

## PATENT ASSIGNMENT

Electronic Version v1.1  
Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
MARTEK BIOSCIENCES BOULDER CORPORATION	08/13/2003
RECEIVING PARTY DATA	
Name:	MARTEK BIOSCIENCES CORPORATION
Street Address:	6480 DOBBIN ROAD
City:	COLUMBIA
State/Country:	MARYLAND
Postal Code:	21045
PROPERTY NUMBERS Total: 3	
Property Type	Number
Application Number:	11021712
Patent Number:	7851191
Application Number:	12942759
CORRESPONDENCE DATA	
Fax Number:	2023712540
Phone:	2023712600
Email:	lbrandes@skgf.com
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>	
Correspondent Name:	STERNE, KESSLER, GOLDSTEIN & FOX PLLC
Address Line 1:	1100 NEW YORK AVENUE, NW
Address Line 4:	WASHINGTON, DISTRICT OF COLUMBIA 20005
ATTORNEY DOCKET NUMBER:	2715.141STR1
NAME OF SUBMITTER:	LORI M. BRANDES
Total Attachments: 6 source=BOULDER TO MARTEK DOCUMENT#page1.tif	

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## ASSIGNMENT

WHEREAS, Martek Biosciences Boulder Corporation, a Delaware corporation having a place of business at 4909 Nautilus Court N., Suite 208, Boulder, CO 80301-3242, is the owner of an interest in and to the patents and patent applications listed on the attached Appendix A;

WHEREAS, Martek Biosciences Corporation, a Delaware corporation having a place of business at 6480 Dobbin Road, Columbia, Maryland 21045, is desirous of acquiring said interest of the patents and patent applications listed on the attached Appendix A.

NOW THEREFORE, be it known that for certain good and valuable consideration, the sufficiency and receipt of which is hereby acknowledged, Martek Biosciences Boulder Corporation does sell, assign and transfer to Martek Biosciences Corporation, its successors, legal representatives and assigns, the aforesaid patents and patent applications listed on the attached Appendix A for the territory of the United States of America and all continuation, divisional, continuation-in-part and reissue applications, all patent applications in foreign countries, all applications pursuant to the Patent Cooperation Treaty and all applications for extension filed or to be filed for the invention, and all Letters Patent, Invention Registrations, Utility Models, Extensions or Reissues and other patent rights, obtained for the invention in the United States or any other country; Martek Biosciences Boulder Corporation also assigns any right, title or interest in and to the said invention which has not already been transferred to Martek Biosciences Corporation; Martek Biosciences Boulder Corporation warrants that no assignment has been made of the patents and patent applications listed on the attached Appendix A to a party other than Martek Biosciences Corporation and is under no obligation to make any assignment of these patents/patent applications to any other party; and Martek Biosciences Boulder Corporation further agrees to cooperate with Martek Biosciences Corporation hereunder in the obtaining and sustaining of any and all such Letters Patent and in confirming Martek Biosciences Corporation's exclusive ownership of the invention, but at the expense of Martek Biosciences Corporation.

The Commissioner of Patents is hereby authorized and requested to issue the Letters Patent solely in accordance with the terms of this Assignment, to Martek Biosciences Corporation, its successors, legal representatives and assigns, as the assignee of the entire right, title and interest therein.

IN WITNESS WHEREOF, the parties hereto have executed this Assignment as of the day indicated hereunder.

Date: 8/13/03  
By: [Signature]  
Name: JAMES H. FLATT

STATE OF MARYLAND )

COUNTY OF HOWARD )

SS.

Before me, a Notary Public in and for said County and State, personally appeared James H. Flatt who acknowledged himself to be the Senior Vice President of Research and Development of Martek Biosciences Boulder Corporation and that he, being authorized to do so, executed the foregoing instrument for the purposes and considerations therein expressed, by signing the name of the corporation by himself as Senior Vice President of Research and Development.

Given under my hand and seal of office this 13<sup>th</sup> day of August, 2003.

Diana L. Brown, Notary Public  
Baltimore County  
State of Maryland  
My Commission Expires July 1, 2006

[Signature]  
Notary Public

[Signature]  
Commission Expires

PATENT

REEL: 028928 FRAME: 0416

Date: 8/13/03  
By: [Signature]  
Name: GEORGE P. BARKER

STATE OF MARYLAND            )  
                                      )    ss.  
COUNTY OF HOWARD        )

Before me, a Notary Public in and for said County and State, personally appeared George P. Barker who acknowledged himself to be the Senior Vice President and General Counsel of Martek Biosciences Corporation and that he, being authorized to do so, executed the foregoing instrument for the purposes and considerations therein expressed, by signing the name of the corporation by himself as Senior Vice President and General Counsel.

Given under my hand and seal of office this 13<sup>th</sup> day of August, 2003.

