The Research Foundation for the State University of New York

Technology Transfer Program and Royalty Payments

Report 2019-S-10 January 2020

OFFICE OF THE NEW YORK STATE COMPTROLLER Thomas P. DiNapoli, State Comptroller

Division of State Government Accountability



Audit Highlights

Objective

To determine if the Research Foundation for the State University of New York (Research Foundation) has taken the appropriate steps to protect the State University of New York's (SUNY) interest in the transfer of technology and royalties received for intellectual property developed at SUNY campuses. The audit covered the period January 1, 2015 through August 14, 2019.

About the Program

The Research Foundation's mission is to provide talent, services, and technology that empower SUNY to research, innovate, and transfer discoveries that transform the world's knowledge economy. As part of its duties, the Research Foundation supports SUNY's technology transfer – a collaborative process that requires efforts from the Research Foundation, creators of intellectual property (IP), and industry partners to translate academic discoveries into commercial products and services that benefit society. When IP is licensed and begins generating revenue, the Research Foundation is entitled to receive royalty payments based on executed agreements with the licensee.

Key Findings

- The Research Foundation has taken steps to protect SUNY's interest in the transfer of technology and royalties for projects developed at SUNY schools. We found the Research Foundation retained ownership rights for 94 percent of all IP disclosures from January 1, 2015 through March 12, 2019. We also found the Research Foundation made decisions about retaining ownership rights for disclosed IP within the applicable time frames, and verified royalty payments were correctly calculated by the licensees and allocated to campus and creator accounts.
- The Research Foundation has not developed routine monitoring mechanisms to determine whether a licensee is paying the full royalty owed. The lack of a standard approach and dedicated resources to monitor payments and compliance with licensing agreements creates the risk that SUNY and IP creators are not receiving the full funds to which they are entitled.
- Since 1992, Downstate Health Sciences University (Downstate) has accumulated \$1,019,390 in campus royalty revenue, none of which has been used to support SUNY research programs. Downstate's failure to reinvest royalty proceeds may have hindered implementation of SUNY's policy of encouraging innovation and managing royalty income.

Key Recommendations

 Develop monitoring mechanisms to provide reasonable assurance that the royalty payments received comply with licensing agreements. Work with Downstate to develop policies and procedures for the use of funds in the campus project account and for the distribution of future royalty revenue.



Office of the New York State Comptroller Division of State Government Accountability

January 17, 2020

Dr. Jeff Cheek President The Research Foundation for the State University of New York 35 State Street Albany, NY 12207

Dear Dr. Cheek:

The Office of the State Comptroller is committed to helping State agencies, public authorities, and local government agencies manage their resources efficiently and effectively. By so doing, it provides accountability for the tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of State agencies, public authorities, and local government agencies, as well as their compliance with relevant statutes and their observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations. Audits can also identify strategies for reducing costs and strengthening controls that are intended to safeguard assets.

Following is a report of our audit entitled *Technology Transfer Program and Royalty Payments*. This audit was performed pursuant to the State Comptroller's authority under Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law. It was also performed pursuant to the Agreement between the State University of New York and the Research Foundation of the State University of New York, dated June 1, 1977.

This audit's results and recommendations are resources for you to use in effectively managing your operations and in meeting the expectations of taxpayers. If you have any questions about this report, please feel free to contact us.

Respectfully submitted,

Division of State Government Accountability

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Glossary of Terms

Term	Description	Identifier
AUTM	Association of University Technology	Organization
	Managers	
Central Office	Research Foundation Central Office	Office
Creator	SUNY faculty member, staff person, or	Key Term
	student who makes a discovery	
Current Policy	SUNY's current Patents and Inventions	Regulation
	Policy: 8 NYCRR Part 335.28, covers IP	
	disclosed effective November 23, 2016	
Downstate	Downstate Health Sciences University	University
Former Policy	SUNY's prior Patents and Inventions	Regulation
	Policy: 8 NYCRR Part 335.28, covers IP	
	disclosed prior to November 23, 2016	
IP	Intellectual property	Key Term
Licensee	Entity who markets and sells the IP	Key Term
	under the terms of an approved license	
	agreement	
Research	Research Foundation for SUNY	Auditee
Foundation		
SUNY	State University of New York	Key Term
TTO	Technology Transfer Office	Key Term

Background

The Research Foundation for the State University of New York (Research Foundation) was chartered in 1951 by the New York State Board of Regents as a non-profit education corporation. The Research Foundation's mission is to provide talent, services, and technology that empower the State University of New York (SUNY) to research, innovate, and transfer discoveries that transform the world's knowledge economy.

