

Revised Inter-Institutional Memorandum of Understanding - 10/31/08

Inter-Institutional Memorandum of Understanding Between the Consortium Members in the Grand Challenges for Global Health Program entitled: Improving Cassava for Nutrition, Health, and Sustainable Development, also known as BioCassava Plus

This inter-institutional memorandum of understanding indicates the willingness of the following BioCassava Plus Consortium members. cooperation to increase the nutritional status of sub-Saharan Africans by developing viable cassava cultivars with enhanced quantities of bio-available zinc, iron, protein, Vitamin A, Vitamin E, reduced quantities of toxic cyanogenic glycosides, delayed post harvest physiological deterioration and high resistance to geminivirus disease.

At the start of the BioCassava Plus project, the institutes planned to be involved are:

- **Donald Danforth Plant Science Center, (DDPSC), USA** (awarded institute)
- International Center for Tropical Agriculture, (CIAT), Colombia -
- International Institute Tropical Agriculture, (IITA), Nigeria -
- Shanghai Center for Cassava Biotechnology at the Institute of Plant Physiology & Ecology (SIPPE), China
- Swiss federal Institute, (ETH), Switzerland
- University of Bath, UK
- University of Nebraska, Nebraska, USA
- University of Puerto Rico, (UPR), Puerto Rico -
- Washington State University, Washington, USA -
- Washington University, Missouri, USA

This list of participants may be revised according to the development of the overall project, the performance of each consortium member, the modifications to the plans following some changes made by the POC, or on the advice of the SAC.

Definitions of Terms

- BMGF is the Bill and Melinda Gates Foundation
- GCGH is the Grand Challenges for Global Health
- GAS is the Global Access Strategy

- Charitable Objective is to ensure that innovations (and related rights) are managed and public health solutions are optimized for the purpose of facilitating: (i) the broad availability of data and information to the scientific community and (ii) the access to affordable health solutions for the benefit of people most in need within the developing world...
- A BioCassava Plus Consortium member is an institution receiving a subcontract from DDPSC, the official awardee of the GCGH.
- The POC is the Project Oversight Committee of the BioCassava Plus project.
- The SAC is the Scientific Advisory Committee of the BioCassava Plus project.
- A Research Focus Team (RFT) is a group of scientists and support professionals tasked with research and development activities focused on a specific trait (e.g., protein enhancement, vitamin enhancement, etc.) within the context of the BioCassava Plus project.
- A Research Focus Team Leader is a person designated in the grant proposal to lead a Research Focus Team.

In order to ensure that the BioCassava Plus project will achieve the Charitable Objective, the collaborating institutes agree to comply with the three-tiered management strategy proposed to the GCGH in April 2005. This approach is outlined below:

- Research Focus teams will have the primary responsibility for research and project management decisions. These teams will include investigators engaged in the production and characterization of transgenic plants, product biosafety/IPR issues, focus on field performance trials, and the performance of human trials. Each research focus team will have a leader who will be responsible for developing a prioritized set of research goals towards the completion of the milestones of the project, posting research results on the BioCassava Plus Team web site for review by all members of the project, and preparing quarterly reports for evaluation by the BioCassava Plus POC.
- The Project Oversight Committee (POC) The members of the POC are Dr. Claude Fauquet, Dr. John Beeching, Dr. Mark Manary, Dr. Ada Mbanaso, and Dr. Martin Fregene. The members of the committee were selected by the BioCassava group as a whole prior to submission of the grant proposal. The members of the POC will serve for five years. Members are permanent but can be replaced if for some reason they step down by nomination and a simple majority vote of the co-investigators. The POC will be responsible for the evaluation of the overall programmatic progress and adjustments to financial support for each project team in accordance with progress towards meeting their research objectives and milestones. If a given team fails to meet 30% or more of its research objectives in a given six month period, the POC will consider fund reallocations to investigators who have better capabilities and capacities to complete the research objectives. It is recognized that unanticipated research

obstacles may appear that impede research progress. If a team has not met 30% of their total number of research objectives but can demonstrate good progress they will continue to be supported. If the team has not made substantive efforts towards meeting 70% their research goals or has through bad management or poor scientific design failed to meet their goals the POC will consider transferring the project to another group that has been identified as being capable of meeting the research goals based on current and past research performance. The POC also will evaluate the progress of field trials and will take necessary measures to ensure success. If required, the POC will use the contingency plan for field testing. The contingency plan shall be to conduct the field trials at an alternate site. Alternate sites include several in Africa (IITA and KARI), CIAT and Puerto Rico as described in the Terms and Conditions of the project and subject to approval by the BMGF. The POC also will be responsible for providing research reports to and meeting with the GCGH Scientific Board on a biennial basis.