**Dianna L. Brown, Notary Public**  
**Baltimore County**  
**State of Maryland**  
**My Commission Expires July 1, 2006**

[Signature]  
Notary Public  
July 1, 2006  
Commission Expiration

# Appendix A

## Martek Biosciences Boulder Corporation to Martek Biosciences Corporation

File #	Appl. No. Filing Date	Patent No. Issue Date	Patent Title
2997-1	07/580,778 9/11/1990	5,130,242 7/14/1992	Process for the Heterotrophic Production of Microbial Products with High Concentrations of Omega-3 Highly Unsaturated Fatty Acids
2997-1-2	07/911,760 7/10/1992	5,340,594 8/23/1994	Food Product Having High Concentrations of Omega-3 Highly Unsaturated Fatty Acids
2997-1-2-1	08/292,736 8/18/1994	5,656,319 8/12/1997	Food Product with High Concentrations of Omega-3 Highly Unsaturated Fatty Acids
2997-1-2-1-1	08/483,477 6/07/1995	5,698,244 12/16/1997	Method for Raising Animals Having High Concentrations of Omega-3 Highly Unsaturated Fatty Acids
2997-1-2-1-1-DIV	08/918,325 8/26/1997	5,985,348 11/18/1999	Milk Products Having High Concentrations of Omega-3 Highly Unsaturated Fatty Acids
2997-1-2-2	09/434,696 11/05/1999	6,177,108 1/23/2001	Method for Producing Milk Products Having High Concentrations of Omega-3 Highly Unsaturated Fatty Acids
2997-1-2-3	09/730,048 12/4/2000		Eggs Containing High Concentrations of Omega-3 Highly Unsaturated Fatty Acids and Methods for Producing the Same
2997-1-2-3-1	10/244,056 9/13/2002		Process for the Heterotrophic Production of Microbial Products with High Concentrations of Omega-3 Highly Unsaturated Fatty Acids
2997-1-3	07/982,522 10/16/1992	5,340,742 8/23/1994	Process for Growing Thraustochytrium and Schizochytrium Using Non-Chloride Salts to Produce a Microfloral Biomass Having Omega-3 Highly Unsaturated Fatty Acids
2997-1-3-1	08/292,490 8/18/1994	5,518,918 5/21/1996	Microfloral Biomass Having Omega-3 Highly Unsaturated Fatty Acids
2997-1-3-1-1	08/481,137 6/5/1995	5,688,500 11/18/1997	Method of Aquaculture Comprising Feeding Microflora Having a Small Cell Aggregate size
2997-1-3-1-1-CON	08/968,628 11/12/1997		A Method for Growing Microorganisms in Stainless Steel Fermentors in High Sodium Media
2997-1-3-1-2	08/842,874 4/17/1997	5,908,622 6/1/1999	Food Product Containing Thraustochytrium and/or Schizochytrium Microflora and an Additional Agricultural Based Ingredient
2997-1-3-1-3	09/270,301 3/15/1999	6,103,225 8/15/2000	Methods of Aquaculture by Feeding Larval Shrimp Thraustochytrium and/or Schizochytrium Microflora
2997-1-3-1-3-DIV	09/639,426 8/15/2000	6,566,123 5/20/2003	Aquaculture Feed Composition Including Thraustochytriales Microflora
2997-1-3-1-4	09/461,663 12/14/1999	6,410,281 6/25/2002	Reducing Corrosion in a Fermentor by Providing Sodium with a Non-Chloride Sodium Salt
2997-1-3-2	09/461,709 12/14/1999	6,451,567 9/17/2002	Lipids Extracted from Microorganisms

File #	Appl. No. Filing Date	Patent No. Issue Date	Patent Title
2997-1-3-2-1	10/154,273 5/22/2002		Process for the Heterotrophic Production of Microbial Products with High Concentrations of Omega-3 Highly Unsaturated Fatty Acids
2997-1-4	09/134,504 8/14/1998	6,054,147 4/25/2000	Method for Increasing the Incorporation Efficiency of Omega-3 Highly Unsaturated Fatty Acid in Poultry Meat
2997-2	07/439,093 11/17/1989		Process for the Heterotrophic Production of Microbial Product with High Concentrations of Omega-3 Highly Unsaturated Fatty Acids
2997-4	08/377,766 1/24/1995	5,583,019 12/10/1996	Method for Production of Arachidonic Acid
2997-4-1	08/763,973 12/10/1996	5,882,703 3/16/1999	Product Containing Mortierella Sect. Schmuckeri Lipids
2997-4-1-1	09/270,294 3/15/1999	6,245,365 6/12/2001	Food Products Containing Mortierella Sect. Schmuckeri Lipids
2997-4-1-1-1	09/480,060 1/10/2000	6,319,698 11/20/2001	Method for Producing Arachidonic Acid
2997-4-1-1-2	09/972,550 10/5/2001		Method for Production of Arachidonic Acid
2997-4-1-2	09/789,057 2/19/2001	6,541,049 4/1/2003	Food Products Containing Mortierella Sect. Schmuckeri
2997-9	09/771,352 1/26/2001		Enhanced Production of Lipids Containing Polyenoic Fatty Acid by Very High Density Cultures of Eukaryotic Microbes in Fermentors
2997-19	09/766,500 1/19/2001		Solventless Extraction Process
2997-20-PROV	60/177,249 1/20/2000		Method for Raising Rabbits
2997-20-PROV1	60/177,314 1/21/2000		Method for Raising Rabbits
2997-20-PUS	10/181,756 7/19/2002	6,568,351 5/27/2003	Method for Raising Rabbits
2997-21-PROV	60/214,291 6/26/2000		Improved Method of Incorporating Polyunsaturated Fatty Acids in Milk
2997-21-PUS	10/312,106 3/28/2003		Improved Method of Incorporating Polyunsaturated Fatty Acids in Milk
2997-23-PROV	60/284,116 4/16/2001		Product and Process for Transformation of Thraustochytriales Microorganisms
2997-23	10/124,807 4/16/2002		Product and Process for Transformation of Thraustochytriales Microorganisms
2997-23-PCT	US02/12040 4/16/2002		Product and Process for Transformation of Thraustochytriales Microorganisms
2997-27-PROV	60/251,431 12/4/2000		Purification of Highly Unsaturated Fatty Acids Using High Performance Liquid Chromatography

