suite 3700
Los Angeles, CA 90017
Telephone: 213.892.7900

Attorneys (If Known)

II. BASIS OF JURISDICTION (Place an X in one box only.)

- 1 U.S. Government Plaintiff 3 Federal Question (U.S. Government Not a Party)
- 2 U.S. Government Defendant 4 Diversity (Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES - For Diversity Cases Only (Place an X in one box for plaintiff and one for defendant.)

- | | PTF | DEF | | PTF | DEF |
|---|---------------------------------------|---------------------------------------|---|---------------------------------------|---------------------------------------|
| Citizen of This State | <input checked="" type="checkbox"/> 1 | <input type="checkbox"/> 1 | Incorporated or Principal Place of Business in this State | <input checked="" type="checkbox"/> 4 | <input type="checkbox"/> 4 |
| Citizen of Another State | <input type="checkbox"/> 2 | <input checked="" type="checkbox"/> 2 | Incorporated and Principal Place of Business in Another State | <input type="checkbox"/> 5 | <input checked="" type="checkbox"/> 5 |
| Citizen or Subject of a Foreign Country | <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | Foreign Nation | <input type="checkbox"/> 6 | <input type="checkbox"/> 6 |

IV. ORIGIN (Place an X in one box only.)

- 1 Original Proceeding 2 Removed from State Court 3 Remanded from Appellate Court 4 Reinstated or Reopened 5 Transferred from another district (specify): 6 Multi-District Litigation 7 Appeal to District Judge from Magistrate Judge

V. REQUESTED IN COMPLAINT: JURY DEMAND: Yes No (Check 'Yes' only if demanded in complaint.)

CLASS ACTION under F.R.C.P. 23: Yes No

MONEY DEMANDED IN COMPLAINT: \$ More than the jurisdictional minimum.

VI. CAUSE OF ACTION (Cite the U.S. Civil Statute under which you are filing and write a brief statement of cause. Do not cite jurisdictional statutes unless diversity.)

Title 15 U.S.C. § 1051 (Trademark Infringement); Copyright Act, 17 U.S.C. § 101 (Copyright Infringement)

VII. NATURE OF SUIT (Place an X in one box only.)

<p>CORPORATE/COMMERCIAL</p> <p><input type="checkbox"/> 400 State Reapportionment</p> <p><input type="checkbox"/> 410 Antitrust</p> <p><input type="checkbox"/> 430 Banks and Banking</p> <p><input type="checkbox"/> 450 Commerce/ICC Rates/etc.</p> <p><input type="checkbox"/> 450 Deportation</p> <p><input type="checkbox"/> 470 Racketeer Influenced and Corrupt Organizations</p> <p><input type="checkbox"/> 480 Consumer Credit</p> <p><input type="checkbox"/> 490 Cable/Sat TV</p> <p><input type="checkbox"/> 810 Selective Service</p> <p><input type="checkbox"/> 850 Securities/Commodities/Exchange</p> <p><input type="checkbox"/> 875 Customer Challenge 12 USC 3410</p> <p><input type="checkbox"/> 890 Other Statutory Actions</p> <p><input type="checkbox"/> 891 Agricultural Act</p> <p><input type="checkbox"/> 892 Economic Stabilization Act</p> <p><input type="checkbox"/> 893 Environmental Matters</p> <p><input type="checkbox"/> 894 Energy Allocation Act</p> <p><input type="checkbox"/> 895 Freedom of Info. Act</p> <p><input type="checkbox"/> 900 Appeal of Fee Determination Under Equal Access to Justice</p> <p><input type="checkbox"/> 950 Constitutionality of State Statutes</p>	<p>CONTRACTS</p> <p><input type="checkbox"/> 110 Insurance</p> <p><input type="checkbox"/> 120 Marine</p> <p><input type="checkbox"/> 130 Miller Act</p> <p><input type="checkbox"/> 140 Negotiable Instrument</p> <p><input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of Judgment</p> <p><input type="checkbox"/> 151 Medicare Act</p> <p><input type="checkbox"/> 152 Recovery of Defaulted Student Loan (Excl. Veterans)</p> <p><input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits</p> <p><input type="checkbox"/> 160 Stockholders' Suits</p> <p><input type="checkbox"/> 190 Other Contract</p> <p><input type="checkbox"/> 195 Contract Product Liability</p> <p><input type="checkbox"/> 196 Franchise</p> <p>REAL PROPERTY</p> <p><input type="checkbox"/> 210 Land Condemnation</p> <p><input type="checkbox"/> 220 Foreclosure</p> <p><input type="checkbox"/> 230 Rent Lease & Ejectment</p> <p><input type="checkbox"/> 240 Torts to Land</p> <p><input type="checkbox"/> 245 Tort Product Liability</p> <p><input type="checkbox"/> 290 All Other Real Property</p>	<p>TORTS - PERSONAL INJURY</p> <p><input type="checkbox"/> 310 Airplane</p> <p><input type="checkbox"/> 315 Airplane Product Liability</p> <p><input type="checkbox"/> 320 Assault, Libel & Slander</p> <p><input type="checkbox"/> 330 Fed. Employers' Liability</p> <p><input type="checkbox"/> 340 Marine</p> <p><input type="checkbox"/> 345 Marine Product Liability</p> <p><input type="checkbox"/> 350 Motor Vehicle</p> <p><input type="checkbox"/> 355 Motor Vehicle Product Liability</p> <p><input type="checkbox"/> 360 Other Personal Injury</p> <p><input type="checkbox"/> 362 Personal Injury-Med Malpractice</p> <p><input type="checkbox"/> 365 Personal Injury-Product Liability</p> <p><input type="checkbox"/> 368 Asbestos Personal Injury Product Liability</p> <p>IMMIGRATION</p> <p><input type="checkbox"/> 462 Naturalization Application</p> <p><input type="checkbox"/> 463 Habeas Corpus-Alien Detainee</p> <p><input type="checkbox"/> 465 Other Immigration Actions</p>	<p>TORTS - PERSONAL PROPERTY</p> <p><input type="checkbox"/> 370 Other Fraud</p> <p><input type="checkbox"/> 371 Truth in Lending</p> <p><input type="checkbox"/> 380 Other Personal Property Damage</p> <p><input type="checkbox"/> 385 Property Damage Product Liability</p> <p>BANKRUPTCY</p> <p><input type="checkbox"/> 422 Appeal 28 USC 158</p> <p><input type="checkbox"/> 423 Withdrawal 28 USC 157</p> <p>CIVIL RIGHTS</p> <p><input type="checkbox"/> 441 Voting</p> <p><input type="checkbox"/> 442 Employment</p> <p><input type="checkbox"/> 443 Housing/Accommodations</p> <p><input type="checkbox"/> 444 Welfare</p> <p><input type="checkbox"/> 445 American with Disabilities - Employment</p> <p><input type="checkbox"/> 446 American with Disabilities - Other</p> <p><input type="checkbox"/> 440 Other Civil Rights</p>	<p>PRISONER PETITIONS</p> <p><input type="checkbox"/> 510 Motions to Vacate Sentence Habeas Corpus</p> <p><input type="checkbox"/> 530 General</p> <p><input type="checkbox"/> 535 Death Penalty</p> <p><input type="checkbox"/> 540 Mandamus/Other</p> <p><input type="checkbox"/> 550 Civil Rights</p> <p><input type="checkbox"/> 555 Prison Condition</p> <p>FOREIGN PENALTY</p> <p><input type="checkbox"/> 610 Agriculture</p> <p><input type="checkbox"/> 620 Other Food & Drug</p> <p><input type="checkbox"/> 625 Drug Related Seizure of Property 21 USC 881</p> <p><input type="checkbox"/> 630 Liquor Laws</p> <p><input type="checkbox"/> 640 R.R. & Truck</p> <p><input type="checkbox"/> 650 Airline Regs</p> <p><input type="checkbox"/> 660 Occupational Safety/Health</p> <p><input type="checkbox"/> 690 Other</p>	<p>LABOR</p> <p><input type="checkbox"/> 710 Fair Labor Standards Act</p> <p><input type="checkbox"/> 720 Labor/Mgmt. Relations</p> <p><input type="checkbox"/> 730 Labor/Mgmt. Reporting & Disclosure Act</p> <p><input type="checkbox"/> 740 Railway Labor Act</p> <p><input type="checkbox"/> 790 Other Labor Litigation</p> <p><input type="checkbox"/> 791 Empl. Ret. Inc. Security Act</p> <p>PROPERTY RIGHTS</p> <p><input type="checkbox"/> 820 Copyrights</p> <p><input type="checkbox"/> 830 Patent</p> <p><input checked="" type="checkbox"/> 840 Trademark</p> <p>SOCIAL SECURITY</p> <p><input type="checkbox"/> 861 HIA (1395f)</p> <p><input type="checkbox"/> 862 Black Lung (923)</p> <p><input type="checkbox"/> 863 DIWC/DIWW (405(g))</p> <p><input type="checkbox"/> 864 SSID Title XVI</p> <p><input type="checkbox"/> 865 RSI (405(g))</p> <p>FEDERAL TAX SUITS</p> <p><input type="checkbox"/> 870 Taxes (U.S. Plaintiff or Defendant)</p> <p><input type="checkbox"/> 871 IRS - Third Party 26 USC 7609</p>
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FOR OFFICE USE ONLY: Case Number:

SACV11-01273

AFTER COMPLETING THE FRONT SIDE OF FORM CV-71, COMPLETE THE INFORMATION REQUESTED BELOW.

**UNITED STATES DISTRICT COURT, CENTRAL DISTRICT OF CALIFORNIA
CIVIL COVER SHEET**

VIII(a). **IDENTICAL CASES:** Has this action been previously filed in this court and dismissed, remanded or closed? No Yes

If yes, list case number(s): _____

VIII(b). **RELATED CASES:** Have any cases been previously filed in this court that are related to the present case? No Yes

If yes, list case number(s): _____

Civil cases are deemed related if a previously filed case and the present case:

- (Check all boxes that apply) A. Arise from the same or closely related transactions, happenings, or events; or
 B. Call for determination of the same or substantially related or similar questions of law and fact; or
 C. For other reasons would entail substantial duplication of labor if heard by different judges; or
 D. Involve the same patent, trademark or copyright, and one of the factors identified above in a, b or c also is present.

IX. VENUE: (When completing the following information, use an additional sheet if necessary.)

(a) List the County in this District; California County outside of this District; State if other than California; or Foreign Country, in which EACH named plaintiff resides.
 Check here if the government, its agencies or employees is a named plaintiff. If this box is checked, go to item (b).

