



## Symposium “Cacao for Peace” Mapping the Future of Cacao Research for the Caribbean Region of Colombia

MAY 17 - 19. BARRANQUILLA, COLOMBIA



### SPEAKER BIOS

#### **Aaron Beydoun** **CEO, Fenicia Trading**

Aaron-Micael Beydoun is the CEO of Fenicia ([www.feniciatrading.com](http://www.feniciatrading.com)) which represents a small group of high net worth investors interested in investing in Colombia’s cacao sector. Previously, Beydoun worked for Louis Dreyfus Commodities of France, which commercializes more than 80 million tons of raw commodities each year. He was also formerly with Neumann Kaffee Gruppe of Germany which is responsible for 1 in every 7 cups of coffee consumed globally. Reporting directly to the Neumann family and CEO, he was involved in the management of 48 import and export operations on 4 continents. His family has also been involved in cacao trading for more than 60 years in the Ivory Coast. Today, that company is called Société Amer et Frères which is the largest private cacao export company in Africa exporting more than 170,000 tonnes of cacao during the 2015-16 marketing season. Educated at Harvard University, he currently serves as President of Harvard Alumni for Agriculture which is a network of university alumni working in the agriculture space; this includes academics, investors, business leaders and government officials.

**Alejandro Gil Aguirre**  
**Compañía Nacional de Chocolates**

Alejandro Gil Aguirre is an Agronomist Engineer graduated from Universidad Nacional de Colombia at Medellín. Aguirre works as a Researcher in the Purchasing and Agricultural Development Department at Compañía Nacional de Chocolates, and manages the Cacao Crop Research Line, with over 40 research projects such as the breeding and research program in shade trees, nutrition, diseases, heavy metal remediation, propagation of seedlings, somatic embryogenesis, antioxidant compounds, use of by-products and certification in forest compensation at Granja Yariguíes, owned by the Company. Alejandro has experience accompanying associations of producers with work in the departments of Boyacá, Casanare, Meta, Guaviare and Caquetá (Colombia) and represents Compañía Nacional de Chocolates in the committees and events related to cocoa research. He is also responsible for the execution of the agricultural research projects carried out by the company with educational institutions such as Universidad Nacional, Universidad de Medellín and Universidad de Antioquia. Alejandro received the “Semilla de Oro” award from the School of Agricultural Sciences in its 100<sup>th</sup> anniversary, and is a Fulbright Fellow for a Master’s Degree in Agricultural Extension and Education at Penn State University under the “Cacao for Peace” program.

**Andrés Romero**  
**USDA-FAS**

Andrés Romero is an international development professional with over ten years’ experience of domestic and international project management in the private, public, and non-profit sectors. Mr. Romero is a program manager with the United States Department of Agriculture’s Foreign Agricultural Service and manages multi-million dollar USAID and State Department funded projects. He is currently the program manager for the Cacao for Peace program funded by USAID/Colombia. He earned a bachelor’s degree in political science with an international relations focus from Stanford University, a master’s degree in international political economy and development from Fordham University, and has bilingual fluency in both English and Spanish.

**Bryan A. Bailey, Ph.D.**  
**Research Plant Pathologist**  
**Sustainable Perennial Crops laboratory, USDA/ARS**  
**Beltsville, Maryland, USA 20705**

Dr. Bryan A. Bailey graduated with a B.S. (1981) and M.S. (1982) from Mississippi State University, both in Agronomy, and a Ph.D. (1987) in Genetics from Texas A&M University. After working on various projects, Dr. Bailey began working with cacao as part of the ARS Alternate Crops and Systems Laboratory in 2000 and then the newly formed Sustainable Perennial Crops Laboratory in 2004. Working with cacao, Dr. Bailey has characterized the interactions between endophytic microbes and cacao and identified microbes with potential to manage cacao diseases. He led the characterization of *Trichoderma* species as endophytes of cacao capable of internally colonizing cacao tissues and discovered the unique endophytic association between *Trichoderma* species and cacao trichomes. Dr. Bailey carried out biocontrol studies in the field with collaborators evaluating *Trichoderma* isolates for control of frosty pod rot, concentrating on formulation research. These studies demonstrated that a *Trichoderma* isolate (DIS 70a) can limit damage due to frosty pod rot, causal agent *Moniliophthora roreri*, and is greatly benefited by the use of invert oil emulsion formulations. Among other unique findings was the discovery that a *Trichoderma* isolate (DIS 219b) could enhance root growth and delay drought stress in cacao seedlings. Most recently Dr. Bailey has been deeply involved in the sequencing and analysis of cacao pathogen genomes and transcriptomes. Initially this included supporting the sequencing of the

