CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.

Minutes of Board of Directors Meeting

July 23, 2013

A Meeting of the Board of Directors of the Citrus Research and Development Foundation, Inc. was held on Tuesday, July 23, 2013 at the Ben Hill Griffin Hall, Lake Alfred, Florida. The meeting was called to order at 9:35 A.M. by President Tom Jerkins. The meeting was properly noticed and recorded. Roll was called and a quorum was present. Board members present were: Mr. Black; Mr. Jerkins; Dr. Joyce; Mr. McLean; Mr. Newlin; Mr. Simmons and Mr. Stambaugh. Board members Mr. Barben, Dr. Duryea and Mr. Kress participated by telephone. Members absent were Mr. Davis, Ms. Shepp and Mr. Thompson. Also present were Dr. Browning, Mr. Sparks, Dr. Burns, Mr. and Mrs. Carlton, Mr. Neff, Dr. Richardson, Mr. Chaires, Mr. Jackson, Mr. England, Mr. Page, Mr. Hamel, Dr. Rouse, Dr. Qureshi, Ms. Harpton, Mr. Ackerman, Ms. Hurner, Mr. Boyd, Mr. Stopyra, Mr. Kennedy, Mr. Bournique, Mr. Willis, Ms. Anderson, Mr. Peleger, Mr. Howard, Ms. Nowicki and Ms. Johnson. Also participating by telephone were Dr. Dukowitz, Dr. Rogers, Ms. McCarthy and Mr. Dowling.

Mr. Newlin moved to accept the Minutes of the June 13, 2013 Board of Directors meeting. Seconded by Mr. Simmons, the motion passed unanimously.

Finance and Audit Committee: Co-Chairman Larry Black gave an update on the financial statement for June 2013, and a brief summary was provided, highlighting the current cash position and expenses as illustrated in the monthly financial summary.

Governance Committee: Chairman Bob Stambaugh indicated there was no Governance activity to report at this time.

Commercial Product Delivery Committee: Chairman Ben McLean gave a brief review of the Commercial Product Delivery Committee meeting held on July 16, 2013. He turned the floor over to Dr. Browning who gave an overview of the meeting summarized in a Power Point presentation. A need to establish an Antimicrobial Advisory SWAT Team was presented. This team would consist of a panel of experts in antimicrobials to help guide the committee in overseeing the use of antimicrobials in citrus. The committee recommended that a horticulturist be added to the team. Mr. McLean recommended approval to establish the Antimicrobial Advisory SWAT Team with a horticulturist to be added. The motion was seconded by Mr. Stambaugh and passed unanimously.

Dr. Browning presented a summary of all of the CPDC project enhancements that totaled \$1,264,307. CPDC has set aside in their budget \$1,903,526 leaving \$639,219 available for future enhancements. The first enhancement under antimicrobials is a Research Service Agreement for L. Crescens Assay by Dr. Triplett. This would allow 1,200 promising antimicrobials to be tested on a faster track. This enhancement including indirect costs to UF totals \$26,040. Mr. McLean made a motion to recommend the RSA for the L Crescens Assay in the amount of \$26,040 for approval. The motion was seconded by Mr. Newlin and passed unanimously.

A request for current RSA Lab capacity expansion on two current agreements was presented next. The committee is proposing an increase in budgets for Dr. Powell and Dr. Wang to provide for testing of up to 20 additional compounds each. The total increase for each project would be \$44,000. Mr. McLean

made a motion to recommend the increase in budgets of \$44,000 each to Dr. Powell and Dr. Wang's projects. The motion was seconded by Mr. Black and passed unanimously.

Proposed field trials of microbial materials were presented next with several scenarios outlined. Scenario number one was to test ten antimicrobial compounds with a specific plot and application on five trial sites around the state at a cost of \$45,000 per trial for a total of \$225,000. Mr. McLean made a motion to recommend approval of the testing of ten antimicrobial compounds on five sites. The motion was seconded by Mr. Black. Mr. Newlin confirmed that the data collection would be performed under contract with a third party or researcher to make sure it will be available for EPA or other the regulatory approval. The motion passed unanimously.

Scenario number two proposes field trials utilizing naturally occurring microbes. Replicated field trials can help support continued and expanded use of microbes as effective tools to control greening and fruit drop. The base price would be \$15,000 x five sites for a total of \$75,000. Mr. McLean made a motion to recommend approval of field trials using naturally occurring microbes on five sites. The motion was seconded by Mr. Newlin and passed unanimously.

Scenario number three was deferred to later on the agenda.

Scenario number four, GLP Residue Study for EPA Product Registration, was introduced, with initial estimates for conducting the residue studies possibly ranging from \$250,000 to \$300,000. Additional details will be presented as the program progresses. Mr. Black made a motion to recommend approval of concept for further development. The motion was seconded by Mr. Stambaugh and passed unanimously.

Delivery of HLB-Tolerant Rootstocks was discussed next. Field trials have become a large experiment to identify potential tolerance or resistance to disease. CRDF proposes to facilitate moving these tolerance candidates to the next level of commercial scale evaluation. CRDF is coordinating with USDA-ARS and UF-IFAS to encourage consideration of early release of promising tolerant rootstock candidates. There is no cost associated with this element.

