503778230 04/11/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3824876

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ZEN-BIO, INC.	03/06/2001

RECEIVING PARTY DATA

Name:	ARTECEL SCIENCES, INC.
Street Address:	4819 EMPEROR BLVD.
Internal Address:	HQ GLOBAL WORPLACES
City:	DURHAM
State/Country:	NORTH CAROLINA
Postal Code:	27703

PROPERTY NUMBERS Total: 11

Property Type	Number
Patent Number:	8486700
Patent Number:	7179649
Patent Number:	9200255
Application Number:	14941399
Patent Number:	6841150
Patent Number:	7078232
Patent Number:	7033587
Patent Number:	8048673
Application Number:	11450213
Patent Number:	8911994
Application Number:	14570127

CORRESPONDENCE DATA

Fax Number: (215)656-2498

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 215-656-3381

Email: pto.phil@dlapiper.com

Correspondent Name: IP GROUP OF DLA PIPER LLP (US)

Address Line 1: ONE LIBERTY PLACE

Address Line 2: 1650 MARKET ST. SUITE 4900

PATENT
REEL: 038248 FRAME: 0157

503778230

LADELPHIA, PENNSYLVANIA 19103
COG-1-B
PAUL CARANGO
/Paul Carango/
04/11/2016

ASSIGNMENT

THIS ASSIGNMENT, made by ZEN-BIO, INC., a corporation of the state of North Carolina, having its principal place of business at 3200 Chapel Hill-Nelson Blvd., Suite 102, Research Triangle Park, NC, 27709, hereinafter referred to as Assignor;

WITNESSETH: That,

WHEREAS, as shown by the records of the United States Patent and Trademark Office, Assignor has previously acquired all right, title, and interest in and to the United States patent and/or patent applications identified on the attached Schedule and in and to all corresponding patents and/or patent applications worldwide, and in and to the inventions represented thereby (all hereinafter referred to as the 'Patents'); and,

WHEREAS ARTECEL SCIENCES, INC., a corporation of the state of Delaware, having its principal place of business at HQ Global Workplaces, 4819 Emperor Blvd., Durham, NC 27703, hereinafter referred to as Assignee, is desirous of acquiring the entire right, title, and interest in and to said Patents and in and to the inventions represented thereby; and

WHEREAS, the parties have agreed to the Assignment hereinafter set forth; NOW, THEREFORE, To All Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the above Assignor has sold and by these presents does hereby sell, assign, transfer, and convey unto the said Assignee, its successors and assigns, its entire right, title, and interest in and to said Patents and the inventions represented thereby, and any and all continuations, continuations-in-part, or divisions thereof, and any and all Letters Patent or reissues, reexaminations, or extensions thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted, together with the right to claim priority in all foreign countries in accordance with the International Convention; all rights corresponding to said Patents in foreign countries throughout the world; and all of its rights to sue for past infringement of said Patents worldwide, together with all claims for damage by reason of past infringement of said Patents, with the right to sue for, and collect the same for Assignee's own use and enjoyment; all to be held and enjoyed by said Assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by Assignor if this assignment and sale had not been made.

From time to time after the date hereof, at the request of either party hereto, and at the expense of the party so requesting, each of the parties hereto shall execute and deliver to such

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requesting party such documents and take such other action as such requesting party may reasonably request in order to consummate more effectively the transactions contemplated hereby.

The Assignor further covenants and agrees that, at the time of the execution and delivery of these presents, it possesses full title to the inventions and Patents thereon as earlier identified, and that it has the unencumbered right and authority to make this assignment.