County in this District:*	California County outside of this District; State, if other than California; or Foreign Country
Orange County	

(b) List the County in this District; California County outside of this District; State if other than California; or Foreign Country, in which EACH named defendant resides.
 Check here if the government, its agencies or employees is a named defendant. If this box is checked, go to item (c).

County in this District:*	California County outside of this District; State, if other than California; or Foreign Country
New York, New York	

(c) List the County in this District; California County outside of this District; State if other than California; or Foreign Country, in which EACH claim arose.
Note: In land condemnation cases, use the location of the tract of land involved.

County in this District:*	California County outside of this District; State, if other than California; or Foreign Country
Orange County	

* Los Angeles, Orange, San Bernardino, Riverside, Ventura, Santa Barbara, or San Luis Obispo Counties
Note: In land condemnation cases, use the location of the tract of land involved

X. SIGNATURE OF ATTORNEY (OR PRO PER) ERIK L. JACKSON Date August 24, 2011

Notice to Counsel/Parties: The CV-71 (JS-44) Civil Cover Sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law. This form, approved by the Judicial Conference of the United States in September 1974, is required pursuant to Local Rule 3-1 is not filed but is used by the Clerk of the Court for the purpose of statistics, venue and initiating the civil docket sheet. (For more detailed instructions, see separate instructions sheet.)

Key to Statistical codes relating to Social Security Cases:

Nature of Suit Code	Abbreviation	Substantive Statement of Cause of Action
861	HIA	All claims for health insurance benefits (Medicare) under Title 18, Part A, of the Social Security Act, as amended. Also, include claims by hospitals, skilled nursing facilities, etc., for certification as providers of services under the program. (42 U.S.C. 1935FF(b))
862	BL	All claims for "Black Lung" benefits under Title 4, Part B, of the Federal Coal Mine Health and Safety Act of 1969. (30 U.S.C. 923)
863	DIWC	All claims filed by insured workers for disability insurance benefits under Title 2 of the Social Security Act, as amended; plus all claims filed for child's insurance benefits based on disability. (42 U.S.C. 405(g))
863	DIWW	All claims filed for widows or widowers insurance benefits based on disability under Title 2 of the Social Security Act, as amended. (42 U.S.C. 405(g))
864	SSID	All claims for supplemental security income payments based upon disability filed under Title 16 of the Social Security Act, as amended.
865	RSI	All claims for retirement (old age) and survivors benefits under Title 2 of the Social Security Act, as amended. (42 U.S.C. (g))

EXHIBIT C

From: TMOOfficialNotices@USPTO.GOV
Sent: Tuesday, December 31, 2013 00:32 AM
To: carolinewalrad@gmail.com
Subject: Official USPTO Notification: TMOG Publication Confirmation for U.S. Trademark SN 86118432

TRADEMARK OFFICIAL GAZETTE PUBLICATION CONFIRMATION

U.S. Serial Number: 86-118,432
Mark: POTENSHAA(STANDARD CHARACTER MARK)
International Class(es): 003
Owner: The Trustees of The Walrad Trust
Docket/Reference Number:

The mark identified above has been published in the Trademark Official Gazette (TMOG) on Dec 31, 2013.

To View the Mark in the Next Generation TMOG (eOG):

Click on the following link or paste the URL into an internet browser: <http://tmog.uspto.gov/#date=2013-12-31&serial=86118432>

To View the Mark in the Legacy format TMOG:

1. Click on the following link or paste the URL into an internet browser:
http://www.uspto.gov/web/trademarks/tmog/20131231_OG.pdf#page=00000341 .
2. Locate your mark on the displayed page.

If the TMOG PDF file does not open to the page containing your mark (you must have an Adobe Reader installed on your workstation), click on the following link or paste the URL into an internet browser to review the Frequently Asked Questions about the Trademark Official Gazette: http://www.uspto.gov/trademarks/resources/tm_og_faqs.jsp.

On the publication date or shortly thereafter, the applicant should carefully review the information that appears in the TMOG for accuracy. If any information is incorrect due to USPTO error, the applicant should immediately email the requested correction to TMPostPubQuery@uspto.gov. For applicant corrections or amendments after publication, please file a post publication amendment using the form available at <http://teasroa.uspto.gov/ppa/>. For general information about this notice, please contact the Trademark Assistance Center at 1-800-786-9199.

Significance of Publication for Opposition:

Any party who believes it will be damaged by the registration of the mark may file a notice of opposition (or extension of time therefor) with the Trademark Trial and Appeal Board. If no party files an opposition or extension request within thirty (30) days after the publication date, then eleven (11) weeks after the publication date a certificate of registration should issue.

To view this notice and other documents for this application on-line, go to <http://tsdr.uspto.gov/search.action?sn=86118432>.

NOTE: This notice will only become available on-line the next business day after receipt of this e-mail.

EXHIBIT D

Dictionary Better writing World of words Puzzles and games

Dictionary Language resources

Go

US English

Definition of **next** in English

| Cite

next

Syllabification: (next)

Pronunciation: /nekst/

Translate **next** | [into French](#) | [into German](#) | [into Italian](#) | [into Spanish](#)

adjective

1 (of a time or season) coming immediately after the time of writing or speaking:

we'll go next year

next week's parade

- (of a day of the week) nearest (or the nearest but one) after the present:

not this Wednesday, next Wednesday

[postpositive]:

on Monday next

- (of an event or occasion) occurring directly in time after the present or most recent one, without anything of the same kind intervening:

the next election

next time I'll bring a hat

2 coming immediately after the present one in order, rank, or space:

the woman in the next room

the next chapter

building materials were next in importance

adverb

on the first or soonest occasion after the present; immediately

afterward:

wondering what would happen next

next, I heard the sound of voices

- [with superlative] following in the specified order:

Joe was the next oldest after Martin

noun

the next person or thing:

one moment he wasn't there, the next he was

*the week **after next***

preposition

archaic

next to:

More results for **next**

[in the same or next breath](#) US. Eng

[next to](#) US. Eng

[what next](#) US. Eng

[next best](#) US. Eng

[next door](#) US. Eng

[next in line](#) US. Eng

[Result list for next](#)

Word of the day

[infographic](#)

/ ˌɪnfəˈɡræfɪk /

noun

a visual image such as a chart used to represent information ...

[See full definition »](#)

SIGN UP

he plodded along next him

Phrases

next in line

immediately below the present holder of a position in order of succession:

*he is **next in line to the throne***

next to

- 1 in or into a position immediately to one side of; beside:

we sat next to each other

- 2 following in order or importance:

next to buying a whole new wardrobe, nothing lifts the spirits quite like a new hairdo!

- 3 almost:

*Charles knew **next to nothing** about farming*

- 4 in comparison with:

next to her I felt like a fraud

the next world

(according to some religious beliefs) the place where one goes after death.

what next

an expression of surprise or amazement.

Origin:

Old English *nēhsta* 'nearest', superlative of *nēah* 'nigh'; compare with Dutch *naast* and German *nächste*

next in other Oxford dictionaries

Definition of **next** in the [British & World English dictionary](#)

Reference to **next** in Language Resources

- [Onto or on to?](#)
- ['Onto' or 'on to'?](#)
- [Prepositions](#)
- [Doublets](#)
- [Phrases](#)
- [What is the origin of the word 'quiz'?](#)

next, nearby words in English

- [Newtonian mechanics](#)
- [Newtonian telescope](#)
- [Newyorican](#)
- [NEX](#)
- [NEXRAD](#)
- **next**
- [next best](#)
- [next door](#)
- [next door to](#)
- [next in line](#)

- [next of kin](#)

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[British & World version](#) | [US Version](#) | [Versión en español](#)

EXHIBIT E

Dictionary Better writing World of words Puzzles and games

Dictionary Language resources

Go

US English

Definition of generation in English

generation

Syllabification: (gen·er·a·tion)
 Pronunciation: /ˌjɛnəˈræʃən/

Translate **generation** | into French | into German | into Italian | into Spanish

noun

1 all of the people born and living at about the same time, regarded collectively:

one of his generation's finest songwriters

- the average period, generally considered to be about thirty years, during which children are born and grow up, become adults, and begin to have children of their own.
- a set of members of a family regarded as a single step or stage in descent:

[as modifier, in combination]:

a third-generation Canadian

- a single stage in the development of a type of product:
a new generation of rear-engined sports cars

2 the production of something:

methods of electricity generation

the generation of wealth

- the propagation of living organisms; procreation.

Derivatives

generational

Pronunciation: /-SHənəl/

adjective

generationally

Pronunciation: /-SHənəl-ē/

adverb

Origin:

Middle English: via Old French from Latin *generatio(n-)*, from the verb *generare* (see GENERATE)

generation in other Oxford dictionaries

| Cite

More results for generation

[Generation X](#) US. Eng

[Generation Y](#) US. Eng

[me generation](#) US. Eng

[beat generation](#) US. Eng

[generation gap](#) US. Eng

[Generation Xer](#) US. Eng

[Result list for generation](#)

Word of the day

infographic

/ˌɪnfəˈɡræfɪk/

noun

a visual image such as a chart used to represent information ...

[See full definition »](#)

SIGN UP

Definition of **generation** in the [British & World English](#) dictionary

Reference to **generation** in Language Resources

- [Phrase, Fable, and Allusion](#)
- [Was the first computer 'bug' a real insect?](#)

generation, nearby words in English

- [generalize](#)
- [generalized anxiety disorder](#)
- [generally](#)
- [generalship](#)
- [generate](#)
- **generation**
- [generation gap](#)
- [Generation X](#)
- [Generation Xer](#)
- [Generation Y](#)
- [Generation Yer](#)

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD**

In the matter of trademark application Serial No. 85193003
For the mark: THE NEXT GENERATION RESVERATROL
Published in the Official Gazette on August 23, 2011

-----X
BIOTIVIA, LLC
Opposer

Opposition No.: 91202162

v.

CHROMADEX, INC.
Applicant
-----X

**DECLARATION OF JAMES BETZ IN SUPPORT OF OPPOSER'S MOTION FOR
SUMMARY JUDGMENT**

1. I, James Betz, am a resident of Verona, Italy, over twenty-one years of age, and I have knowledge of all of the facts contained in this declaration and, if called as a witness, I could and would competently testify to all of said facts.

2. I am the President and Managing Director of Biotivia, LLC, a company that formulates and manufactures high potency dietary supplements and cosmetics for the medical, consumer, and functional food markets. Biotivia employs a diverse staff of biochemists, research scientists, and physicians whose responsibilities include investigation of the properties of stilbene compounds, with a special focus on Resveratrol, the analogs of Resveratrol, and Pterostilbene. Biotivia was

chosen by the U.S. Pharmacopeial Convention to create the worldwide standard monograph for Resveratrol. No such monograph yet exists for Pterostilbene.

