

May 31, 2011

MEMORANDUM

To: Trustee Policy Committee
From: Kim A. Wilcox, Provost *KAW*
Re: Approval of Contract Terms: *Bio Plastic Polymers and Composites, LLC*

Recommendation:

BE IT RESOLVED that the Trustee Policy Committee recommends to the Board of Trustees that it approve the execution of a license agreement with *Bio Plastic Polymers and Composites, LLC*, consistent with earlier public notice given at a Board meeting and with the "License Agreement Term Sheet" now presented to the Board for inclusion in its minutes.

Background:

In compliance with State law, public notice of the University's intent to negotiate contracts with *Bio Plastic Polymers and Composites, LLC*, a Michigan limited liability company based in Okemos, was given at the Board of Trustees' meeting on April 3, 2002. The Board approved the terms of a license agreement at its meeting of October 10, 2003. The terms of an amendment to the license agreement is now being presented for approval.

Dr. Ramani Narayan, a Professor in the Department of Chemical Engineering, and his immediate family own or have options to buy an equity interest of more than 1% of the company. Dr. Narayan is also an officer of *Bio Plastic Polymers and Composites, LLC*.

The attached "License Agreement Term Sheet" summarizes the agreement that MSU has negotiated with *Bio Plastic Polymers and Composites, LLC*.

Cc: Trustee Finance Committee
President Lou Anna K. Simon
Vice President Fred Poston
Vice President J. Ian Gray
Vice President Robert A. Noto
Secretary Bill Beekman
Dr. Terry May
Deputy General Counsel Kristine Zayko
Assistant General Counsel Lee Bollinger



OFFICE OF THE
PROVOST

Michigan State University
Administration Building
East Lansing, Michigan
48824-1046

FAX: 517/355-9601

LICENSE AGREEMENT TERM SHEET

Party: Bio Plastic Polymers and Composites, LLC

License: Amendment to license agreement effective March 31, 2004 to use the additional technologies in all fields described below for commercial purposes.

Term: Extending to the expiration of the last to expire of the Patents.

Technology: MSU Invention Disclosure No. TEC2006-0079 "Novel Tryglycerides and Method of Preparation Thereof"; and U.S. Patent Nos. 5,801,224; 5,906,783; 5,969,089; 7,361,727; 7,367,995; 7,589,222; 7,601,677; and U.S. Patent Application Nos. 12/584,914; 61/403,199; and 61/403,494; and improvements thereto.

Technology's Potential Commercial Utilization:

Environmentally-friendly polymers.

Payment Terms: Payment of \$10,000 within 30 days of signing; a running royalty of 1% of net sales; 25% on sublicensing revenues; 2.0-5.0% ownership interest in Bio Plastic Polymers and Composites, LLC and joint ventures directly related to licensed rights. The agreement will include annual minimums beginning in 2014.

The parties may add or remove technologies under the agreement, including improvements generated under a separate sponsored research agreement, provided that the change does not affect the financial consideration of the parties or the nature or extent of any pecuniary interest of MSU personnel.

Use of University Facilities/Personnel:

No University facilities, services or personnel will be utilized by Bio Plastic Polymers and Composites, LLC under the terms of the agreement.

Organization Type: Michigan-based limited liability company.

Personnel Interest: Dr. Ramani Narayan, a Professor in the Department of

Chemical Engineering, and his immediate family own or have options to buy an equity interest of more than 1% of the company. Dr. Narayan is also an officer of Bio Plastic Polymers and Composites, LLC.

May 31, 2011

MEMORANDUM

To: Trustee Policy Committee
From: Kim A. Wilcox, Provost *KAW*
Re: Approval of Contract Terms: *ZuvaChem, Inc.*

Recommendation:

BE IT RESOLVED that the Trustee Policy Committee recommends to the Board of Trustees that it approve the execution of an agreement with *ZuvaChem, Inc.*, consistent with earlier public notice given at a Board meeting and with the "Research Contract Term Sheet" now presented to the Board for inclusion in its minutes.

Background:

In compliance with State law, public notice of the University's intent to negotiate contracts with *ZuvaChem, Inc.*, a Delaware corporation with its principal place of business in Baltimore, Maryland, was given at the Board of Trustees' meeting on April 16, 2010. The terms of a research contract are now being presented for approval.

Dr. Thomas Sharkey, a Professor in the Department of Biochemistry and Molecular Biology, and his immediate family hold an ownership interest which exceeds 1% of the company.

