

A QUEST TO FULFILL HUNGER OF THE BODY AND MIND POST-2015:



Is genetically modified food a solution?

Where: Trusteeship Council
United Nations - Conference Building

When: Thursday, August 28, 2014

Time: 11:45 - 13:00pm

This panel is presented as part of the **65th Annual UN-DPI/NGO Conference**

(August 27-29, 2014) entitled:

2015 AND BEYOND: Our Action Agenda:

The role of civil society in the post-2015 development agenda



A Panel Discussion

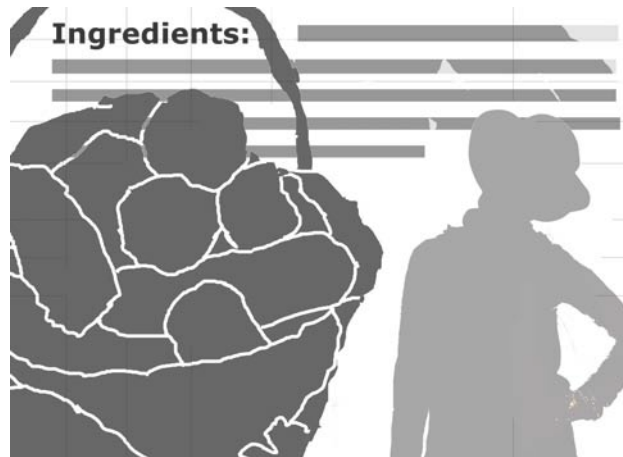
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The Light Millennium

www.lightmillennium.org

Order of Appearance

Please visit our companion exhibit
on the first floor of the UN Conference Building



exploring the secrecy in our food
and remembering Article 19

Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

Artworks by Julie Mardin in collaboration with The Light Millennium

● **MODERATOR:**

● **Ms. JULIE MARDIN**, Artist-Activist and Independent Researcher

● **PANELISTS:**

- **Dr. MICHAEL K. HANSEN**, Senior Scientist with Consumers Union
- **Ms. STEFANIE SACKS**, MS, CNS, CDN, Culinary Nutritionist, author, host of Stirring the Pot Radio
- **H.E. Mr. CARLOS GARCIA**, Founder & CEO, CG Global Consultant and former Permanent Representative of El Salvador to the United Nations
- **Mr. JOHN KEMPF**, Founder and CEO, Advancing Eco Agriculture
- **Ms. DEBORAH CARLIN**, student, Muhlenberg College and The Horticultural Society of New York
- **Ms. BIRCAN ÜNVER**, TV and Web Producer, Founding President of The Light Millennium and Permanent Representative to the United Nations

● **INTERVENTIONS:**

- **Mr. PURNOMO A. CHANDRA**, Minister Counsellor Permanent Mission of the Republic of Indonesia to the UN, Former Chair of FAO's Committee for Constitutional and Legal Matters
- **Dr. TAO-TZE HONG**, President of Federation of World Peace and Love
- **A representative** from the Global Movement for the Culture of Peace

● **INTERACTIVE SESSION & CONCLUDING REMARKS by the PANELISTS**

The Light Millennium is proud to present a panel at the 65th Annual DPI/NGO Conference that will explore whether Genetically Modified Organisms (GMOs) are a solution towards eradicating world hunger, especially in the context of the secrecy that surrounds them. Their proprietary nature, the ineffectiveness of mainstream media, private sector influence, are some of the factors that work against full transparency. The panel will benefit from a diversity of voices, from diplomat to nutritionist to scientists, including one who has found a way to increase yield by reverting to and building upon less toxic tools. As far as we are aware, this topic is being raised for the first time in the UN DPI/NGO forum.

Within the context and goals of the 65th Annual DPI/NGO Conference and the current dedication theme (issue#30) of the organization, each of the panelists will attempt to answer all or part of the following baseline questions:

∞ **How would you measure the performance of genetically modified foods over the past 20 years?**

∞ **What alternative solutions do you see to eradicating world hunger?**

∞ **What are the primary changes you would advocate to how genetically modified foods are handled now?**

∞ **What effect does biotechnology and intellectual property rights have on our right to Freedom of Expression and Information?**

∞ **What would be your global action plan to promote these solutions, imagining a partnership that could span the world, but especially involve the youth, as they will be the ones who will be in charge of the Post 2015 agenda?**

The workshop, single panel exhibit on the first floor of UN's main conference building, along with our current GMO-themed website, calling for submissions from all walks of life, and from all parts of the world, are all part of the organization's efforts to create awareness, and remove some of the secrecy surrounding genetically modified foods. By reaching for a more healthful food system paradigm, we can protect the environment, eradicate global hunger and foster sustainable human development.