3. I am an expert in the field of stilbenes and the medical and functional food properties of the stilbene molecules, which includes Pterostilbene. I have worked for 20 years in the field of nutraceuticals, and I designed the first high potency (<150mg) Pterostilbene dietary supplement. I am assisted by a staff of full time and contract expert scientists and physicians. I regularly present papers at scientific conferences and symposiums composed of other scientists and physicians whose primary interest is the stilbene group of molecules and their application to human health and disease prevention and treatment. As a peer reviewer for a major scientific journal, I am a recognized expert in this field. The most recent paper I presented was before the 2012 World Resveratrol Conference in Leicester, UK. I was invited to the China Health Conference in Dalian in early October to present a paper on the health and medical applications of the stilbene molecules, specifically Resveratrol and Pterostilbene. I was one of approximately 25 scientists to be invited to the World Resveratrol conference in Tokyo hosted by the University of Denmark. I recently coauthored a paper titled “Resveratrol for the Management of Diabetes” that will be submitted to a major European Endocrinology journal. I am regularly consulted by other scientists and physicians and have provided assistance to numerous medical school and scientific researchers investigating the properties of the stilbene molecules, principally Resveratrol and its analogs. The most recent example was an invitation to write a

scientific review of a study done by a multi-national raw materials manufacturer on the effect of chronic administration of moderate dose Trans-resveratrol on the process of lipogenesis in human male subjects. My review was published on the Nutraceutical Ingredients web site, an authoritative news and information source for the industry, on 24 October, 2013. I am also on the review panel for a major New York based scientific journal.

4. I have personally conducted, participated in, and/or overseen the development of Biotivia's pterostilbene products as both a primary designer and head of a group of three scientists and one physician.
5. Pterostilbene is a compound that is closely chemically related to resveratrol but has certain advantages over resveratrol, including higher bioavailability in certain cellular environments and conditions. Specifically, Pterostilbene is a double-methylated version of resveratrol exhibiting a generally higher bio-availability as it is more easily transported into cells and more resistant to degradation and elimination. The vast majority of the studies done by medical schools and scientific researchers relates to Resveratrol, but a review of the limited evidence presently in the public domain suggests that Pterostilbene is an advancement over Resveratrol vis-à-vis this molecule's biological properties.
6. It is my understanding that pterostilbene is commonly described as the next stage of development of resveratrol, or similarly. Words like "next generation of

resveratrol” and “next level of resveratrol” have been, and are, used to describe pterostilbene in general, and not any particular brand of pterostilbene, by researchers and dietary supplement sellers. The phrase “next generation” is relatively commonly used to describe related nutraceutical compounds, whose individual properties may regulate or modulate a common array of biological and biochemical processes at varying levels, intensities, and dosages. It is by no means a unique or proprietary term within the context of dietary supplements or pharmaceutical compounds.

7. It is my opinion that, in many ways, pterostilbene is the next generation of resveratrol. For example, its anti-cancer effects are similar to, but more potent than, resveratrol's. It appears to possess superior cognitive and short term memory enhancement properties, and is more bioavailable than Resveratrol. It is also relatively new as a dietary supplement ingredient, being first introduced several years after the first Resveratrol supplement, since the ability to process and package it in an affordable and shelf-stable manner has only recently been developed. Therefore, pterostilbene is also the next generation resveratrol in the sense of it being newer than and closely chemically related to resveratrol. It could also be considered as a next generation Resveratrol due to the fact that one of its metabolites is actually Resveratrol. It might also be regarded as the next generation of Resveratrol by virtue of its ranking within the stilbene group of phytoalexins given its higher potency than Resveratrol vis-à-vis certain of its biochemical properties. Furthermore, it is the next generation in that it is

produced by a fermentation process, whereas most Resveratrol is produced as a concentrated extract of the Polygonum cuspidatum, or Polygonum multiflorum plant.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on January 1st, 2014

A handwritten signature in black ink, appearing to read 'James Betz', with a horizontal line underneath.

James Betz, President & Managing Dir. Biotivia, LLC

CERTIFICATE OF TRANSMITTAL

This is to certify that a true copy of the foregoing **DECLARATION OF JAMES BETZ IN SUPPORT OF OPPOSER'S MOTION FOR SUMMARY JUDGMENT**, is being filed electronically with the T.T.A.B. via ESTTA on this day, January 24, 2014.



CHANDLER & SHECHET, LLP
Aaron Shechet
Counsel for Opposer,
BIOTIVIA, LLC

1844 Bagley Ave.,
Los Angeles, CA 90035
(310) 339-1354

CERTIFICATE OF SERVICE (37 C.F.R. §§ 2.101, 2.119)

I, AARON SHECHET, Attorney of Record for Opposer, Biotivia, LLC, hereby certify that a true and correct copy of the foregoing **DECLARATION OF JAMES BETZ IN SUPPORT OF OPPOSER'S MOTION FOR SUMMARY JUDGMENT**, was served by:

1. transmission by Certified first class mail service of the United States Postal Service,

on the attorney of record for the opposed application, at the correspondence address of record in the USPTO for said person as of the date of service, as set forth below:

**JOSEPH T. NABOR
FITCH EVEN TABIN & FLANNERY
120 S LASALLE ST STE 1600
CHICAGO, IL 60603-3590**

Date of Mailing: January 24, 2014



Aaron Shechet

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD**

In the matter of trademark application Serial No. 85193003
For the mark: THE NEXT GENERATION RESVERATROL
Published in the Official Gazette on August 23, 2011

-----x
BIOTIVIA, LLC
Opposer

Opposition No.: 91202162

v.

CHROMADEx, INC.
Applicant
-----x

**DECLARATION OF AARON SHECHET IN SUPPORT OF OPPOSER'S
MOTION FOR SUMMARY JUDGMENT**

I, AARON SHECHET, hereby declare and state as follows under penalty of perjury pursuant to 28 U.S.C. § 1746:

1. I am a partner in the law firm of Chandler & Shechet, LLP, counsel of record in this matter for Opposer Biotivia, LLC (“Biotivia”).
2. On August 30, 2011 Applicant Chromadex, Inc. (“Chromadex”) filed a first amended complaint in its civil lawsuit in the United States District Court for the Central District of California case number 8:11-CV11-01273 CJC (MLGx), partly based on Biotivia’s use of phrases such as “taking resveratrol to the next level” (the “Civil Action.”) A copy of Chromadex’s first amended complaint was previously filed by

Applicant on March 26, 2012 as an exhibit to its Motion to Suspend this proceeding.
(See Dkt.¹ 5.)

3. On January 23, 2012, Biotivia made its initial disclosures in the proceeding, pursuant to Trademark Rule 2.120 and FRCP 26(a). A true and correct copy of the initial disclosures is attached hereto as Exhibit 19. True and correct copies of the documents included as part of the initial disclosures are attached hereto as Exhibits 1-18. These documents were printed by me from various websites and then copied and scanned. Physical copies were mailed as part of the initial disclosures. In making its initial disclosures, Biotivia also produced a DVD that included a number of electronically-stored documents, as well as a video presentation. True and correct copies of some of the electronically-stored documents are attached hereto as Exhibits 20-25. Exhibits 20-25 are all publicly-available documents that I downloaded from various websites. Specifically, with regard to Exhibits 1-30, attached hereto:

- a. Exhibit 1 is a Chromadex press release dated June 13, 2011 that I printed on January 20, 2012 from the website denoted on the exhibit. As of October 10, 2013, the same press release can still be found at: <http://www.ibtimes.com/chromadex-corp-cdxc-launch-bluscience-line-supplement-products-major-retailer-gnc-nationwide-july>
- b. Exhibit 2 consists of printouts of Chromadex-owned websites as denoted on the exhibit. I printed these pages on January 20, 2012.
- c. Exhibit 3 is the definition of the phrase “Next Generation” as provided by dictionary.com, as denoted on the exhibit. I printed

¹ For purposes herein, “Dkt.” stands for “Docket Entry.”

this page on January 20, 2012. As of October 10, 2013, dictionary.com still has a definition available at:

<http://dictionary.reference.com/browse/next-generation>. The definition provided on October 10, 2013 is:

”pertaining to the next generation in a family; also, pertaining to the next stage of development or version of a product, service, or technology.”

- d. Exhibit 4 is the Wikipedia.org entry for “pterostilbene,” as denoted on the exhibit. I printed this page on January 20, 2012. As of October 10, 2013, there is still an entry for “pterostilbene” that is substantially the same, if not identical.
- e. Exhibit 5 is a Douglas Labs announcement about its new pterostilbene supplement, dated December 8, 2010. I printed this page on January 20, 2012 from the website denoted on the exhibit. The announcement describes pterostilbene as “a superior form of resveratrol.”
- f. Exhibit 6 is a Great Forest Biomedical Ltd. description of pterostilbene in which it describes the use of pterostilbene as “next generation of resveratrol, anti-oxidant and anti-inflammatory agent.” I printed this page on January 20, 2012 from the website denoted on the exhibit.
- g. Exhibit 7 is an Alcrea article about pterostilbene dated September 15, 2011, in which the headline reads “Ingredient Spotlight:

Pterostilbene, Next Generation Resveratrol.” I printed this page on January 20, 2012 from the website denoted on the exhibit. As of October 10, 2013, this website is still available at:

<http://www.alcrea-health.com/blog/?p=70>.

- h. Exhibit 8 is a Natural News article dated December 4, 2009 that explains the relationship between resveratrol and pterostilbene. It also touted the potential benefits of pterostilbene. I printed this page on January 20, 2012 from the website denoted on the exhibit.
- i. Exhibit 9 is a page from whomovedmycheesecake.com dated April 18, 2011. I printed this page on January 20, 2012 from the website denoted on the exhibit.
- j. Exhibit 10 is another page from the Great Forest Biomedical Ltd. website about pterostilbene. I printed this page on January 20, 2012 from the website denoted on the exhibit.
- k. Exhibit 11 is a printout from Restorehc.com about a pterostilbene product called “Resveratrol-M.” I printed this page on January 20, 2012 from the website denoted on the exhibit. As of October 10, 2013, this product is still available at:
<http://www.restorehc.com/product/resveratrol-m>. The product description still states that **“Pterostilbene is considered the next generation of resveratrol.”**
- l. Exhibit 12 is a printout of the .pdf “Data Sheet” provided for “Resveratrol-M.” It is available under the link “View Data Sheet”

that shows on Exhibit 11. I printed this at the same time as Exhibit 11. As of October 10, 2013, it is still available for reading and/or downloading at

http://www.restorehc.com/sites/default/files/uploaded-images/cardio-resveratrol-m_0.pdf. Exhibit 12, and the document still available as of October 10, 2013, states **“Pterostilbene, a methylated form of resveratrol is considered the next generation of resveratrol.”**

m. Exhibit 13 is an article from wholehealth.com about resveratrol and pterostilbene, dated December 5, 2011. I printed this page on January 20, 2012 from the website denoted on the exhibit.

n. Exhibit 14 is a blog entry posted on the Life Extension blog about pterostilbene. I printed this page on January 20, 2012 from the website denoted on the exhibit.

o. Exhibit 15 is a nutripharma entry for “pterostilbene,” in which it states “Pterostilbene, a structural analog of resveratrol, is called the *next generation of resveratrol*.” (Emphasis in original). I printed this page on January 20, 2012 from the website denoted on the exhibit. As of October 10, 2013, it is still available with the same description of pterostilbene at <http://nutripharma.net/herb-pe/1503-Pterostilbene.html>

p. Exhibit 16 is a printout of Chromadex “enews” articles. One of them has the heading “Pterostilbene – The Next Generation

Resveratrol.” I printed this page on January 20, 2012 from the website denoted on the exhibit.

