



ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY
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**MINUTES OF THE 55TH MEETING OF THE
ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY
BOARD OF DIRECTORS
LITTLE ROCK, ARKANSAS
JANUARY 15, 1993**

CALL TO ORDER

The meeting was called to order at 1:40 p.m. by Dr. James Hendren, Chairman of the Board, in the conference room of the Technology Center, Little Rock.

A quorum of Board members was present and included: Dr. Joe Bates, Mr. William C. Bridgforth, Mr. James V. Kelley, Dr. Don Pederson, Dr. Phillip Rayford, Mr. John Troutt, and Mr. Jerry Webster.

Staff members present included: John Ahlen, Joe Gentry, Chuck Myers, Melissa Adams, Jacqui Klodt, Ed Sartain, Al Grijalva, Joyce Sadler, Julie Welch and Janell Sanders.

APPROVAL OF MINUTES

Dr. Hendren presented the minutes from the November 20, 1992 Board meeting for approval with one correction: Mr. Webster attended the meeting but was not listed in the minutes. Dr. Pederson made a motion for the approval of the minutes with the correction. Dr. Bates seconded the motion; the Board gave its unanimous approval.

PRESIDENT'S REPORT

Dr. Ahlen brought the President's Report to the Board's attention. Dr. Ahlen stated that it contained updates on all programs at ASTA. Dr. Ahlen stated that the NIST II Final Report has been completed. The report was sent to university officials for their review.

RESEARCH COMMITTEE

Dr. Phillip Rayford stated that the Research Committee met on January 6, 1993 and recommended for the Board's approval the following resolutions:

Draft Resolution 93-8 provides for the funding of five basic research proposals. The proposals fall under the Department of Energy traineeship grants.

PROPOSAL NO. 93-EB-30, "Synthetic Models for Multi-Metal Catalyst Systems," by Ms. Tanya L. Hagler, grant recipient, and Dr. Mark Draganjac of Arkansas State University, in the amount not to exceed \$5,208.00.

PROPOSAL NO. 93-EB-31, "The Effect of Drying Conditions on Rice Quality and Energy Efficiency," by Ms. Cheryl Schulman, grant recipient, and Dr. Terry J. Siebenmorgen of the University of Arkansas, Fayetteville, in the amount not to exceed \$12,500.00.

PROPOSAL NO. 93-EB-32, "Structure: Function Relationships in Proteins Involved in Photosynthesis," by Ms. Marti I. Sharlau, grant recipient, and Dr. Danny J. Davis of the University of Arkansas, Fayetteville, in the amount not to exceed \$12,500.00.

PROPOSAL NO. 93-EB-33, "Gaseous Stack Analysis of Intra-Cavity Laser Raman," by Ms. Kathy S. Underhill, grant recipient, and Dr. M. Keith Hudson of the University of Arkansas at Little Rock, in the amount not to exceed \$12,500.00.

PROPOSAL NO. 93-EB-34, "Study of Fluorinated Hydrogenated Amorphous Silicon-Nitrogen Alloy ($a\text{-SiN}_x\text{:H:F}$) for High Efficiency Multijunction Solar Cells," by Mr. Steven G. Kizzar, grant recipient, and Dr. Hameed A. Naseem of the University of Arkansas, Fayetteville, in the amount not to exceed \$12,500.00.

Dr. Rayford made a motion to approve Draft Resolution 93-8. Mr. Bridgeforth seconded the motion. Dr. Pederson stated that UAF was the institution of his affiliation. The Board gave its unanimous approval.

Draft Resolution 93-9 provides for the funding of two basic research proposals. The proposals fall under the Department of Energy traineeship grants.

PROPOSAL NO. 93-EB-35, "Reliability of Advanced Multi-Chip Modules," by Mr. David M. Nelms, grant recipient, and Dr. Richard Ulrich of the University of Arkansas, Fayetteville, in the amount not to exceed \$6,250.00.

PROPOSAL NO. 93-EB-40, "Infrared Combustion Monitoring," by Ms. Diana M. Lindquist, grant recipient, and Dr. M. Keith Hudson of the University of Arkansas at Little Rock, in the amount not to exceed \$6,250.00.

Dr. Rayford made a motion to approve Draft Resolution 93-9. Mr. Kelley seconded the motion. Dr. Pederson stated that UAF was the institution of his affiliation. The Board gave its unanimous approval.