*M. pernicios*a genome and since then he has been a co-team leader in sequencing the *M. roreri* (causal agent of frosty pod) genome and transcriptome. This work has allowed the comparison of the genomes of *M. pernicios*a (causal agent of witches' broom) and *M. roreri*. Among other studies, a SNP panel was developed for assessing *M. roreri* genetic diversity identifying the Magdalena Valley of Colombia as the likely center of origin for *M. roreri* and therefore, an important site for breeding programs to screen for disease tolerance. In recent work, Dr. Bailey has led the sequencing effort for two *Phytophthora* species (*P. megakarya* and *P. palmivora*) causing black pod rot of cacao. As part of this research, Dr. Bailey delineated unique aspects of the *P. megakarya* infection processes likely contributing to its success as a pathogen.

**Edwin Antonio Gutiérrez Rodríguez**  
**Research Manager**  
**Fedecacao**

EDWIN ANTONIO GUTIÉRREZ RODRÍGUEZ. s a Colombian agronomist graduated from Universidad de los Llanos (UNILLANOS), holds a M.Sc. in Plant Science (Horticulture) from Federal University of Rio Grande do Sul (Brazil), and a PhD in Agronomy (Plant Production) from Universidad Estadual Paulista (Brazil). He completed a doctoral stay in the Tropical Research and Educational Center at the University of Florida, under the supervision of Dr. Bruce Schaffer, in the area of fruit tree ecophysiology. Dr. Gutiérrez Rodríguez is a fellow member of the Administrative Department of Science, Technology and Innovation at COLCIENCIAS for the training of PhDs abroad since 2011.

**Esperanza Torres-Rojas, Ph.D.**  
**Associate Professor**  
**Faculty of Agricultural Sciences-Department of Agronomy**  
**Universidad Nacional de Colombia.**

Esperanza Torres-Rojas is biologist from UNAL and she worked at CIAT at the biotechnology Unit for four years, before moving to John Innes Center, UK, where she got her PhD (2001). After that, she did a postdoc in Sainsbury lab, in plant pathogen interactions and since 2007, she has worked as associate professor in the area of genetics and molecular biology at the Faculty of Agricultural Science at the UNAL. Much of her work has focused on recombinant protein expression in heterologous systems, gene expression and molecular phytopathology and has more recently (2008) moved to studies aimed at understanding soil microbial communities and how these communities change in the production system such as potato and cacao. During her sabbatical at Purdue University (2013/2014) she focused on the lignocellulolytic fungi diversity and their potential applications for agriculture and biotechnology.

**Fernando Gomez**  
**USAID, Colombia**

Mr. Fernando Gomez is an Animal Scientist from Texas A&M University with a Master's Degree in Agriculture Economics and Dairy Science from University of Florida. Mr. Gomez has 35 years experience as professional consultant for private and public entities in Colombia. He is currently the AOR / Development Officer for the USAID/USDA "Cacao for Peace" program as well as Alternate COR/AOR for other USAID initiatives.

**Jean-Philippe Marelli, Ph.D.**  
**Mars Inc.**  
**Plant Science Cocoa program**

Dr. Jean-Philippe Marelli is Program Management Director for the Mars Plant Science Cocoa program, based in Miami, FL. Jean-Philippe has a distinguished academic career obtaining his undergraduate degree at the Institut National Polytechnique in Toulouse, France, his M.S. from Wye College (Imperial College) in the U.K. and his Ph.D. in Plant Pathology from Pennsylvania State University in the US. He also holds an international MBA in Project Management from FGV University in Sao Paulo, in partnership with the University of California, Irvine.

Jean-Philippe joined Mars in 2009 as a Plant Scientist and during his carrier – especially after the promotion to the Mars Center for Cocoa Science Director - has facilitated the transformation of the ‘Almirante farm’ into a proper Mars Experimental Station, focusing on Breeding, Agronomy and Agro-forestry.

**Juan Carlos Arroyave Giraldo**

Title: Agronomic Engineer graduated from Universidad de Caldas – Grad course in tropical agro-industry - Unesp Jaboticaba

Current position: Raw Materials and Agricultural Development Manager at Casaluker  
Principal Member of the Board of Directors at Corpoica; Main Member of the Board of Directors at Luker Foundation, Member of the National Cacao Council (Consejo Nacional Cacaotero).