- q. Exhibit 17 is a printout of the Medicinal Nutraceuticals pterostilbene product from iherb.com, which lists as the description “the next generation resveratrol.” I printed this page on January 20, 2012 from the website denoted on the exhibit.
- r. Exhibit 18 is a printout from a pteropure.com website listing the supplements that contain pTeropure pterostilbene. I printed this page on January 20, 2012 from the website denoted on the exhibit.
- s. Exhibit 19 are Opposer’s initial disclosures.
- t. Exhibit 20 is a true and correct copy of Chromadex’s corporate presentation dated September 8, 2011. This was downloaded as a .pdf and produced electronically as part of Opposer’s initial disclosures.
- u. Exhibit 21 is a true and correct copy of a Douglas Laboratories electronic “product data” sheet about its pterostilbene product in which it states “Pterostilbene, a methylated form of resveratrol is considered the *next generation of resveratrol.*” (Emphasis in original.) This was downloaded as a .pdf and produced electronically as part of Opposer’s initial disclosures. As of October 10, 2013, this is still available at:

<http://www.douglaslabs.com/pdf/pds/200901.pdf>

- v. Exhibit 22 is a true and correct copy of a Chromadex brochure about pTeropure pterostilbene. This was downloaded as a .pdf and produced electronically as part of Opposer's initial disclosures.
- w. Exhibit 23 is a true and correct copy of a Chromadex presentation about pTeropure pterostilbene. This was downloaded as a .pdf and produced electronically as part of Opposer's initial disclosures.
- x. Exhibit 24 is a true and correct copy of a Chromadex brochure about pTeropure pterostilbene in which it states "Pterostilbene is...The Next Generation Resveratrol." This was downloaded as a .pdf and produced electronically as part of Opposer's initial disclosures. Its URL was https://www.chromadex.com/wpresources/Upload/Article/pTeroPure_pterostilbene_Brochure.pdf. As of October 10, 2013, a similar brochure can be found at that URL, although the contents of the brochure found at that URL on October 10, 2013 vary from the document I saved previously.
- y. Exhibit 25 is a true and correct copy of the data sheet for the Medicinal Nutraceuticals pterostilbene product. This was downloaded as a .pdf and produced electronically as part of Opposer's initial disclosures.
- z. Exhibit 26 is a true and correct copy of Opposer's Request for Admission, Set One (along with **its** exhibits, labeled Exhibits 1-19

in the Request for Admission) propounded on Applicant in this proceeding.

- aa. Exhibit 27 is a true and correct copy of Applicant's Responses to Opposer's Requests for Admission, Set One.
- bb. Exhibit 28 is a true and correct copy of the USPTO "Trademark Official Gazette Publication Confirmation" for the trademark "POTENSHAA," in which the USPTO describes the new-style Trademark Official Gazette as "the Next Generation TMOG (eOG)." In looking at the publication confirmation for marks that have recently been published, it appears that the USPTO uses the language "the Next Generation TMOG (eOG)" in all recent publication confirmations to indicate that the new-style Official Gazette is the next stage of development or version of its product, service, or technology.
- cc. Exhibit 29 is a true and correct copy of the Oxford dictionary definition of the word "next."
- dd. Exhibit 30 is a true and correct copy of the Oxford dictionary definition of the word "generation."

I declare under penalty of perjury that the foregoing is true and correct. Executed in Los Angeles, California.

Executed on: January 22, 2014



Aaron Shechet

CERTIFICATE OF TRANSMITTAL

This is to certify that a true copy of the foregoing **DECLARATION OF AARON SHECHET IN SUPPORT OF OPPOSER'S MOTION FOR SUMMARY JUDGMENT**, along with all Exhibits thereto, is being filed electronically with the T.T.A.B. via ESTTA on this day, January 24, 2014.



CHANDLER & SHECHET, LLP
Aaron Shechet
Counsel for Opposer,
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(310) 339-1354

CERTIFICATE OF SERVICE (37 C.F.R. §§ 2.101, 2.119)

I, AARON SHECHET, Attorney of Record for Opposer, Biotivia, LLC, hereby certify that a true and correct copy of the foregoing **DECLARATION OF AARON SHECHET IN SUPPORT OF OPPOSER'S MOTION FOR SUMMARY JUDGMENT**, along with all Exhibits thereto, was served by:

1. transmission by Certified first class mail service of the United States Postal Service,

on the attorney of record for the opposed application, at the correspondence address of record in the USPTO for said person as of the date of service, as set forth below:

JOSEPH T. NABOR
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CHICAGO, IL 60603-3590

Date of Mailing: January 24, 2014



Aaron Shechet

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
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Applicant
-----x

**TABLE OF EXHIBITS TO DECLARATION OF AARON SHECHET IN
SUPPORT OF OPPOSER'S MOTION FOR SUMMARY JUDGMENT**

<u>Exhibit</u>	<u>Description</u>
1.	Chromadex press release re: "Bluscience" featuring "the next generation resveratrol."
2.	Pages from Chromadex website.
3.	Dictionary definition of "next generation."
4.	Wikipedia article on Pterostilbene.
5.	Douglas Laboratories article about Pterostilbene Supreme product.
6.	Great Forest website describing pterostilbene.
7.	Alcrea article about pterostilbene.
8.	Natural News article about pterostilbene.
9.	"whomovedmycheesecake" article about pterostilbene.
10.	Great Forest website describing

	pterostilbene (2).
11.	Resveratrol-M pterostilbene product and description.
12.	Resveratrol-M pterostilbene product brochure.
13.	Wholehealth.com article about resveratrol and pterostilbene.
14.	Life Extension article about pterostilbene.
15.	Nutripharma description about pterostilbene.
16.	Chromadex eNews articles.
17.	Medicinal Nutraceuticals pterostilbene product for sale on iHerb.com featuring “the next generation resveratrol.”
18.	Chromadex (pteropure.com) list of products that include pTeroPure.
19.	Initial Disclosures of Opposer.
20.	Chromadex Corporate Presentation.
21.	Douglas Laboratories Pterostilbene Supreme brochure.
22.	Chromadex pTeroPure brochure.
23.	Chromadex pTeroPure presentation.
24.	Chromadex pTeroPure brochure (2).
25.	Medicinal Nutraceuticals pterostilbene product brochure.
26.	Opposer’s Requests for Admissions, Set One (with Exhibits).
27.	Applicant’s Responses to Opposer Biotivia’s Requests for Admission, Set

	One.
28.	USPTO “Trademark Official Gazette Publication Confirmation” for the trademark “POTENSHAA.”
29.	Oxford dictionary website definition of “Next.”
30.	Oxford dictionary website definition of “Generation.”

EXHIBITS

EXHIBIT 1

[Print](#)

Monday, June 13, 2011 11:42 AM EDT

ChromaDex Corp. (CDXC) to Launch BluScience Line of Supplement Products via Major Retailer GNC Nationwide this July

By QualityStocks

ChromaDex Corp., the established provider of top-quality ingredients and solutions as a natural products supplier to a variety of industries, reported the launch of its new BluScience dietary supplement line today.

BluScience products will feature the next generation resveratrol, pterostilbene (a polyphenol naturally occurring in blueberries), in the form of the Company's proprietarily refined natural, identical form of trans-pterostilbene, pTeroPure®.

BluScience is scheduled to hit shelves nationwide at major nutraceutical and supplements retailer GNC this July, in conjunction with a simultaneous web roll out via GNC.com.

The ultra purified form of the naturally occurring pterostilbene found in pTeroPure is vastly superior to resveratrol, offering significantly enhanced oral bioavailability and prolonged overall duration in the body, meaning that it will be absorbed better by tissues and have a longer-lasting effect.

The BluScience family of products will feature a variety of pTeroPure-based offerings:

- HeartBlu – fortified with blueberry extract and phytosterols, engineered specifically to maintain a healthy heart
- EternalBlu – ameliorates oxidative stress and is packed with anti-oxidants
- TrimBlur – packed with vitamins, minerals and jojoba for maximum metabolic support
- Blu2Go – is a melt super-charged with caffeine for energy boosting goodness

VP of Merchandising at GNC, Ted Deitrick, hailed the novel pTeroPure-based lineup of products that BluScience consists of and was clearly pleased that GNC would be making them available in stores this July, adding that the products are ideal for maintaining GNC's reputation for having a serious commitment to health.

President of CDXC, William Spengler, called the launch of BluScience a major milestone, both for the Company as a whole and for the advancement of pTeroPure's commercialization objectives. Spengler cheered GNC as the perfect place to get the kind of exposure the product line demands and remarked that it was quite auspicious for CDXC's first national consumer launch.

Spengler cited the massive target market in the US for BlueScience, consisting of over half the population, who see vitamins and nutrient supplements as part of an everyday healthy lifestyle.

EXHIBIT 2

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About ChromaDex

ChromaDex® is an innovative **natural products** company that provides **proprietary, science-based solutions and ingredients** to the dietary supplement, food & beverage, cosmetic, and pharmaceutical industries.

In particular, ChromaDex®

- Develops & markets **phytochemical** and **botanical** reference standards & materials
- Develops & markets **novel & natural** products that have a positive impact on **health**
- Brings **safety & quality** to the market with specialized services and scientific rigor

ChromaDex® was established in 1999 in response to growing demand for natural product reference standards, materials, and services. This growth has continued with increasing consumer and government demand for quality assurance methods across the spectrum of consumer-focused products.

Today, ChromaDex® continues its leadership in the reference standards & services business with a customer-centric approach supported by scientific rigor. Its expertise in this market gives it a unique foundation for combining the power of nature with the science of health to develop & market natural & novel ingredients.

ChromaDex® is publicly-traded company ([OTCBB:CDXC.OB](#)).

