

MICHIGAN STATE
UNIVERSITY

April 7, 2010

MEMORANDUM

To: Trustee Policy Committee
From: Kim A. Wilcox, Provost *KAW*
Re: Approval of Contract Terms: *Ludington Urology, PLLC*

Recommendation:

BE IT RESOLVED that the Trustee Policy Committee recommends to the Board of Trustees that it approve the purchase of a power treatment table from Ludington Urology, PLLC, consistent with the Equipment Purchase Term Sheet presented to the Board for inclusion in its minutes.

Background:

In compliance with State law, public notice of the University's intent to purchase equipment from Ludington Urology, PLLC was posted along with the public notice for this Board of Trustees meeting. The terms of the equipment purchase are now being presented for the Board's approval.

The MSU Urology Clinic desires to purchase a power treatment table. The cost for a new power treatment table would be approximately \$9,500 to \$10,000. A power treatment table is available for purchase from Ludington Urology, PLLC at the cost of \$2,900. Dr. Max Rizer, a Health Team physician and assistant professor in Osteopathic Surgical Specialties, is the sole owner and manager of Ludington Urology, PLLC. Dr. Rizer closed his practice shortly before he began his employment with the University.

Approval of the equipment purchase has been requested by the MSU Health Team. The value of the power treatment table and cost of alternate equipment has been confirmed by the Purchasing Department. The attached Equipment Purchase Term Sheet summarizes the agreement that MSU has negotiated with Ludington Urology, PLLC.



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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
Ms. Annette Cawley

EQUIPMENT PURCHASE TERM SHEET

Party: Ludington Urology, PLLC

Equipment: Purchase of one power treatment table for use in the MSU Urology Clinic.

Cost: \$ 2,900

University Facilities/Services/Personnel:

No University facilities, services, or personnel will be utilized under the terms of this purchase.

Organization Type: Michigan Professional Limited Liability Company

Personnel Interest: Dr. Max Rizer, a Health Team physician and assistant professor in Osteopathic Surgical Specialties, owns Ludington Urology, PLLC.

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April 7, 2010

MEMORANDUM

To: Trustee Policy Committee

From: Kim A. Wilcox, Provost *KAW*

Re: Approval of Contract Terms: *Spectra Data and Research, Inc.*

Recommendation:

BE IT RESOLVED that the Trustee Policy Committee recommends to the Board of Trustees that it approve the execution of a professional services contract with *Spectra Data and Research, Inc.*, consistent with earlier public notice given at a Board meeting and with the "Professional Services 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 *Spectra Data and Research, Inc.*, a Michigan corporation based in Mason, was given at the Board of Trustees' meeting on February 12, 2010. The terms of a professional services contract are now being presented for approval.

Dr. Mark Urban-Lurain, an academic specialist appointed in the College of Engineering and the College of Natural Science, and his immediate family hold an ownership interest which exceeds 1% of the company. Dr. Urban-Lurain is also an officer of the company.

The attached "Professional Services Contact Term Sheet" summarizes the agreement that MSU has negotiated with *Spectra Data and Research, Inc.*

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
Director DeAnne Hamilton



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PROFESSIONAL SERVICES CONTRACT TERM SHEET

Party: Spectra Data and Research, Inc.

Contract: Professional services contract to serve as facilitator of community engagement events on behalf of WKAR.

Term: April 16, 2010 to December 31, 2010

Payment: \$3,500

Use of University Facilities/Services/Personnel:

No University facilities, services, or personnel will be utilized by Spectra Data and Research, Inc. under the terms of the professional services contract.

Organization Type: Michigan corporation based in Mason

Personnel Interest:

Dr. Mark Urban-Lurain, an academic specialist appointed in the College of Engineering and the College of Natural Science, and his immediate family hold an ownership interest which exceeds 1% of the company. Dr. Urban-Lurain is also an officer of the company.

