

NORTH DAKOTA LEGISLATIVE MANAGEMENT

Minutes of the

HIGHER EDUCATION FUNDING COMMITTEE AND JUDICIARY COMMITTEE

Wednesday, January 22, 2014

Prairie Rose Room, Memorial Union, North Dakota State University
Fargo, North Dakota

Representative Mark Sanford, Chairman, Higher Education Funding Committee, called the meeting to order at 9:00 a.m.

Higher Education Funding Committee members present: Representatives Mark Sanford, Thomas Beadle, Lois Delmore, Eliot Glassheim, Joe Heilman, Dennis Johnson, Andrew G. Maragos, Bob Martinson, Kylie Oversen, Clark Williams; Senators Tim Flakoll, Tony Grindberg, Karen K. Krebsbach, Carolyn C. Nelson, Larry J. Robinson

Higher Education Funding Committee members absent: Representatives Mark A. Dosch, Kathy Hawken, Robert J. Skarphol; Senator Ray Holmberg

Judiciary Committee members present: Senators David Hogue, Kelly M. Armstrong, John Grabinger, Stanley W. Lyson; Representatives Lois Delmore, Ben W. Hanson, Karen Karls, Lawrence R. Klemin, Kim Koppelman, William E. Kretschmar, Diane Larson, Andrew G. Maragos, Gary Paur

Judiciary Committee members absent: Senators Mac Schneider, Margaret Sitte

Others present: Joshua A. Boschee, State Representative, Fargo

Blair Thoreson, State Representative, Fargo

Representative Ron Guggisberg and Senator Ronald Sorvaag, members of the Legislative Management, were also in attendance.

See [Appendix A](#) for additional persons present.

Chairman Sanford said the Higher Education Funding and Judiciary Committees were assigned studies of intellectual property policies and procedures at higher education institutions. He said the purpose of the meeting is to gather information regarding research activities at higher education institutions, to receive an overview of intellectual property policies and procedures, and to review the process used to commercialize intellectual property.

Dr. Dean Bresciani, President, North Dakota State University, Fargo, provided comments and distributed a document ([Appendix B](#)) to committee members. He said there are two institutions in the state categorized as research universities by the Carnegie Classification system. He said the University of North Dakota (UND) is classified as a high research activity institution, and North Dakota State University (NDSU) is ranked as a very high research activity institution.

Senator Grindberg provided comments regarding the study of intellectual property and activities and distributed documents ([Appendix C](#)) detailing statutory and State Board of Higher Education policy references to intellectual property. He said the purpose of the study is to review the best practices for research and intellectual property to help move the state forward. He said the original Higher Education Roundtable report included specific strategies to advance the state, including a cornerstone to sustain the vision. He said the study will allow committee members to understand the progress made by research institutions in the last decade.

Senator Grindberg said the Higher Education Roundtable encouraged research institutions to be entrepreneurial and take risks. He said research parks were built to allow institutions to enter partnerships with private sector entities. However, he said, attention to intellectual property and entrepreneurship has lagged recently. He said policies should be reviewed to encourage entrepreneurship and to focus on desired expectations and outcomes.

In response to a question from Representative Delmore, Senator Grindberg said clear rules and guidelines are needed for intellectual property. He said private sector entities may be discouraged from partnering with institutions if there are not clear statutory provisions and State Board of Higher Education policies regarding intellectual property.

Dr. Kelly A. Rusch, Vice President for Research and Creative Activity, North Dakota State University, Fargo, presented information ([Appendix D](#)) regarding the importance of research institutions. She said the core mission of a research institution is to teach, to provide outreach, and to conduct research. She said research-related activities have a significant financial impact to an institution. She said approximately 25 percent of institution revenues at UND and NDSU are from research activities.

In response to a question from Representative Sanford, Dr. Rusch said institutions conducting federal research projects receive reimbursement for certain overhead costs through a facilities and administration rate. She said each institution negotiates a rate with the federal government, and the rate is based on a variety of factors, including research facilities, research faculty, and total research funds. She said the current facilities and administration rate at UND is 38 percent, and the current rate at NDSU is 45 percent.