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PRODUCTS

SERVICES

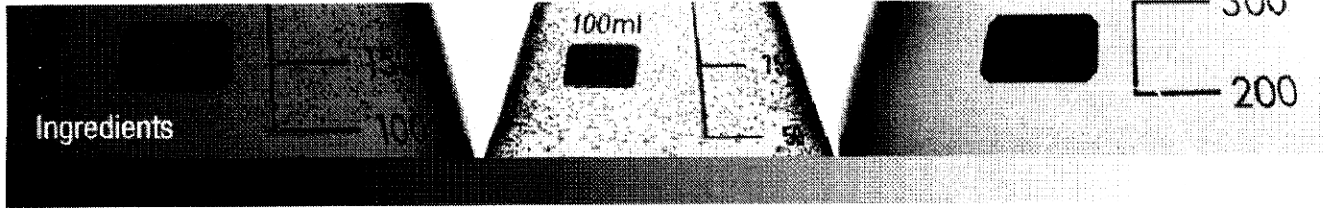
INGREDIENTS

LITERATURE

INVESTOR RELATIONS

NEWS/EVENTS

CONTACT US



About ChromaDex
Ingredients

pTeroPure

Curcumin

Anthopure Technology

Anthocyanins

Request Form

pTeroPure



pTeroPure Pterostilbene was founded as a high-quality brand of ChromaDex® as a result of its exclusive worldwide patent rights for pterostilbene based on the technology licensed from the University of Mississippi and the USDA. Like resveratrol, pterostilbene (tero-STILL-bean) belongs to a class of compounds called phytoalexins, which are naturally produced by plants when under attack by pathogens such as bacteria or fungi. Pterostilbene and resveratrol have very similar pharmacologic properties, however pterostilbene has several key advantages over resveratrol. Pterostilbene is one of several stilbenes found in certain berries (e.g., blueberries, cranberries, sparkleberries, lingonberries, and grapes), thus, consumption of these small fruits may help improve health.

pTeroPure is a nature identical form of trans-pterostilbene. Pterostilbene is the next generation of resveratrol as it a methylated resveratrol analog naturally found in berries with superior biological activity, better oral bioavailability, and metabolizes more slowly in the body, allowing more time for its antioxidant activities to act. Please contact your ChromaDex® representative today for pricing or to receive a sample.

Visit the [pTeroPure website](#).



ChromaDex® pTeroPure Pterostilbene Brochure





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Pterostilbene - Overview

Pterostilbene - pronounced [tero-still-bean]

- Is a polyphenol that occurs naturally in blueberries
- Is a *phytoalexin*, acting as the blueberry's defense system
- Has been used for thousands of years in Indian Ayurvedic medicine as a "blood tonic"
- Is supported by scientific research - *"The more we study Pterostilbene, the more we see its huge potential in the human health field."* Dr. Agnes Rimando, USDA – ARS
- Has the following significant advantages over resveratrol (also a *phytoalexin* but found in grapes):
 - Much improved bio-availability 70-90% versus 20-30%
 - Much longer presence in the body (105 minutes versus 14 minutes)
 - Greater oral absorption
 - Greater metabolic stability



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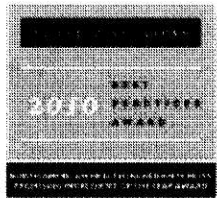
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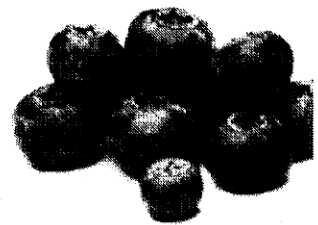


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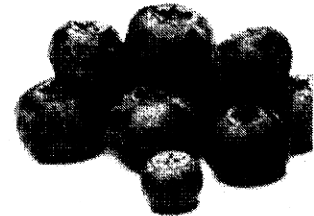
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Pterostilbene - Literature

Brochure

Pterostilbene: The Science Behind the Next Generation Resveratrol Literature Review

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About Us - pTeroPure®

pTeroPure was founded as a high-quality raw materials brand of ChromaDex as a result of its exclusive worldwide patent rights for pterostilbene based on the technology licensed from the University of Mississippi and the USDA. ChromaDex promotes health and well-being through the discovery and development of nutraceutical ingredients - naturally occurring molecules that can be integrated into dietary supplements, nutritional products and functional foods. In a consolidating industry, ChromaDex has established itself by combining scientific rigor to its products and services along with a strong customer centric business model. ChromaDex is a Life Sciences business that is publicly traded. (OTC stock symbol CDXC.OB)



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Pterostilbene - Why pTeroPure™?

pTeroPure will promote health and well-being through the discovery and development of nutraceutical ingredients - naturally occurring molecules that can be integrated into dietary supplements, nutritional products and functional foods. Like resveratrol, pterostilbene (tero-STILL-bean) belongs to a class of compounds called phytoalexins, which are naturally produced by plants when under attack by pathogens such as bacteria or fungi. Pterostilbene and resveratrol have very similar pharmacologic properties, however pterostilbene has several key advantages over resveratrol. Pterostilbene is one of several stilbenes found in certain berries (e.g., blueberries, cranberries, sparkleberries, lingonberries, and grapes), thus, consumption of these small fruits may help improve health.

pTeroPure is a nature identical form of trans-pterostilbene. Pterostilbene is the next generation of resveratrol:

- a methylated resveratrol analog naturally found in berries
- superior biological activity
- better oral bioavailability
- metabolizes more slowly in the body, allowing more time for its antioxidant activities to act



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Pterostilbene - Science - Webinar

The presentation will focus on pterostilbene, a natural derivative of resveratrol found in small berries such as blueberries and grapes. Like resveratrol, pterostilbene functions as an antioxidant and an anti-aging agent and has been shown to help lower cholesterol and blood glucose levels. Unlike resveratrol, pterostilbene has greatly improved oral adsorption and metabolizes more slowly in the body, allowing more time for its antioxidant activities to take place. The presentation will also explain the science behind pterostilbene's ability to lower cholesterol and how it acts to reduce oxidative stress and promote anti-aging.

"The science behind the use of pterostilbene as an alternative to resveratrol is sound, and with the advent of the first human clinical study on pterostilbene that we are conducting in collaboration with the University of Mississippi, pterostilbene is here to stay." said Frank L. Jaksch Jr., cofounder and CEO of ChromaDex. "The science behind the use of pterostilbene as an alternative to resveratrol is sound, and we anticipate pterostilbene to break in to the anti-inflammatory and pain management sectors as well."

Speakers include:

Agnes Rimando, Ph.D., Research Chemist USDA, ARS University, MS

- Learn how pterostilbene functions as a neuroprotecting agent and thus acts as a potential cognitive function enhancer.
- Discover the anti-oxidant potential of pterostilbene and how it acts to protect cells from oxidative stress

Dennis Feller, Ph.D. , Chair (retired) , Dept. of Pharmacology College of Pharmacy , University of Mississippi

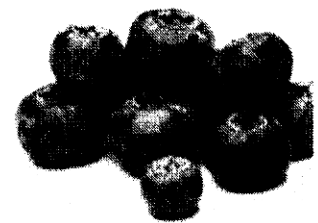
- Learn about the role of pterostilbene as a PPAR-alpha agonist in the lowering of cholesterol

Jeremy Bartos, Ph.D., Ingredients Brand Manager, pTeroPure

- Grasp the similarities and differences between pterostilbene and resveratrol and why pterostilbene has a higher biopotential and bioavailability than resveratrol
- Receive a brief overview of recently published science supporting the benefits of pterostilbene from heart health and anti-aging to diabetes and cancer

The webinar is hosted by the American Council for Medicinally Active Plants (ACMAP) / pTeroPure.

Webinar available now on demand, [click here](#).



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Pterostilbene - Science - VendorWorks

Pterostilbene - The Next Generation Resveratrol

Pterostilbene is a relative of resveratrol naturally found in small fruits such as blueberries and cranberries. Like resveratrol, it functions as an antioxidant and an anti-aging agent, improving mitochondrial function and protecting against metabolic disease by activating SIRT1 and mimicking calorie restriction. Unlike resveratrol, pterostilbene has greatly improved oral adsorption and metabolizes more slowly in the body, allowing more time for its antioxidant activities to take place.

Since pterostilbene is also synergistic with resveratrol, addition of pterostilbene to existing resveratrol products may enhance their efficacy. The pterostilbene products developed by pTeroPure are based on the technologies licensed from the USDA ARS and the University of Mississippi.

Speaker: Jeremy Bartos, Ph.D., ingredient products manager, pTeroPure (a division of ChromaDex)

VendorWorks at SupplySide 2010

VendorWorks Presentation



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Pterostilbene - Science - Comparisons with Resveratrol

Pterostilbene and resveratrol have very similar pharmacologic properties, however Pterostilbene has several key advantages over resveratrol. The main difference between Pterostilbene and resveratrol is structural; Pterostilbene contains two methoxy groups and one hydroxyl group while resveratrol has three hydroxyl groups.



The two methoxy groups cause Pterostilbene to be more lipophilic (oil-soluble) than resveratrol, which increases oral absorption and gives it a higher potential for cellular uptake, while reducing the rate of elimination from the body.¹

Pterostilbene also has a much longer half life in the blood than resveratrol (105 minutes vs. 14 minutes)^{2,3}, and has shown higher bioactivity in methods to improve heart health and reduce the effects of oxidative stress.^{4,5} Pterostilbene and resveratrol are synergistic however, with improved ability to protect against oxidative damage when taken together.⁶

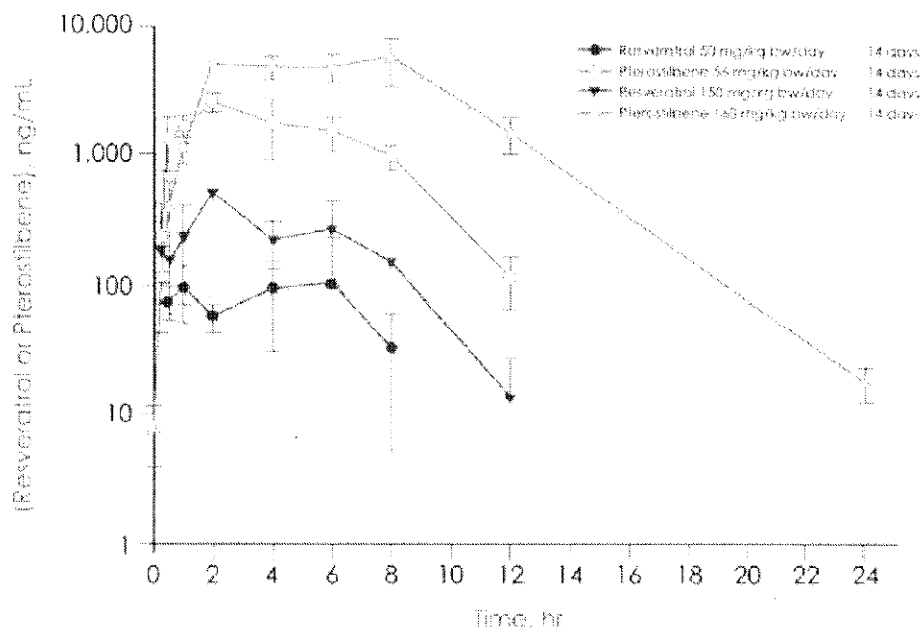
Comparisons with Resveratrol - Bioavailability

In the instance of stilbenoids, the key to bioactivity is bioavailability. During first pass through the body, the liver acts as a gatekeeper, filtering out and metabolizing foreign compounds such as pollutants, pharmaceuticals and phytochemicals. By "tagging" these compounds it renders them bio-inactive and marks them for elimination from the body. For stilbenes the liver will glucuronidate or sulfate the compound by adding a form of glucose or a sulfate group to any free hydroxyls on the structure.

