



900 W. Capitol Avenue, Suite 320
Little Rock, Arkansas 72201

www.asta.ar.gov

Phone: 501.683.4400
Fax: 501.683.4420

**MINUTES OF THE 170th MEETING OF THE
ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY
BOARD OF DIRECTORS
NOVEMBER 21, 2014
LITTLE ROCK, AR**

CALL TO ORDER

The meeting was called to order by Mr. Michael Nauman, Chair, in the Authority's large conference room, located at 900 W. Capitol Ave in Little Rock, AR.

Board members present included: Mr. Gary Campbell, Dr. Cesar Compadre, Dr. Carl Frederickson, Mr. Joel Harrison, Mr. John Miller, Dr. Sesh Mohan (via phone), Dr. Jim Rankin, Dr. Robert Sproles, Dr. Andy Sustich and Mr. Daren Sweat.

Staff members present included: Dr. Tim Atkinson, Ms. Melissa Adams, Dr. Blake Perry, Dr. Steve Stanley, Dr. Gail McClure, Ms. Marta Collier, Mr. James Downs, Ms. Shirley Vanderslice, Ms. Monica Williams, Ms. Stephanie Johnson, Mr. Chris Snider, Ms. Cathleen Bailey.

APPROVAL OF MINUTES

Mr. Nauman presented the draft minutes from the September 19, 2014 meeting for approval. Dr. Sustich moved that the minutes be approved as presented. Mr. Miller seconded the motion; the motion passed.

PRESIDENT'S REPORT

Dr. Atkinson recognized Chris Snider, the Authority's communications manager, for a presentation about the agency's redesigned website.

Mr. Snider pointed out that the new website needed to be intuitive rather than it being statically driven. The new format is very reactive, whether it is being accessed on a computer or laptop. The new website will also be easier to maintain since changes can be made directly by staff rather than going through the Information Network of Arkansas.

Board members asked how the new website could be made more user friendly for people who are looking for specific information for example, applying for research grants. Mr. Snider stated that one of the goals is to put more content out on social media, which will make it easier for clients to find what they need.

Board members complimented the staff on the new website.

FY2015 Operating Report

Dr. Atkinson reviewed the FY2015 Operating Report (through September 30, 2014). Dr. Compadre moved acceptance of the Operating Report as presented. Dr. Sproles seconded the motion; the motion passed.

FY2015 Investment Summary

Dr. Atkinson reviewed the FY2015 Investment Summary, including maps showing the agency's project activity fiscal year to date.

Dr. Compadre moved acceptance of the Investment Summary as presented. Mr. Miller seconded the motion; the motion passed.

FY2014 Annual Report

Dr. Atkinson presented the draft FY2014 annual report. He pointed out that this year it was decided to keep the report short and to the point. Dr. Atkinson thanked Blake Perry and James Downs for their hard work on the report. Dr. Atkinson pointed out that the staff planned to distribute the annual report to legislators before the beginning of the legislative session in January.

Dr. Rankin moved to release the FY2014 annual report. Dr. Sproles seconded the motion; the motion passed.

COMMERCIALIZATION COMMITTEE REPORT

Mr. Gary Campbell presented the Commercialization Committee report.

TTAG Quarterly Report

Mr. Gary Campbell presented the TTAG Quarterly Report. The report was moved and seconded by the committee. The Board gave its unanimous approval.

Seed Capital Investment Report

Mr. Campbell presented the Seed Capital Investment report. The report was moved and seconded by the committee; the Board gave its unanimous approval.

Draft Resolution 15-10

Draft Resolution 15-10 would provide technology development funding for the following application:

Application No. 15-TDP-01, "STAGE I - Development-Distribution & Performance Determination Period" by Bio-solids Resource Management, in an amount not to exceed \$50,000.00.

The company is seeking funds to investigate the commercial viability of blending nutrients with Class A wastewater treatment bio-solids to produce organic fertilizers for corn, soybeans and cotton. The fertilizer could be sold to farmers at a cheaper rate than what they are currently paying.

Draft Resolution 15-19 was moved and seconded by the committee. The resolution passed.

Draft Resolution 15-11

Draft Resolution 15-11 would provide technology development funding for the following application:

Application No. 15-TDP-02, "Scale-Up of Recombinant Cellulase Enzyme Production in Corn" by Infinite Enzymes, in an amount not to exceed \$100,000.00.

Infinite Enzymes has developed a licensed patented system using maize as a plant biofactory to inexpensively produce industrial enzymes. This process is being tested for use in paper products. If approved, the company will use the funds to improve and scale-up its process for purifying and packaging its commercial product (cellulose enzymes) for shipment to a prospective customer.

Draft Resolution 15-11 was moved and seconded by the committee. Dr. Sustich abstained. The resolution passed.

Draft Resolution 15-12

Draft Resolution 15-12 would provide Seed Capital Investment funds, in an amount not to exceed \$150,000 for BiologicsMD.