The attached "Research Contract Term Sheet" summarizes the agreement that MSU has negotiated with *ZuvaChem, Inc.*

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RESEARCH CONTRACT TERM SHEET

- Party:** ZuvaChem, Inc.
- Contracts:** Sponsored Research Agreement from ZuvaChem to MSU
"Fermentative growth of E. coli transformed to emit isoprene"
- Term:** July 1, 2011 to June 30, 2015
- Payment Terms:** MSU contract four year total: \$300,000.
- Services Provided:** By MSU to ZuvaChem: research, testing and evaluation related to fermentation, isoprene emission collection and design of better syntheses to generate isoprene.
- By MSU to ZuvaChem: none
- Use of University Facilities/Personnel:**
Use of MSU facilities/personnel by ZuvaChem provided at prevailing rates for industrial research.
- Organization Type:** Delaware corporation with principal place of business in Baltimore, Maryland.
- Personnel Interest:** Dr. Thomas Sharkey, a Professor in the Department of Biochemistry and Molecular Biology, and his immediate family hold an ownership interest which exceeds 1% of the company.

MICHIGAN STATE
U N I V E R S I T Y

May 31, 2011

MEMORANDUM

To: Trustee Policy Committee
From: Kim A. Wilcox, Provost *KAW*
Re: Approval of Contract Terms: *Natural Therapeutics, LLC*

Recommendation:

BE IT RESOLVED that the Trustee Policy Committee recommends to the Board of Trustees that it approve the execution of an amendment to six license agreements with *Natural Therapeutics, LLC*, consistent with earlier public notice given at a Board meeting and with the "License Agreement Term Sheet" now presented to the Board for inclusion in its minutes.

Background:

In compliance with State law, public notice of the University's intent to negotiate contracts with *Natural Therapeutics, LLC*, a Michigan limited liability company based in Ann Arbor, was given at the Board of Trustees' meeting on November 12, 2004.

Dr. Muralee Nair, a Professor in the Department of Horticulture, and his immediate family own or have options to buy an equity interest of more than 1% of the company. Dr. Nair is also an officer of *Natural Therapeutics, LLC*.

License agreements effective December 18, 2003, March 31, 2004, March 31, 2004, March 31, 2004, September 30, 2004 and September 30, 2004 were executed prior to Dr. Nair's ownership interest of more than 1% of the company. The terms of an amendment to the license agreements are now being presented for approval.

The attached "License Agreement Term Sheet" summarizes the agreement that MSU has negotiated with *Natural Therapeutics, LLC*.

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LICENSE AGREEMENT TERM SHEET

- Party:** Natural Therapeutics, LLC
- License:** Amendment to license agreements effective December 18, 2003, March 31, 2004, March 31, 2004, March 31, 2004, September 30, 2004 and September 30, 2004 to revise payment terms.
- Term:** Five years
- Payment Terms:** Monthly payments over 5 years to begin within 30 days of signing.
- Organization Type:** Michigan-based limited liability company.
- Personnel Interest:** Dr. Muralee Nair, a Professor in the Department of Horticulture, and his immediate family own or have options to buy an equity interest of more than 1% of the company. Dr. Nair is also an officer of Natural Therapeutics, LLC.

MICHIGAN STATE
UNIVERSITY

June 14, 2011

MEMORANDUM

To: Trustee Policy Committee
From: Kim A. Wilcox, Provost *KAW*
Re: Approval of Contract Terms: *Draths Corporation*

Recommendation:

BE IT RESOLVED that the Trustee Policy Committee recommends to the Board of Trustees that it approve the execution of a contract with *Draths Corporation*, consistent with earlier public notice given at a Board meeting and with the "Contract Term Sheet" now presented to the Board for inclusion in its minutes.

Background:

In compliance with State law, public notice of the University's intent to negotiate contracts with *Draths Industries, LLC*, a Michigan limited liability company based in Okemos, was given at the Board of Trustees' meeting on October 21, 2005. On December 9, 2005 and on February 10, 2006, the Board approved intellectual property licenses with the company. *Draths Industries'* successor company, *Draths Corporation*, a Delaware corporation based in Lansing, was formed on February 14, 2006. On October 24, 2008, the Board approved a license to *Draths Corporation*, superseding earlier license actions.

Draths Corporation now wishes to obtain chemical pilot plant productions services from the MSU Bioeconomy Institute in Holland, Michigan. The terms of a contract are now being presented for approval.

Dr. John Frost and Dr. Karen Frost, faculty members in the Department of Chemistry, and their immediate family, own or have an option to buy an equity interest of more than 1% of the corporation.

The attached "Contract Term Sheet" summarizes the agreement that MSU has negotiated with *Draths Corporation*.

Cc: Trustee Finance Committee
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CONTRACT TERM SHEET

Party: Draths Corporation

Project Description: Use of pilot plant infrastructure and operational and analytical staff at the MSU facility in Holland, MI for production of chemicals.

Term: Two years, unless terminated at an earlier date at the discretion of either party.

Contractual Terms: Draths Corporation will be charged for supplies, personnel services, and use of equipment at standard pilot plant rates as specified in the attached rate sheet, with total expenses under the contract not to exceed \$200,000 during the Term. Draths Corporation is responsible for the cost of all raw materials, for the shipping of all products, and for disposal of all wastes generated. The company is responsible for complying with all applicable laws and regulations, as well as all MSU policies, and for cooperating fully with the MSU Office of Radiation, Chemical, and Biological Safety. The company assumes all risks of failed production runs not resulting from demonstrable MSU error or negligence. No intellectual property rights of either party are modified under the contemplated agreement.

