A meeting of the Board of Directors of the Citrus Research and Development Foundation, Inc. was held on Tuesday, July 27, 2021, at the Turner Agri Center, 2250 NE Roan Street, Arcadia, Florida. The meeting was properly noticed and recorded. President David Howard called the meeting to order at 10:10 am. Roll was called, and a quorum was present. Board members present were Rob Atchley, Rob Gilbert, Aaron Himrod, Greg Hodges, David Howard, Jeanna Mastrodicasa, Morgan McKenna, Pat Ouimet, Mathew Story, and John Updike. Also participating were Rick Dantzler, Bill Dawson, Steve Futch, Jim Graham, Audrey Nowicki, Brandon Page, Jim Syvertsen, and Deidra Whatley. Other participants were Fred Gmitter, Jude Grosser, Deeley Hunt, Andrew Meadows, Kelly Morgan, Bill Poulton, Ray Royce, Brian Scully, Shannon Shepp, Joby Sherrod, Steve Smith, Ed Stover, Buddy Strickland, Rosa Walsh, and Tamara Wood.

Mr. Howard opened the meeting with a review of the June 22nd meeting minutes. Mr. Howard asked that Ray Royce’s comments in which he thanked CRDF for using the Lake Placid Government Center be included under Public Comments. With that amendment, Mr. Updike moved to approve the minutes of the June 22nd Board meeting with that addition. The motion was seconded by Dr. Mastrodicasa and passed unanimously.

Executive Committee: Mr. Howard stated the Executive Committee had not met.

Finance and Audit Committee: Chairman Ron Mahan was out of state and not present, so Mr. Dantzler asked Mrs. Nowicki to review the June Financial Statement and Summary. Mrs. Nowicki gave a brief explanation of the Financial Statement, as it was the final of the previous fiscal year. Mr. Updike moved to accept the June 30, 2021 Financial Statement as presented. Mr. Atchley seconded the motion, and it passed unanimously.

Mrs. Nowicki reported the FY2020-21 Audit had begun. She noted that this year was the last year of the 3-year contract with Bunting, Tripp, and Ingle, and the Committee would be advertising for bids for subsequent years.

Governance Committee: Chairman Ned Hancock was not present. Mr. Dantzler reported the Governance Committee met following the Board of Directors meeting on June 22nd. The meeting centered around processing Senator Albritton’s message and the presentation made by Dr. Gilbert concerning the future for the Plant Breeding department.

Research Management Committee: Dr. Ouimet reported that the committee met jointly with the Commercial Product Delivery Committee on July 19th to review progress of the current portfolio and determine whether they continue to benefit growers sufficiently in light of the reduced funding in FY
2021-2022. Mr. Dantzler explained the reduced funding for continuing research due to the proviso language allocating $5M for Large Scale Field Trials and replanting efforts. Mr. Dantzler commented that the two committees did not focus on the financial implications of any potential project termination, but, instead, focused on the science. Mr. Howard noted that throughout the process Staff spent time reviewing the progress reports and both Committees reviewed the analyses provided by Staff and had lengthy discussions concerning the trickle-down effect of the decisions to terminate projects. The committee reviewed nineteen projects in depth and identified three projects which they recommended for termination and one project for revision, which could potentially result in a reduction of $550,000.00 of the current portfolio budget. The committee also weighed in on four requests for no-cost extensions of current projects.

Dr. Ouimet asked Dr. Graham to summarize the findings of Dr. Manjul Dutt’s project 18-007, ‘Investigating the role of transgenic rootstock-mediated protection of non-transgenic scion.’ Dr. Graham reported on the progress in meeting the objectives, noting that at 60% completion the results were inconclusive. Dr. Ouimet moved that the Board accept the committees’ recommendation to terminate Project 18-007, effective October 31, 2021. The motion was seconded by Ms. McKenna, and with no discussion the motion passed unanimously.

