CENTERS OF EXCELLENCE COMMISSION

Meeting Minutes
March 8, 2018
ND Department of Commerce
1600 East Century Avenue, Suite 2
Bismarck, ND 58503
Cross Ranch Room

CALL TO ORDER

Tim Hennessy, Chairman, called the meeting to order at 9:01 am.

Commissioners Present by Phone: Tim Hennessy, Mike Ness, Tommy Kenville, Kevin Melicher

Guests Present in Person: Christopher Kalash

Guests Present by Phone: Jay Schuler and Holly Holt, Matt Noah

APPROVAL OF MEETING MINUTES

The COE Commission meeting minutes from the January 31, 2018 meeting were reviewed. Kevin Melicher moved to approve the meeting minutes. Mike Ness seconded the motion. The motion carried on a voice vote.

CONSENT AGENDA

Chris Kalash provided an overview of the consent agenda items:

- Budget Change Request for Venture Grant Phase I - SmartSealz: Pilot/Operator Navigation Augmentation and Physiological Monitoring Headset
- Final Disbursement Request for Venture Grant Phase I – Radio Frequency Wireless Power for Industrial Sensors ($50,000)
- Final Disbursement Request for Venture Grant Phase I – Development of novel anti-microbial materials for clinical and food processing applications ($50,000)
- Final Disbursement Request for Venture Grant Phase I - Commercialization of Novel Lignin Reinforced Bioplastics by Using Game Changing Additive Manufacturing Practices ($49,926)
- Final Disbursement Request for Venture Grant Phase I - Development of Micro Cold Spray Print System ($50,000)
- Final Disbursement Request for Venture Grant Phase I - Development of Intelligent Integrated Networks for Rapid Pipelines Damage Detection and Health Monitoring ($50,000)
- Final Disbursement Request for Venture Grant Phase I – Soy Based Road Dust Suppressant Scale Up and Field Testing ($50,000)

Ness moved to approve the consent agenda items. Melicher seconded the motion. The motion carried on a voice vote.

COMMISSION BUSINESS

Chris Kalash presented the Commission Business.

- Change Request for budget modification and add a partner– COE - Center for Sensors, Communications and Control
  - Kalash gave an overview of the plan for CSCC to work on a 3 month project and a 12 month project with Cogi. Also included in the request was a plan to add Myriad Mobile as a partner. An initial 3 month project would begin immediately with potential for another 1 year project if Myriad is happy with the results of the initial project.
In response to a question from Jay Schuler, Matt Noah from CSCC said that they had a list of about a dozen companies that they approached about coming on board as partners. When TrackR backed out of the center, it was a complete surprise. They acted quickly to find a ND company that could meet the requirements of having the funds to match, the potential to add employees in North Dakota, and will they have an economic benefit in ND. This was done fairly quickly and Myriad would like to see how this works on a small project with potential for larger projects in the near future.

Schuler said that Myriad has received a $50,000 grant from Commerce's APUC program, and has borrowed $3.7 million to purchase another company. $800,000 of that was from the Development Fund, which is part of Commerce. There are other companies in North Dakota that could also use CSCC’s help. Chuck Hoge at the NDSU Tech Incubator has ideas of other companies that could benefit from working with CSCC.

Noah replied that they looked at a list of other companies that includes John Deere, Bobcat, Farm QA, RealTrucks, Smart Implant Systems. With the timetable, it was the easiest to get Myriad Mobile on board first. He agreed that he will talk to Chuck to see if he has leads for other projects with other companies.

In response to a question from Melicher, Noah said that the total amount left that CSCC can draw down is $559,915.

In response to a question from Schuler, Kalash said that these funds must be spent by a Center of Excellence. They cannot be transferred to Research North Dakota. If this project is not approved then the money will stay at Commerce until the Legislature tells us what we can do with the money.

Schuler suggested that a minimal amount be provided to allow CSCC to work with Myriad Mobile and that Noah get together with Chuck Hoge and find other good companies coming up in North Dakota. Tommy Kenville may also have ideas of companies in Grand Forks.

In response to a question from Tim Hennessy, Kalash said that this proposal has enough work in it to use all the funds left in the center.

Holly Holt voiced support for Cogi’s projects as long as they continue to support jobs in North Dakota. She and Kalash were on a call with Cogi earlier in the week and heard about the projects that are planned with CSCC.

In response to a question from Hennessy, Noah said that if he felt Cogi was not going to meet the expectations that the commission has for them, the project could be ended.

In response to a question from Hennessy, Noah said that if the Cogi projects are not approved it is unlikely that the Cogi employees would continue to be employed in North Dakota.

In response to a question from Noah, Schuler said that it is important that these projects help to grow North Dakota companies.

Melicher moved to approve using $226,100 for the two proposed projects with Cogi and the proposed 3 month project with Myriad Mobile and ask Matt Noah, from CSCC, to seek out other companies that can be partners to obligate the rest of the funds. Ness seconded the motion. The motion carried on a voice vote.

- Change Request for timeline extension, budget modification, and change of scope – Research ND - Valuation of Optical Sensors for Detection and Remediation of Crop Stress in North Dakota Precision Agriculture
  - Kalash gave an overview of the information in the request. This project has already received a one year timeline extension. This request is for additional 9 months. The
proposed change of scope is to survey a random sample of farmers in North Dakota, as well as a random sample of known UAV users from among Sentera's customer base in North Dakota and Minnesota. The funds to pay for this work will come from unused funds that were budgeted personnel and savings on actual flight costs, and software license purchases.