Resveratrol has three places where it can be "tagged" while pterostilbene only has one, meaning that resveratrol is rapidly cleaned out by the liver while pterostilbene is allowed to continue on in the blood stream and eventually localize in the areas of need in the body. A recent paper has demonstrated that when administered orally, Pterostilbene shows 95% bioavailability while resveratrol only has 20% bioavailability.¹ Additionally, pterostilbene's lower total body clearance rates and subsequent Vss value (measuring apparent volume of distribution) suggest extensive tissue distribution.¹

Comparisons with Resveratrol - Half-Life

Because of the extent of glucuronidation and sulfation of resveratrol by the liver, its half-life in the blood is ~14 minutes.² With the two methoxy groups, pterostilbene is more robust with a half-life of ~105 minutes, over 7x longer than resveratrol.³ This means that if a product contains 100mg each of both pterostilbene and resveratrol, by the time you lost 50 mg of pterostilbene in the blood you have already lost 99.25 mg of the resveratrol that you took at the same time! The graph below shows blood concentrations of pterostilbene and resveratrol over a 24 hour time period, note that the scale is logarithmic.¹

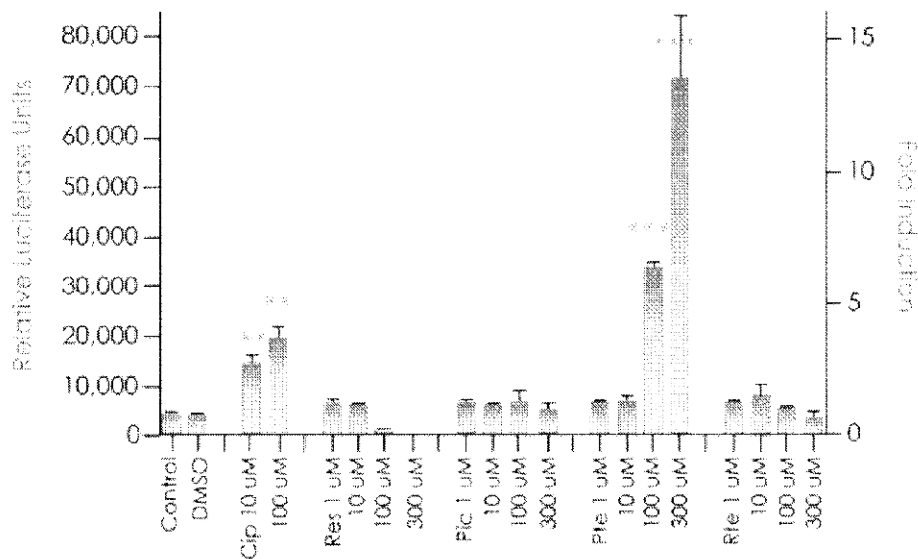


Plasma concentration-time curves for resveratrol and pterostilbene. Animals were orally dosed daily for 14 days, and pharmacokinetic profiles were obtained after the last dose. Symbols represent mean \pm SD for $n = 3$. From Kapetanovic et al., Cancer Chemother Pharmacol 2010 Nov 30

Comparisons with Resveratrol - Bioactivity

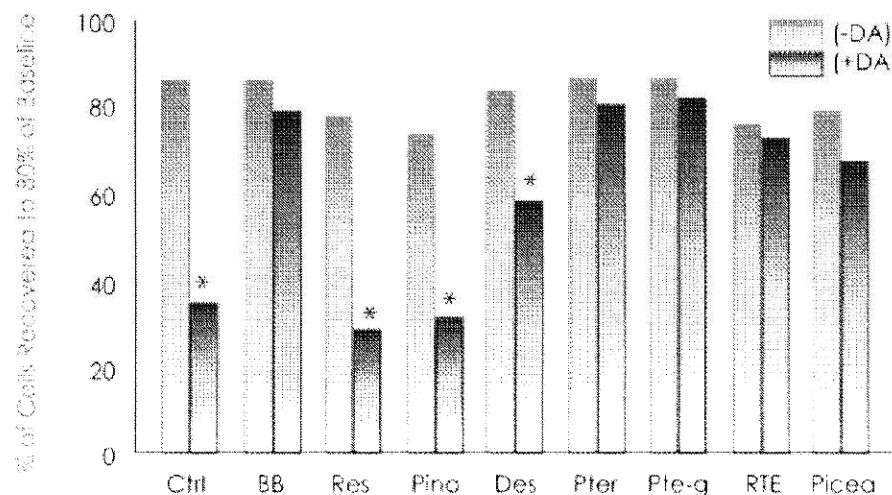
Due to the addition of the two methoxy groups, pterostilbene is more lipophilic (oil-soluble) than resveratrol. This allows pterostilbene easier uptake through the cell's lipid bilayer and thus gives it a higher potential for cellular uptake. Several published studies also refer to pterostilbene as having better bioactivity than resveratrol.

For example, it has been shown that unlike the resveratrol and related stilbenes piceatannol and trimethoxystilbene, pterostilbene is a potent peroxisome proliferator activated receptor alpha (PPAR α) agonist, lowering lipid levels in the blood stream to reduce cholesterol levels at a higher rate than even pharmaceuticals such as ciprofibrate⁴



Effect of stilbenes on PPAR in H4IIEC3 cells transfected with PPRE-AB LUC reporter gene plasmid. Cip, ciprofibrate; Res, resveratrol; Pic, piceatannol; Pte, pterostilbene; and Rte, resveratrol trimethyl ether. **Significantly different from control, $p < 0.05$, ***highly significantly different from control, $p < 0.0001$, $n = 4$. Control is media only; DMSO is solvent control without test compounds. From Rimando et al., 2005. Reproduced by permission of the author.

In addition, pterostilbene is able to protect cells from oxidative stress in vitro, while resveratrol is not.⁵



Mean Ca²⁺ recovery in M1-transfected COS-7 cells: control and treated with the stilbenes following 0 (-DA) or 1 mM Dopamine (+DA) treatment. *Difference in recovery between non-DA-treated and DA-treated cells for each treatment ($p < 0.001$). Ctrl = control cells, BB = cells given Blueberry Extract, Res = Resveratrol, Pino = Pinostilbene, Des = Desoxyflavonigenin, Pter = Pterostilbene, Pte-G = Pterostilbene Glucoside, RTE = trimethoxystilbene, Picea = Piceatannol. From Joseph et al., J. Agric. Food Chem. 56:10544-10551 (2008). Reproduced with permission of the authors.

Both resveratrol and pterostilbene have also been shown to exhibit beneficial effects in the control of atherosclerosis and heart disease, however the structural modifications to resveratrol that are found in pterostilbene are needed to increase its bioavailability while preserving the published beneficial activities.¹⁻³

Comparisons with Resveratrol - Synergism

Researchers have also shown that there are synergistic effects when resveratrol is combined with pterostilbene. For example, an in vitro assay was set up to measure the ability of pterostilbene and resveratrol to protect human erythrocytes from damage caused by an oxidative stressor.⁶ They showed that the combination of pterostilbene and resveratrol was better than the effect of either compound alone. This synergistic effect was not seen between resveratrol and quercetin nor pterostilbene and quercetin. In fact, quercetin with either compound was less effective than the compounds on their own, demonstrating an antagonistic effect.

Total concentration (µM) ^a	Combination index ^b		
	Quercetin + Resveratrol	Quercetin + Pterostilbene	Resveratrol + Pterostilbene
2.5	0.57 ± 0.15 ^c	2.86 ± 0.50	0.45 ± 0.10 ^c
5	0.65 ± 0.21 ^c	0.90 ± 0.11	0.46 ± 0.18 ^c
10	0.90 ± 0.46	1.27 ± 0.30	0.65 ± 0.11 ^c
20	1.06 ± 0.37	1.43 ± 0.40	0.53 ± 0.12 ^c
40	0.95 ± 0.59	1.70 ± 0.67	0.82 ± 0.13 ^c
60	0.80 ± 0.16	1.66 ± 0.41	0.89 ± 0.06 ^c
80	1.04 ± 0.23	1.75 ± 0.61	1.18 ± 0.06
100	1.29 ± 0.24	1.41 ± 0.56	1.47 ± 0.02

Combination index for LPO inhibition in human erythrocytes by mixtures of quercetin, *trans*-resveratrol and pterostilbene. From Mikstacka et al., Plant Foods Hum Nutr. 65, 57 (2010). Reproduced with permission of the authors.

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Main Entry: next-generation
Part of Speech: *adj*
Definition: pertaining to the next generation in a family; also, pertaining to the next stage of development or version of a product, service, or technology
Example: Programmers are now developing next-generation software.

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Next-generation is always a great word to know. So is quincunx. Does it mean:

- a fool or simpleton; ninny.
- an arrangement of five objects, as trees, in a square or rectangle, one at each corner and one in the middle.

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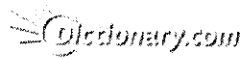
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EXHIBIT 4

Pterostilbene

From Wikipedia, the free encyclopedia

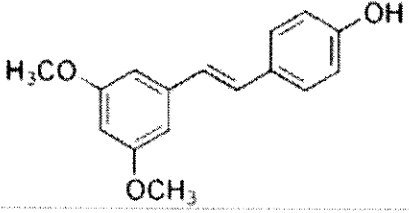
Pterostilbene is a stilbenoid chemically related to resveratrol and is found in blueberries and grapes. It belongs to the group of phytoalexins, agents produced by plants to fight infections.^[1] Based on animal studies it is thought to exhibit anti-cancer, anti-hypercholesterolemia, anti-hypertriglyceridemia properties, as well as fight off and reverse cognitive decline. It is believed that the compound also has anti-diabetic properties, but so far very little has been studied on this issue.