BiologicsMD is an early stage therapeutic development company focused on developing highly-targeted or "smart" therapies for the treatment of severe bone disorders or Alopecia. If approved, the company would use the funds as working capital to commercialize its patented recombinant fusion protein (PTH-CBD) that has a proven and potent profile in osteogenesis.

Draft Resolution 15-12 as moved and seconded by the committee. The resolution passed.

Draft Resolution 15-13

Draft Resolution 15-13 would approve the certification of the GENESIS Technology Incubator, the Innovation Center and the Enterprise Center as qualified technology incubators. The Authority has received a letter from the University of Arkansas confirming that the incubators are operating in cooperation with the University and the mission of the incubators is to foster the growth of technology based enterprises.

Draft Resolution 15-13 was moved and seconded by the committee. Dr. Rankin abstained. The resolution passed.

Draft Resolution 15-14

Draft Resolution would approve the certification of UAMS BioVentures as a qualified technology incubator. The Authority has received a letter from the University of Arkansas for Medical Sciences confirming that the incubator is operating in cooperation with the University and the mission of the incubator is to foster the growth of technology based enterprises.

Draft Resolution 15-14 was moved and seconded by the committee. Dr. Compadre abstained. The resolution passed.

INDUSTRY COMMITTEE REPORT

Dr. Robert Sproles presented the Industry Committee Report.

Dr. Sproles reported that AMS does expect to hire someone soon to support the Argenta Innovation Center. The Innovation Hub is expected to be open in about three months.

The Innovation Hub has already scheduled events, including "Hope in 48", scheduled for April 24-26, 2015 and a Makers Fair scheduled for May 1-3, 2015.

Board members expressed interest in having a Board meeting at the Innovation Hub; Dr. Atkinson stated that the Board would work on arranging a meeting there.

RESEARCH AND SPONSORED PROJECTS COMMITTEE

Dr. Carl Frederickson presented the Research and Sponsored Projects Committee report.

Dr. Gail McClure was recognized to update the Board on ASSET.

Dr. McClure reported that one of the issues that have arisen with the External Advisory Board is the technology transfer of intellectual property between campuses. Dr. McClure and Dr. Atkinson met with Dr. Don Bobbitt, UA System President and Dr. Charles Welch, ASU System President to discuss this issue. Dr. Bobbitt and Dr. Welch gave their blessing to have the vice

provosts from their respective universities to meet and settle this issue. The meeting has been scheduled for December 9 in the ASTA office.

The Track II project is up and running and working very well.

The new ASSET proposal has gone through the panel review and ASTA has not received any additional request for notes. It will go to the NSF director's board for further review in March.

There is an RFP due out on February 20th. The proposal is a variation on what has been done in the past. It is being called a focus effort, open to any institution that is working with another state. The amount of funding is similar to what has been available in the past. Four to eight proposals will be funded nationwide. Information about the RFP has been sent out to institutions; they do not have to go through the EPSCoR committee for ASTA, but staff is helping to coordinate.

Mr. Nauman stated that he would be comfortable with the staff reaching out to the campuses to let them know that the agency was available to help if the campus decided to submit a proposal. Board members concurred. Dr. McClure stated that she would start making calls to the campuses right away.

Dr. Frederickson presented three items for the Board's consideration.

Draft Resolution 15-15

Draft Resolution 15-15 would provide funding for the following proposal:

15-EPS2-0007, "UAFS Bridge to UA-Fayetteville: Northwest Arkansas Research Collaborative & Initiative" (UAFS GREEN Minigrant), submitted by University of Arkansas at Fort Smith, in an amount not to exceed \$21,933.72, for the period of November 19, 2014 through September 30, 2015.

The University of Arkansas Fort Smith has proposed a Research Collaborative & Training Initiative between faculty and students at UAFS and the University of Arkansas, Fayetteville to expand undergraduate opportunities in disciplines that support nanoscience-related research. This will enable more training for students and their mentors. It was pointed out that these types of programs are important for helping to keep students in the state; it shows them what can be done in the state.

Draft Resolution 15-15 was moved and seconded by the committee. The resolution passed.

Draft Resolution 15-16

Draft Resolution 15-16 would provide funding for the following proposal:

Project 15-RA-01, "The Arkansas Research Alliance," submitted by Jerry Adams, Arkansas Research Alliance, in an amount not to exceed \$1,050,000 for the period of November 21, 2014 through November 21, 2015.

If approved, the funds will be used by the Arkansas Research Alliance for research scholars and fellows.

Draft Resolution 15-16 was moved and seconded by the committee. The resolution passed.