In response to a question from Representative Glasheim, Dr. Rusch said most research faculty spend half of their time conducting research and the other half of their time teaching. She said some research faculty, such as agriculture research faculty, may spend up to 70 percent of their time on research projects.

In response to a question from Representative Klemin, Dr. Rusch said some research staff do not provide classroom instruction. She said research staff that do not teach are generally compensated entirely from income relating to research contracts with outside entities.

In response to a question from Senator Flakoll, Dr. Rusch said research institutions use different methods to attract and compensate research graduate students. She said some institutions provide a tuition waiver or stipend to graduate students. She said she will provide the committees with additional information regarding how research funds are used to support students.

In response to a question from Representative Delmore, Dr. Rusch said research institutions are proactive in developing partnerships with private sector entities. However, she said, institutions are aware that not every partnership may be appropriate for the institution.

Dr. Rusch presented information ([Appendix E](#)) regarding research activities at NDSU. She said the institution has well-established research programs in the areas of agriculture, transportation, and polymer coatings. She said emerging areas for research opportunities exist in the fields of unmanned aerial vehicles, informatics, and digital mobile health.

Dr. Phyllis Johnson, Vice President for Research and Economic Development, University of North Dakota, Grand Forks, presented information ([Appendix F](#)) regarding research activities at UND. She said the institution offers more than 100 graduate degrees and certificates and has research expenditures in excess of \$89 million per year. She said the institution has well-established research programs in several fields, including life sciences and aerospace.

Mr. Jason Jenkins, Office of General Counsel, North Dakota University System, Grand Forks, presented an overview ([Appendix G](#)) of the legal basis of intellectual property and an overview of State Board of Higher Education policies regarding intellectual property. He said intellectual property is a property right that is recognized by law and can be bought and sold similar to tangible property. He said the three main types of intellectual property include:

- Copyrights - Protect original artistic expressions in a tangible medium.
- Patents - Protect inventions.
- Trademarks - Protect brand identity, names, and logos.

Mr. Jenkins said a patent is a right granted by the federal government to exclude others from practicing the invention during a limited timeframe. He said it may take up to five years to receive a patent, and the costs of getting an invention patented can be significant. He said a patent may be owned by one or more inventors, and ownership is generally shared equally if there is more than one inventor unless specified otherwise through a contract, agreement, or policy.

Mr. Jenkins said the federal Bayh-Dole Act was enacted in 1980 and affects inventions developed at higher education institutions. He said prior to the Act, there was very little licensing and commercialization resulting from federally funded research at institutions because the federal government retained ownership of inventions. He said the Act allows institutions to retain certain ownership rights of inventions resulting from federal research funding.

Mr. Jenkins said the ownership of an invention developed by an institution employee or student varies based on the specific situation. He said an invention may belong to the institution if the invention was developed as part of the employee's work duties and utilized institution resources.

Mr. Jenkins said a copyright provides an original author or authors with the right to reproduce and distribute an original work product, such as a textbook or computer software. He said the ownership of a copyright is generally retained by the creator unless specified otherwise through an employer agreement.

Mr. Jenkins said North Dakota Century Code Section 15-10-17(9) allows the State Board of Higher Education to adopt rules promoting research and encouraging the development and commercialization of intellectual property. He said State Board of Higher Education Policy 611.2 enables institutions to develop procedures to manage intellectual property at the institution. He said board policy does require certain provisions, such as the requirement that at least 30 percent of net royalties received for a patent or copyright be distributed to the original creator.

In response to a question from Senator Grindberg, Mr. Jenkins said a University System task force was created in 2010 to review State Board of Higher Education policy relating to intellectual property. He said the task force recommended the board adopt minor changes to existing policies.

Mr. Murray Sagsveen, Chief of Staff, North Dakota University System, said the State Board of Higher Education reviewed the proposed changes to intellectual property policies at a meeting in November 2013. However, he said, the board tabled any action on the proposed changes to allow board members to receive additional input regarding the changes.

