

SUBMITTED BY:

**STEPHEN M. LANIER, PH.D.
VICE PRESIDENT FOR RESEARCH
UNIVERSITY SUBCONTRACT TO A COMPANY WHICH IS
PARTIALLY OWNED BY A WSU EMPLOYEE**

RECOMMENDATION

The Office of the Vice President for Research recommends that the Board of Governors authorize the President or his designee to enter into a contract for research from NextCAT, Inc., a company headquartered at WSU's TechTown. This contract will be to perform services to NextCAT, Inc. for the project entitled Process Economics of Catalytic Reactor for Biodiesel Production.

BACKGROUND

NextCAT, Inc. is working on a project entitled "Process Economics of Catalytic Reactor for Biodiesel Production." The project aims to design process economics to study the effect of NextCAT's heterogenous catalytic technology on biodiesel production plants. In addition, it will do a thorough market study of the current domestic biodiesel production industry.

Through this project, WSU will execute a number of experiments at WSU's National Biofuels Energy Laboratory (NBEL). These experiments will be conducted by College of Engineering research staff. NextCAT, Inc. was founded in 2008 and is housed at WSU's TechTown facility. The founders of NextCAT, Dr. Ng and Dr. Salley, are the co-directors of Wayne State University's (WSU) National Biofuels Energy Laboratory (NBEL) and are recognized experts in biofuels catalysis.

Michigan Conflict of Interest law requires specific sunshine procedures in order for a university employee, or a company owned by a university employee, to contract directly or indirectly with the University:

1. The employee must disclose any pecuniary interest in the contract to the Board of Governors and the disclosure must be made a matter of record in the Board's proceedings.
2. The contract must be approved by a vote of not less than two-thirds of the full members of the Board in open session.
3. The Board's minutes must report:
 - i. The name of each party in the contract.
 - ii. The terms of the contract, including duration, financial consideration between parties, facilities or services of the public entity included in the contract and the nature and degree of assignment of employees of the public entity for fulfillment of the contract.
 - iii. The nature of any pecuniary interest.

If the Board approves this recommendation, the minutes will report as follows:

The Board of Governors authorized the President, or his designee, to enter into an agreement with NEXTCat, Inc. totaling \$100,000 with Wayne State University.

1. The parties involved in the contract are Wayne State University and NextCAT, Inc.

2. The contract, in the amount of \$100,000, is in support of the performance of a research program. WSU will design a series of economic models to understand what the financial impact NextCAT's heterogenous catalyst technology will have on biodiesel production plants. It will involve the following economic models:

- **Baseline Models**

- Existing biodiesel facility with soy feedstock and homogenous catalyst.
- New construction biodiesel facility with soy feedstock and homogenous catalyst.

- **Models of Existing Production Facility Upgrades**

- Modify model #1 for high FFA feedstock with an acid esterification front end upgrade.
- Modify model #1 for high FFA feedstock with Novazyme technology.
- Modify model #1 for the use of NextCAT technology.

- **Models of New Construction**

- Modify model #2 for high FFA feedstock with NextCAT technology
- Modify model #2 for high FFA feedstock with Novazyme technology.

In addition, the research will obtain a thorough understanding of the current layout of the domestic biodiesel production industry including obtaining basic information about the production facility, as well as the facility's equipment.

3. The contract will have an initial term of 24 months, with an estimated start date of August 31, 2015.
4. The Wayne State University National Biofuels Energy Laboratory facilities located at 461 Burroughs, the NextEnergy Building, will be used to execute these experiments.

The pecuniary interest is based on Professors Ng and Salley's ownership of NextCAT, Inc. Professors Ng and Salley's share of NextCAT, Inc is 42.5% each.