Dr. Futch discussed Dr. Ferrarezi’s project 18-037C, ‘Performance of newly released grapefruit cultivars and rootstocks in the Indian River Citrus District.’ He reported that Dr. Ferrarezi was leaving UF, and a replacement to take over this project had been identified. Project 18-037C was being considered for a revision instead of termination, with 50% of the objectives having been met to date. Trials one and two, on grapefruit and sweet orange were recommended to be continued, with a request for the PI to submit a revised budget prorated accordingly. Dr. Ouimet, on recommendation of the joint Committees, moved that the PI on Project 18-037C be requested to submit a reduced budget to include only the trials 1 and 2 already in progress for the duration of the research agreement. The motion was seconded by Mr. Atchley and passed unanimously.

Dr. Futch discussed Dr. Johnson’s Project 19-009, ‘Whole tree vs. rootstock or scion tolerance to HLB.’ He noted that the project was in its second year of three and the researcher continued to have difficulty growing enough trees to test Objectives 1 and 2. Dr. Ouimet, on behalf of the joint Committees, moved to terminate Project 19-009 effective October 31, 2021, based on the committees’ recommendation and lack of progress. The motion was seconded by Mr. Story and, with no discussion, passed unanimously.

Dr. Futch reported on Dr. Ferrarezi’s Project 20-003, ‘Nitrogen fertilization of 4 to 7-year-old trees planted in high density’. Mr. Dantzler explained that projects are not allowed to be terminated in the first year, so this project could not be terminated until January 1, 2022. The importance of the assessment of BMP management and nitrogen application was discussed, as well as the need for the standards to be changed. Mr. Updike, upon recommendation of the joint Committees, moved to terminate Project 20-003. The motion was seconded by Mr. Story. Discussion among the Board centered on the revision of the BMP standards surrounding high density plantings and whether it was
necessary that the standards be adjusted. A suggestion was made that specific BMP research could be addressed through directed research. The motion passed unanimously.

The Joint Committee meeting also weighed in on four no-cost extension requests, with a recommendation that one request be denied. Dr. Graham summarized Dr. Jones’ Project 18-013, ‘Using a Multipronged Approach to Engineer Citrus for Canker Resistance,’ a continuation of the previously-funded 2Blades Project. Mr. Updike, under recommendation from the joint Committees, moved to deny the no-cost extension for Project 18-013. The motion was seconded by Mr. Atchley and passed unanimously.

Mr. Dantzler reported on the 2021 RFP, noting that the deadline for full proposal submission was 5:00 p.m. July 26th and the CRDF office had received all but three full proposals.

Commercial Product Delivery Committee: Mr. Updike reported that the Commercial Product Delivery Committee met in conjunction with the Research Management Committee on July 19, 2021. Mr. Updike reported on a request from Mr. Irey regarding the recently funded Project 21-002C for the Southern Gardens Citrus Diagnostic Lab, where staff fringes in year two of the project budget had failed to be included in the request. Mr. Updike moved to approve the payment of the omitted funding of approximately $39,000 for the year two budget of Project 21-002C. The motion was seconded by Dr. Gilbert, and with no discussion, the motion passed unanimously.

Plant Improvement: Mr. Howard recognized Dr. Gilbert for an update on the Plant Improvement Plan. Dr. Gilbert reported movement on the hire to fill the position resulting from Dr. Bill Castle’s retirement, with the University currently negotiating with Dr. Schrader for the role. He also updated the Board on the second breeding position, making the role a higher level. UF accepted the recommendation to utilize the Graves Family Endowment providing for a plant breeding position. Dr. Mastrodicasa noted too that it had been approved that graduate students will soon be able to obtain a Ph.D. in plant breeding.

Mr. Howard reported on the request by the Florida Department of Citrus for Mr. Dantzler to represent CRDF at its meeting on August 24th to discuss CRDF, as well as the motion made June 22, 2021, by the CRDF Board of Directors requesting FDOC to hold the $500,000 in Legislative funds allocated for plant breeding. That motion was carried through at the June 23rd Commission meeting. Mr. Howard asked Mrs. Nowicki to read from the CRDF June 22nd Board minutes to accurately state the motion for recommendation to the FDOC. Mr. Howard stated the intention of the motion was to comport with an earlier conversation on the idea of holding the $500,000 allocated to plant breeding until the Foundation identified how best to proceed with funding the plant improvement programs going forward. He felt it appropriate to have the discussion to be sure his interpretation was not different than what was the actual intention and would give Mr. Dantzler direction when he addresses the FDOC on August 24th.

