

**SUBMITTED BY:**

**HILARY H. RATNER, PH.D.  
VICE PRESIDENT FOR RESEARCH**

**UNIVERSITY SUBCONTRACTS FROM A COMPANY IN WHICH COLLEGE OF LIBERAL ARTS AND  
SCIENCE FACULTY HAS PECUNIARY INTEREST**

**RECOMMENDATION**

The Administration recommends the Board of Governors authorize the President or his designee to contract with DNA Software, Inc. to enter into a subcontract to perform services under DNA's Software's project with Wayne State University entitled, "*Software for Homology Modeling of Ribosomes*," (WSU File #09101861).

**BACKGROUND**

Dr. Philip R. Cunningham, associate professor, Department of Biological Sciences, College of Liberal Arts and Science, developed several bacterial genetic mutation technologies and uses thereof. These technologies have been incorporated into a novel drug discovery platform for identifying of new RNA drug targets and avoiding mutations with the potential to lead to antibiotic resistance. This is a facile high-throughput mutagenesis and *in vivo* analysis approach that has been termed *Instant Evolution* because of its ability to instantly identify the functionally important components of a given RNA drug target. The research which led to the development of the technologies was sponsored by the University and the National Institutes of Health.

DNA Software, Inc. is developing software to predict how variations in RNA sequence will affect macromolecular structure and function. For this subcontract, DNA Software will use their software to predict the effects of mutations in RNA on macromolecular structure and function and Dr. Cunningham will test the predictions by using his genetic system to construct and analyze the mutations in living bacteria. DNA Software will subcontract funds to the University from an SBIR grant received by DNA Software from the National Institutes of Health.

John SantaLucia, Ph.D., Professor, and Pirro Saro, research assistant, both of the Department of Chemistry, College of Liberal Arts and Sciences, have developed a method and systems, including computer code, for the accurate prediction of nucleic acid and other macromolecular and biomolecular three-dimensional structures. With respect to the intellectual property encompassed in the computer program, the University holds the entire right, title and interest. With respect to the intellectual property encompassed in the patent application, the University holds a one-half, undivided interest in a pending patent application, with a one-half, undivided interest in the patent application held by DNA Software. The University has previously exclusively licensed its interest in the patent application to DNA Software. Dr. SantaLucia is currently chief scientist and chairman of the board of DNA Software.

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:

(A) The employee must disclose any pecuniary interest in the contract to the Board and the disclosure must be made a matter of record in the Board's proceedings.

(B) The contract must be approved by a vote of not less than two-thirds of the full membership of the Board in open session.

(C) The Board's minutes must report:

(i) The name of each party involved in the contract.

(ii) The terms of the contract, including duration, financial consideration between the 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 contract with DNA Software, Inc. for a subcontract totaling \$55,076 (combined direct plus associated indirect costs) with Wayne State University.

1. The parties involved in the contract are Wayne State University and DNA Software, Inc..
2. The contract will provide that DNA Software will subcontract \$55,076 for the performance of a research program for the isolation and functional analysis of RNA mutations.
3. The contract will have a term of 12 months, with an estimated start date in October or November, 2009.
4. Wayne State University facilities and personnel will be utilized during the project.
5. One other WSU employee, Wesley Colangelo (Graduate Student) will receive salary support under the subcontract.

Dr. John SantaLucia's pecuniary interest consists of thirty and eight-tenths percent (30.8%) ownership of DNA Software, Inc. and he will therefore have the potential to financially benefit from the commercial success of the company. The University owns twelve

percent (12%) of DNA Software, as a result of consideration received previously and will therefore have the potential to financially benefit from the commercial success of the company.