Contents

- 1 Pharmacokinetics
- 2 Animal studies
 - 2.1 Lowering blood lipids and cholesterol
 - 2.2 Diabetes
 - 2.3 Cognitive decline
 - 2.4 Possible anti-cancer effects
- 3 Human studies
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- 5 Toxicity
- 6 See also
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Pharmacokinetics

Pterostilbene is a double-methylated version of resveratrol exhibiting a higher bioavailability as it is more easily transported into the cell and more resistant to degradation and elimination.^[2] In rats, pterostilbene's oral availability is 67%-94%, and its half-life has been published to be between 78 minutes and 104 minutes.^{[3][4][5]}

Pterostilbene	
	
IUPAC name	
4-[(<i>E</i>)-2-(3,5-Dimethoxyphenyl)ethenyl]phenol	
Other names	
3',5'-Dimethoxy-4-stilbenol 3,5-Dimethoxy-4'-hydroxy- <i>E</i> -stilbene	
Identifiers	
CAS number	537-42-8 ✖
PubChem	5281727
ChemSpider	4445042 ✓
ChEMBL	CHEMBL83527 ✓
Jmol-3D images	Image 1 (http://chemapps.stolaf.edu/jmol/jmol.php?model=O%28c1cc%28cc%28OC%29c1%29%5CC%3DC%5Cc2ccc%28O%29cc2%29C)
SMILES	
InChI	
Properties	
Molecular formula	C ₁₆ H ₁₆ O ₃
Molar mass	256.296 g/mol
Exact mass	256.109944
✖ (verify) (what is: ✓/✖?)	
Except where noted otherwise, data are given for materials in their standard state (at 25 °C, 100 kPa)	
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Pterostilbene has anti-inflammatory, antineoplastic, and antioxidant actions via modulations of gene expression and enzyme activity.^[2] In plants the substance displays antifungal^[6] and antiviral activities.^[7]

Focus of studies has been generally on the trans isomer of pterostilbene.^[2]

Animal studies

Lowering blood lipids and cholesterol

Studies that used animals fed on blueberry based diets found significant reduction in blood lipid count and cholesterol count. While lipids and cholesterol stored in the cells do not pose much harm, elevated lipid and cholesterol levels in the blood have been linked to heart disease and stroke. In the mentioned study blueberries were found to be more effective than ciprofibrate, a cholesterol-lowering drug predominantly used outside the United States.^[8] According to the study pterostilbene binds to PPARs, breaking down the cholesterol.^[9]

Diabetes

Similar to what has been discovered with the drug metformin, pterostilbene has been shown to lower blood glucose levels in rats by as much as 56 percent, while simultaneously raising insulin and hemoglobin levels to near normal levels.^[10]

Cognitive decline

In a study of 40 19-month-old rats fed either a normal diet or a diet containing blueberry, strawberry, or spinach extracts, the rats that were fed blueberry extracts had a significant reversal in motor-skill decline due to aging as well as other cognitive impairments. All of the diets above, except the normal one, resulted in some reversal or reduction of cognitive decline but none greater than the blueberry group.^[11] Even when animal based studies yield positive results, the effects on humans may not be the same.

Possible anti-cancer effects

In 2002, Rimando and UIC collaborators found in experiments using rat mammary glands that pterostilbene possessed potent anti-oxidant characteristics and possible cancer-fighting properties at concentrations similar to resveratrol.^[12]

Additional work by Rimando and collaborators revealed a possible mechanism for pterostilbene's purported anti-cancer properties. Using mice cells, they demonstrated that pterostilbene, as well as other analogs of resveratrol, potently inhibits an enzyme called cytochrome P450.^[citation needed] (Cytochromes are found within the cells of animals, plants, bacteria, and other microorganisms that transport electrons. They're also a factor in people's varying response to drugs and toxins entering their bodies. Cytochrome P450 enzymes activate a variety of compounds known as "procarcinogens," which can turn substances such as cigarette smoke and pesticides into carcinogens.)

According to Rimando, Pterostilbene showed strong inhibitory activity, much more than resveratrol,

against a particular form of cytochrome P450 in a mouse mammary gland culture assay.

Human studies

No randomized human studies have been completed, however the first human clinical trial on the effect of pterostilbene on cholesterol and blood pressure should run from Dec 2010 to Jan 2013 at the University of Mississippi.^[13] Effect upon human health is an extrapolation of animal data. The data collected from rat studies suggest a dose of 50–100 mg of pterostilbene 2x/day, similar to the dosage of resveratrol.^{[10][14]}

In wine

While resveratrol has been touted for its heart healthy benefits, pterostilbene is not found in wine despite darker grapes having the highest concentrations among the fruit. The reason believed is that it is unstable in light and air.

Toxicity

Pterostilbene is not known to be toxic to humans.^[2]

See also

- Phytonutrients
- Phytosterol
- Blueberry
- Piceatannol, a stilbenoid related to both resveratrol and pterostilbene.
- List of phytochemicals and foods in which they are prominent

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External links

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The manufacturer's resource for dietary supplements & healthy foods and beverages



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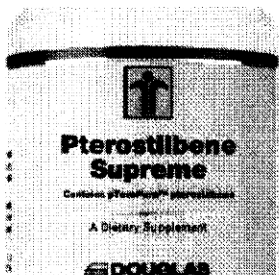
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Pterostilbene, which has been called a superior form of resveratrol, is the star of Douglas Laboratories' new Pterostilbene Supreme dietary supplement, available in January. In addition to 50 mg of pterostilbene and 100 mg of resveratrol per serving, the product provides 250 mg of Indena S.p.A.'s Meriva-brand curcumin phytosome and 1000 IU of vitamin D3 per serving.

Pterostilbene supplier pTeroPure Inc. (Irvine, CA) says that pterostilbene demonstrates better absorption and a higher potential for cellular uptake compared with resveratrol. It also has a longer half life in the blood compared with resveratrol (105 min. versus 14 min.), which pTeroPure says may allow for enhanced physiological effects.

1 (0)

≥ (#) The company's pTeroPure brand of pterostilbene is a nature-identical, 99%+ trans-pterostilbene that pTeroPure says is

superior to other marketed stilbenes due to the ingredient's high purity and sustainable source material. The company says published reports have shown pterostilbene and resveratrol to be synergistic in protecting cells from damage caused by oxidative stress.

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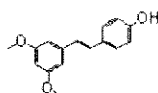
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Pterostilbene

**CAS No:** [537-42-8]**Molecular Formula:** C₁₆H₁₆O₃**Specifications1:** ≥99.5%, single impurity < 0.1% (HPLC)**Specifications2:** ≥99%, exclude one homologue, all other single impurity < 0.1% (HPLC)**Appearance:** Off white crystal powder**mp:** 89-92°C**Usage:** Next generation of resveratrol, anti-oxidant and anti-inflammatory agent**Other Name:**

Trans-Pterostilbene;

3,5-Dimethoxy-4'-hydroxy-trans-stilbene;

Trans-3,5-Dimethoxy-4'-hydroxystilbene;

(E)-4-[2-(3,5-dimethoxyphenyl)ethenyl]-Phenol;

4-[(1E)-2-(3,5-dimethoxyphenyl)ethenyl]-Phenol

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Ingredient Spotlight: Pterostilbene, Next Generation Resveratrol

Posted on September 15, 2011 by AST

We see great potential for creating custom nutritional supplements using the potent antioxidant pterostilbene, offering health benefits ranging from anti-aging, heart health, oxidative stress and memory. Because of its better absorption and ability to last up to 7 times longer in the body than resveratrol, current science supports lower a daily dosage create an opportunity to include other key nutrients within the same supplement.

You may already know ...

Resveratrol is a naturally occurring plant polyphenol commonly found in grape vines and skins. Highly regarded as a powerful antioxidant, it plays supporting roles in normal cardiovascular and mitochondrial function. Studies also indicate resveratrol may be supportive in maintaining the normal aging process by helping to prevent free radical damage that can lead to premature aging of cells.

But are you aware ...

Pterostilbene is a methylated resveratrol that is naturally occurring in berries. Some advantages over resveratrol include:

- Superior biological activity
- Better oral bioavailability
- Slower metabolism in the body

The enhanced activity of pterostilbene compared to resveratrol may be explained by structural differences. Pterostilbene with two methoxy groups and one hydroxyl group has a greater ability to dissolve in fats, oils, lipids and non-polar solvents, and a higher potential for cellular uptake than resveratrol, which has three hydroxyl groups.

Pterostilbene also supports cardiovascular health. In vivo studies demonstrate that pterostilbene possesses lipid and glucose lowering effects.

Two may be better than one!

Both pterostilbene and resveratrol support mitochondrial function and healthy aging by activating SIRT1, a key enzyme in a family of proteins that have been associated with influencing aging, energy efficiency, and alertness during low-calorie intake.

Researchers have suggested that these two compounds also work synergistically. The combination of pterostilbene and resveratrol in a

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formulation may in fact be more effective than using these ingredients separately.

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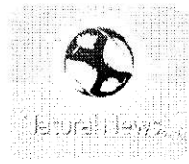
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Potential of Pterostilbene in Human Health is Promising

Friday, December 04, 2009 by: Deanna Dean
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(NaturalNews) You may not have heard of pterostilbene (pronounced "tero-Still-bean) yet. No, it's not a paleontologist' 160 million year-old dream discovery along with Triceratopsan. It is exciting news nonetheless. Resveratrol grabbed our attention a decade ago with its cardiovascular and cancer-fighting benefits; now pterostilbene is making its debut. A derivative of resveratrol, the compound is found in the

skins of red grapes. Prospects are strong for inhibiting breast cancer, diabetes, and LDL cholesterol - for starters. "The more we study pterostilbene, the more we see its huge potential in the human health field," says chemist Agnes Rimando of ARS's Natural Products Utilization Research Laboratory in Oxford, Mississippi.

Found in blueberries, grapes and the bark of the Indian Kino Tree, pterostilbene has been around for centuries in Ayurvedic medicine.

Chemist Rimando began experimenting with pterostilbene as early as the 1990's when its fungicidal and antidiabetic properties had already been established. In 2002 Rimando and her University of Illinois at Chicago colleagues discovered pterostilbene mimicked the cancer-fighting properties of resveratrol. In that same study, Rimando, Oxford physiologist Stephen Duke, and scientists at the University of Buenos Aires in Argentina found that pterostilbene claimed yet another benefit as a powerful antioxidant.

