



Minutes of the Board of Directors Meeting

Tuesday, July 25, 2023

A meeting of the Board of Directors of the Citrus Research and Development Foundation, Inc. was held on Tuesday, July 25, 2023 at 10:00 am EDT at the Lake Placid Government Center Community Room, located at 1069 US 27 North, Lake Placid, Florida. The meeting was properly noticed and recorded. President Morgan Porter called the meeting to order at 10:01 a.m. Roll was called and a quorum was present. Board members present were Rob Atchley, Chris Gunter, George Hamner, Aaron Himrod, David Howard, Deeley Hunt, Jeanna Mastrodicasa, Morgan Porter, Eric Rohrig, Joby Sherrod, and John Updike.

Also participating were Lourdes Pérez Cordero, Rick Dantzler, Bill Dawson, Steve Futch, Fred Gmitter, Jim Graham, Kati Lawson, Audrey Nowicki, Brandon Page, Ajia Paolillo, Amir Rezazadeh, Shannon Shepp, Steve Smith, Jim Syvertsen, Barbara Thompson, Tamara Wood, and Mongi Zekri.

President Morgan Porter noted the minutes from the June 14, 2023 board meeting were provided in their packet for review and approval. Mr. Atchley made a motion to accept the minutes as written. The motion was seconded by Mr. Updike and passed unanimously.

Public Comments: Ms. Kati Lawson from the Highlands County Extension office made introductions and passed out their Extension Newsletter. Other Extension Agents were Ms. Lourdes Pérez Cordero, Highlands County, and Ms. Ajia Paolillo, DeSoto, Hardee, and Manatee Counties, and Amir Rezazadeh, St. Lucie and Indian River Counties.

Executive Committee: Did not meet.

Finance and Audit Committee: In Ron Mahan's absence, Audrey Nowicki presented the June 30, 2023 Financial Summary and noted that the June 30, 2023 onsite audit was completed. Mr. Hamner moved to accept the July financial statements. The motion was seconded by Mr. Atchley and passed unanimously.

Governance Committee: Did not meet.

Research Management Committee: Mr. Dantzler shared the general discussion during the Scientific Advisory Board meeting, noting the general consensus that the proposals received were not the best quality. He noted that the SAB comments are provided to researchers to improve their submissions. Mr. Hamner noted that he appreciated the scientific expertise that the SAB provided.

Mr. Atchley agreed the authors didn't always use the proper roadmap. Ms. Porter noted that the proposals lacked detail.

Mr. Dantzler reported that Dr. Wang presented his progress on project 21-028, 'Generation of non-transgenic sweet orange varieties using CRISPR-Cas technology' to the RMC, which was followed by several questions from the committee and a recommendation for continued funding. Mr. Hamner moved to approve the second year of funding on project 21-028 in the amount of \$142,102. The motion was seconded by Mr. Atchley and passed unanimously. There was discussion that Dr. Wang was getting protoplasts from Dr. Grosser's lab, and the importance of making sure their protoplast needs are communicated early on to be sure the desired grapefruit inventory is available when needed.

Mr. Dantzler started the discussion of the invited full proposals received in response to the RFP for Antimicrobials with OTC:

Dr. Batuman, proposal 23-014, 'Determining the effect of oxytetracycline on Asian citrus psyllid feeding, CLas transmission, and insect microbiota.' The SAB had concerns of overlap with Dr. Stelinski's project despite the PI eliminating one objective and were critical of the use of compounds used in human health that would not receive regulatory approval. The RMC desired testing strep but struck the last objective identifying damage from UV light. They felt the budget was excessive for 23 days of field work in the proposal yet still requesting a year's salary. No action was necessary in denying the project as presented; Dr. Batuman will be requested to review the discussion and re-submit his proposal.

Dr. He, proposal 23-015, 'Integration of OTC trunk injection with root growth enhancement for sustaining citrus production of the HLB-affected groves.' The SAB was critical of the trench work around the trees evaluating root effects. A root study could be considered with Syngenta. Following the RMC recommendation, Mr. Atchley moved to not fund 23-015. The motion was seconded by Mr. Updike and passed unanimously.

Dr. Killiny, proposal 23-016, 'Assessment of *Ca. L. asiaticus*' population, transmission efficiency, and antibiotic residues after trunk-injection with OTC and FANA in field trees.' Dr. Graham provided a summary of the project's use of FANA and whether there is potential for two antimicrobials to work in concert with one another. Following the recommendation of the RMC, Mr. Hamner made a motion to not fund Dr. Killiny's project. The motion was seconded by Mr. Updike and passed unanimously.

Dr. Levy, proposal 23-017, 'Improving oxytetracycline upload into the phloem by linking glucose.' There was interest in this project in light of Invaio's OTC formulations containing

sucrose. The Board agreed with following the RMC recommendation for Staff to work with Dr. Levy to further refine this proposal.

Dr. Mandadi, proposal 23-018, 'Trunk injection-based evaluation of novel anti-CLas chemistries and OTC combinations for Florida citrus and HLB disease management:' Mr. Dantzler explained RMC's concern over working with compounds that would have little likelihood of registration, and that staff had been requested to review the discussions with Dr. Mandadi and request that he re-submit his proposal.