Fall 2013 seed supply indications are that rootstock liners of candidate HLB-Tolerant rootstock phenotypes will be available. Costs associated with producing buds on several standard rootstocks are estimated at \$110,160 for propagation. Mr. McLean made a motion to recommend approval of funding the propagation of rootstocks for three sites. The motion was seconded by Mr. Black and passed unanimously.

Micro-propagation of rootstock liners for a second trial was discussed. There is some production underway for these liners. In addition, at least one company is planning to locate micro-propagation operations in Florida. The cost associated with micro-propagation for the second trial is \$116,640. Mr. McLean made a motion to recommend approval of micro-propagation at a cost of \$116,640. The motion was seconded by Mr. Stambaugh and passed unanimously.

Dr. Browning explained how gathering data from grower trials, both existing and planned, could help growers and scientists learn more. Dr. Burns and Dr. Arnold have agreed to provide information on existing trials, some of which are five and six years old. The trials are the primary source of evaluation that will promote emergence of best candidates, and will provide evidence of HLB tolerance performance as trees age.

Consideration of cold protection for the St. Helena rootstock trials was requested. UF and IFAS have trials ongoing at this location. This trial has trees that are 4-5 years of age, and is a popular site for field

demonstration of possible HLB tolerance. Protecting these trials from the cold is vital. UF, IFAS furnished an estimate of \$83,467 to protect the St. Helena site. Mr. McLean made a motion to recommend approval of protection for the St. Helena site at a cost of \$83,467. The motion was seconded by Mr. Black and passed unanimously.

Data collection and support for the rootstock trials was discussed next. A proposed team of three would be contracted to collect data from growers hosting trials, breeding programs to include tree horticulture performance, HLB performance, growth measurement, fruit yield and juice quality. This would include existing and planned trials. Estimated costs include three full time personnel @ \$40,000 including benefits, plus expenses of \$20,000 for a total of \$140,000. Mr. McLean made a motion to recommend approval of a data collection team at a cost of \$140,000. The motion was seconded by Mr. Stambaugh and passed unanimously.

HLB-Tolerant Rootstock preliminary budget summary totaled \$450,267.

The status of Clothianidin was raised. Dan Botts is working on a section 18 for Clothianidin and outlined proposed next steps. Mr. Black made a motion for the CRDF staff to work with Mr. Botts, EPA and FDACS to move forward on the section 18 for Clothianidin. The motion was seconded by Mr. Newlin and passed unanimously.

Mr. Kress reminded everyone that it is most important that all growers follow the label recommendations, or the credibility of FDACS, EPA, Mr. Botts and others would be questioned. The question of whether Syngenta was still interested in a label change was brought up. Mr. McLean will ask Mr. Botts for an update from Syngenta for the next meeting.

Thermal therapies are focused on evaluating thermal conditions that lower CLas titer in infected field-planted trees. Two proposals were presented to enhance existing projects for thermal therapies. These proposals are being revised and will be presented for consideration at the next Research Management meeting.

An enhancement to complement ongoing work of multiple, low dose applications of 2,4-D to control fruit drop was presented. The trial would be for five sites at an estimate of \$100,000. Brazil's field trials are reporting positive results. Mr. McLean made a motion to recommend approval of field trials for 2,4-D. The motion was seconded by Mr. Black and passed unanimously.

Dr. Dukowitz's quarterly report was included in the materials for review by the Board. There were no questions at this time.

Research Management Committee: Chairman Bobby Barben presented a budget revision request for project #503 for Gary England. Total additional funding of \$87,500 is requested to finish out the current year and support next year. Dr. Browning will work with them to look at long range solutions. At this time there are trials ongoing at that location that CRDF is funding, and it is important to keep this site operational until these trials are finished. Mr. Barben made a motion to recommend approval of the budget revision for project #503. The motion was seconded by Mr. Black and the motion passed with Mr. McLean abstaining.

A summary of research project enhancements was presented. CRDF currently has 141 projects of which 43 projects were identified by staff as focusing on short-term solutions. Of the 43 projects, PIs of 11 were requested to submit their ideas for one-year project enhancements along with revised scope and

budgets. The Research Management Committee met July 16, 2013 and discussed the process but did not review individual plans in detail. Dr. Browning presented a slide listing the 11 enhancements, with a total of \$713,537. Mr. Black made a motion to recommend approval the total the additions to the 11 projects in the amount of \$713,537. The motion was seconded by Mr. Newlin and passed unanimously. There is \$1,804,922 set aside in the Research Management budget for project enhancements. This would leave a balance of \$1,091,385 uncommitted.

Language for the CATP13 call for pre-proposals was submitted for review. The pre-proposal language is out to the committee for edits on the focus of this year's call.