- Scientific Advisory Committee (SAC), an independent committee composed of distinguished scientists who have expertise in the scientific fields of this project, will annually evaluate the activities of the POC and the research teams. The SAC will participate in the annual meeting at which research progress reports will be made by each group. The SAC will also have access to online team research reports. The SAC will comment on research progress, its quality and make suggestions for improvement. The SAC will use the research milestones and objectives met as the standard for making good progress. The quality of the science will be evaluated on the basis of the SAC committee member's own personal standards of scientific quality. The SAC evaluation will be made available to the entire BioCassava Plus Team and reviewed by the POC, PI and the BMGF program officer. Suggested research or policy changes will be implemented following review by the POC, PI and BMGF program officer with the final decision being made by the PI. If the SAC recommend a change in the management of BioCassava Plus (POC or research teams) the PI, in consultation with the members of the appropriate management team and the program officer at the BMGF make the recommended changes. The SAC annual report will be posted on the BioCassava Plus web site one month after the annual meeting and will be made available to all members of BioCassava Plus, as well as, the GCGH Scientific Board. The recommendations of the SAC will be instituted by the POC.

Project Management and Funds Allocation

- The BioCassava Plus project is led by Dr. Richard Sayre, Director BioCassava Plus at DDPSC and PI of the project. Dr. Sayre is responsible for managing and directing the entire project and will be helped by an assistant. His duties include: coordination of the project, financial oversight along with the assistance of the DDPSC, interaction with the POC members to discuss and make decisions as needed, elaborate the six month report to the GCGH Scientific Board, report with the POC members to the GCGH Scientific Board, partake in the organization of the yearly meeting of all the project's participants, organize the yearly meeting of the SAC, put in place and update the BioCassava Plus website, elaborate and produce the promotional material, coordinate PR activities with DDPSC and other institutional PR offices, identify new

Research Focus Team leaders in consultation with the POC if needed, and elaborate the final report of the project in order to present it to the GCGH Scientific Board.

- DDPSC is the official awardee of the BioCassava Plus project, and therefore, will receive all the funds from the GCGH Scientific Board. DDPSC will manage the subcontracts for all the Research Focus Teams according to both the budgets provided at the time of the award and on a six months time schedule.
- Changes to the original budget categories can be made within a range of 10% without any prior requirement / authorization from neither the DDPSC nor the GCGH Scientific Board.
- Depending on the results obtained, the Research Focus Team may have to modify their activities, and therefore, their corresponding budgets, by shifting money from one year to another. Adequate research progress will be evaluated by the POC by the mechanisms described above with final approval from the program officer at the BMGF. These changes will be proposed to the POC. After discussion and agreement with the corresponding Research Focus Team, the POC will inform of such changes to the GCGH Scientific Board and will seek their approval before implementation. Subcontract amendments will be issued by DDPSC to reflect these budget changes. More specifically:
 - On a six months basis, after analysis of the progress made by each Research Focus Team, the POC may suggest changes to activities/actions, and therefore, changes in the corresponding budgets. The POC, after discussion and agreement with the corresponding Research Focus Team, will inform of such changes to the GCGH Scientific Board and will seek their approval before implementation.
 - On a 12 months basis, after analysis of the progress made by each Focus Team, the SAC may suggest changes to activities/actions, and therefore, changes in the corresponding budgets. After discussion and agreement with the corresponding Focus Team, the POC will inform of such changes to the GCGH Scientific Board and will seek their approval before implementation.

Organization of each constituent of the BioCassava Plus

- The Research Focus Teams are each assigned to a different objective or major activity indispensable for the execution of the proposal. These objectives and activities include: RFT#1: Micronutrients; RFT#2: Proteins; RFT#3: Vitamins; RFT#4: Cyanogenesis; RFT#5: Postharvest Physiological Deterioration; RFT#6: Cassava mosaic disease; RFT#7: Cassava Transformation and Enabling Technologies; RFT#8: Field and Human Nutrition Trials; RFT#9: Global Access Strategy.
- The Research Focus Team Leaders have been elected by the BioCassava Plus participants at the time of the elaboration of the research proposal.

- The POC is composed of the PI, three co-PI's, country PI (Nigeria), and PDM of the project. Members were elected by the BioCassava Plus participants at the time of the elaboration of the research proposal.
- The SAC is composed of five experts chosen from the different fields covered by the project and the members have been elected by the BioCassava Plus participants at the time of the elaboration of the research proposal.