For more information please visit our website www.lightmillennium.org and stop by our panel exhibit on the first floor of the main UN conference building.

Thank you for exploring these important issues with us. Please share <email to info@lightmillennium.org> your opinions on this panel as well as on its concept at large to be posted on our website.

BIOS OF THE PARTICIPANTS (in alphabetical order)



Deborah Carlin is a senior at Muhlenberg College in Allentown, Pennsylvania. In May 2015, she will graduate with a dual degree in Environmental Science and Studio Art. This August, she completed a photography internship at the Horticultural Society of New York, where her focus was demonstrating the importance of plants and nature in people's lives. Deborah is a vegetarian and a long-time advocate for animal rights.



H.E. Mr. Carlos Garcia is a career diplomat that served his country in the United Nations from July 1, 1996 to June 17, 2014. He is the former Permanent Representative of El Salvador to the United Nations and currently contributes to the analysis, assessment and promotion of the international relations, in particular the multilateral affairs and the United Nations agenda as consultant.

During his long standing career in New York, Ambassador Carlos García was in charge of the political, economic, financial, social, peace and security, humanitarian, environmental and human rights issues, having held several positions, on behalf of the Latin American and the Caribbean States, such as: President of the General Assembly's Fourth Committee (2013-2014); Vice President of the Economic and Social Council (ECOSOC) in 2014; Vice-Chairman of countless committees during the General Assemblies, and in other bodies such as the Commission on Social Development, the Commission on the Status of Women; Vice-Chairman of the former Executive Board of IN-STRAW; Vice-President of the Executive Board of UNDP-UNFPA UNOPS in 2011; and as Rapporteur of the Joint Executive Boards field visits to Guatemala (2004) and Azerbaijan (2005).



Michael K. Hansen, Ph.D., a Senior Scientist with Consumers Union, publisher of Consumer Reports, currently works primarily on food safety issues. He has been largely responsible for developing CU positions on safety, testing and labeling of genetically engineered food and "mad cow" disease. Since 2003, he has worked on a multi-state effort to ban the use of food crops to produce pharmaceutical drugs and industrial chemicals. Dr. Hansen has testified at hearings in Washington, D.C.,

many states, and Canada, and has prepared comments on many proposed U.S. governmental rules and regulations on food safety issues. He also represents Consumers International, a federation of 5

more than 250 organizations in 110 countries, at Codex Alimentarius and other international fora on issues. Dr. Hansen speaks on CU's concerns on mad cow disease, GMOs, pest management, and antibiotics in animal feed, at meetings and conferences throughout the world. He is widely quoted in the media.



John Kempf is the founder and CEO of Advancing Eco Agriculture (AEA), a leading crop nutrition consulting company. A top expert in the field of biological and regenerative farming, John founded AEA in 2006 to help fellow farmers by providing the education, tools and strategies that will have a global effect on the food supply and those who are growing that supply.

As a farmer who grew up in and remains a part of the Amish community, John has a very special understanding of plants' functional immunity. He sought out alternative approaches to prevent damage to his crops once they stopped responding to conventional pesticide treatments. To enhance plants' natural immunity, thereby making them less susceptible to pests and disease, he developed a comprehensive, systems-based methodology founded on plant physiology, mineral nutrition and soil microbiology. With results proven on his own farm, John went on to found AEA to share his success and insight that healthy crops do not require chemical treatments or genetic modifications.



Stefanie Sacks, MS, CNS, CDN is a Culinary Nutritionist, author, radio show host, educator, speaker and consultant. She works hands-on with individuals and groups in transition to a healthier way of eating. Sacks has been studying food and healing for 25 years, has her Masters of Science in nutrition education from Columbia University, is a Certified Nutrition Specialist, Certified Dietitian Nutritionist and is a graduate of The Natural Gourmet Institute for Health and Culinary Arts. Stefanie's weekly Stirring the Pot Blog goes hand

in hand with her weekly Stirring the Pot Radio Show on Hamptons NPR, WPPB 88.3FM. The show focuses on food, cooking, nutrition and health. Her book, *WHAT THE FORK ARE YOU EATING: An Action Plan for Your Pantry and Plate* (Tarcher/Penguin Random House) is set for release in January 2015. She has contributed to several books and is a sought after guest expert on local and national programs. Her print and online media contributions are extensive from *Harper's Bazaar*, *O Magazine* and *Teen Vogue* to The Huffington Post and Healthy Eats by The Food Network.