Mr. Newlin brought up a suggestion of a shorter term call for pre-proposals or a special session to address ideas not currently in the CRDF portfolio. The legislative funding has to be spent by June 30, 2014. Mr. Jerkins stated that there is already a process in place to handle request. Enhancements to existing research projects and current Commercial Product Delivery products allow CRDF to address these requests. The question was raised if there was something out there that the scientific community had not addressed in regards to HLB, how it can be addressed. The current portfolio of projects has such a wide range of activities that it is unlikely that a new idea can't be tied to a project in the current portfolio. Mr. Black asked about the other 32 Pls that haven't had the opportunity to look at their short-term projects and see if there is an enhancement that could help them reach their goal. Dr. Browning also suggested that Board members and others should email catp@citrusrdf.org if they need information or want to suggest an enhancement idea. <a href="mailto:Mr. Black made a motion to ask researchers that have short term HLB projects if an enhancement would get them to a solution faster. The motion was seconded by Mr. McLean and passed unanimously.

Dr. Turpen has completed a progress report on the NIFA grant that gives a summary of this project to date. This report will be posted on the CRDF web site under the public nuPsyllid page. By the end of August an annual report should be ready and it will also be posted to the web site.

Industry Research Coordinating Committee: Chairman Wayne Simmons indicated there was no IRCC activity to report at this time.

Long Term Research Funding and Legislative Matters: Mike Sparks reported that at the Bonita Springs Annual Grower Meeting, Florida Citrus Mutual had a legislative luncheon to thank the key people who assisted in getting this legislative funding. Mr. Sparks and Dr. Browning will report back to the House Ag Appropriation committee in August-September as to where CRDF is on this funding. They also have to start working on the request for funding for next year. Mr. Sparks is excited about prospects for setting up the National Citrus Research Trust Fund, which would be using citrus tariff dollars. This would provide the long term research funding that citrus really needs. If granted, the suggestion was made to encourage multiple year contracting for research from this trust fund as is the case with CRDF programs.

COO Report: Dr. Browning reported that Ecostat is at the end of the 2012/2013 contract and CRDF is in the process of transferring the website to University of Florida's server. There is a need to extend Ecostat's contract for two months to allow CRDF to work through the transition. Mr. Black made a motion to recommend approval of a two month extension to the Ecostat contract. The motion was seconded by Mr. Newlin and the motion passed unanimously.

The software licensing agreement for a perpetual license for the website was presented. This license would be a five year license which includes use of the CATP PDF forms. The cost of the licensing agreement is \$31,500. The Board suggested that UF review the license. Transferring to the UF server would give CRDF a \$63,000 a year savings. Dr. Joyce made a motion to recommend approval of the software licensing agreement after the UF IT Software experts and General Counsel at UF reviews the license. The motion was seconded by Mr. Stambaugh and passed unanimously.

The Brazil trip has been postponed due to delays in obtaining travel visas. It may be the end of September or October before that trip can be planned.

A meeting between board members and staff of California Citrus Research Board (CRB) and CRDF is scheduled for August 26th and 27th. There will be seven members from CRB attending plus Ken Keck and the research program manager. All Board members of the CRDF are encouraged to attend.

Shannon Shepp has stepped down from the Board and a replacement FDACS representative should be named by the August meeting. The conflict of Interest form was sent to all Board members. This form must be filled out annually. Please fill the form out and return it at your earliest convenience. Meeting materials were posted to the web this month for the first time. Dr. Browning asked if any Board members had trouble accessing the materials. Dr. Duryea reported that she was using it live on the web with no problems.

The Nutritional White Paper was sent out in July. The Triangle had a special printing and included the white paper in that newsletter. The paper summarized what CRDF has supported to date on nutritional research related to HLB and tree health. Mr. Newlin noted that the paper did not contain information that was funded by the earlier box tax money. CRDF did not have access to complete records from that earlier box tax projects. Dr. Browning will work with researchers doing the nutritional work and get feedback of what they have learned from the research.

New Business: Mr. Kennedy, President of Indian River Citrus League, reported that they have been conducting meetings with growers to try to narrow down what was important to growers. Nutritional work is a priority so they looked for ongoing research projects to see where they could partner to encourage nutrition research in the Indian River area. They identified projects #179 and #447 that are being conducted by scientists at UF, IFAS, Immokalee. Dr. Rouse presented a synopsis of 12 trials he would like to do to expand knowledge on nutritionals on mature trees. The extension would be to project #179. The first year cost of this extension was estimated at \$489,000. Dr. Qureshi presented Dr. Stansly's synopsis on project #447. This enhancement would look at tree health and production in young trees. The first year funding estimate is \$166,000. Both scientists will submit their extension request for consideration by the Research Management committee.

Mr. Newlin commented to the board regarding the difficulties in the industry's perception of research seeking a cure for HLB versus the goal of finding tools to use in combination to manage HLB. He reminded those present that the Research Management Committee, who plays a major role in funding recommendations, is made up of growers, and, along with the board, members of this committee are willing to talk to anyone with questions regarding the research. Mr. Newlin encouraged the industry to continue to work together to reach a common goal.

Future CRDF Meetings:

- CRDF/CRB Board Exchange Monday, August 26, 2013
- Board of Directors meeting Tuesday, August 27, 2013 10:00 A.M. EDT, Lake Alfred

With no further business, the meeting was adjourned at 12:40 P.M.

Minutes submitted by Jerry Newlin