**Juan Carlos Barrientos Fuentes, Ph.D.**

**Associate Professor**

**Faculty of Agricultural Sciences-Department of Rural Development  
Universidad Nacional de Colombia.**

Juan Carlos Barrientos Fuentes, Bolivian Agricultural Engineer from University of San Simon, Cochabamba, Bolivia (1994), Master in Agricultural Sciences and Resource Management in the Tropics and Subtropics (2000) and PhD in Agrarian Sciences with an emphasis on socioeconomics (2005) from the University Bonn, Germany. He has worked as a technical agriculture advisor from 1994 to 1998 in the tropics of Cochabamba, and from 2005 to the present has been working as an associate professor at the Faculty of Agrarian Sciences of the National University of Colombia, Bogota. He works in rural development, in fields such as peasant economy, agrarian economy, agrarian projects, agrarian policy and socioeconomics of agricultural production. He has directed numerous theses and published more than 20 scientific articles, as well as some chapters of books related to the topics mentioned.

**Juan Carlos Motamayor, PhD**

**Mars, Inc.**

Dr. Motamayor is an Agronomist specialized in Tropical Crops. He received his Ph.D. degree in Plant Sciences from the University of Paris Sud and has worked for 20 years in cacao research. He is the leader of MARS, Incorporated scientific research programs on cacao sciences with activities/projects in 20 cacao producing countries. Dr. Motamayor has published fifty scientific papers and book chapters related to cacao; his research has led to new production systems and new approaches for cacao breeding.

Dr. Motamayor has worked with governments from many countries of Latin America, Africa and Asia, NGOs and private companies to improve the livelihood of cacao farmers through the development and implementation of sustainable agricultural systems.

**Lucia Atehortua, Ph.D.**

**Biotechnology Group Coordinator  
Universidad de Antioquia**

Lucia Atehortúa is a biologist from the University of Antioquia. Having earned her M.Ph and Ph.D from the City University of New York (CUNY), she is currently a professor and researcher at the Institute of Biology in the Faculty of Exact and Natural Sciences at the University of Antioquia. She has been the director of graduate studies at the Institute of Biology, director of the Research Center in the Faculty of Exact and Natural Sciences, and president of the Joaquín Antonio Uribe Botanical Garden in Medellín, Colombia. Since 2000, she has been the director of the Biotechnology Program at the University of Antioquia.

As a professor and researcher, she has led a multidisciplinary group in the area of biotechnology. Eighty percent of the members of this group are women, consisting predominantly of master's students, PhD students and young researchers.

Her main areas of research have been related to biodiversity, economic botany, and biotechnology of microalgae, fungi and plants.

For Atehortúa, biodiversity is the principal source of innovation in biotechnology, which aims to increase the value of bioresources in order to generate new technology-based bioindustries through the creation of spinoffs, and thereby contribute to developing a veritable bioeconomy.

For the past decade, Atehortúa's research has focused on the production of food and energy (i.e. crop-free agroindustrial products) for the future. She has been exploring scientific and technology-based alternatives for *in vitro* production of food and energy products that will help us face an eventual environmental and climate catastrophe. Given the inevitability of global climate change, she is interested in developing food and energy products for the future, without depending, as we do today, on climatic factors, water or soil, among other variables.

Her achievements include creating five U.S. patents, with other additional applications currently pending. She has also published over 150 papers nationally and internationally, and has won various awards and received much recognition for her work and career.

**Mark Guiltinan, Ph.D.  
Department of Plant Science  
The Pennsylvania State University**

Mark Guiltinan received a B.S degree in Botany from California State University-Humboldt in 1978, and a Ph.D. degree in Developmental and Cell Biology from the University of California-Irvine in 1986. He pursued postdoctoral training at Texas A&M University, the Univ. of North Carolina and inside industry, after which he joined the faculty at Penn State University in 1991 as a member of the Horticulture Department. His research has explored the molecular basis of plant development and applications of plant science to crop improvement with funding from the US Dept. of Energy, National Science Foundation, Gates Foundation, USDA, and from industry sponsors. He has been the Director of the Penn State Endowment for the Molecular Biology of Cacao since 1995, Chairman of the International Group for the Genetic Improvement of Cacao since 2003 and serves as Director of the Plant Science Center of the Penn State Huck Institute of the Life Sciences. Dr. Guiltinan teaches undergraduates and graduates in plant biotechnology and plant science research and has hosted visiting scientists from cocoa producing countries such as Nigeria, Cameroon, Brazil and Malaysia. Visit <http://guiltinanlab.cas.psu.edu>. Recently Dr. Guiltinan participated in the sequencing of the cocoa genome, which revolutionized the field of cocoa improvement for enhanced disease resistance, yield and quality. He recently started a focus group at Penn State: The Council on Agricultural Innovation: Scientific, Ethical, Legal, Social Issues (CAI -SELSI), which brings together faculty with a shared interests to understand how advanced methods of agriculture can provide substantial economic and nutritional benefits, while simultaneously reducing risks to

the environment and human health generated by traditional agricultural practices.

