



Biotech Literacy Project (BLP) 2015

Davis, CA

May 31- June 3, 2015



When it comes to food and agricultural biotechnology, public opinion is divided. And because food and farming are such visceral issues, beliefs and ideology, as well as our understanding of science, can deeply sway public opinion. What can be done to address legitimate concerns and raise the scientific literacy of the public and media on these critical concerns?

Independent scientists and researchers can play a unique role in reframing the GMO debate because the public holds them in such high esteem. They are poised to connect emotionally with environmentally conscious individuals and with parents concerned about their children's health. However, scientists and other credible influencers often lack the resources, support, networking and training necessary to successfully engage in such broad public discussions.

The **Biotechnology Literacy Project (BLP)** is dedicated to helping scientists, academic researchers, and journalists work together to bring biotechnology directly to the public in a way that is accessible and persuasive. The Genetic Literacy Project and Academics Review, a 501c3 independent non-profit, worked in partnership with the University of California-Davis to bring together academics, non-profit leaders, journalists, business owners and scientists committed to improving the quality and accuracy of public dialogue on issues associated with agricultural biotechnology.

This program was structured as a friendly “boot camp” with a select group of participants, from the afternoon of May 31 to mid-day June 3, 2015 at the University of California-Davis. The BLP and UC-Davis’ Institute for Food and Agricultural Literacy under the direction of Dr. Pamela Ronald also held a public event, "GMOs and Sustainability," on Wednesday afternoon, June 3, highlighting global food and agriculture sustainability challenges.

BLP II—in 2014 the first boot camp was held at the University of Florida—featured discussions on the future of food and on improving science media communications. It also addressed the global divide over agricultural biotechnology issues, identified influencers and provided a foundation for ongoing support for scientists and policymakers, future training programs and network expansion to extend and grow independent voices.



Participants were drawn from various disciplines including agricultural law, plant and animal genetics, entomology, plant pathology, food science, nutrition, organic farming and intersecting disciplines. The BLP faculty included internationally known scientists such as Kevin Folta, Alison van Eenennaam, Bruce Chassy and Pamela Ronald; social media expert Jay Byrne; representatives from Scotts Miracle-Gro, AquaBounty, Simplot, and the American

Chestnut Project; and prominent journalists including the Genetic Literacy Project’s Jon Entine, Grist’s Nathaniel Johnson, Brooke Borel of Popular Science, Keith Kloor, and Hank Campbell of Science 2.0. In addition, in cooperation with the USDA’s Food and Agriculture Organization, USAID and the State Department, the BLP hosted numerous international scientists and communicators.

All participants engaged in broad communications skills training. They heard from experts on the socio-political landscape, addressing public attitudes and commercial strategies associated with agricultural and food biotechnology. Through both lectures and interactive, participants honed the tools and support resources necessary to effectively engage the media and serve as experts in governmental policy-making and in outreach opportunities. Post conference, participants have access to ongoing support via online tools and expert networking connections. The BLP faculty and staff helped scientists and communicators develop or polish individualized outreach plans that include staff-supported support and response activities through public events, publishing and media engagements.

All participants were able to engage in broad communications skills training. They heard from experts on the socio-political landscape, influencing public attitudes and commercial strategies associated with agricultural and food biotechnology. Through both training and hands-on assistance, participants honed the tools and support resources necessary to effectively engage the media and serve as experts in governmental policy-making and in outreach opportunities. Even after the conference, participants have access to ongoing support via online tools and expert networking connections. The BLP faculty and staff develop or polish individualized outreach plans that include staff-supported support and response activities through public events, publishing and media engagements.

Organization and planning

The BLP organizing committee was comprised of Steph Gorski (Biotech Literacy Project director), Jon Entine (Genetic Literacy Project Executive Director), Cami Ryan, Bruce Chassy (University of Illinois), Jay Byrne (v-Fluence) and Denneal McClung and Shannon Albers of the University of California-Davis. They teleconferenced throughout the spring of 2015 to:

1. Develop and finalized an invitee list (academic scientists, graduate students, journalists, government personnel)
2. Develop and refine the agenda
3. Strategize around program structure, format and facilities

Invitations (which included the event prospectus) were sent to potential delegates in February. When attendance was finalized, 89 guests attended the event, broken down as follows:

- 1) Fifteen organizing members including organizers and UC Davis Faculty
- 2) Five observers and guest faculty from the Noble Foundation and GENeS
- 3) Seven journalists
- 4) Nine corporate representatives for new biotechnology products
- 5) Sixteen global and government participants, most of whom were funded by USDA and the International Food Policy Research Institute (IFPRI)
- 6) Fourteen academic scientists representing universities across the United States and Canada
- 7) Twenty-three students and postdoctoral fellows



Student Sessions

Two special breakout sessions, led by Anastasia Bodnar and Denneal Jamison-McClung, were geared towards the specific needs of students and young scientists, one before the beginning of the main event on Sunday and one on Wednesday morning after most of the presentations were over. Seven graduate and undergraduate students were able to attend due to BLP fellowship grants, given as an award for outstanding essays about science communication. These grants covered the cost of attendance for students and provided an honorarium. Two postdoctoral fellows were also funded and provided with an honorarium. In addition, nine students and postdoctoral fellows were local UC Davis attendees, who were accepted as delegates in our program in accordance with UC Davis's CLEAR (Communication, Literacy, and Education for Agricultural Research) program. All students and postdoctoral fellows who attended received a certificate of fellowship, certifying their participation in this program.

Global Participant Sessions

Two agencies provided support for our international delegates, the USDA and IFPRI (a nonprofit headquartered in Washington, DC). The BLP hosted representatives, including scientists, science journalists and policymakers, from Vietnam, Indonesia, Malawi, Uganda, Ghana, Kenya, China, Turkey, Australia and the Philippines. International guests underwent a targeted orientation on Sunday arrival, along with introduction to our Bonus Eventus global internet biotechnology network. Delegates toured UC Davis's plant biotechnology facilities and participated in an international panel led by social media expert Jay Byrne and Jon Entine, and then engaged in presentations on their countries' experience with biotechnology, regulation and NGO activism.

BLP Boot Camp Sessions

Delegates were provided with a 'welcome package' consisting of an agenda, local maps and information, flyers for the GENE S program, and a list of delegate biographies.

After orientation, the program commenced with cocktails, dinner, and an opening address by World Food Center director Roger Beachy. A group of journalists then participated in a roundtable discussion about biotechnology and public perceptions of GMOs.

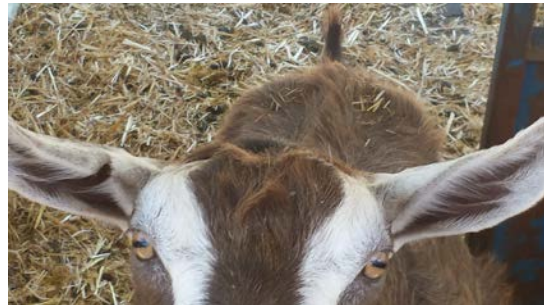


Presentations on Monday centered around the theme “Future of Food,” beginning with a discussion of the problems and challenges faced by biotechnology professionals and science communicators and a brief overview, followed by panels on organic foods and labeling, GMOs and “chemicals”, and GMOs and corporations. Lunch was served during an informal panel about food fears from professional nutritionists. Afternoon panels addressed sustainability, bees and butterflies, and new GM products. An informal discussion about legal challenges and the Freedom of Information Act was held during dinner and drinks at Our House restaurant in Davis.



Tuesday’s presentations focused on genetic literacy and communication strategies. They included presentations on media skills, risk and the media, and connecting with skeptical audiences.

There was a presentation on animal biotechnology and a field trip was made to a research farm where guests had the opportunity to see transgenic goats. Because USDA regulations prevented some international guests from visiting the farm due to regulations to prevent disease transmission, foreign guests attended an alternate field trip to the Davis plant biotechnology facilities. The afternoon wrapped with a panel on new GM techniques, including gene editing.



The meeting reconvened for a dinner discussion at the Mondavi Center focusing on splits in the environmental community over biotechnology and other innovations. Wednesday focused on crisis communication, with special breakout sessions for students and international guests.

Institute for Food and Agricultural Literacy Forum

On June 3, remaining delegates and a new set of speakers participated in a public event—the first annual IFAL forum. Director Pamela Ronald delivered her enormously popular TED talk, and multiple panels of scientists discussed agricultural biotechnology. Keynote addresses were delivered by Yvette d’Entremont, known as SciBabe or the Science Babe, and Ted Nordhaus of the Breakthrough Institute. Musical entertainment was provided by folk singer Rita Hosking.

Refreshments were served showcasing genetically modified foods, including transgenic apples and papaya, and cake made with transgenic sugar beets.