MICHIGAN STATE
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April 7, 2010

MEMORANDUM

To: Trustee Policy Committee

From: Kim A. Wilcox, Provost *KAW*

Re: Approval of Contract Terms: *GEMA Diagnostics, Inc.*

Recommendation:

BE IT RESOLVED that the Trustee Policy Committee recommends to the Board of Trustees that it approve the execution of an amendment to a license agreement with *GEMA Diagnostics, Inc.*, consistent with earlier public notice given at a Board meeting and with the "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 *GEMA Diagnostics, Inc.* (formerly *GEMA, LLC*), a Michigan corporation based in East Lansing, was given at the Board of Trustees' meeting on April 16, 2004. The Board approved the terms of a license agreement at its meeting on June 18, 2004. (Attachment C.) The Board approved the terms of an amendment to that license agreement on October 21, 2005. (Attachment B.) The terms of a second amendment to that license agreement are now being presented for approval. (Attachment A.)

Dr. Jose Cibelli, a professor in the Department of Animal Science, and his immediate family own or have options to buy an equity interest of more than 1% of the company. Dr. Cibelli is also an officer of *GEMA Diagnostics, Inc.*

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

Cc: Trustee Finance Committee
President Lou Anna K. Simon
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Vice President J. Ian Gray
Vice President Robert A. Noto
Secretary Bill Beekman
Dr. Terry May
Director Michael Poterala
Deputy General Counsel Kristine Zayko



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AMENDED LICENSE AGREEMENT TERM SHEET

Party: GEMA Diagnostics, Inc.

License: Second Amendment to License Agreement AGR-538

Term: Extending to the expiration of the last to expire of the patents

Technology: MSU Invention Disclosure (ID) TEC2004-0093 "A Method for Identifying Genes and Gene Products that Can Be Used as Markers for Fertility, Ovarian Function and Ore-Fertilization of Fetus/Newborn Viability"

Technology's Potential Commercial Utilization:

A screening technique used by fertility clinics to identify the most viable oocytes for fertilization.

Payment Terms: Payment of one thousand dollars (\$1000.00) upon signing. Licensee has restructured royalty minimums to begin in 2011. Annual minimum for 2011 is ten thousand dollars (\$10,000.00) and for 2012 and beyond is fifty thousand dollars (\$50,000.00).

Services Provided: By MSU to GEMA Diagnostics: None
By GEMA Diagnostics to MSU: None

Use of University Facilities/Personnel:

No University facilities/personnel will be utilized by GEMA Diagnostics under the terms of this Agreement.

Organization Type: Incorporated, Michigan-based small business

Personnel Interest: Dr. Jose Cibelli, a professor in the Department of Animal Science, and his immediate family own or have options to buy an equity interest of more than 1% of the company. Dr. Cibelli is also an officer of *GEMA Diagnostics, Inc.*

LICENSE ASSIGNMENT & AMENDMENT TERM SHEET

Original Licensee: Gema LLC

New Assignee: Gema Diagnostics, Inc.

Assignment: Gema Diagnostics Inc. will be the successor in interest to Gema LLC with respect to all rights and obligations of the latter under the license granted by MSU on February 9, 2005.

Option & License: Exclusive license to use technologies as specified below for commercial purposes.

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

Technology: Technology described in MSU Invention Disclosure No. 04-093 – “A Method for Identifying Genes and Gene Products that Can Be Used as Markers for Fertility, Ovarian Function, and Pre-Fertilization Predictors of Fetus/Newborn Viability”, and patent rights arising therefrom.

Technology’s Potential Commercial Utilization:
Enhancement of human *in vitro* fertilization.

Revised Payment Terms: A running royalty of 3.0% of adjusted gross sales. If Gema Diagnostics, Inc., owes “stacked” running royalties to unaffiliated third parties (including MSU) totaling more than 5% of adjusted gross sales as defined in the License Agreement, MSU will share proportionally with the other parties in a 5% total running royalty, subject to the condition that in no case will running royalties payable to MSU be less than 1.5% of adjusted gross sales. Sublicensing revenue sharing to be negotiated between the parties based upon the corporation’s business model.