As part of its duties, the Research Foundation supports SUNY's technology transfer activity. For the purposes of this report, technology transfer refers to the formal transfer of rights for intellectual property (IP) developed using SUNY resources. The technology transfer process begins when a SUNY faculty member, staff person, or student (creator) makes an academic discovery. A discovery could be research findings; inventions; plant varieties and cultivars; designs for objects; products or packaging; or works of authorship such as software, databases, manuals, training material, and other creative expressions or collections of information. Technology transfer is a collaborative process that requires efforts from the Research Foundation, IP creators, and industry partners to translate such discoveries into commercial products and services that benefit society. The ultimate goal of the technology transfer process is for the academic discovery to be developed into a product or service that will benefit the public. According to the Association of University Technology Managers (AUTM), academic technology transfer now adds billions of dollars to the U.S. economy and supports hundreds of thousands of jobs.

The Research Foundation consists of a Central Office and operating units at 30 State university campuses. The Central Office administers technology transfer for SUNY campuses; however, as of the date of this report, five SUNY campuses with local Technology Transfer Offices (TTOs) and staff also provide technology support services on site to faculty, staff, and students under the authority of the Research Foundation: Binghamton University, Downstate Health Sciences University (Downstate), Stony Brook University, University at Albany, and University at Buffalo. These entities have local decision-making authority. For campuses without a local TTO, the Central Office provides technology transfer support services. From January 1, 2015 through March 12, 2019, TTOs accounted for 94 percent of all IP disclosures.

The Research Foundation follows SUNY's Patents and Inventions Policy (Policy). Two versions of the Policy were in effect during the scope period: the Current Policy took effect on November 23, 2016 and governs all IP disclosed to the Research Foundation on or after the effective date. The Former Policy governs all IP disclosed prior to November 23, 2016. Both versions of the Policy aim to encourage innovation, assist creators, and ensure the public

receives the benefit of such innovation. For example, providing the public with innovations that will improve human health and welfare is one of the primary motivators to protect and transfer IP. Steps toward this end include encouraging disclosure of IP, securing protections, marketing IP through licensing and other arrangements, and managing royalties and other related income, such as litigation proceeds.

Creators are required to submit a signed disclosure form to help the Central Office and TTOs perform an initial evaluation of the IP's patentability and marketability. Once a disclosure is made, the Research Foundation has one year under the Current Policy to evaluate the IP and make an initial determination about whether to retain title of the IP or release ownership rights to the creator. If the Research Foundation fails to make a determination within one year, rights to the IP may be released to the creator upon request. After IP is disclosed, the Research Foundation begins evaluating market opportunities for the discovery and also develops IP protection strategies, which may include applying for patents. The Research Foundation then works with the creator to develop and market the IP with the aim of establishing relationships with partners to assist in its development. When the Research Foundation does not retain ownership and the IP became a revenue-generating product or service, the Research Foundation is entitled to 10 percent of the resulting net proceeds.

When IP is licensed and begins generating revenue, the Research Foundation is entitled to receive royalty payments based on executed agreements with the licensee, and the creator is entitled to receive specified shares of such royalty. Typically, the license terms for the calculation of a licensee's royalty payments are unique: a royalty may be based on a percentage of sales or it could be a periodic, flat amount. However, once royalty payments are received by the Research Foundation, the distribution of the royalty payment to the creator is determined by Policy. For example, Current Policy dictates that 45 percent of the first \$100,000 of net royalty received is to be distributed to the creators, and the creators are entitled to 40 percent of the net royalty thereafter. These funds are then distributed based on applicable campus policy.

For the period January 1, 2015 through March 12, 2019, the Research Foundation received 829 disclosures for IP created at SUNY campuses. Of these, the Research Foundation retained the IP rights for 778. Additionally, for the period January 1, 2015 through March 30, 2019, the Research Foundation received 1,105 royalty payments from IP developed at SUNY campuses, totaling \$50,174,585.

Audit Findings and Recommendations

In general, the Research Foundation has taken steps to protect SUNY's interest in the transfer of technology and royalties for projects developed at SUNY schools. We found the Research Foundation retained ownership rights for 94 percent of all IP disclosures from January 1, 2015 through March 12, 2019. We also found the Research Foundation made decisions about retaining ownership rights for disclosed IP within the applicable time frames, verified royalty payments were correctly calculated by the licensee based on the license agreement and the licensees' royalty reports, and correctly allocated royalties to the applicable campus and creator accounts. However, the Research Foundation has not developed standardized monitoring mechanisms to determine whether a licensee is accurately reporting net sales and paying the full royalty owed. Additionally, we found Downstate has accumulated \$1,019,390 in campus royalty revenue, but none of this revenue has been reinvested to support SUNY research programs.