IN WITNESS WHEREOF, the Assignor has caused this assignment to be executed
this 6th day of March. 2001.
By: (SEAL)
trebices 2:st
STATE OF North Carolina) COUNTY OF Durham)
170
This day of March 2001, personally came before me, who, being by me
Branda) Sterrel a Notary Public for said County and State, , who, being by interest of ZEN-BIO. INC., a North Carolina
Branda Sterrel a Notary Public for said County and State, , who, being by ine duly swom, says that he is Pasiarn of ZEN-BIO, INC., a North Carolina duly swom, says that he is Pasiarn of ZEN-BIO, INC., a North Carolina duly swom, says that he is Pasiarn of ZEN-BIO, INC., a North Carolina duly swom, says that he is Pasiarn of ZEN-BIO, INC., a North Carolina duly swom, says that he is Pasiarn of ZEN-BIO, INC., a North Carolina duly swom, says that he is Pasiarn of ZEN-BIO, INC., a North Carolina duly swom, says that he is Pasiarn of ZEN-BIO, INC., a North Carolina duly swom, says that he is Pasiarn of ZEN-BIO, INC., a North Carolina duly swom, says that he is Pasiarn of ZEN-BIO, INC., a North Carolina duly swom, says that he is Pasiarn of ZEN-BIO, INC., a North Carolina duly swom, says that he is Pasiarn of ZEN-BIO, INC., a North Carolina duly swom, says that he is Pasiarn of ZEN-BIO, INC., a North Carolina duly swom, says that he is Pasiarn of ZEN-BIO, INC., a North Carolina duly swom, says that he is Pasiarn of ZEN-BIO, INC., a North Carolina duly swom, says that he is Pasiarn of ZEN-BIO, INC., a North Carolina duly swom of ZEN-B
duly swom, says that he is Pesident of ZEN-BIO, INC., a North Carolina corporation, and that the seal affixed to the foregoing instrument in writing is the corporate
duly swom, says that he is President of ZEN-BIO, INC., a North Carolina corporation, and that the seal affixed to the foregoing instrument in writing is the corporate seal of said company, and that said writing was signed and sealed by him in behalf of said corporation by its authority duly given. And the said Peter Pieta Com acknowledged the said writing to be the act and deed of said corporation.
duly swom, says that he is President of ZEN-BIO, INC., a North Carolina corporation, and that the seal affixed to the foregoing instrument in writing is the corporate seal of said company, and that said writing was signed and sealed by him in behalf of said corporation by its authority duly given. And the said Peter Pieta Com acknowledged the said writing to be the act and deed of said corporation.
duly swom, says that he is

04:30pm

Schedule of Applications/U.S. Patents for Assignment From Zen-Bio, Inc. to Artecel Sciences,

Effective January 2, 2001

	r aarnang	Enective January 4, 2001		
Atty, Docket North	Lawitt Novil Micharte		Appl No.	Filing Date
5750-4-1 173755		Differentiation of Adipose Stromal Cells Into Osteoblasts And Uses Thereof	PCT/US98/25449	12/1/98
5750-4-2 Canada (197927)		Differentiation of Adipose Stromal Cells Into Osteoblasts And Uses Thereof	2,312,847	12/1/98
5750-4-3 China (197930)		Differentiation of Adipose Stromal Cells Into Osteoblasts And Uses Thereof	98811794.0	12/1/98
5750-4-4 EP (197931)		Differentiation of Adipose Stromal Cells Into Osteoblasts And Uses Thereof	98960593.6	12/1/98
5750-4-5 Japan (197932)		Differentiation of Adipose Stromal Cells Into Osteoblasts And Uses Thereof	2000-523321	12/1/98
5750-17 US (198374)		Differentiation of Adipose Stromal Cells Into Osteoblasts And Uses Thereof	09/554,868	5/19/00
5750-7 (180376)	6,100,047 / 8/8/00	Modulation Of The Sulfonylurea Receptor and Calcium In Adipocytes For Treatment Of Obesity And Diabetes	09/287,907	4/7/99
5750-7A (199479)		Modulation Of The Sulfonylurea Receptor and Calcium In Adipocytes For Treatment Of Obesity And Diabetes	09/592,420	6/12/00
5750-7B (199481)		Modulation Of The Sulfonylurea Receptor and Calcium In Adipocytes For Treatment Of Obesity And Diabetes	09/592,019	6/12/00
5750-7C (199482)		Modulation Of The Sulfonylurea Receptor and Calcium In Adipocytes For Treatment Of Obesity And Diabetes	09/592,421	6/12/00