Bircan Ünver, Executive Director, Founding President and Permanent Representative to the UN DPI/NGO of The Light Millennium – A native of Turkey, Bircan Ünver is the Originator (1999) and the Founding President of The Light Millennium (LM 2001), a public benefit, multi-media and culture organization. She has been Executive Producer and Director of the LM's e-publications in its all aspects, and The Light Millennium (LMTV) Series and Specials since its inception and is the Permanent Representative of the organization to the UN DPI since its association in 2005.

As an advocate for "freedom of expression" and "public benefit media," she has compiled and e-published over 57 e-issues and produced over 100 original television programs, garnering several awards. Developed, organized/co-organized, presented/co-presented, over 60 public events. She has lectured on freedom of expression, public access television, women-girl rights, UN, MDGS and presentations on the LM and LMTV. Further, she is the Founding President ISIKBINYILI.ORG Multi-Media, Culture and Social Development and Support association based in Istanbul, Turkey, which officially formed in January 2010. Bircan holds a master's degree in Media Studies from the New School University (1999, NYC), and B.A. in Fine Arts from the Mimar Sinan University (1988, Istanbul). <http://www.lightmillennium.org> - <http://www.isikbinyili.org>



Julie Mardin (Moderator) is an artist-activist and independent researcher. She has exhibited her politically messaged art work exploring the marketing of violence, and information overload, nationally and internationally. She has been a regular researcher and contributor for The Light Millennium, and is currently the Content Coordinator for Issue #30, dedicated to Freedom of Information in the Genetically Modified Age. She has a Diploma in Commercial Photography from Center for the Media Arts and a Masters in Fine Arts from Columbia University's Creative Writing Program.

PLEASE NOTE: These presentations will be available through The Light Millennium's website following the conference. Please visit our website

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**[www.lightmillennium.org](http://www.lightmillennium.org)**

and participate in our current web issue

***Freedom of Information in the Genetically Modified Age***

## **ABOUT THE SPONSORING ORGANIZATION - The Light Millennium (LM):**

The Light Millennium (LM) is a non-religious, non-political, not-for-profit (501-c-3), non-governmental (NGO), independent public benefit multi-media and culture organization. The LM has become associated with the Department of Public Information of the United Nations effective (UN/DPI) on December 12, 2005. Formed in 2001, based in Queens, New York. On the Web since August 1999...

The LM was formed based on the first article of the United States Bill of Rights, Freedom of Speech, in conjunction with the United Nations' Universal Declaration Article #19, on Freedom of Expression. It invites citizens of the world to submit, in an appropriate artistic medium, ideas and experiences that will help foster better understanding between people of different cultures and beliefs.

The organization frequently presents ideas from the United Nations on its key issues as well as ideas from the all walks of life. Since LM's association with the UN/DPI, channels its capacity and potential sources in support of the UN Vision, MDGs and with the same manner Beyond 2015 for the Sustainable "HUMAN" developments on its multiple platforms yet on the voluntary basis.

LM has collaborated with the Department of Public Information during the NY base UN-DPI/NGO conferences as well as major universities around NY and non-governmental, civil society organizations as well as with several government agencies for an event and/or LMTV base collaboration such as Turkish Mission, Turkish Consulate General, NY Turkish Culture Office, Swiss Consulate General, Sri Lankan Mission, El Salvador Mission...). [www.lightmillennium.org](http://www.lightmillennium.org)

## **CO-SPONSORS:**

### **About the Federation of World Peace and Love (FOWPAL):**

Established in 2000 in the United States, the Federation of World Peace and Love is an international peace organization with members from 95 nations guided by the principle of "Changing the world for the better starting with one good thought." It aims to promote world peace and love through various activities such as world summits of love and peace, ceremonies of ringing the "Bell of World Peace and Love," and cultural exchange performances.

Over the past ten plus years, FOWPAL has inspired world leaders to make commitments to world peace and to take real actions to achieve peace. The continuous efforts have led to peaceful resolution of 8 conflicts in Central America and Africa. As of today, 263 world lead-

ers from 87 nations have rung the Bell of Peace, including 27 heads of state and government, 7 Nobel Peace Prize Laureates, UN ambassadors, and elite leaders in various fields.

### **About Advancing Eco Agriculture (AEA):**

Advancing Eco Agriculture (AEA) is a hands-on partner in the growing process. It provides customized, pesticide-free crop nutrition and agronomy systems that enable farmers to regenerate soil health, resulting in higher-quality, healthier, high-yielding crops with inherent resistance to disease and insects. With ongoing consultative services to back its systems and products, AEA ultimately helps farmers increase the profitability and productivity of their operation based on the individual needs of each farm, including current soil quality, plant health, and growing challenges indigenous to the region.