More recently Rimando and scientists at the University of Medical Science in Poznan, Poland held a study led by Renata Mikstacka, that showed pterostilbene's exciting potential as a cancer inhibiting compound with regard to certain enzymes. "Pterostilbene showed strong inhibitory activity against a particular form of cytochrome P450, which may explain the cancer preventive property it demonstrated," but she says more studies are needed to explain this process.

Korean cancer researchers agree there is growing evidence that pterostilbene provides chemoprevention, which is the use of natural or laboratory-made substances to prevent a disease such as cancer. Pterostilbene's antioxidant strength and anti-inflammatory actions help block the inflammation/cancer connection.

In another study using rat liver cells, university scientists compared the lipid-lowering effects of pterostilbene to that of ciprofibrate, a drug used for controlling lipids. Lipid tests are often part of preventative care that helps determine whether there is significant risk for arteriosclerosis, a hardening of the arteries that interferes with blood flow.

They based their comparison on each compound's ability to activate PPARα, short for peroxisome proliferator-activated receptor alpha. Activation leads to lowering of lipids in the blood. Pterostilbene outperformed resveratrol and was as effective as ciprofibrate in activating PPARα.

It is remarkable what potential health benefits pterostilbene could offer. Increased life span, improvement in age related disorders such as atherosclerosis, chronic inflammatory diseases, cognitive decline, learning and memory, cancer prevention, and enhanced insulin sensitivity all stand as hopeful beneficiaries of this mighty chemical cousin of resveratrol. Be on the watch for this rising star.

Your healthmate,
Deanna Dean

ihhealthbulletin.com/.../news-from-usda-about-pterostilbene/

Pterostilbene's Healthy Potential: November/December 2006 issue of Agricultural Research magazine

Agnes M. Rimando: USDA-ARS Natural Products Utilization Research Unit, P.O. Box 8048, Oxford, MS 38677-8048

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Deanna develops customized programs to enhance the health of her clients, educates, and coaches dieters for safe weight loss.

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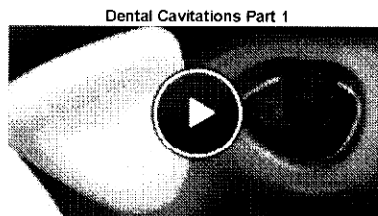
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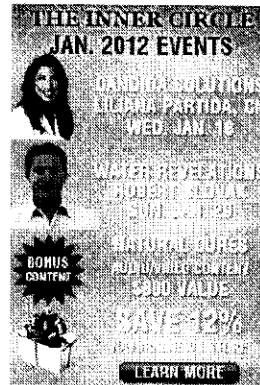
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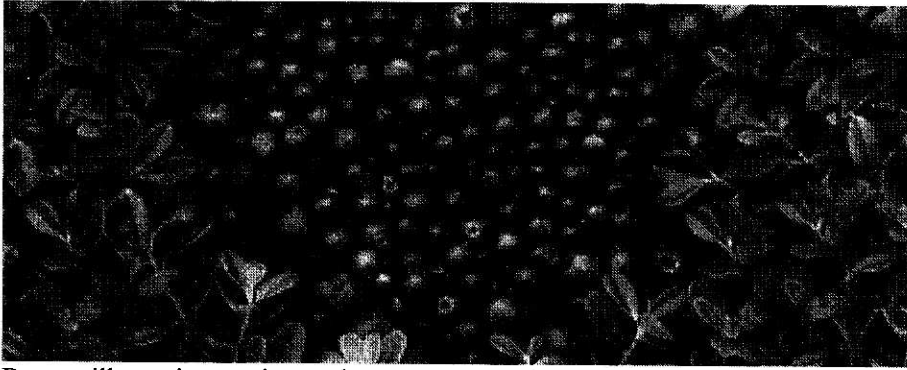
The berry-derived ingredient is proving to be a potent antioxidant and cardiovascular system supporter.

By Joanna Cosgrove

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Belonging to the phytoalexin class of compounds, pterostilbene is a protective compound produced by small berry plants like blueberries, cranberries, lingonberries and grapes to ward off the damage of pathogens such as bacteria or fungi. While such a complex biological process might be easy to overlook in such tiny berries, pterostilbene has been garnering quite a buzz in supplement circles where researchers are comparing its capabilities to those of resveratrol but with some decidedly interesting advantages in the realms of anti-aging, heart health, oxidative stress and memory support.

Pterostilbene and resveratrol both have the same role in the plant's defense system. "Resveratrol is one of the main phytoalexins in grapes, pterostilbene in blueberries," explained Jeremy Bartos, PhD, pTeroPure product manager for ChromaDex of Irvine, CA. "The only difference between the two is the presence of two methoxy groups in pterostilbene (resveratrol has three hydroxyl groups, pterostilbene has one along with the two methoxys).

It's the methoxy groups that make all of the difference when it comes to utilizing these compounds in the human body. "Resveratrol has two things going against it," said Dr. Bartos. "One is the fact that without the methoxy groups it is not as lipophilic (oil-soluble) as pterostilbene, so it's cellular uptake is much less than pterostilbene – pterostilbene can be taken through the cell's lipid bi-layer rather easily."

The second difference has to do with how pterostilbene is filtered through the human liver. "The liver acts as the gatekeeper to the body; it filters everything that comes through and compounds it does not recognize (such as pharmaceuticals, plant chemicals and toxins) it will tag for elimination from the body," said Dr. Bartos. "In the case with stilbenes such as resveratrol and pterostilbene the liver will typically glucuronidate (add a glucuronic acid molecule, a compound very similar to glucose) or sulfate any free hydroxyl groups it can find. Since resveratrol has three hydroxyl groups it is tagged for elimination much quicker and easier than pterostilbene with only one hydroxyl group, leading to a half-life in the blood of ~14 minutes compared to ~105 minutes for pterostilbene."

To underscore his comment, Dr. Bartos pointed to a recently published paper which confirmed the bioavailability of pterostilbene as being "three to four times greater than that of resveratrol," and noted that "systemic exposure to pterostilbene was substantially greater than was systemic exposure

to resveratrol.” (*Cancer Chemotherapy & Pharmacology*, 2010 Nov 30)

Canon of Research

Pterostilbene has been a part of the supplement research vernacular since the early 1990s but only became more well-known in the mid 2000s. Much of the current pterostilbene research being conducted today mirrors the studies that made resveratrol a household word, Dr. Bartos explained.

A study published by the USDA in 2005 compared both pterostilbene and resveratrol to determine their ability to induce PPAR-alpha activation, which is involved in fatty acid and lipid catabolism as its activation leads to decreased triglyceride and very low density lipoprotein (VLDL) synthesis. “It was shown in the study that pterostilbene activated PPAR-alpha *in vitro* better than all compounds tested, including both resveratrol and the pharmaceutical ciprofibrate,” said Dr. Bartos. “Subsequent structural and *in vivo* studies confirmed the correlation between pterostilbene’s activation of PPAR-alpha and cholesterol lowering. In fact, the first human clinical trial on pterostilbene currently underway at the University of Mississippi has cholesterol as its primary endpoint.”

A second study compared the ability of resveratrol and pterostilbene to protect cells against oxidative stress. “A collaboration of scientists from Tufts University and the USDA measured the ability of several plant polyphenols to protect cells from damage caused by oxidative stress and found that while pterostilbene was able to protect the cells, resveratrol was not. This is important for several reasons,” Dr. Bartos recalled. “First of all, the buzz around the industry is ‘anti-oxidant’ and ‘ORAC,’ (Oxygen Radical Absorbance Capacity), a quick and dirty way to measure the potential ability of a compound to neutralize free radicals before they cause oxidative damage.”

The problem with ORAC is that it only measures potential of a compound, not the actual ability, he said. “High ORAC compounds may have all the potential in the world, but if they can’t get to where they need to be in order to do the job they are supposed to be doing (in this case neutralizing free radicals) then the potential is never realized. So it is important to note that scientists went even further to show that pterostilbene’s ability to protect cells from oxidative damage can be seen in animal models as well as cell models.

“This is important because it shows that pterostilbene has the ability to localize in the places where it can be used,” he continued. “Oxidative damage seems to be at least partially responsible for aging disease such as Alzheimer’s. The scientists showed a direct correlation between the levels of pterostilbene in rat’s hippocampus (memory center of the brain) and their ability to remember how to run a maze, showing that pterostilbene’s protection against oxidative stress can be translated to behavioral changes as well.”

The most noteworthy up and coming pterostilbene studies will focus on sirtuin activation. “One of the latest papers is entitled ‘Pterostilbene Is More Potent than Resveratrol in Preventing Azoxymethane (AOM)-Induced Colon Tumorigenesis via Activation of the NF-E2-Related Factor 2 (Nrf2)-Mediated Antioxidant Signaling Pathway,’ [which] directly compares the abilities of pterostilbene and resveratrol to inhibit the formation of colon tumors in mice based on their anti-oxidant abilities alone,” said Dr. Bartos. “They found that while both pterostilbene and resveratrol were able to inhibit tumor formation by enhancing expression of antioxidant enzymes via activation of the Nrf2 protein, pterostilbene was significantly more potent than resveratrol.”

Market Potential

Because pterostilbene is still in its relative infancy, its market size and potential is somewhat difficult to calculate. Dr. Bartos said the first pterostilbene products were rolled out directly to physicians. Niche mail and Internet order markets are the next distribution phase, with retail venues as phase three. ChromaDex's pTeroPure brand pterostilbene enjoyed a retail debut earlier this year and has steadily gained traction with larger retail companies—a phenomenon that should be bolstered over the next few weeks when the ingredient attains self-affirmed Generally Recognized As Safe (GRAS) status.

“With this hurdle behind, pTeroPure is no longer limited to the nutraceutical market and can be included in functional foods such as granola bars, cereal, yogurt, etc.,” said Dr. Bartos. “Imagine a cheese product that contains an ingredient that can improve your heart health, or a cookie that contains a compound used for centuries to support blood sugar levels.”

Research has suggested that pterostilbene and resveratrol can also work synergistically to protect cells from damage caused by oxidative stress and, in fact, may be more effective together than if used separately. To that end, last month Nutraceutical International Corporation added a new resveratrol and pTeroPure pterostilbene combination product to its Solaray Guaranteed Potency line of products.

In addition to the supplement market, ChromaDex also has high expectations for success with pTeroPure in the cosmetics market. “Because pterostilbene is lipophilic (oil-soluble), not only is it compatible with oil-based creams, but it also has fantastic uptake in to the cells because it can easily get through the cell's lipid bilayer,” Dr. Bartos said. “This allows the ability to absorb a powerful anti-oxidant right into the skin where it can work to limit damage associated with aging. Recent experiments with the bacteria that causes acne have also shown promise.”

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