Royalty Payments

Payment Monitoring

Licensees are required to submit detailed reports to support royalty payments. The reports must show the sales data used to calculate royalties due to the Research Foundation, including the number of licensed products sold, the calculation of net sales, and any sublicensing revenue and fees associated with the licensed product. Additionally, license agreements include standard contract language regarding the Research Foundation's right to audit supporting documentation for royalty payments at its discretion. The standard language included in the license agreements is consistent with industry best practices.

AUTM, a non-profit organization with the mission of supporting and advancing technology transfer worldwide, created the *Technology Transfer Practice Manual*, which covers a wide array of topics related to technology transfer and includes solutions to typical industry problems. The Research Foundation utilizes AUTM resources to better understand technology transfer and industry best practices. The AUTM manual underlines the high-risk nature of licensing agreements, which is typically due to the complex nature of such agreements and the significant control the licensee has over the licensor's ability to verify a licensee's assertions. The AUTM highlights the need to establish systematic license-monitoring and compliance programs to combat these risks.

To monitor royalty payments, the Central Office and TTOs review royalty reports submitted by licensees. Typically, the royalty reports are due within 30 days after the end of each reporting period (which may differ contract to contract). Reports are developed solely by the entity submitting the royalty payment. Central Office and TTO officials stated they review royalty payment amounts by comparing individual payments with a licensee's payment history to identify potential discrepancies, such as an unusually small royalty payment. However, officials stated that, other than regular trend analysis and use of professional skepticism, there are no routine monitoring mechanisms for determining whether a licensee is accurately reporting net sales to the Research Foundation. Moreover, Central Office officials indicated the extensive resources needed to complete an audit of a licensee's royalty payments renders an audit unfeasible in many cases.

While our review of the royalty reports for our sample of 94 payments found the payments were for the correct amount, the reports submitted by the licensees varied in descriptiveness. Some were composed of complex spreadsheets that included itemized sales and the computations of net sales and royalties owed, while others were one-page documents listing only the figures required by the Research Foundation's contract (e.g., number of licensed products sold, net sales, royalties due). Although licensees are required to maintain supporting documentation for royalty payments, there is no requirement that reports be accompanied by supporting documentation.

During our review of the royalty payments sample, we found one instance of inconsistent payment amounts for a licensee. When we asked TTO officials about this inconsistent payment, they stated that, prior to the audit, the licensee was found to have purposely underreported net sales of the licensed IP, which resulted in the licensee underpaying royalties to the Research Foundation. TTO and Central Office officials began investigating the licensee, and the licensee and the Research Foundation settled a lawsuit over the agreement. In this case, the efforts of the Central Office and TTO resulted in a positive outcome. However, such due diligence is not given to every license agreement, and this case highlights the inherent risk found in these types of license agreements.

The lack of a standard approach and dedicated resources to monitor royalty payments and compliance with licensing agreements creates the risk that SUNY and the creators of revenue-generating IP are not receiving the full funds to which they are entitled. Although licensees are required to submit reports to support royalty payments, absent procedures to verify the veracity of such payments, the TTOs and the Central Office cannot be assured that these reports are accurate.

Payment Distributions

Royalty payments to the Research Foundation are processed in the Research Foundation's central accounting system. If necessary, the Finance Office at the Central Office works with campus administrators to identify the campus to which the royalty payment belongs. After further direction from the campus administrator, the Central Office will split the royalty payment between the appropriate campus and creator accounts. Once the campus portion of the royalty payment reaches the appropriate campus account, the Central Office does not regulate how the royalties are distributed. Campuses receiving royalty payments have the authority to distribute their portion in accordance with campus policies and procedures.

According to the Policy, campus shares of any royalty must be used to support SUNY research programs, but there is no requirement for the campuses receiving royalty shares to develop a specific royalty distribution policy. However, industry best practices laid out by the AUTM describe the many benefits of such a policy. For example, the AUTM suggests that a distribution policy specify all parties that may receive a percentage of the licensing income, such as the creator's affiliated departments, to help provide some recognition of the resources used to develop the licensed IP. The AUTM postulates that campus and departmental officials may view technology transfer more favorably if they have an opportunity to receive funds when their faculty, staff, or students develop commercially viable IP, and this may in turn encourage officials to further promote technology transfer at their campus.