File #	Appl. No. Filing Date	Patent No. Issue Date	Patent Title
2997-29-PROV	60/284,066 4/16/2001		Polyketide Synthase System and Uses Thereof
2997-29-PROV-1	60/298,796 6/15/2001		A Polyketide Synthase System and Uses Thereof
2997-29-PROV-2	60/323,269 9/18/2001		Thraustochytrium PUFA PKS System and Uses Thereof
2997-29	10/124,800 4/16/2002		PUFA Polyketide Synthase Systems and Uses Thereof
2997-29-PCT	US02/12254 4/16/2002		PUFA Polyketide Synthase Systems and Uses Thereof
2997-31-PROV	60/290,898 5/14/2001		A Method of Improving the Flavor, Tenderness and Overall Consumer Acceptability of Poultry Meat
2997-31-PCT	US02/15353 5/14/2002		A Method of Improving the Flavor, Tenderness and Overall Consumer Acceptability of Poultry Meat
2997-32-PROV	60/291,484 5/14/2001		Production and Use of a Polar Lipid-Rich Fraction Containing Stearidonic Acid and Gamma Linolenic Acid from Plant Seeds and Microbes
2997-32-PCT	US02/15479 5/14/2002		Production and Use of a Polar Lipid-Rich Fraction Containing Stearidonic Acid and Gamma Linolenic Acid from Plant Seeds and Microbes
2997-33-PROV	60/290,899 5/14/2001		Production and Use of a Polar Lipid-Rich Fraction Containing Omega-3 and/or Omega-6 Highly Unsaturated Fatty Acids from Microbes, Genetically Modified Plant Seeds and Marine Organisms
2997-33-PCT	US02/15454 5/14/2002		Production and Use of a Polar Lipid-Rich Fraction Containing Omega-3 and/or Omega-6 Highly Unsaturated Fatty Acids from Microbes, Genetically Modified Plant Seeds and Marine Organisms
2997-34	09/231,899 1/14/1999	6,566,583 5/20/2003	Schizochytrium PKS Genes
2997-34-1	10/331,061 12/27/2002		Schizochytrium PKS Genes
2997-35	09/507,718 2/17/2000	6,399,803 6/4/2002	Process for Separating a Triglyceride Comprising a Docosahexaenoic Acid Residue from a Mixture of Triglycerides
2997-35-PROV	60/121,734 2/26/1999		Process for Separating a Triglyceride Comprising a Docosahexaenoic Acid Residue from a Mixture of Triglycerides
2997-38-PROV	60/314,713 8/24/2001		Products Containing Highly Unsaturated Fatty Acids for Use by Women During States of Preconception, Pregnancy and Lactation
2997-38	10/226,843 8/26/2002		Products Containing Highly Unsaturated Fatty Acids for Use by Women and Their Children During States of Preconception, Pregnancy and Lactation

File #	Appl. No. Filing Date	Patent No. Issue Date	Patent Title
2997-38-PCT	US02/27134 8/26/2002		Products Containing Highly Unsaturated Fatty Acids for Use by Women and Their Children During States of Preconception, Pregnancy and Lactation
2997-39	09/758,973 1/11/2001	6,395,778 5/28/2002	Process for Making an Enriched Mixture of Polyunsaturated Fatty Acid Esters
2997-39-1	10/087,186 2/28/2002		Process for Making an Enriched Mixture of Polyunsaturated Fatty Acid Esters
2997-39-PROV	60/175,583 1/11/2000		Process for Making an Enriched Mixture of Polyunsaturated Fatty Acid Esters
2997-42-PROV	60/341,180 12/12/2001		Extraction and Winterization of Lipids From Oilseed and Microbial Sources Using Acetone or Analogous Solvent
2997-42-PCT	US02/39930 12/12/2002		Extraction and Winterization of Lipids From Oilseed and Microbial Sources Using Acetone or Analogous Solvent
2997-43-PROV	60/355,008 2/7/2002		Methods for Producing and Uses of Highly Unsaturated Fatty Acids in Pharmaceutical Applications