The MSU Foundation will receive 6% of the common stock of Gema Diagnostics, Inc. at the closing of the company’s equity financing, subject to the provision that one-sixth of that equity interest (1%) will be surrendered to Gema Diagnostics, Inc. in the event of the final and unappealable rejection of all patent application claims deriving from MSU Invention Disclosure No. 04-093.

Reimbursement of MSU patent expenses, such reimbursement creditable against up to 50% of royalties due MSU in the year of expense reimbursement.

Services Provided: By MSU to Gema Diagnostics, Inc.: None under the license agreement. Services will be provided under the related Testing Contract.
By Gema Diagnostics, Inc. to MSU: None under contemplated agreement.

Use of University Facilities/Personnel:
No use of MSU facilities/personnel by Gema Diagnostics, Inc. under the contemplated agreement.

Organization Type: The proposed assignee is an incorporated, Michigan-based small business.

Personnel Interest: Dr. Jose Cibelli, a Professor in the Departments of Animal Science and Physiology, and his immediate family cumulatively own or have options to buy an equity interest of more than 5% of the corporation. Drs. Cibelli is also an officer of Gema Diagnostics, Inc.

As approved June 18, 2004**LICENSE TERM SHEET**

- Party:** Gema, LLC
- Option & License:** Exclusive license to use technologies as specified below for commercial purposes.
- Term:** Extending to the expiration of the last to expire of the patents.
- Technology:** MSU ID#04-093 – A Method for Identifying Genes and Gene Products that Can Be Used as Markers for Fertility, Ovarian Function and Pre-Fertilization Predictors of Fetus/Newborn Viability
- Technology's Potential Commercial Utilization:**
Enhancement of human *in vitro* fertilization.
- Payment Terms:** Payment of \$1,000 upon signing; a running royalty of 3.0% of adjusted gross sales with no annual minima in year 1 and 2, annual minima in year 3 of \$10,000, year 4 of \$20,000, and Year 5 and beyond of \$40,000; 50% of any sublicensing revenues.
- 18% ownership interest in Gema, LLC, not subject to dilution until Gema, LLC has secured at least \$1 million in cash investment and at no time subject to dilution to less than 2% of total ownership interest.
- Reimbursement of MSU patent expenses, such reimbursement creditable against up to 50% of royalties due MSU in the year of expense reimbursement.
- MSU option to hold Board or Board observer seat
- Services Provided:** By MSU to Gema, LLC: None under contemplated agreement.
- By Gema, LLC to MSU: None under contemplated agreement.
- Use of University Facilities/Personnel:**
No use of MSU facilities/personnel by Gema, LLC under the contemplated agreement.
- Organization Type:** Michigan-based limited liability company.
- Personnel Interest:** Dr. Jose Cibelli, a Professor in the Department of Animal Science, and his immediate family, cumulatively own or have options to buy an ownership interest of more than 5% of the company. Dr. Cibelli is also an officer of Gema, LLC.

MICHIGAN STATE
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April 7, 2010

MEMORANDUM

To: Trustee Policy Committee
From: Kim A. Wilcox, Provost *KAW*
Re: Approval of Contract Terms: *XG Sciences, 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 *XG Sciences, 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 *XG Sciences, Inc.* (formerly named *XG-Nano, Inc.*), a Michigan corporation based in East Lansing, was given at the Board of Trustees' meeting on June 16, 2006. The Board approved the terms of a license agreement at its meeting on September 12, 2007. (Attachment B.) The terms of a restated and amended license agreement are now being presented for approval. (Attachment A.)



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Dr. Lawrence T. Drzal, a University Distinguished Professor in the Department of Chemical Engineering and Material Science, Dr. Hiroyuki Fukushima, a Research Specialist in the Composite Materials and Structures Center, and Dr. InHwan Do, a Research Specialist in the Composite Materials and Structures Center, and their immediate families each own or have options to buy an equity interest of more than 1% of the company. Dr. Drzal is also an officer of *XG Sciences, Inc.*

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

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
Director Michael Poterala
Deputy General Counsel Kristine Zayko

RESTATED AND AMENDED LICENSE TERM SHEET

Party: XG Sciences, Inc.

