



Minutes of the Board of Directors Meeting Wednesday, June 14, 2023

A meeting of the Board of Directors of the Citrus Research and Development Foundation, Inc. was held on Wednesday, June 14, 2023, at 2:30 p.m. EDT at the Hyatt Regency Coconut Point Resort and Spa, Blue Heron Room, 5001 Coconut Road, Bonita Springs, Florida. The meeting was properly noticed and recorded. President Morgan Porter called the meeting to order at 2:36 p.m. Roll was called, and a quorum was present. Board members present were Rob Atchley, George Hamner, Aaron Himrod, David Howard, Deeley Hunt, Ron Mahan, Jeanna Mastrodicasa, Morgan Porter, Eric Rohrig, Joby Sherrod, Matt Story, and John Updike.

Also in attendance were Scott Adkins, Mike Barr, Harold Browning, John Chater, Rick Dantzler, Zhanao Deng, Gary England, Dalton Farr, Steve Futch, Jeremy Gilbert, Fred Gmitter, Jim Graham, Ron Hamel, Alee Hays, Landon Hoffman, Lisa Jensen, Jamie Jerrels, Emma Keller, Jack Kilgore, Charles McCartney, Riley McKenna, Paul J. Meador, Linda Nel, Audrey Nowicki, Brandon Page, Taw Richardson, Michael Rogers, Erin Rosskopf, Brian Scully, Shannon Shepp, Steve Smith, Mike Sparks, Christen Spinosa, Sarah Spinosa, David Sumner, Barbara Thompson, Kevin Updike, Callie Walker, Rosa Walsh, Marisa Zansler, and Zheng He.

President Morgan Porter noted the minutes from the May 23, 2023 Board meeting were provided. Mr. Updike made a motion to accept the minutes as written. The motion was seconded by Mr. Atchley and passed unanimously.

Public Comments: None

Executive Committee: Did not meet.

Finance and Audit Committee: Mr. Mahan presented the financial statements. The balance sheet showed \$7.1 million of net assets, which included the \$5 million liability for the CRAFT IV Cycle which would be distributed once the CRAFT Foundation submits its invoice and it is audited. He reported that research expenses were lower than usual, for reasons discussed numerous times before. There being nothing particularly notable in the Statement, the Finance and Audit Committee moved that the Financial Statement through May 31, 2023, be approved and accepted as presented. The motion was seconded by Mr. Himrod and passed unanimously.

Mr. Mahan then presented the proposed budget for fiscal year 2023-24, which begins July 1, 2023. The committee recommended approval of the FY 2023-24 budget as amended to reflect the funding actions recommended by the Research Management Committee and subsequent approval by the Board later in this meeting.

Mr. Dantzler noted that CRDF has 43 projects under contract and that new projects are being recommended by RMC for board approval today. There are also five invited full proposals that are being reviewed by the Scientific Advisory Board, as well as other projects under consideration. Previously, Soilcea was awarded \$900,000 for CRISPR work. Due to an unresolved issue that came up as the result of a change to Chapter 601 by the Legislature two sessions ago, this funding may be turned down, making it available for other projects. As well, the approved project by Hailing Jin may be reconsidered because it was contingent on all work being conducted in Florida, which may not be agreed by Dr. Jin.

Factored into the budget is a 5% raise for employees because the Legislature included a five percent raise for state employees. Mr. Mahan noted that the revenue shows a total of \$35 million for large scale field trials and CRAFT that will flow through CRDF. Mr. Mahan, on behalf of the Finance and Audit Committee, proposed that the Board approve the budget subject to modification according to funding actions which might be approved today. Mr. Updike seconded the motion and it passed unanimously.