Procedure for naming and replacing POC and SAC members

- Because of unexpected reasons (sickness, death, under-performance, under-participation to mandatory meetings, moving to other functions.), some Research Focus Team Leaders may have to step down. Correspondingly, new leaders would be proposed by the Research Focus Team members and would become co-PIs in the BioCassava Plus project. In the best interest of the project, the POC, in consultation with the BMGF, will make the final choice and the vote of the chair will prevail in case of a tie vote. Final approval of any change will be required from the program officer of the BMGF.
- Because of unexpected reasons (sickness, death, under-performance, under-participation to mandatory meetings, moving to other functions.), some members of the POC may have to step down. Correspondingly, new members would be made co-PIs in the BioCassava Plus project through the proposal from either POC remaining members or other BioCassava Plus members. In the best interest of the project, the remaining members of the POC will make the final choice and the vote of the chair will prevail in case of a tie vote. The BMGF will be consulted prior to any final decision for approval.
- Because of unexpected reasons (sickness, death, under-participation to SAC meetings, moving to other functions.), some members of the SAC may have to step down. Consequently, new scientific advisers would have to be nominated. New members are able to be proposed by either POC members or other BioCassava Plus members. In the best interest of the project, the members of the POC will make the final choice and the vote of the chair will prevail in case of a tie vote. The BMGF will be consulted prior to any final decision for approval.

Withdrawal or Addition of any collaborator/Consortium member

For either personal or scientific reasons, a collaborator may want to withdraw his/her participation from the BioCassava Plus project. After discussion with the relevant Research Focus Team leader, the POC will decide if the withdrawal is jeopardizing the outcome of the Research Focus Team and if so will look for a substitute. Financial implications would be taken into consideration and the POC would decide what should be done with the corresponding budget with the prior approval of the BMGF.

For scientific reasons, a new collaborator may be either proposed or required in the BioCassava Plus project. After discussion with the relevant Research Focus Team leader, the POC will decide if the addition is justified and will consider the financial implications. Such a change will be made only with the prior approval of the BMGF. If the addition was pending

on resources to be made available, the POC would contact BMGF to investigate the possibility of extra funding.

Confidential Agreement among the parties

A confidential agreement will be signed between all members of the Biocassava Plus Consortium. The agreement will allow the sharing of data either directly between Consortium members or indirectly via the BioCassava Plus web pages. It will also cover the disclosure within the BioCassava Plus members of information that may disclose patentable inventions and the sharing of scientific data. This confidential agreement will be a separate document signed by all Consortium members.

Inter-Institutional Visits of Personnel and Sharing of Know-How

Whenever possible, team members will visit other teams to learn new technologies, transfer know-how and share knowledge, and to aim at increasing the overall success of the project. Any type of scientific exchange should be promoted within the BioCassava Plus project. The personnel visiting other Consortium members will have to follow the local rules of the hosting institution in the context of the BMGF Terms and Conditions of the grant.

Resolution of Disputes

Disputes will be resolved by non-binding arbitration in a hierarchical manner: first by the team leader and then followed by the POC. If the conflict is not resolved by the aforementioned scheme, the Scientific Advisory Committee will arbitrate the conflict and reach a binding decision.

Terms and Conditions

All members of the consortium agree to abide by the GCGH General Terms and Conditions (attached). In the event of a conflict between this memorandum of understanding the GCGH General Terms and Conditions, the latter will control.


The continuation of the MoU should be subject to the *written* consent of *all* parties. This memorandum of understanding will be effective upon signature by designated representatives from all organizations. This memorandum of understanding will be effective for a period of five years and will be renewed for the same period upon mutual consent of all parties.

All members of the consortium agree to abide by the general Terms and Conditions of the Global Access Strategy Agreement (attached).

Donald Danforth Plant Science Center (DDPSC)

Date

Attachment – A



Director, UPRM Department of Biology Nov 20, 2008
Date



UPRM Dean of Arts & Sciences 24. NOV. 08
Date



Director, UPRM R&D Center 25/11/08
Date

International Center for Tropical Agriculture (CIAT)	Date
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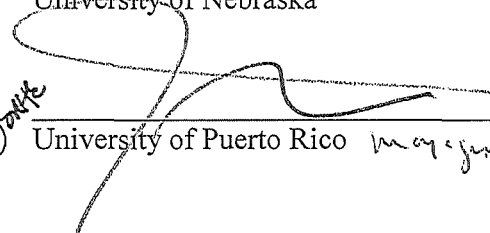
International Institute of Tropical Agriculture (IITA)	Date
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Shanghai Center for Cassava Biotechnology at the Institute of Plant Physiology & Ecology (SIPPE)	Date
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Swiss Federal Institute of Technology Zurich (ETH Zurich)	Date
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University of Bath	Date
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University of Nebraska	Date
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<div style="position: relative; height: 40px;">  </div>	Date
University of Puerto Rico <i>May 2008</i>	Date

Washington State University (WSU)	Date
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Washington University (WashU)	Date
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