### **About Stirring the Pot Productions:**

Stirring the Pot Productions produces Stirring the Pot radio, a weekly half hour show that brings together the best minds in food, cooking, nutrition and health to discuss some of the hottest topics. Created and hosted by Culinary Nutritionist, Stefanie Sacks, MS, CNS, CDN, Stirring the Pot airs Thursdays at 5:30 pm on 88.3 FM throughout Eastern Long Island and Southern Connecticut on Hamptons' NPR—Peconic Public Broadcasting (WPPB)—with an encore Saturdays at 7am and on podcast. Each week Stefanie offers answers to burning questions, shares a good brand, a weekly yum recipe and has a rock solid guest to inform and inspire.

**"Monsanto should not have to vouchsafe the safety of biotech food....Our interest is in selling as much of it as possible. Assuring its safety is the FDA's job."**

— Phil Angell, Director of Corporate Communications, Monsanto, quoted in New York Times Magazine, October 25, 1998

**"Ultimately, it is the food producer who is responsible for assuring safety."**

— FDA, "Statement of Policy: Foods Derived from New Plant Varieties" (GMO Policy), Federal Register, Vol. 57, No. 104 (1992), p. 22991

**"FAO and WHO are confident that the principal country of origin has applied its established national food safety risk assessment procedures."**

— UN statement on GM food aid in Southern Africa, 2002

***Who is responsible?***

## Glossary

**Agrobacterium tumefaciens** - A soil bacterium that are natural plant parasites. To find suitable environments for themselves they insert genes into plant hosts, which causes them to form a proliferation of cells, or tumors, near the soil level. This natural ability of the bacteria to transfer genetic information is used in genetic engineering as a vector to transport other desired foreign traits into a plant.

**Bacillus thuringiensis (Bt)** - a soil bacterium used for biological pest control. Particular strains are chosen for particular insects and transferred into the genome of the plant so that it is expressed in each cell. In a process that has been compared to leaky gut and intestinal bowel disease in humans, it causes the gut wall of the insect to break down and allow toxin spores and normal gut bacteria to enter the body, eventually the spores and bacteria proliferate and the insect dies. The naturally occurring toxin has been in use for many years, in organic farming as well, and on this basis the genetically modified version has been hailed to be safe for humans.

**Biolistic gun, Particle gun, 'Gene Gun'** - a device where DNA bound to tiny particles of gold or tungsten are "shot" into plant tissue or single plant cells under high pressure. The DNA separates from the metal and can be integrated into the genetic material inside the nucleus. Used mostly with monocrops like wheat or corn, for which bacterial vectors are less successful. One disadvantage is damage done to cellular tissue.

**Cauliflower Mosaic Virus, CaMV 35S**, a virus that causes a disease in plants in the mustard family, most often used as a promoter, or genetic 'on' switch.

**DiCamba** - An herbicide that has been in use since the 1960s, works by mimicking a naturally occurring plant hormone that triggers uncontrolled growth, and subsequent death of the weed. It is being propelled into greater use for the next generation of herbicide-tolerant crops, both as an external spray as well as a genetically engineered resistance trait.

**DNA** - The term used to describe the chemical make-up of genetic information. Deoxyribonucleic acid. The building blocks of DNA are called "nucleotides", each made up of a sugar, a phosphate, and a base. These building blocks combine to form a giant molecule comprising two strands of nucleotides, the famous "double helix" that is thought to create the 'blueprint' as it contains the instructions or information (genes) needed to construct cellular components like RNA and proteins. As the sequencing of the Human Genome project was completed, we have learned that it takes about 22,000 genes to create an estimated 100,000 proteins, which has outdated the model upon which genetic engineering is based, which is built upon a more linear one gene one protein paradigm. In fact, it seems protein-coding genes account for only 1-2% of DNA. The other 95% is yet to be understood.

**EPA** - Environmental Protection Agency, a US federal agency that is tasked with protecting human and environmental health. They oversee some genetically modified crops, due to the fact that they have pesticides engineered into their make up, such as those incorporating Bt toxin. As well as of course glyphosate containing herbicides, such as Roundup, which is a big part of the GMO system.

**Expression** - when a gene is 'switched' on and is being used to make a protein. The tasks a cell performs depends on which of its genes are being expressed. Transgene expression is the expression of genes from the foreign organism.

**FDA** - Food and Drug Administration, the US federal agency oversees transgenic seeds and foods.

**Gene** - a basic physical unit of heredity, made up of a sequence of nucleotides along a piece of DNA that encodes RNA, which when translated into proteins, leads to the expression of a hereditary character.