**Martha Cecilia Henao Toro, Ph.D.**  
**Associate Professor**  
**Faculty of Agricultural Sciences-Department of Agronomy**  
**Universidad Nacional de Colombia**

Martha Henao is a geologist, with a Master Degree in Agricultural Sciences with emphasis in Soils from UNAL and a Doctor degree in Agronomic Sciences and Biological Engineering from Université Catholique de Louvain, in Belgium (2002). She has worked as researcher at Soil Division in Cenicafé (Colombian National Center for Coffee Research). Since 2003, She is associate professor in the area of Soil Science, Chemistry of Soils, Soils and Environment and coordinator of the Laboratory of Waters and Soils of the Faculty of Agrarian Sciences at UNAL. Her researcher is focused on the dynamics of cations in soil, related mainly with K, Ca and Mg adsorption and lixiviation topics, bioavailability of nutrients in soils, and recently on aspects related to the presence of cadmium in the production system of cacao in Cundinamarca (soil, grain and foliage).

**Michael Conlon**  
**Agricultural Counselor**  
**Office of Agricultural Affairs (OAA)**  
**U.S. Embassy Bogota, Colombia**

Michael Conlon, a native of Michigan, has been with USDA's Foreign Agricultural Service (FAS) for over 25 years. Prior to arriving in Bogota in August 2014 to begin his assignment as Agricultural Counselor, he was the FAS Area Director for Europe for four years. In addition to Colombia, he has served overseas in Tokyo, Japan (2006 -2010), Santiago, Chile (2002), London, England (1997-2001), and Mexico City (1993-1997).

Mr. Conlon received his Bachelor of Science degree in Agricultural Economics from Michigan State University in 1983. He also completed his Master of Science degree in Agricultural Economics from the University of Connecticut in 1988.

**Siela Maximova, PhD,**  
**Department of Plant Science**  
**The Pennsylvania State University**

Siela Maximova, PhD, is a Senior Scientist and Professor of Horticulture in the Department of Plant Science at The Pennsylvania State University. Dr. Maximova is the Co-Director for the American Cocoa Research Institute Program in the Molecular Biology of Cocoa at Penn State. Her research is focused on molecular biology and biotechnology of *Theobroma cacao* L., the chocolate tree and other model plants. Dr. Maximova conducts research projects at Penn State and in cocoa-producing countries, funded by industry, private foundations and government agencies. Current projects include "Cacao for Peace" in Colombia and "Center for Innovation of Cacao" in Peru. She has also worked on projects in Eastern Europe, West Africa, and Asia/Pacific, and has been involved in large international multidisciplinary research teams. Dr. Maximova has experience working with the private sector, government, non-governmental organizations, academic institutes and donors. Currently she is a coordinator of strategic research initiatives for the office of the Associate Dean for Research and Graduate Education at the Penn State College of Agricultural Sciences. Dr. Maximova is also the coordinator for the undergraduate Plant Science: Plant Genetics and Biotechnology major at Penn State. Dr. Maximova was named the Inaugural Henrietta H. Fore Women in Science Fellow for CRDF Global.

**Virupax C. Baligar, Ph.D**  
**Sustainable Perennial Crops laboratory, USDA/ARS**  
**Beltsville, Maryland, USA 20705**

Dr. Virupax C. Baligar is senior research scientist with United States department of Agriculture Agricultural Research Service (USDA-ARS) at Beltsville Agricultural Research Center, Beltsville Maryland. He is author, coauthor and coeditor of several books and over 300 scientific journal articles, book chapters and review papers and elected Fellow of the American Society of Agronomy and Soil Science Society of America. Dr. Baligar has served as advisor, consultant and collaborator on international research programs in Brazil, Peru, China, Chile, Greece, New Zealand, Germany, The Netherlands and Serbia, Croatia, Bosnia, Slovenia, Montenegro, and Macedonia (former Yugoslavia). Served as advisor to World Bank/OAS/EMBRAPA programs in Brazil.