Bonus Eventus Communication and Networking

Bonus Eventus (BE) is a communication tool made available to participants. It is a private social networking portal that serves as a communications cooperative for agriculture-minded scientists, policymakers and other stakeholders seeking a more balanced dialogue and effective public engagement on agricultural biotechnology. More specifically, BE offers issues-driven agriculture news and analysis, a topic reference library, training support across various disciplines (e.g., risk communications) and new media platforms (e.g., Twitter), discussion forums, background on various stakeholders and peer-to-peer networking. Prior to and during the conferences, BE served as a central platform for delegates to join, convene, dialogue and to retrieve updated documentation (agendas, participant bios, etc).

Post Event Monitoring and Follow



Participants are being provided access to ongoing support via online tools (Bonus Eventus) and through expert networking connections (email exchanges, dialogues, and sharing of information and materials continues). The BLP faculty and staff will continue to work with participants on individualized outreach plans that include staff-supported support and response activities through public events, publishing and media engagements.

The BLP 2015 network Wiki, hosted by BE, will continue to be a resource for delegates. BE will provide access to all of the power point presentations and slides presented at the event as well as links to key mainstream media articles and interviews by delegates published since the event. The continued input and participation of delegates in the BLP Wiki – and BE overall – will ensure these resources are continually developed to support individual interests, needs and contribute to ongoing effective collaborations in support of improved credible public engagement.

Evaluation and Feedback

In order to ensure that our program was as useful as possible, we asked participants to evaluate presentations. We received considerable positive feedback. We also identified key areas to improve upon in the future. Most (83%) of respondents agreed that the conference was both valuable and applicable to their current work; no respondents reported that the conference was not valuable. When attendees were asked whether they would recommend this conference to others, most reported that they would; the conference received an average of 9 points out of 10. Keynote presentations were rated to be the most useful part of Biotech Boot Camp, but the panel presentations were nearly as popular.

BLP did well

- Attendees had a diverse range of expertise, perspective, and background.
- Presentations were on a diverse range of topics.
- Attendees were excited about the opportunities they had to meet.
- The field trip was a good way to break up the day and see research in action.
- Attendees appreciated the large portion of panels devoted to discussion time.
- Many attendees stressed that the information presented was novel, helpful, and interesting.
- Attendees were excited to learn about new GM products.
- Alison Van Eenennaam's science communication talk was a favorite of attendees.
- The catering was popular.
- The students were a well-chosen group and were actively engaged.
- Attendees were excited to interact with people who are leaders in their field.
- Students in particular noted that they were treated much better than they were accustomed to being treated at conferences.

Constructive criticism

- It would have been helpful if there was time for networking, and possibly even structured networking events.
- Several attendees requested more involvement from foreign scientists.
- A plan of action would have been helpful.
- Some attendees suggested specific presentations geared towards students, such as assigning each a mentor, holding a young scientists' panel or providing "step by step outreach strategies for early career researchers to get their name out there and begin a transition from the sidelines and small blogs to becoming active resources."
- More workshops or breakout sessions for discussing practical applications for knowledge gained would have been helpful.

- "[F]acilitated planning sessions with the help of experts could have been included in the workshops. This would result in national and regional actions plans that participants would use in returning to their countries. This would allow benchmarking and sharing of experiences across participants thereby ensuring collaboration and harmonization of efforts across boundaries."
- Participant requests included more food science topics; health-related topics; medical professionals (particularly those in the skeptics movement); discussions on the limitations of biotechnology.

Testimonials

- "Thank you very much for your efforts associated with the BLP event. I learned a lot and came away feeling truly inspired by all of the amazing people that I met. I am grateful to have had the opportunity to attend."
– Lab project coordinator
- "I wanted to thank you for affording me the opportunity to participate in the Bootcamp. This was hands down the best conference I've ever attended. The size of the group was large enough to be diverse, but small enough to allow for ample interaction with everyone. I made many great contacts and most importantly, learned far beyond what I anticipated. I would do it all again in a heartbeat."
– Graduate student
- "I really learned a lot and had a great pleasure meeting many of the big names and players in this space."
– Graduate student
- "Event was great. All sessions 4+... Diverse topics and interesting format. Two thumbs way up."
– Industry professional
- "I thought everything was spectacular. My background was a bit of an outlier so I learned a lot."
– Economics professor
- "What a great event this was!"
– International participant
- "Regarding the BLP 2015, I was very impressed with most of the sections particularly the media and science communication..."
– International participant
- "I really enjoyed the meeting and thought everything was great."
– Animal science professor