Draft Resolution 15-17

Draft Resolution 15-17 would provide funding for the following research proposals:

PROPOSAL NO. 15-B-14, "Non-Specific IL-12-Chitosan Bioconjugates for immunotherapy of Solid Tumors," by Dr. David Zaharoff of the University of Arkansas, Fayetteville, in an amount not to exceed \$3,098;

PROPOSAL NO. 15-B-24, "Regulation of Germination and Growth of Bioenergy Crops by Nanotechnological Approach," by Dr. Mariya Khodakovskaya of the University of Arkansas at Little Rock in an amount not to exceed \$37,020;

PROPOSAL NO. 15-B-25, "WebFracDerm: Web-based Fractal Geometry for Automatic Skin Cancer Malignancy Detection in Dermoscopy," by Drs. Sinan Kockara and Tansel Halic of the University of Central Arkansas, in an amount not to exceed \$28,581;

PROPOSAL NO. 15-B-26, "Assessing Vulnerability of Streams to Anthropogenic Impacts in the Fayetteville Shale, Arkansas," by Dr. Sally Entrekin of the University of Central Arkansas and Dr. Michelle Evans-White of the University of Arkansas at Fayetteville, in an amount not to exceed \$49,994;

PROPOSAL NO. 15-B-27, "Gamma-Tocotrienol Administration as a Novel Approach to Reduce Acute Kidney Injury," Dr. Grazyna Nowak of the University of Arkansas for Medical Sciences, of the University of Arkansas for Medical Sciences, in an amount not to exceed \$50,000;

PROPOSAL NO. 15-B-30, "Novel Genetic Biomarkers to Improve Cardiometabolic Outcomes among Arkansans," by Dr. Elvin Price, of the University of Arkansas for Medical Sciences, in an amount not to exceed \$50,000;

PROPOSAL NO. 15-B-31, "Identification and Modulation of Brain Networks Mediating Trauma Memory Recall in PTSD," by Drs. Keith Bush and Josh Cisler of the University of Arkansas at Little Rock, in an amount not to exceed \$47,706;

PROPOSAL NO. 15-B-33, "Seasonal and Tree Size-related Effects on Biological Activity of Loblolly Pine and Sweetgum Bark," by Dr. Andrew Nelson of the University of Arkansas at Monticello, in an amount not to exceed \$49,999;

PROPOSAL NO. 15-B-34, "Improving Cu₂O Solar Cells with Atomic Layer Deposition Techniques," by Dr. Allan Thomas of the University of Arkansas at Little Rock, in an amount not to exceed \$46,554;

PROPOSAL NO. 15-B-36, "Investigating DNA Double-Strand Break Repair in Bdelloid Rotifers," by Dr. Andrew Schurko of Hendrix College, in an amount not to exceed \$12,868;

PROPOSAL NO. 15-B-37, "Conjugated Dynamic Modeling with Non-Constant Variance on Vanadium Redox Flow Battery for Renewable Power Plant Applications," by Dr. Kwangkook (David) Jeong of Arkansas State University, Jonesboro, in an amount not to exceed \$47,267;

PROPOSAL NO. 15-B-38, "Toward Reconciling Electrodynamics: The Case of Electrostatic Force and Stress," by Dr. Brandon Kemp of Arkansas State University, Jonesboro, in an amount not to exceed \$47,375;

PROPOSAL NO. 15-B-40, "Regional Hydro-climate Variability and Teleconnections for Improvement of Drought Predictability in Arkansas Climate Divisions," by Dr. Yeonsang Hwang of Arkansas State University, Jonesboro, in an amount not to exceed \$31,340; and

PROPOSAL NO. 15-B-41, "Full-life Cycle Conservation of Cerulean Warblers: Filling in the Critical Knowledge Gaps (Arkansas Portion) by Dr. Than Boves of Arkansas State University, Jonesboro, in an amount not to exceed \$48,184.

Draft Resolution 15-17 was moved and seconded by the committee. Drs. Compadre, Frederickson, Rankin and Sustich declared that some of the funds would be going to their respective institutions. The resolution passed.

Dr. Atkinson stated that the agency has funded \$1.25 million in research funding.

NEW BUSINESS

Committee Assignments

Mr. Nauman made committee assignments for 2015.

Executive Committee (Staff Contact: Tim Atkinson): Michael Nauman, Chair; Gary Campbell, Vice Chair; Carl Frederickson, Secretary; Cesar Compadre, Immediate Past Chair.

Research and Sponsored Projects Committee (Staff Contact: Gail McClure, Sponsored Projects and Steve Stanley, Research): Carl Frederickson, Chair; Cesar Compadre; Jim Rankin; Andy Sustich.

Commercialization Committee (Staff Contact: Steve Stanley): Gary Campbell, Chair; Bradford Caldwell; Joel Harrison; Seshadri Mohan; Heartsill Ragon; Rod Sweetman.

Industry Committee (Staff Contact: Dan Curtis): Robert Sproles, Chair; Michael Nauman; John Miller; Daren Sweat.

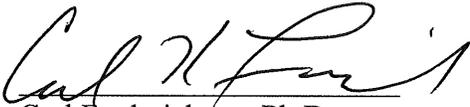
2015 Meeting Dates

The 2015 meeting dates were announced: January 23, March 20, May 15, July 17, September 18 and November 20.

ADJOURNMENT

There being no further business to conduct, the meeting was adjourned.

Respectfully submitted,



Carl Frederickson, Ph.D.
Secretary
Board of Directors

Approved by the Board of Directors
on this 23rd day of January, 2015.



Carl Frederickson, Ph.D.
Secretary
Board of Directors