Services Provided: By MSU to Draths Corporation:
Pilot plant scale-up of chemical syntheses with associated analytical services.
By Draths Corporation to MSU:
None under contemplated agreement.

Use of University Facilities/Personnel:
MSU personnel will execute the pilot plant synthesis runs in the MSU facility in Holland, MI, and provide any agreed supplemental analytical services.

Organization Type: Draths Corporation is a Delaware corporation based in Lansing, MI.

Personnel Interest: Dr. John Frost and Dr. Karen Frost, faculty in the Department of Chemistry, and their immediate family, own or have an option to buy an equity interest of more than 1% of the company.

MSU Bioeconomy Institute -- Pilot Plant Rates
November 5, 2010.

Infrastructure

| Primary reactor used in single reactor train --> [where a train may include up to 3 reactors: a primary or still, plus a receiver and/or a charging tank] | 200 L glass-lined | 400 L glass-lined | 800 L glass-lined or stainless; or any volume Hastelloy | 2000 L glass-lined | 4000 L glass-lined |
|---|-------------------|-------------------|---|--------------------|--------------------|
| First day in consecutive plant work period | \$2,208 | \$2,944 | \$3,680 | \$4,416 | \$5,152 |
| Each additional consecutive plant work day, including filtering, centrifugation, drying, milling, etc. | \$735 | \$980 | \$1,225 | \$1,470 | \$1,715 |

Personnel

| | Mon-Friday Prime Shift; hourly rate up to 8 hrs. | All other time worked; hourly rate |
|--|--|------------------------------------|
| Plant operator | \$46.00 | \$69.00 |
| Shift supervisor, service manager, or analytical chemist | \$67.00 | \$100.00 |
| Senior personnel (including EHS officer, chief engineer, or operations director) | \$120.00 | \$180.00 |

Other

| | MSU mark-ups of mutually agreed charges for optional supplies and services provided by MSU |
|--|--|
| Raw materials (if not privately arranged) | 10% |
| Waste disposal (if not privately arranged) | 41% |
| Pilot plant consumables | 20% |
| Consulting engineers | 41% |
| Other expenses, absent separate agreement | 41% |

MICHIGAN STATE
UNIVERSITY

June 15, 2011

MEMORANDUM

To: Trustee Policy Committee

From: Kim A. Wilcox, Provost

Re: Approval of Contract Terms: *Phenometrics, Inc.*

Recommendation:

BE IT RESOLVED that the Trustee Policy Committee recommends to the Board of Trustees that it approve the execution of a restated and amended license agreement with *Phenometrics, Inc.*, consistent with earlier public notice given at a Board meeting and with the "Restated and Amended License Agreement Term Sheet" now presented to the Board for inclusion in its minutes.

Background:

In compliance with State law, public notice of the University's intent to negotiate contracts with *Phenometrics, Inc.*, a Delaware corporation based in Lansing, Michigan and San Diego, California, was given at the Board of Trustees' meeting on February 11, 2011. The Board of Trustees approved the terms of a licensing agreement with *Phenometrics, Inc.* at its meeting on April 15, 2011. The terms of a restated and amended license agreement are now being presented for approval.

Dr. David M. Kramer, a Professor in the Department of Biochemistry and Molecular Biology, and his family own or have options to buy an ownership interest of more than 1% of the company.

The attached "Restated and Amended License Agreement Term Sheet" summarizes the agreement that MSU has negotiated with *Phenometrics, Inc.*

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RESTATED AND AMENDED LICENSE AGREEMENT TERM SHEET

- Party:** Phenometrics, Inc.
- License:** Exclusive License for commercial purposes.
- Term:** From the effective date of the agreement extending to the expiration of the last to expire patents.
- Technology:** TEC2011-0021 "PhotoBioreactor/Sensor Array (PBSA) for high throughput screening of algal strains and growth conditions"; U.S. provisional patent application serial number 61/416,250, filed 11/22/2010.
- Technology's Potential Commercial Utilization:**
Production of equipment used to optimize light-driven fermentation applications.
- Payment Terms:** Payment of \$500.00 due on signing; a running royalty of 3.75% of net sales; patent cost and milestone payments; sublicensing rights and a royalty on sublicensing revenues.
- Services Provided:** By MSU to Phenometrics: None under contemplated agreement.
- By Phenometrics to MSU: None under contemplated agreement.
- Use of University Facilities/Personnel:**
No use of MSU facilities/personnel by Phenometrics under the contemplated agreement.
- Organization Type:** Delaware corporation based in Lansing, Michigan and San Diego, California.
- Personnel Interest:** Dr. David M. Kramer, a Professor in the Department of Biochemistry and Molecular Biology, and his family own or have options to buy an ownership interest of more than 1% of the company.