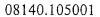
RTA011208677871

Atty. Doller Mis	DREAM NOTISTE DATE	Appl. No	Eiling Date
5750-12 (199141)	The Use of Adipose Tissue-Derived Stromal Cells for Chondrocyte Differentiation and Cartilage Repair	09/573,989	2/17/00
5750-12-1 Canada (200125)	Use Of Adipose Tissue-Derived Stromal Cells For Chondrocyte Differentiation And Cartilage Repair	2,316,413	8/18/00
5750-12-2 China (200126)	Use Of Adipose Tissue-Derived Stromal Cells For Chondrocyte Differentiation and Cartiloge Repair	00128981,0	8/21/00
5750-12-3 BP (200127)	Use Of Adipose Tissue-Derived Stromal Cells For Chondrocyte Differentiation And Cartifage Repair	00307155.2	8/21/00
5750-12-4 Japan (200128)	Use Of Adipose Tissuc-Derived Stromal Cells For Chandrocyte Differentiation And Cartilage Repair	2000-250009	8/21/00
5750-12-5 Taiwan (200129)	Use Of Adipose Tissue-Derived Stromal Cells For Chondrocyte Differentiation And Cartilage Repair	89115958	00/80/8
5750-13 (202282)	Multiple Mesodernal Lineage Differentiation Potentials for Adipose Tissue-Derived Stromal Cells and Uses Thereof	09/638,544	8/14/00
5750-13-1 Canada (203062)	Multiple Mesodermal Lineage Differentiation Potentials for Adipose Tissuc-Derived Stromal Cells and Uses Thereof	2,316,400	8/18/00
5750-(3-2 China (203064)	Mulúple Mesodemal Lineage Differentiation Potentials for Adipose	00131695.8	8/18/00

HTA01/10867/811

ATTY, DOOKEE NO. 1 1918	front North Sire Date		Appl. No.	Filing Date
	Tissue-Derived Stromal Cells and Uses [Thereof	cils and Uses		
5750-13-3 EP (203065)	Multiple Mesodermal Lineage Differentiation Potentials for Adipose	eage for Adipose	00307153.7	8/21/00
	Tissue-Derived Stromal Cells and Uses Thereof	Cells and Uses		
5750-13-4	Multiple Mesodermal Lineage	cage	2000-249591	8/21/00
Japan (2030bb)	Differentiation Potentials for Adipose Tissue-Derived Stromal Cells and Uses	tor Adipose Sells and Uses		
5750-15P (193598)	Pleuripotent Stem Cell Potential Of Adipose Tissue - Derived Stromal Cells And Uses Thereof	otential Of Adipose Cells And Uses	60/185,338	2/26/00

RTA01/2086778v1





CERTIFICATE OF MAILING (37 C.F.R. 1.8a)

I hereby certify that the enclosed Recordation of Assignment, along with any paper referred to as being attached or enclosed, is being deposited with the United States Mail on the date shown below with sufficient first-class postage in an envelope to Box Assignment, Assistant Commissioner for Patents, Washington, DC 20231.

Joseph M. Bennett-Paris

Date: <u>ker 2 , 200 |</u>

Zen-Bio to Artecel Assignments of March 6, 2001

US Patent Applications

- 1. 09/554,868
- 2. 09/573,989
- 3. 09/592,019
- 4. 09/592,420
- 5. 09/592,421
- 6. 09/638,544
- 7. 60/185,338

US Patents

8. 6,100,047

PCT Applications

RECORDED: 04/11/2016

9. US98/25449 (publication: WO 99/28444)