**Genetically Modified Organism (GMO)** - an organism whose genetic material has been transformed by the introduction of genetic material from a foreign organism, outside of the sexual reproduction process, either through viral or bacterial vector, or biolistic gun.

**Genome** - the full array of genetic information contained in a cell. The human genome, contains 30,000-40,000 genes and has now been sequenced, as have the genomes of around 100 other organisms, including the mouse (max 30,000 genes)

and arabidopsis thaliana, or thale cress (25,000 genes)

**Glyphosate** - the active ingredient in many herbicides in use today, including the most widely used Roundup(TM), manufactured by Monsanto.

**Herbicide** - a chemical used to kill weeds, wild and competing.

**Horizontal Gene Transfer** - the passing of genes from one organism to another, sometimes across species, outside of the sexual reproduction process.

**Marker Gene** - a gene that is used in the genetic modification process to allow scientists to see more easily which plants have taken up the desired trait. These are thus transferred along with the desired target gene. Marker genes that are frequently used are antibiotic resistance genes.

**Monocrops** - Crops that are grown continuously on the same land year after year for high yield. This type of farming actually reduces the productivity of the soil, as it depletes it of nutrients, and biodiversity, and requires large amounts of water, fertilizer and pesticides. One early example of the instability brought on by monocropping was the Irish Famine of the 1840s which came about when a certain strain of mold wiped out the entire 'lumper' variety of potato that the Irish were depending on for their staple diet.

**Pesticide** - a chemical designed to kill insects.

**Plasmid** - small circular DNA molecules occurring and replicating in bacteria independent of its chromosomal information, is used as the vector to transport foreign genes into target organisms.

**Promoter** - a gene from a virus that is also spliced into the foreign genetic material in order to help the plant promote the desired trait, ie. the CaMV 35S.

**Proteins** - molecules composed of amino acids that are responsible for all metabolic processes, such as building muscle, bones, and transporting blood, regulating hormones. We all have a hundred thousand different proteins all formed from just 20 amino acids, whose sequence is defined in the genetic code or DNA.

**Recombination** - the technique of rearranging, cutting out or splicing together of genes to create artificially constructed DNA molecules, or 'recombinant DNA'.

**RNA** - Ribonucleic acid, an essential substance for translating genetic information. RNA exists in the form of a single strand, rather than a double helix, and its function is to transport and translate the information stored in the DNA, and also influences gene activity itself.

**Roundup(TM)** - The No. 1 selling herbicide on the market today, manufactured by Monsanto. Many genetically engineered crops are Roundup Ready crops, engineered to be resistant to the spraying of the herbicide Roundup, by having a gene inserted that helps to metabolize the poison. In this way the chemical can be sprayed much more freely over entire fields to deal with unwanted weeds, without killing the crops outright. A growing body of science is accumulating on the dangers of this chemical and its persistence in the environment.

**Substantial Equivalence** - a concept, first described in an Organization for Economic Cooperation and Development (OECD) publication in 1993, which stresses that an assessment of a novel food, in particular one that is genetically modified, should demonstrate that the food is as safe as its traditional counterpart. This concept has been used as a cornerstone by the FDA, and regulatory bodies around the world, to allow GMO crops to be commercialized without any pre-market testing. Equivalence is said to be based on chemical and nutritional profiles, cursory tests to detect the presence of known toxins, with no exploration of the possibility of new and unknown ones, and is evaluated by industry itself.

**Transformation** - the process of inserting foreign genetic material into a plant genome and the express of that foreign material.

**Transgene** - a gene that has been introduced into the genome of an organism by means of genetic engineering.

**2,4-D** - an herbicide and pesticide, was part of the formula for Agent Orange, is being promoted again as a solution to glyphosate-resistant superweeds, both as an external application and as the basis for future herbicide tolerant crops

**USDA** - United States Department of Agriculture has oversight over experimental field trials of GMO crops.

**Vector** - a circular strand of DNA (plasmid) generally obtained from a bacteria or virus. Genes of interest are commonly integrated into a vector and introduced into a bacteria or other organisms. Agrobacterium tumefaciens is commonly used as a vector for plant genetic transformation.

***"An irreversible attack on the biosphere is something so unheard of, so unthinkable to previous generations, that I could only wish that mine had not been guilty of it."***  
**--Erwin CHARGAFF, Biochemist, Genetic Science Pioneer**

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**Advancing  
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And

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Productions**

**Conceived and Directed by  
Bircan Ünver and Julie Mardin**

**Rapporteurs: Hande Subasilar and Humeyra Kocak**

**Special Thanks to: Julie Mardin Photography**

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