License: Restated and Amended Exclusive License on the Technology in all fields (with certain exceptions pursuant to third-party agreements if elected within 60 days of the effective date) and an option to license other related Technology for up to three (3) years from the effective date.

Term: Extending to the expiration of the last to expire of the patents or 25 years whichever comes first.

Technology: MSU Invention Disclosures TEC2002-0038 "Inexpensive Method for Producing Graphite Nanoplatelets"; TEC2004-0075 "Conductive Coatings Produced by Monolayer Deposition on Surfaces"; TEC2005-0088 "Method for Producing Metalloic Nanoparticles on Solid Surfaces especially Carbon and Graphite"; TEC2006-0039 "Hybrid Micro-Nano-Composite Material and Method to Prepare Thereof"; TEC2006-0054 "Continuous Process for Producing Exfoliated Nano-Graphite Platelets"; TEC2006-0070 "Electro-Conductive Nylon with High Barrier Property and Method to Prepare Thereof"; TEC2007-0072 "Micropatterning of Low Cost and Highly Conductive Exfoliated Graphite Nanoplatelets (xGnPs) using Microcontact Printing"; TEC2007-0121 "Conductive Sheet Molding Compound with Carbon Based Nanomaterials"; TEC2007-0122 "Conductive Coating of Substrate with Carbon-Based Nanomaterials"; TEC2007-0139 "Plasticized Cellulose as a Potential Alternative to Petroleum Based Polymers"; TEC2007-0150 "Modification of the Mechanical, Thermal, and Electrical Properties of Elastomer-Based Materials by the Addition of Exfoliated Graphite Nano-Platelets"; TEC2008-0002 "High-Performance Biosensors Based on Exfoliated Graphite Nanoplatelets and Nanometal Decorations"; TEC2008-0033 "Materials and Process for Sub-10 Nanometer Integrated Circuit Lines"; TEC2008-0038 "Metal nanoparticle and conducting polymer nanocomposites for energy devices"; TEC2008-0039 "Electrospinning ordered arrays of cellulose nitrate fibers"; TEC2008-0042 "Electrically Conductive, Optically Transparent Films of Exfoliated Graphite Nanoplatelets (Graphene)"; TEC2008-0074 "Single Graphene Sheets Decorated With Metal Nanoparticles"; TEC2008-0079 "xGnP-based Lubricant"; TEC2009-0006 "Polyoxometalate-based Modification of

Exfoliated Graphite Nanoplatelets to Produce Electrocatalysts”; TEC2009-0020 “Fabrication of Electrically Conductive and Optically Transparent Films with Graphene NanoPlatelets or Other Nanoparticles”; TEC2009-0029 “MetalOxide Nanosheet Monolayer Film Synthesis for Electrochemical Energy Storage and Photocatalytic Applications”; TEC2009-0030 “Electrically Conductive Highly Aligned Multilayer Free Standing Film of Exfoliated Graphite Nanoplatelets (Graphene)”; TEC2009-0031 “Exfoliated Graphite Nanoplatelets (Graphene) and Conductive Polymer Multilayer Free Standing Film Electrode for Ultra and Supercapacitor Applications”; TEC2009-0113 “Exfoliated Graphite Nano Platelet (xGnP) anodes for Li-ion batteries”; TEC2010-0027 “Nanostructured Electrodes for Exfoliated Graphite Nanoplatelets for Supercapacitor Applications”; and TEC2010-0047 “Simple Dry Process for Scalable Production of High Surface Area, Graphene Nanoplatelets”.

Technology’s Potential Commercial Utilization:

Broad applications involving composite materials and components.