- “[T]he presentations I saw were top-notch and I felt like I got smarter, so that is a win.” -
– Journalist
- “I thought it was an excellent event, packed with interesting conversations and opportunities to interact with other participants.”
– Food science professor
- “[I]t’s my personal belief that we should have an awareness of any issue pertaining to food safety and the future of food production. Clear, open communication on science and safety is a valuable tool for any scientist. Whether it revolves around food security or the protection of farmers and consumers, biotechnology is becoming an important discussion and I am happy to have had the opportunity to learn from experts in the field regarding current hurdles to the implementation of these technologies.”
– Food scientist
- “Really important discussions, important conference to pull so many good thinkers/practitioners together to provide history and new developments to a diverse audience.”
- “I would like to speak out more for the science of GMO. ”
- “An amazing list of key influencers participated, great job recruiting. Topic selection was wonderful.”
- “Perhaps the best conference in this area that I have attended.”
- “One of the best conferences and unique engagement opportunities to collaborate with key influencers in the plant biotech world.”
- “Excellent - thanks for a great event!”
- “Keep up the good work!”
- “The BootCamp gave me new insights on how to address the GMO debate when interacting with consumers. ”
- “I intend to work with Boot Camp presenters and use Bonus Eventus to increase the level of informed awareness of biotechnology in my country and in my institution. ”
- “This was one of the best meetings I've ever been to... [T]he food was ample and excellent. Made great contacts and learned more than I expected. Would do it all again in a heartbeat.”



BLP Program of Events, May 31-June 3

May 31, SUN

FUTURE OF FOOD

Venue: Hyatt Place Hotel

- 2-5p** **Young scientists:** Overseen by Anastasia Bodnar/Denneal Jamison-McClung
- 4:00-5:00p** **BLP-International Participants: Overview/Orientation Seminar**
- 6:00p** **Cocktails**
- 6:45p** **Welcome greeting World Food Center: Roger Beachy**
- 7:00p** **Buffet dinner at Alumni Center Moss Patio**
- 7:30p** **Journalists Roundtable/Media/social media overview:** Kevin Folta (moderator), Brooke Borel, Hank Campbell, Keith Kloor, [REDACTED]

June 1, MON

FUTURE OF FOOD

Venue: Conference Center Ballrooms B and C

- 8:00-8:10a** **Problems/Challenges:** Pamela Ronald, Professor, Plant Pathology and Genome center; Director of UC Davis Institute for Food and Agricultural Literacy
- 8:10-9:00** **Overview:** Jay Byrne & Q&A
- 9:00-10:00** **Organic foods, marketing and labeling:** Bruce Chassy, Dave Tribe
- Break**
- 10:15-11:15** **GMOs and Chemicals:** Hank Campbell (moderator), Dave Stone, Brandon McFadden
- 11:15-12:30** **GMOs and Corporations:** Keith Kloor (moderator), David Zilberman, Kevin Folta, Tim Pastoor, Cami Ryan
- 12:30** **Lunch**
- 12:45** **Lunch discussion: GMOs and Food Fears:** Amber Pankonin, Sylvia Melendez Klinger
- 1:45-2:45** **GMOs and Sustainability?** Nathaneal Johnson (moderator), Raoul Adamchuk, Dave Walton, Christine Bruhn
- 2:45-3:45** **Bees and butterflies:** Jon Entine (moderator), Cynthia Scott Dupree, Randy Oliver, Tim Pastoor
- Break**
- 4:00-5:30** **New GM Products:** David Despain (moderator), Simplot, Scotts Miracle Gro, AquaBounty, Bill Powell
- 6:45** **Dinner at Our House, Davis**

8:00 **Dinner Discussion: FOI Challenges:** Bruce Chassy (moderator), Keith Kloor, Kevin Folta, Joanna Sax, Guy Cardineau

June 2, TUE **COMMUNICATION WORKSHOP**

Venue: Mondavi Center, Vanderhoef Studio Theater

8:00-9:30 **Media Skills/How Scientists Learned to Stop Worrying and Love the News and Social Media:** Jay Byrne, Tim Pastoor

9:30-10:45 **Risk and Media:** David Ropeik (moderator), Jennifer Kuzma, Keith Kloor

Break

11:00-12:30 **Connecting with Skeptical Audiences:** Pamela Ronald (moderator), Nathanael Johnson, Alison Van Eenennaam, Kevin Folta

12:30 **BUS/FARM VISIT/PICNIC LUNCH; Animal biotech: Future & Safety/UC-Davis GM goat farm visit via bus, plus presentations:** James Murray, Alison Van Eenennaam, Mark Westhusin