For a sample of 94 royalty payments, we reviewed supporting documentation (e.g., checks, wire transfer transmittals) from the Research Foundation's central accounting system to verify that the correct payment amounts were processed. Next, we reviewed revenue reports to verify the Central Office posted each payment to the correct SUNY campus royalty account. We then reviewed budget reports to verify the payments were accurately split between the campus and creator accounts in accordance with percentages laid out in the Current and Former Policies. We found all 94 payments were accurately received and processed in the central accounting system and were correctly split between the applicable campus and creator accounts.

Additionally, we tracked the 94 royalty payments at the local-campus level and obtained the campus royalty distribution policies. We found three of the four campuses in our sample had distribution policies in place and had properly distributed their shares of the sampled royalty payments throughout the campus (University at Albany, University at Buffalo, and Stony Brook University). However, for Downstate, we found no evidence of a royalty distribution policy, and Downstate did not distribute its portion of the sampled royalty payments from its campus project account. Since July 1, 1992, Downstate has accumulated \$1,019,390 in campus royalty revenue, none of which has been used. Although the Policy does not prescribe time frames in which royalty funds must be reinvested in SUNY research programs, we determined that Downstate has not used any of the proceeds realized from the commercialization or other monetization of SUNY IP, dating back to 1992, for the support of SUNY research programs, as required by the Current and Former Policies.

Unlike the other three campuses we reviewed, according to officials, Downstate has never had any campus-level policies or procedures governing its use of royalty revenue, allowing revenue from SUNY-created IP to go unused for an extended period of time. In February 2017, Downstate drafted a policy for the distribution of royalty funds. However, Central Office and TTO officials stated the lack of appropriate leadership has made it difficult for Downstate to determine how to strategically invest its royalty funds. Downstate is in the process of recruiting a Vice President of Research, who officials anticipate will implement a local policy over the technology transfer program, including the use of royalty income. As of August 14, 2019, the draft policy had not been implemented.

Downstate's failure to reinvest royalty proceeds may have hindered implementation of SUNY's policy of encouraging innovation and managing royalty income. Moreover, by not reinvesting royalty proceeds, the campus is not utilizing all resources to create an environment that fosters technology transfer or encourages research activities that lead to the creation of technologies for public benefit. By not distributing revenue generated by IP created at the campus, Downstate may not be fully rewarding its employees for their innovation or incentivizing administrators to promote technology transfer.

Recommendations

- 1. Develop monitoring mechanisms to provide reasonable assurance that the royalty payments received comply with licensing agreements.
- 2. Work with Downstate to develop policies and procedures for the use of funds in the campus project account and for the distribution of future royalty revenue.

Audit Scope, Objective, and Methodology

The objective of our audit was to determine if the Research Foundation has taken the appropriate steps to protect SUNY's interest in the transfer of technology and royalties received for IP developed at SUNY campuses. The audit covered the period January 1, 2015 through August 14, 2019.

To accomplish our objective, we reviewed relevant laws, regulations, and Research Foundation procedures and interviewed Research Foundation and TTO officials. We became familiar with, and assessed the adequacy of, the Research Foundation's internal controls as they relate to its performance and our audit objective. We also reviewed the IP disclosure and evaluation process and the process for receiving, reviewing, and distributing royalty payments. Additionally, we tested the data reliability of the Research Foundation's information and accounting systems and analyzed and tested disclosure and royalty payment data. We also conducted site visits to two TTOs to gain an understanding of current procedures at the TTO level.

From the population of 829 IP disclosures the Research Foundation received during the period January 1, 2015 through March 12, 2019, we judgmentally selected a sample of 40 IP disclosures from four different campuses: Downstate, Stony Brook University, University at Albany, and University at Buffalo. These four campuses represent approximately 75 percent of all IP disclosures. We selected this sample based on the following factors: disclosures under the parameters of the Current Policy, disclosures under the parameters of the Former Policy, disclosures for IP retained by the Research Foundation, and disclosures for IP that was released to the creator. For our sample, we reviewed the disclosure forms in the Research Foundation's IP management system, focusing on the disclosure and determination dates, to determine if the Research Foundation makes timely decisions about retaining ownership rights for disclosed IP. From the population of 1,105 royalty payments the Research Foundation received during the period January 1, 2015 through March 30, 2019, we judgmentally selected a sample of 94 royalty payments made to the Research Foundation. The judgmental sample was based on the amount of the individual payments, the total number of payments received by the Research Foundation for the IP during the audit scope period, and whether the royalty was a flat payment or a payment based on a calculated percentage of the licensee's sales. The sample of 94 payments covered 25 IPs from four SUNY campuses: Downstate, Stony Brook University, University at Albany, and University at Buffalo. The sample comprised 71 royalty payments calculated based on net sales, 22 flat royalty payments, and 1 payment that was the result of an executed equity grant. These four campuses accounted for \$49.1 million (98 percent) of the total royalties received during our audit period. Based on the design of each of our samples, we cannot project our results to the population as a whole. We

reviewed the royalty reports for the sampled payments to verify that each payment was calculated using the correct percentage of net sales or that the correct flat royalty was paid according to the agreement terms. Further, for the royalty payments based on a percentage of sales, we reviewed the payment calculation to determine if the correct amount was paid to the Research Foundation.