In response to a question from Representative Klemin, Mr. Jenkins said faculty members at institutions are advised on proper procedures to follow when working with intellectual property. He said some actions, such as publishing an invention in an education journal prior to receiving a patent, may affect the ability to patent the invention.

In response to a question from Representative Klemin, Mr. Jenkins said the state's open records laws do not require certain research activities to be disclosed through open records requests.

Mr. Dale Zetocha, Director, Technology Transfer Office, North Dakota State University, and Executive Director of the NDSU Research Foundation, Fargo, presented information ([Appendix H](#)) regarding the technology transfer process. He said the NDSU Research Foundation is a separate nonprofit entity that owns and manages intellectual property developed at NDSU. He said the foundation coordinates intellectual property protection, marketing, licensing, and enforcement. He said after recovery of patenting and licensing expenses, the royalty revenue relating to an invention is distributed 30 percent to the inventor, 40 percent to the departments and units that developed the invention, and 30 percent is retained by the institution and foundation.

In response to a question from Representative Klemin, Mr. Zetocha said State Board of Higher Education policy requires at least 30 percent of royalty revenue to be distributed to the inventor. However, he said, the percentage of royalties distributed to the inventor may be more than 30 percent and varies by license.

In response to a question from Representative Klemin, Mr. Zetocha said the NDSU Research Foundation may retain an equity position in startup companies that benefit from institution research. He said the foundation does not contribute cash to the startup companies.

In response to a question from Senator Nelson, Mr. Zetocha said the NDSU Research Foundation generally does not obtain ownership of copyrights relating to materials developed by faculty. He said institution policy generally allows faculty members to retain ownership rights to any education materials created.

The meeting was recessed from 12:15 to 12:50 p.m.

Mr. Michael F. Moore, Associate Vice President of Intellectual Property Commercialization and Economic Development, University of North Dakota, Grand Forks, presented information ([Appendix I](#)) regarding the technology transfer process at UND. He said institution policy provides that inventors receive a larger percentage of licensing revenue than required by State Board of Higher Education policy. He said licensing revenue for inventions developed at the institution is distributed 45 percent to the inventor, 50 percent to the institution to support more research, and 5 percent to the department or unit where the invention was developed.

In response to a question from Senator Flakoll, Mr. Moore said there may be more than one inventor associated with a patent. He said generally, the investors will decide the share of royalty revenues each will receive.

In response to a question from Representative Klemin, Mr. Moore said the institution distributes a larger share of royalties to inventors in an effort to encourage more research and innovation by faculty members.

Senator Grindberg said from a policy standpoint, it appears there may be more of an incentive for UND faculty to be innovative as compared to NDSU faculty.

Mr. Zetocha said NDSU policy tries to encourage more research by distributing a larger share of royalty revenue to departments and units. He said the distribution of funds to departments is especially important for the agriculture research areas.

Mr. Justin Dever, Manager, Office of Innovation and Strategic Initiatives, Department of Commerce, introduced Mr. Alex Warner, Chief Executive Officer, Pedigree Technologies. Mr. Warner said he started Pedigree Technologies. He said the company, which is an engineering software company, went through three iterations before entering the market in late 2009. He said the company has had triple growth since then. He said one of the company's products is a traffic safety solution that monitors trucks and how long the truckdrivers drive by automating the drivers' logs. He said as an engineering software company that issues updates every two weeks, it can be difficult to define and protect the company's intellectual property.

In response to a question from Representative Klemin, Mr. Warner said to protect the software, copyrights and patents are used. He said because software changes so quickly, it can be difficult to keep up with the intellectual property protections. He said whether a patent needs to be updated depends on the software codes. He said the company generally has two-year to three-year contractual agreements with its customers. He said under the contracts, the data belongs to the customer, but the software remains the property of the company.

In response to a question from Senator Flakoll, Mr. Warner said the technology to more closely monitor trains is very likely available and would be very cost-effective.

In response to a question from Representative Heilman, Mr. Warner said his company entered a relationship with NDSU for assistance on a security application that would capture information from vehicles and autopopulate drivers' logs. He said he built the product, and the university built a component of the product. He said the university also provided expertise on how to use the product in other markets.