12:30 **Box lunch for those not visiting farm**

1:30-2:30 **UC Davis Crop Biotech Labs Visit** (International Participants and those not visiting farm)

2:30-3:15 **International Participants on GMO acceptance:** Pace Lubinsky (moderator), Richard Oduor, Zulfiani Lubis, others (TBD)

3:15-4:45 **GMO 2.0? Impact of New GM Techniques on Regulation and Policy:** [REDACTED] (moderator), Peggy Lemaux, Michael Udvardi, John Stier, Guy Cardineau

7:00 **Dinner Mondavi Center, Yocha Dehe Lobby**

8:00 **GROUP DISCUSSION: Will the Constructive Discussion on GMOs and Technology Broaden to Include the Environmental Community?** Brooke Borel, Marian Swain, Cami Ryan, David Tribe

June 3, WED **CRISIS COMMUNICATION AND GLOBAL FOOD SECURITY**

8:00 **Breakfast, Hyatt Place Hotel**

8:30-10:00 **Situational Crisis Communication: Approaches and strategies (Hyatt)**

Cami Ryan (lead/moderator), Kevin Folta, Anastasia Bodnar, Keith Kloor
Explore hypothetical and real crisis communication scenarios in public discussion of GMOs. Seasoned communicators share strategies (and lessons learned) for dealing with combative individuals or managing emotionally charged outbursts in public settings (online (social media and online commentary), in conversations or during public presentations). The discussion will provide attendees with the opportunity to add to a growing portfolio of science communication skills.

Break

10:15-11:45

Student Breakout Session: What was learned: Overseen by Anastasia Bodnar/Denneal Jamison-McClung (**Hyatt**)

CONCURRENT SESSION

8:00-11:45

International Participants Seminar: “Examining Global Biotech Communication and Opportunities for Collaboration” (Mondavi Center, Vanderhoef Studio Theater)

Lunch

On your own

1:00-6:00

IFAL PUBLIC CONFERENCE: 1st Annual Institute for Food and Agricultural Literacy Symposium

Mondavi Center, Vanderhoef Studio Theater



The UC Davis Institute for Food and Agricultural Literacy 1st Annual Symposium

Date:
June 3, 2015

Time:
1:00 to 6:00pm
With reception
to follow

Location:
Mondavi Center-
Vanderhoef
Studio Theater
Mrak Hall Drive, Davis,
CA 95616

**Register on Eventbrite
and bring your ticket
or photo ID**
Attendance is limited
to 250 people, so sign-
up soon!

Cost: Free
Parking: \$9

Questions? Contact:
Shannon Albers, M.S.
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Outreach Coordinator
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Literacy
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Food for Thought: Communicating Agricultural Science in the Digital Age

KEYNOTE SPEAKERS:

Yvette d'Entremont, Science Babe

"Can We Talk Our Way Into This: Advancing Science Communication with Humor"

Pam Ronald, Professor Plant Pathology and the Genome Center, UC Davis

"Tomorrow's Table: organic farming, genetics and the future of food"

Ted Nordhaus, The Breakthrough Institute

"Ecological Benefits of Farming Intensification"

Panel 1: Is it safe to eat? Is it sustainable?

Bruce German: Director, Foods For Health Institute

Alison Van Eenennaam: Cooperative Extension Specialist, Animal
Biotechnology

Anastasia Bodnar: Board Member, Biology Fortified

Patrick Brown: Founder, Impossible Foods

Panel 2: Science, Farming and Communication

Bruce Chassy: Professor Emeritus, Department of Food Science and Human
Nutrition, University of Illinois at Urbana-Champaign

Nathanael Johnson: Writer, Grist

Russ Parsons: Food Editor and Columnist, Los Angeles Times

Marian Swain: Conservation Analyst, The Breakthrough Institute

Tom Muller: Muller Farms

Dave Walton: Walton Farms

The Science Policy Group Showcase will highlight the projects of the
Communication, Literacy & Education for Agricultural Research program
(CLEAR) Trainees and award a prize to the most informative and entertaining
project.

Musical performance by Rita Hosking, highly acclaimed Northern Californian
country-folk songwriter.

Attendees will have a chance to taste genetically engineered papaya and the
newly approved Arctic[®] Apple!

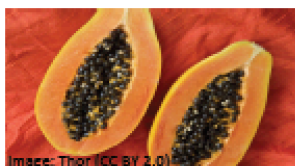


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