Payment Terms: Payment of \$10,000 due on signing; \$3,000 plus patent costs to date for each Invention Disclosure elected; a running royalty of 2% to 4% of net sales and any sublicensing revenues with annual minima ranging from \$10,000 to \$50,000 starting in calendar year 2011.

Services Provided: By MSU to XG Sciences: None under contemplated agreement.

By XG Sciences to MSU: None under contemplated agreement.

Use of University Facilities/Personnel:

No use of MSU facilities/personnel by XG Sciences under the contemplated agreement.

Organization Type: Incorporated, Michigan-based small business.

Personnel Interest:

Dr. Lawrence T. Drzal, a University Distinguished Professor in the Department of Chemical Engineering and Material Science, Dr. Hiroyuki Fukushima, a Research Specialist in the Composite Materials and Structures Center, and Dr. InHwan Do, a Research Specialist in the Composite Materials and Structures Center, and their immediate families each own or have options to buy an equity interest of more than 1% of the company. Dr. Drzal is also an officer of *XG Sciences, Inc.*

LICENSE TERM SHEET

Party: XG Sciences, Inc.

License: Exclusive license to practice the Technology in all available fields.

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

Technology: MSU Invention Disclosure No. 02038F "Inexpensive Method for Producing Graphite Nanoplatelets"; MSU Invention Disclosure No. 06054 "Continuous Process for Producing Exfoliated Nano-Graphite Platelets"; MSU Invention Disclosure No. 04119 "Improved Performance Battery Electrodes, Formulation and Process"; MSU Invention Disclosure No. 06039 "Hybrid Micro-Nano-Composite Material and Method to Prepare Thereof"; MSU Invention Disclosure No. 06052 "High Strength Fuel Barrier Nanocomposite"; MSU Invention Disclosure No. 06057 "Electro-Conductive Resin with Higher Barrier Property and Method to Prepare Thereof"; MSU Invention Disclosure No. 06070 "Electro-Conductive Nylon with High Barrier Property and Method to Prepare Thereof"; MSU Invention Disclosure No. 05088 "Method for Producing Metallic Nanoparticles on Solid Surfaces Especially Carbon and Graphite"; MSU Invention Disclosure No. 02023 "Chemical Functionization of Material Surfaces Using Ultraviolet Light and Water Solutions"; MSU Invention Disclosure No. 96046 "An Ultra Violet Light Process for Pretreatment of Surfaces of Polymers, Polymer Composites and Metals Prior to Adhesive Bonding or Painting"; and MSU Invention Disclosure No. 01026 "Surface Treatment of Fibers Using Ultraviolet Light in Ozone;" and associated patents and patent applications.

Technology's Potential Commercial Utilization:
Broad applications involving composite materials and components.

Payment Terms: Payment by XG Sciences, Inc. to MSU of: a) \$25,000 within 30 days after effective date of license; b) a running royalty of \$0.30 per pound of licensed material sold; c) a royalty of 3% of sales of material processed with ultraviolet light using licensed technology; and d) 25% of sublicensing revenues. Annual minimum aggregate payments from XG Sciences, Inc. to MSU shall be \$5,000 for calendar years 2008 and 2009, and \$50,000

thereafter. MSU will also receive 2% of XG Sciences, Inc. capital stock within 30 days after the effective date of the license.

Services Provided: By MSU to XG Sciences, Inc.: None under contemplated agreement.

By XG Sciences, Inc. to MSU: None under contemplated agreement.

Use of University Facilities/Personnel:

No use of MSU facilities/personnel by XG Sciences, Inc. under the contemplated agreement.

Organization Type: Incorporated, Michigan-based small business.

Personnel Interest: Dr. Lawrence T. Drzal, Department of Chemical Engineering and Materials Science, Dr. Hiroyuki Fukushima, Composite Materials and Structures Center, and Dr. In-Hwan Do, Composite Materials and Structures Center, and their immediate families each own or have options to buy an equity interest of more than 5% of the company. Dr. Drzal is also an officer in XG Sciences, Inc.