Mr. Dever introduced Mr. Jim Traynor, Director of Client/Channel Management, Intelligent InSites, Inc. Mr. Traynor said Intelligent InSites is a software company focused on health care. He said the company gathers data from real-time location, condition sensing, and other systems. He said the software consumes that data, and it is turned into information and messages. He said Veteran's Administration hospitals are the company's biggest client with 169 sites. He said because the software is so complex and ever-changing, frequent updates are necessary. He said the company got a start with assistance from the Centers of Excellence program. He said Intelligent InSites recruits talented students from NDSU. He said there are not enough students to meet his company's demand. He said the company feels a bit hindered by current intellectual property laws. He said the students should have a right to say where their share goes. He said the laws and policies should be clarified as to who owns the rights when a student intern does work for them.

In response to a question from Representative Larson, Mr. Traynor said a majority of the company's hires are NDSU graduates.

In response to a question from Senator Robinson, Mr. Traynor said Intelligent InSites is a privately held company. He said the internships offered by the company average about one year in length and are paid internships.

In response to a question from Representative Karls, Mr. Traynor said the startup companies were required to prepare a proposal as to why they are proposing the project, to provide some level of match, and to include a prediction as to how the company will benefit the state.

In response to a question from Senator Robinson, Mr. Traynor said the internship program operated by the Department of Commerce helps the company and helps the student gain valuable experience. He said it would be good to have more formal programs like this internship program.

In response to a question from Representative Klemin, Mr. Traynor said intellectual property conflicts limit his company. He said the company cannot solicit assistance from faculty members because faculty members are employed by the university. He said intellectual property policies need to be more flexible and provide students with more incentives.

In response to a question from Senator Grindberg, Mr. Traynor said intellectual property issues arise when state dollars are involved. He said there are not intellectual property issues when the business hires the intern. He said intellectual property issues arise when the internship program is funded in part by the state. He said the intellectual property policies should be developed in the context of today's technology.

In response to a question from Representative Sanford, Dr. Rusch said there is confusion around who owns student intellectual property. She said if the student is working under a research grant, the university's intellectual property policy applies to the student's work. She said if an internship is part of a class, the university owns the intellectual property. She said if the student intellectual property results from a paid class, the student owns the intellectual property. She said a student can sign his or her rights over to a company.

In response to a question from Representative Klemin, Dr. Rusch said there is a process faculty can go through to be permitted to do outside consulting. She said during that process, the faculty member is asked whether the consulting will result in intellectual property.

Mr. Dever introduced Dr. Tim Cooke, Chief Executive Officer, NovaDigm Therapeutics, Grand Forks. Dr. Cooke said his company is developing vaccines to protect patients from the fungal pathogen *Candida* and the bacterial pathogen *Staphylococcus aureus*. He said the vaccines have gone through clinical studies and are now in the next stage of development. He said if a biotechnology company does not have patents, the company could not exist. He said there are assets coming out of universities and into biotechnology companies. He said intellectual property policies are critical when licensing with universities. He said NovaDigm Therapeutics has an ongoing collaboration with a UND faculty member. He also said the company has a landlord-tenant relationship with UND.

In response to a question from Representative Sanford, Dr. Bresciani said the percentage of intellectual property retained by a faculty member is just one piece of the incentives offered to faculty. He said other incentives include salary, facilities, and tenure.

In response to a question from Chairman Sanford, Representative Klemin requested the committee receive additional information from Mr. Jenkins regarding the state's open records laws regarding certain research activities. He also requested the committee receive copies of the intellectual policies of the North Dakota University System, UND, and NDSU and receive information on the amount of intellectual property revenue that has been generated from the universities.

Following the presentations, the committee toured several research facilities at NDSU.

No further business appearing, Chairman Sanford adjourned the meeting at 4:30 p.m.

Brady A. Larson
Assistant Legislative Budget Analyst and Auditor

Vonette J. Richter
Committee Counsel

ATTACH:9