Authority

The audit was performed pursuant to the State Comptroller's authority as set forth in Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law. It was also performed pursuant to the Agreement between the State University of New York and the Research Foundation of the State University of New York, dated June 1, 1977.

We conducted our performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State. These include operating the State's accounting system; preparing the State's financial statements; and approving State contracts, refunds, and other payments. In addition, the Comptroller appoints members to certain boards, commissions, and public authorities, some of whom have minority voting rights. These duties may be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our opinion, these functions do not affect our ability to conduct independent audits of program performance.

Reporting Requirements

We provided a draft copy of this report to Research Foundation officials for their review and formal comment. We considered the Research Foundation's comments in preparing this report and have included them in their entirety at the end of the report. In their response, Research Foundation officials generally agreed with the audit recommendations and indicated the actions they will take to address them.

Within 180 days after final release of this report, the President of the Research Foundation for the State University of New York shall report to the Governor, the State Comptroller, and the leaders of the Legislature and fiscal committees, advising what steps were taken to implement the recommendations contained herein, and where recommendations were not implemented, the reasons why.

Agency Comments



December 4, 2019

Dear Mr. Reilly:

Office of the President

35 State Street Albany, New York

Mailing Address: Post Office Box 9 Albany, New York 12201-0009 Mr. Brian Reilly Audit Director Office of the New York State Comptroller 110 State Street – 11th Floor Albany, New York 12236

518-434-7120 Fax: 518-935-6707

www.rfsuny.org

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Thank you for the opportunity to respond to the Office of the New York State Comptroller's ("OSC") report on "Technology Transfer Program and Royalty Payments" at The Research Foundation for The State University of New York ("RF") (Report 2019-S-10, the "Report").

The RF exists to serve SUNY and to capitalize on its scope, scale, and diversity as an engine of New York State's innovation economy. We work actively and collaboratively across the state to grow research, advance a culture of entrepreneurship, develop needed human capital, stimulate commercialization, and build out SUNY's innovation ecosystem for the benefit of New York and the world.

As the report demonstrates in the key findings, the RF is committed to and has taken necessary steps to protect SUNY's interests in the transfer of technology and the administration and oversight of royalty payments. Additionally, the RF has demonstrated that it will audit its licensees if it believes its licensees are underreporting.

We also acknowledge and are acting on the recommendations provided by OSC to further enhance the effectiveness of our operations to serve SUNY and meet the expectations of taxpayers.

Specific to OSC recommendation number one, RF has developed License Agreement Monitoring Guidelines and is happy to share an early draft at your request. We will continue to explore ways to redeploy existing resources or identify new ones to support a robust license agreement monitoring function.

In response to recommendation number two, the campus royalty revenue accumulation in the early years was not significant and the current balance of \$1,019,390 represents an accumulation over a period of twenty-five plus years. Downstate Health Sciences University is conducting a search for an Executive Vice President for Research (EVPR) who will be charged by the campus President to determine the appropriate strategy to invest campus royalty income

for the betterment of research and education. The RF will assist the campus in the distribution of campus revenues in alignment with the investment strategies identified by the EVPR.

We greatly appreciate and value the time and commitment invested by OSC to perform its work.

Sincerely,

1. Chile

Jeff Cheek, Ph.D. President & Chief Executive Officer

Cc: Kristina M. Johnson, Chancellor, SUNY Heather Hage, Vice President, Industry and External Affairs, RF Joseph Barabino, Associate Vice President for Research Administration, Downstate Health Sciences University Amy Montalbano, University Auditor, SUNY

Contributors to Report

Executive Team

Tina Kim - Deputy Comptroller Ken Shulman - Assistant Comptroller

Audit Team

Brian Reilly, CFE, CGFM - Audit Director Ed Durocher, CIA - Audit Manager Amanda Eveleth, CFE - Audit Supervisor Marisa Sutliff - Examiner-in-Charge Anthony Calabrese - Senior Examiner Ryan Gregory - Senior Examiner Andrea Majot - Senior Editor

Contact Information (518) 474-3271 <u>StateGovernmentAccountability@osc.ny.gov</u> Office of the New York State Comptroller Division of State Government Accountability 110 State Street, 11th Floor Albany, NY 12236



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