Mr. Howard invited questions or comments from audience members. Mr. Peter Chaires, from New Varieties, voiced his concerns regarding the language of the motion, and informed how NVDMC operates in the industry. Mr. Dantzler explained the August 24th FDOC meeting was called to discuss
the consultation language in the proviso and how he suspected that each of the citrus organizations would present on their position of that clause. Dr. Scully spoke to the role NVDMC plays to USDA-ARS, wherein they serve as the “master licensee” and advise which, if any, scions/rootstocks are to be released as patents or as breeding lines. If NVDMC ceased to function, concerns could be raised since Washington, DC would then be the licensing agent, and all varieties could be released publicly. Dr. Scully also stated an out of state citrus organization has offered to be the master licensing agent.

Dr. Scully noted that directed research was an appropriate approach to obtaining desired results. Conversation moved to additional orange and orange-like hybrid scion variations available for trials getting cleaned up through DPI. Mr. Dantzler stated that a Select Committee meeting was being considered to review and discuss the specs of scion development throughout the plant breeding pipeline, as well as the scion trial tour of a trial block at CREC.

Mr. Howard noted that Dr. Moira Sheehan had been requested to participate in the meeting. He said he had had an independent conversation with Dr. Sheehan since the last Board meeting where he asked if she would further explain the Breeding Insights Group and how they might be able to assist CRDF with the questions being raised regarding the future direction of Plant Improvement. Informal discussions included the possibility of a review panel similar to the Transformation Lab Review Panel, which could offer impartial opinions on current status of the breeding efforts in Florida. Mr. Howard requested board input on obtaining a proposal from Dr. Sheehan regarding the type of in-depth review she and her team could provide which could assist in the future plant improvement direction and funding decisions by the Board. Dr. Sheehan spoke to her expertise and past experience in genomics, specifically applied to Plant Improvement with a variety of crops. She also explained how Breeding Insights worked to evaluate a Plant Improvement program to turn it around effectively and proactively. Dr. Sheehan noted there would be no conflict of interest with USDA should she consult with CRDF. Ms. McKenna moved to initiate dialogue with Dr. Sheehan for the formation of a review panel on plant improvement. The motion was seconded by Mr. Atchley and passed unanimously.

**Presentation:** Dr. Brian Thompson, Elemental Enzymes, gave a data review presentation on the CRDF-funded project #20-015C, ‘Vismax™: A novel peptide-based therapeutic for mitigation of citrus diseases, including HLB.’

**COO Report:** Mr. Dantzler spoke regarding the 2021 Large-Scale Field Trial RFP and the $5 million allocated funding, requesting the Board consider the utilization of a portion of the Large-Scale Field Trial funding for the CRDF Rootstock trials, whether CRDF would be the primary applicant of the funding, or third-party grower cooperators would apply on their behalf.
Mr. Dantzler asked Mr. Page to give an update on the trunk injection devices and the status of the company traveling to Florida from the Midwest.
Mr. Dantzler discussed the possibility of Dr. Manker giving a presentation on the Bayer project at an upcoming Board meeting and also mentioned that he has been invited to speak at an October Citrus Research Board in California.
**Partnerships:** Mike Sparks introduced Tamara Woods as the new Program Manager for CRAFT. He also thanked her for the excellent work done on the 2021 Virtual Educational Session.

Dr. Rogers reported that IFAS would have a booth at the Citrus Expo August 18 & 19th. There would be time allocated for researchers to be available for questions/answer sessions. He also mentioned CREC would be hosting an Open House Field Day on November 16, 2021, with more information forthcoming after Expo.

**Extension Agent Report:** None.

**New Business:** None

**Public Comments:** Steve Smith, Executive Director with Gulf Citrus Association, announced the Citrus Banquet on August 18, 2021 being held at the Florida Gulf Coast University.

**Future CRDF Meetings:** CRDF Board of Directors, Wednesday, August 18, 2021 at 1:00 p.m. during Citrus Expo.

With no further business, the meeting adjourned at 1:32 p.m.

Minutes submitted by John Updike, Secretary.