Mr. Dantzler noted the committee recommended continuation funding of Dr. Santra's project 22-002, 'Management of tree health and huanglongbing disease pressure using advanced Zn formulations.' This generated much discussion of zinc technologies. Mr. Updike moved to approve second-year funding in the amount of \$159,105. The motion was seconded by Mr. Hamner and passed unanimously. A suggestion was made to invite Dr. Santra to discuss with the board the status of registering nano products since there are some nano products in the marketplace already. Staff will contact Dr. Santra to arrange for it.

Dr. John Curtis, project 23-009, continuation of 'Bactericide Trial 2: Use of Bactericides in combination with GA and 2,4-D:' Brandon Page's report summarized the results of the first year of the project. Mr. Page explained that RMC had recommended a second year of funding to repeat the project in light of the influence of the hurricane on the project with changes to better target what seemed to be working and eliminate what wasn't in accordance with RMC's recommendations. Mr. Updike made a motion to continue the trial for a second year. The motion was seconded by Mr. Atchley and passed unanimously.

COO Report – Rick Dantzler asked Mr. Page to report on his visit to the nursery producing the trees for the scion trials. Dr. Chaparro's GNV0187 is not presently performing on the same trajectory as the other scions. Early maturing varieties from Dr. Grosser looked very good. The OLLs might have a juvenility issue. The orange-like hybrid varieties had chili thrips. A southwest site for the trial has been identified; a Ridge site is still needed. CRDF will be compensating growers up to \$2,000/acre annually.

Dr. Wang previously presented his proposal for a virus that he believes improved the appearance of HLB trees. Since he missed the NIFA deadline, he will be bringing his proposal back to RMC for consideration.

Mr. Dantzler is still working on the \$100,000 contract for the hairy root and zebra chip assay for Dr. Mandadi and Southern Gardens.

Dr. Randy Niedz is working with Dr. Scully vetting compounds and has injected approximately 81 compounds to check for results. There is a list of approximately 140 being considered for testing. Mr. Dantzler will keep the RMC and Board updated.

Soilcea and FDOC have not resolved the contracting issue. Soilcea is hoping to receive federal funding in the interim which would free up CRDF funds.

Elemental Enzymes is counting on receiving approval of their product in September.

Staff is currently writing the RFP for the large-scale field trials per the proviso language. Mr. Hamner noted there is a group within FDACS that assists with contract management.

Mr. Dantzler noted that CRDF may withdraw its commitment to Dr. Jin's project since she is not doing the work in Florida as directed.

Mr. Dantzler and Dr. Graham reported on Dr. Henry Yonce's research with a group of seventy-five scientists who have identified an antimicrobial and a broad-based insecticide with particular efficacy and are not currently used in human health. More information is needed and will be presented to RMC for a recommendation.

Partnership Updates

USDA-ARS has reviewed candidates and identified two potential replacements for Dr. Scully's position.

Florida Citrus Mutual – Ms. Wood reported for Mr. Joyner that Mutual continues to work on disaster relief. They are also preparing for the annual industry organizational meeting to set priorities for next year.

UF/IFAS CREC – Dr. Mastrodicasa reported on Ms. Porter's group meeting with Dr. Angle and UF pushing for greater biotechnology and CRISPR efforts. Dr. Angle has challenged IFAS to come up with a plan to move this initiative forward. Initial plans will be primarily to 1) establish a UF/IFAS Plant Transformation Center to lead the way in transgenics for all agriculture, starting with citrus; and 2) expand Dr. Wang's CRISPR projects with more lab space and personnel.

Other projects will include expanding the Transformation Lab and field sites, promoting consumer acceptance of GMO, and enhancing cold hardy citrus.

UF/IFAS will be approaching the FDOC for support, as well.

Dr. Mou's regulatory approval processes are moving along quicker than expected.

Dr. Wang is expected to be announced soon as the Graves Eminent Scholar.

Mr. Dantzler continued with additional comments from their meeting in Gainesville, noting that he thought the industry would want new scientists as well as support staff, and that it was easier for CRDF to fund research instead of personnel. He also shared that he had suggested CRDF's financial commitment, after consulting with CRDF leadership, could be as much as \$500,000 over the next few years.

Referring to the earlier discussion of withdrawing Dr. Jin's support because she had not agreed to perform all research in Florida, which was a board condition for funding the project, Mr. Updike made a motion to terminate funding of Dr. Jin's project. The motion was seconded by Mr. Himrod and passed unanimously.

Ms. Porter said by the third and fourth years, there will be help outside the citrus industry to support the UF/IFAS proposals outlined.

Ms. Shepp expressed her appreciation of UF/IFAS for putting the proposals together, and thanked Dr. Gilbert and Dr. Triplett for jumping in to help the citrus industry.

New Business: None

Public Comments: None

Announcement of Future Meeting: Board of Directors – August 22, 2023, 10:00 a.m., Lake Alfred

Adjournment 11:48 p.m.

Minutes submitted by John Updike, Secretary.