Next was the miscellaneous annual contracts with Consultants, Project Managers, regulatory support, IFAS, and other services. Mr. Mahan said the Committee previously reviewed the contracts and made recommendations and moved to approve the list of miscellaneous contracts as presented. Mr. Atchley questioned the sponsorship for AgNet Media. Mr. Mahan indicated the decision was to provide a total of \$10,000 to AgNet Media for Agent to decide whether it wanted all \$10,000 to go to one event or to split it between two events. Mr. Howard seconded the motion. Mr. Dantzler added that Agerpoint has been providing drone work on the current CRDF trials, but with the new rootstock and scion trials the amount will need to be increased by an estimated \$7,500, raising CRDF's commitment to \$27,500. Ms. Porter called for a vote on the motion to approve the miscellaneous contracts and it passed unanimously.

Governance Committee: Did not meet.

Research Management Committee: President Porter thanked the committee for their time and effort in researching submitted projects and making recommendations to the Board. She also encouraged the growers in attendance to participate in the following discussions.

Mr. Updike presented the following projects:

Z. Deng 23-006, 'Evaluating novel gene-edited Duncan grapefruit mutants for resistance to huanglongbing (HLB).' Mr. Updike moved to fund for one year, for proof of concept in the greenhouse. If successful, researchers will request funding to move research to the field. The motion was seconded by Mr. Himrod. For the sake of the audience, Mr. Updike shared the RMC discussions regarding the proposal, noting questions arose on the first right of refusal by the

Department of Citrus. Dr. Deng addressed the question raised as to why Duncan was used. Ms. Porter called for a vote and the motion passed unanimously.

J. Qureshi's project 23-007, 'Maximizing HLB suppression and grove sustainability through oxytetracycline trunk injections integrated with established crop protection and horticultural strategies.' Mr. Updike noted that the committee voted to not recommend funding this project. The reasons why were presented, and no further action was taken so this project was not advanced.

N. Wang 23-008, 'Utilization of the non-transgenic citrus genome editing technology to generate HLB resistant/tolerant citrus varieties.' Mr. Updike noted that the committee voted to not fund this project. There was discussion of minimal savings if one of the objectives was dropped, but it was noted that the project was not recommended by the SAB either. No further action was taken so this project was not advanced.

R. Brlansky project 23-021, 'Improved Diagnostics and Determination of Triggers for Citrus Blight.' RMC moved to fund Objective 1 and part of Objective 2 for \$75,000, the amount of the original request. The canine portion will be dropped also. Mr. Himrod seconded the motion and it passed unanimously.

N. Killiny 23-022 preproposal, 'Keep it underground: A multipronged strategy utilizing Bt-toxins and RNA interference to prevent Diaprepes larvae from emerging as adults.' RMC voted to not invite a full proposal on this project. The committee thought it would be good for UF researchers to brainstorm the subject of Diaprepes and come back with a proposal that represents all of their thinking.

Southern Gardens Diagnostic Laboratory. After discussion on the volume of samples and who uses the lab most, Mr. Updike made a motion to fund the Southern Gardens Diagnostic Laboratory for an additional year at up to \$286,000. The motion was seconded by Mr. Howard. After a short discussion that the private companies that use the lab the most should be approached by staff to cost-share, the motion passed unanimously.

Dr. Alferez 22-003, 'Determining best timing for Brassinosteroid (Brs) application to achieve maximum beneficial effects on citrus tree health and fruit yield and quality.' Mr. Updike reported that Dr. Alferez presented his first-year progress to the RMC who in turn recommended second year funding. Mr. Updike moved to extend year two funding in the amount of \$77,041. The motion was seconded by Mr. Himrod and passed unanimously.

RFP for Essential Oils – RMC recommended that the RFP not be pursued at this time. The amount of \$100,000 was previously approved by the Board for Dr. Kranthi Mandadi to test essential oils

and other possible antimicrobials, first using the Zebra Chip assay at approximately \$1,000 per sample. Those proven successful will be elevated to the more rigorous HLB assay at \$4,000 each.