Draft Resolution 93-10 provides for the funding of three basic research grant proposals:

PROPOSAL 93-B-47, "Representations, Resolutions, and Determinantal Ideals Associated to the Classical Groups," by Dr. Mihalios Maliakas of the University of Arkansas, Fayetteville, in the amount not to exceed \$9,506.00.

PROPOSAL 93-B-53, "Learn a Language in (almost) Zero Minutes a Day: A Computer Assisted Instruction System," by Dr. Daniel Berleant of the University of Arkansas, Fayetteville, in the amount not to exceed \$24,460.00.

PROPOSAL 93-B-62, "High Pressure Brillouin Scattering in Condensed Matter Systems at High and Low Temperature," by Dr. William F. Oliver III at the University of Arkansas, Fayetteville, in the amount not to exceed \$50,000.00.

Dr. Rayford made a motion to approve Draft Resolution 93-10. Dr. Pederson seconded the motion. Dr. Pederson stated that UAF was the institution of his affiliation. The Board gave its unanimous approval.

Draft Resolution 93-11 provides for the funding of two basic research grant proposals:

PROPOSAL NO. 93-B-54, "Hemophilia Treatment: Factor VIII Secreting Skin Grafts," by Dr. Paul L. Hermonat of the University of Arkansas for Medical Sciences, in the amount not to exceed \$32,085.

PROPOSAL NO. 93-B-55, "Protein DNA Interactions in the Promoter of LDL Receptor Gene: Understanding Mechanism of Sterol Regulation," by Dr. Kamal D. Metha of the University of Arkansas for Medical Sciences, in the amount not to exceed \$27,870.00.

Mr. Bridgforth made a motion to approve Draft Resolution 93-11. Dr. Pederson seconded the motion. Dr. Rayford and Dr. Bates stated that UAMS was the institution of their affiliation. The Board gave its unanimous approval.

Draft Resolution 93-12 provides for the funding of two basic research proposals:

PROPOSAL NO. 93-B-65, "Study and Development of Semiconductor Lasers Utilizing Grating External Cavity Strong Feedback," by Dr. Steven Menhart of the University of Arkansas at Little Rock, in the amount not to exceed \$34,510.00.

PROPOSAL NO. 93-B-66, "Looking for New States of Matter Using Ultra-Relativistic Heavy Ions," by Dr. Wilfred J. Braithwaite of the University of Arkansas at Little Rock, in the amount not to exceed \$24,160.

Dr. Rayford made a motion to approve Draft Resolution 93-12. Mr. Kelley seconded the motion; the Board gave its unanimous approval.

Dr. Ahlen stated that at the Research Committee meeting, there was a question about follow-on funding of research grants that have been funded by ASTA. Dr. Ahlen stated that the staff has begun organizing that information and would make a presentation to the Board later in the year.

INVESTMENT REPORT

Mr. Kelley called the Board's attention to the Investment Fund Report and the FY93 General Fund Expenditure Report for the quarter ending December 31, 1992. Mr. Kelley made a motion for the acceptance of the fund reports. Mr. Webster seconded the motion; the Board gave its unanimous approval.

VENISECT, INC.

Draft Resolution 93-13 would provide for an Energy-Related Technology Development investment in the following project:

Application No. 93-T-0011, "Research & Development of a Laser Skin Perforator," by Venisect, Inc. in an amount not to exceed \$49,638.00.

Ms. Julie Welch stated that two scientist from Russia have developed a laser skin perforator that could take the place of needles and lancets in the medical community. This device uses a laser beam to draw blood from the body. Two researchers at UAMS are helping to refine the design. Ms. Welch stated that this would reduce the risk to health care workers and reduce biological waste. Ms. Welch stated that the prototype is small enough that it can be bought by diabetics to use in their homes.

After further discussion, Mr. Kelley made a motion to approve Draft Resolution 93-13. Mr. Troutt seconded the motion; the Board gave its unanimous approval.

NEW BUSINESS

Dr. Hendren reminded the Board that the next meeting date was March 19.

Dr. Hendren reminded the Board that Statement of Financial Interest Forms are due in the Secretary of State's office by January 31, 1993.

ADJOURNMENT

With no further business to conduct, the meeting was adjourned at 2:25 p.m.

Respectfully submitted,

Donald O. Pederson, Ph.D.
Secretary
Board of Directors

APPROVED by the Board of Directors
on this 19th day of March, 1993



Donald O. Pederson, Ph.D.
Secretary
Board of Directors