- In response to a question from Hennessy, Kalash said that he was unsure of how much this work will add to the results of the project. If the results of the survey are valuable to Sentera, then it is a good idea. If it is just way to extend the project because there are unspent funds then it may not.
- In response to a question from Melicher, Kalash said that these are not new funds, just reallocation of funds.
- In response to a question from Ness, Kalash said that he thinks this work could be valuable to the project, but it is unsure whether it is essential to the project.

Melicher moved to approve the request. Kenville seconded the motion. The motion carried on a voice vote. (Ness voted no)

- Change Request for timeline extension and budget modification- Venture Grant Phase I - Ultra High Density Power Conversion Systems using Gallium Nitride Power Devices
  - Kalash gave an overview of the information in the request. Two students working on the project graduated. The PI would like to fill these positions, because the preliminary results of the project have received a great deal of industry interest. The team has submitted a number of funding requests to other sources (industry requests, NSF requests, and a Research ND request). The small budget change would finish the project and keep a team in place. The timeline extension request of 5.5 months is within guidelines.

Ness moved to approve the request. Melicher seconded the motion. The motion carried on a voice vote.

- Initial review of Research ND and Venture Grant Phase II applications
  - Kalash shared about the summary document that he shared with the commission.
  - In response to a question from Hennessy, Kalash said that he felt that that Dr. Cao’s application is unlikely to have an economic impact in North Dakota.
  - In response to a question from Melicher, Kalash said that with research like this, it is always difficult to tell how many jobs a successful project will create in North Dakota.
  - In response to a question from Ness, Kalash said that he did not have a target number of applications that he hoped would be sent for technical review. His planned approach was to see how the majority of the commission members felt about each application. If applications were not well received at this point, it was not worth the time and money to send them out for technical review.
  - In response to a question from Hennessy, Kalash said there is just under $1 million available for Research ND grants and $400,000 for Venture Grant Phase II in the Commerce Commissioner’s discretionary budget.
  - In response to a question from Melicher, Kalash said that the commission has asked one applicant if they could complete a project for less than their initial request. That applicant came back with a reduced budget and the project is underway.
  - In response to a question from Hennessy, Kalash said that he felt that that Dr. Cao’s private partner is unlikely to have an impact on North Dakota.
Melicher moved decline further review of the grant entitled Ultra High Density Power Conversion System at this time due to the lack of North Dakota job potential. Ness seconded the motion. The motion carried on a voice vote.

- In response to a question from Melicher, Kalash said that if there are any others that a commission member feels should be declined they can be acted on individually, or as a group.
- Ness suggested that this is a difficult process to conduct without the applicants present for specific questions.

Melicher moved to have Schuler, Holt and Kalash conduct the initial review and determine which applications will be forwarded for technical review. Ness seconded the motion. The motion carried on a voice vote.

ADMINISTRATIVELY APPROVED ITEMS

Chris Kalash presented the administratively approved items.

- First Disbursement - Techno-Economic Assessment of Implementing Lignite-Based CO2 EOR in North Dakota ($250,000)
  - In response to a question from Holt, Kalash gave background on when the grant was awarded and shared the policy on first disbursements. Holt said that the Lieutenant Governor had asked her about the disbursement.
- Audit reimbursement payment to UND for audit of UAS Software and Curriculum Development Enhancement Grant – half of audit costs is allowable according to Centers of Excellence Commission policy

OTHER INFORMATION

Kalash presented the other information.

- Fund Status
  - Kalash provided an update on the fund status for the Centers of Excellence, Centers of Research Excellence, Research ND and answered questions from the Commissioners.
- Research ND Interim Reports in the meeting agenda packet included:
  - Evaluation of Commercially Produced Ice Nuclei (#2)
  - Coherent Backscattering of Cloud Particles (#3)
- Venture Grant Phase I Interim Reports the meeting agenda packet included:
  - Detection of Blockage in Petroleum Pipelines (#1)
  - 2,3-Butanediol Production via Fermentation, an Alternative Route to Chemical Synthesis, Using Synthesis Gas from Lignite Coal Gasification (#3)
  - Commercialization of Novel Lignin Reinforced Bioplastics by Using Game Changing Additive Manufacturing Practices (#3)
  - Development of Remote Patient Monitoring System-Vita WiPs (#4)
  - Development of a Mobile Medical Application for the Analysis of Hand Arthritis (#5)
- Venture Grant Phase I/II Interim Reports in the meeting agenda packet included:
- A Low Cost and Reproducible Synthetic Procedure for Mass Production of Lithium ion batteries (#2)
- Research ND Final Reports in the meeting agenda packet included:
  - Management and Monitoring of Psoriasis and Melanoma Patient Treatment using Smartphones
  - UAS Sensor Payload Development for Rescue Operations
    - In response to a question from Hennessy, Kalash said he does not have details about the office space at NDSU that Cyclops Technologies mentioned in their final report. He will send more information to the commission when it becomes available.
  - Continued Development of Commercialization of Quality Characterization Technology for 3D Printing
- Venture Grant Phase I Final Reports the meeting agenda packet included:
  - Tunable Power Amplifier for Smart Phones

**GOOD OF THE ORDER**

Schuler shared some of the work that he has been doing with the research universities on focusing on developing IP that has better commercialization potential so that the research can result in opportunities to create jobs in ND.

There was some discussion about holding the next face to face meeting at UND.

**ADJOURNMENT**

There being no further business, Chairman Tim Hennessy adjourned the meeting.

[Signature]
Tom Kerville, Chairman
Date 12/7/18

[Signature] 12/7/18
Carla Valentine, Recording Secretary
Date