Plant Improvement Committee – Mr. Dantzler presented the concept for the new Plant Improvement Committee, consisting of 17 members. A list of potential members was previously approved by the Governance Committee and presented to the Board of Directors and the Research Management Committee. Mr. Dantzler will be working on confirming the acceptance of all proposed members. The committee's mission would be to primarily analyze data related to new varieties to assign one of three levels: Level 1 – recommendation for mass propagation based on its resume; Level 2 – large-scale field trialing because more research was needed; or Level 3 – no industry interest at this point.

Discussion of Research Priorities – Ms. Porter shared some of the thoughts from the RMC meeting. It would be helpful if growers could eliminate a spray, so adding other products to the OTC solution was of high priority. They were looking for rotational partners to help prevent resistance to OTC. In the longer-term, focusing on biotechnology from a CRISPR and GMO standpoint. Mr. Howard mentioned injecting 6-month to 2-year-old trees with OTC and using labeled materials or those that do not need to be registered. Mr. Dantzler reminded the Board that they already have five proposals that came from the RFP on mixing anti-microbials with OTC that would be coming before the RMC after their review by the SAB. Dr. Gmitter said they need funding for breeding data, not to make new crosses but to evaluate materials already in the field. Mr. Howard asked whether the data collected from the inventory projects of Drs. Mattia and Chater would be investigated further in either an RFP or Directed Research. Mr. Dantzler thought it would be Directed Research.

Mr. Dantzler and Mr. Page gave an update on the rootstock and scion trials. The rootstock trials are planted. The trees in one trial have IPCs and the trees in the other trial do not. The grower cooperator who has the IPCs does not wish to remove them. The board thought that was okay, and it was noted that it will be interesting to see if there are differences in the performance of the trees. There are 29 scions planted.

CRDF has funded six OTC projects and one of these are by the Stelinskis. They are measuring the effect on psyllids from the injecting of OTC. Dr. Albrecht is injecting at various rates based on the label: 150%, 100%, 75%, and 50% to see if there is a difference in how the trees perform. We are also funding a project to evaluate if it is possible to inject in larger branches and get the same kind of effect as if you injected in the rootstock or just above the bud union. We are also funding a project to measure how root mass is changing as a result of OTC. We are funding a project where only trees older than 20 years of age are going to be injected. We are also funding a project where OTC and VisMax are injected together.

COO Report: Dr. Santra presented his one-year report at the last Board meeting; approval of his second-year funding has been postponed until questions that were raised are answered. He was given a 3-month extension and will perform an additional scope of work until the questions are answered and continuation funding is re-considered.

Randy Niedz from the USDA has already injected approximately 140 compounds into producing trees from the list compiled with Dr. Scully and recommendations from others to see if he can get a response.

Mr. Dantzler thanked Florida Citrus Mutual, Matt Joyner, Landon Hoffman, and Shannon Shepp for the legislative support given during the latest session.

Partnership Updates:

USDA: Erin Rosskopf and Scott Adkins reported that the drone survey was complete, and constructs have been identified that show promise. USDA is already working on new permits and continued maintenance. They are also planning a meeting on behalf of CRDF for researchers that have plants in the transgenic block to review the current stock and what has been successful, and where plants can be pushed to make room for new constructs. Two USDA rootstocks have been approved for release at the national program level and should be available soon. Two scions that were sent to the national program are being considered pending further data clarification. Dr. Adkins noted that USDA, Ft. Pierce was starting a search for a new Lab Director.

UF-IFAS- CREC – Dr. Michael Rogers noted that Dr. Angle would be at the conference and sharing happenings from IFAS. They see the industry is excited about the CRISPR research and he welcomes any questions they have, so feel free to reach out to him.

Florida Citrus Mutual: Landon Hoffman provided a brief update.

New Business: None

Public Comments: None

Future Meetings: July 25, 2023, in Lake Placid; August 22, 2023, location to be determined.

With no further business, the meeting adjourned at 3:51 p.m.

Minutes submitted by John Updike, Secretary.