**Yeirme Yaneth Jaimes Suárez, Ph.D.**  
**Corpoica, Research Center La Suiza, Rionegro-Santander, Colombia**

Dr. Yeirme Yaneth Jaimes Suárez is a Microbiologist at the University of Pamplona. She completed her master's degree in Applied Biology with emphasis in Phytoprotection at the New Granada Military University and his doctoral studies in Agronomy - Plant Protection at the São Paulo State University in Brazil. In 2004, she was professor of Biotechnology and Bioprocesses at the University of Pamplona. Between 2006 and 2007, she was professor of phytopathology at the Cundinamarca Mayor College University. Since 2008, she has been linked as a researcher at the Colombian Agricultural Research Corporation, participating in cocoa and permanent network projects. From Corpoica, Dr. has led projects titled "Determination of escape characteristics to the South American Leaf Blight (SALB) in microbasins of Magdalena Medio for the establishment of high productivity *Hevea brasiliensis* clones", "Evaluation of response to Moniliasis of some universal and regional cocoa clones", " Evaluation of biocontrollers and non-conventional products for the control of Moniliasis ", and currently underway " Evaluation of diseases incidence and severity in special cacao genotypes under SAFs "and" Management strategies Integrated of the main pests and diseases of the cacao crop ". Among his most recent publications are "Suitable climate for rubber trees affected by the South American Leaf Blight (SALB): Example for identification of escape zones in the Colombian middle Magdalena" in the journal Crop Protection, and "Geographic

Differentiation and Genetic Population " in the journal Plant Disease. In the process of publication are " Spatio-temporal dynamic of frosty rot in the main cocoa producing areas of Santander State, Colombia" and "Effect of tapping system on the productivity of *Hevea brasiliensis* in the Magdalena Medio Santandereano ".

**Mayesse Aparecida Da Silva, PhD**

La Dra. Da Silva es Científica de Suelos en el Centro Internacional de Agricultura Tropical (CIAT) en el Área de Investigación de Suelos y Paisajes para la Sostenibilidad (SoiLS). Su investigación incluye el mapeo del suelo y el monitoreo de la variabilidad espacial del suelo en los paisajes, evaluaciones del carbono del suelo y conservación del suelo y del agua para una mejor planificación del uso de la tierra y manejo de cuencas. La Dra. Da Silva mapea y modela las relaciones paisaje-suelo-hidrología, con el fin de desarrollar patrones cuantitativos y predecibles reflejados por la morfología del suelo. Actualmente está desarrollando una evaluación hidrológica y recomendaciones de manejo del agua para el Cacao en El Salvador, y se encuentra liderando varios proyectos sobre la implementación de los enfoques de Cartografía Digital de Suelos para mejorar la agricultura sostenible y los servicios ecosistémicos. La Dra. Da Silva tiene un PhD en Ciencias del Suelo, a través de un programa conjunto entre la Universidad Federal de Lavras, Brasil y la Universidad de Purdue, en Estados Unidos.

**Fidel Londoño Stipanovic**

Fidel Londoño Stipanovic es ecólogo de la Universidad Javeriana y mágister en gerencia ambiental de la Universidad de Kiel en Alemania. Tiene experiencia en temáticas relacionadas con especies invasoras, manejo ambiental y cambio climático. Desde 2013 se desempeña como profesional especializado de la unidad de planificación agropecuaria, en donde ha participado en los procesos relacionados con la identificación de exclusiones y condicionantes legales para actividades agropecuarias, en la delimitación de la frontera agrícola y en la definición de lineamientos para el ordenamiento productivo agropecuario. Actualmente se encuentra a cargo del proceso de gestión territorial para la formulación de planes de ordenamiento productivo y social de la propiedad rural a nivel departamental.

**Anatolio Santos Olaya**

ANATOLIO SANTOS OLAYA es administrador Agropecuario de la Universidad de la Salle, Especialista en Derecho del Medio Ambiente de la Universidad Externado de Colombia, Especialista en Gobierno y Asuntos Públicos de la Universidad Simón Bolívar; cuenta con amplia experiencia en el Sector Público, lo que le permite hoy desempeñarse como Secretario de Desarrollo Económico del departamento del Atlántico. En desarrollo de sus funciones tiene a su cargo el liderazgo de acciones tendientes a dar cumplimiento a los cometidos estatales y particularmente las labores misionales que permitan el alcance de las metas plasmadas en el Plan de Desarrollo “Atlántico Líder”, a través de la ejecución de proyectos específicos para el desarrollo sostenible de la población atlanticense, la gestión de recursos y articulación de la oferta institucional sectorial, para la promoción de la actividad económica, generación de empleos e ingresos y el acceso a mercados, siempre en cumplimiento de la normatividad vigente.