Genetic Literacy Project **ANNUAL REPORT 2021** Fact-Based Science to Serve the Public Interest



Retired Prof. of Biochemistry and Molecular Biology, University of the Basque Country, Vitoria-Gasteiz, Spain

I am a retired professor of biochemistry and molecular biology (University of the Basque Country, Faculty of Pharmacy, Vitoria-Gasteiz, Spain). Since the academic year 1998-99 I have taught a course on Recombinant DNA in Food Production ("Transgenic Foods" for the students). After I retired, I continued with lectures on Agricultural Biotechnology in the Bioethics course, and began collaborating with local government programs for the public at large to bring today's science to the general public.

Ever since I came in contact with the Genetic Literacy Project, I have used its materials extensively. The articles are well written, and are often written by scientists who work in the areas they write about, or by knowledgeable writers. They provide good references. Most articles are objective, and, in any case, the references provided allow me to make up my own mind. In general, my overall view agrees quite well with the views expressed in them.

I thank the GLP team for an excellent, and very important job, and encourage them to continue with the invaluable project.



Allan Wenck, PhD, JD - 1st Head of Trait Engineering - US at BASF 15h - ®

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One of the reasons I really like the Genetic Literacy Policy. Take on some hard topics head on. Jon Entine #agriculture #sustainability #environment



'They offer a magical vision of a better future but not in this world': In Foreign Policy, socia...

geneticliteracyproject.org • 4 min read



GM canola/Canada

Biotechnology offers solutions—If technophobic fears and advocacy campaigning do not undermine its potential

The news during the last fiscal year was dominated by the global response to contain COVID-19. Biotechnology innovation was at the very center of this effort. Numerous genetic-based vaccines were developed, with some using pioneer mRNA techniques (which despite what some ill-informed critics maintain does not 'alter one's DNA'). It was one of many dramatic advances in biomedicine and agricultural biotechnology.

It shouldn't be the last. Earth is stressed. CRISPR gene editing and other forms of genetic engineering and synthetic biology continue to spur a rethink of how science, corporations, academia, and the government can partner to address a myriad of health, food, and energy challenges once thought intractable—spurring a necessary, critical realignment of resources as our climate changes, pandemics threaten, and the global population grows.

The Genetic Literacy Project, now ten years old, stands at the forefront as an educational and media resource championing the paradigm-shifting science innovations of our time. While biotechnology is not a silver bullet, it is transformative. But there is an if—IF advocacy lobbying, precautionary ideology, sloppy and scare reporting by the media, and unnecessary regulatory burdens do not undermine its potential.

Anti-science activists see opposition to biotechnology as a cash machine. This past year, we saw a sewer of disinformation blurring the lines of hard left and reactionary right:

- Liberals rejecting the efficacy of childhood vaccines because they are not 'natural' were joined by COVID vaccine denialists on the right.
- Anti-GMO activists relentlessly promoting organic agriculture even though if implemented at scale would cut yields by as much as 45% and result in more carbon release, exacerbating climate change.
- Some progressives joining with rightwing activists in opposing research on gene editing of embryos which could lead to cures for crippling genetic diseases.

 Environmental groups trying to block gene drive projects that could stop pests, from rodents to disease-carrying mosquitoes, before they destroyed environments and killed the vulnerable.
 "I think it should be" destroy environments and kill the vulnerable.

Can society afford to suffer from one more jury swayed by propaganda and shoddy reporting that awards billions of dollars to settle dubious damages over invaluable products like the herbicide glyphosate that independent science finds effective and safe when use appropriately, and there are no effective alternatives?

The GLP is fiercely nonpartisan and transparent. Our 2020 annual report, which detailed our policy and financial commitments, has been downloaded more more than 99,000 times. And we are not a passive resource. Over this past year, we doubled down on our mission—correcting misinformation and challenging disinformation. Every day we push back against ideology-driven science and journalism that floods the news and social media.

We remain committed to help reshape the public conversation on 'positively disruptive' innovation, opening doors to biomedicines and agricultural solutions. And unique among many science communicators, we believe a broad range of stakeholders, including religious and ethical voices, should be engaged on where and how we should proceed to alter DNA for society's benefit.

But encouraging constructive conservation about next generation biotechnology is not enough. We need to bring skeptical policy-influencers and politicians on board, and challenge entrenched, backward-looking interests. That's our future. I hope you can join with us in this endeavor.



GLP Partners

Under the guidance of our editorial director and manager, Anne Nesathurai, the GLP has established publishing partnerships with media organizations that challenge entrenched beliefs on complex issues on biotechnology and related sciences, and who value building bridges across ideological lines. We don't always agree with their perspectives but we run these articles, often in full, to fulfill our mission to promote context and dialogue.





McGill Office for Science and Society



















CENTER FOR TRUTH IN SCIENC

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European Scientist

THE CONVERSATION

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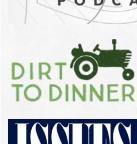
























DNA Science



GLP Website Performance

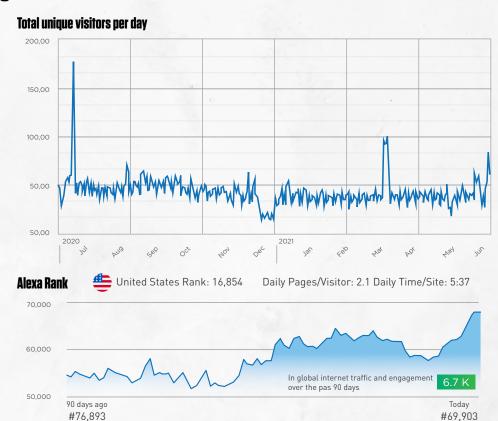
Total Visitors 14,882,004 July 1, 2020-June 30, 2021 **Monthly Visitors** FYE 2021 1,240,167 **FYE 2020** 1,388,549 **Daily Visitors** FYE 2021 40,866 FYE 2020 45,775 **Best Day** FYE 2021 101,916 FYE 2020 158,429 **Best Week FYE 2021** 524.883 FYE 2020 442,295 **Best Month**

1,392,754

1,522,433

FYE 2021

FYE 2020



Social Media Impact Metrics Twitter Followers Monthly Impressions 18,844 (+6.4%)300,000 250,000 200,000 ENE 2021 150,000 Facebook Likes **Facebook Visitors** 61,182 60.994 100.000 50,000 ENE 2021 2020 May



Newsletters: Daily Digests, Outbreak, Weekly, Top 6

The GLP offers readers multiple newsletters a week: Daily Digests of the most impactful developments on COVID; vaccines and biomedical policy; human genetics and agricultural biotechnology; Weekly Digest covering all biotech and policy issues; and Sunday Top 6.



GLP Mission and Credibility

The GLP covers the intersection of science with media, policy and politics. By respecting the independent thinking of our readers and promoting constructive discourse, GLP has emerged as one of the most respected and cited science resources on the internet.



GENETICS LITERACY PROJECT

PRO-SCIENCE

These sources consist of legitimate science or are evidence based through the use of credible scientific sourcing. Legitimate scince follows the science method, is unbiased and does not use emotional words. These sources also respect the consensus of experts in the given field and strive to publish peer reviewed science.

Factual Reporting: High

Country: USA

World Press Freedom Rank: USA 45/180

History

Founded in 2012 by **Jon Entine**, the Genetic Literacy Project is a non-profit that promotes public awareness and discussion of genetics, biotechnology, evolution, and science literacy. According to The Genetic Literacy Project (GLP) **the goal**, "through our website and outreach efforts, including the dissemination of education materials, organizing public and private conferences and initiating briefings with regulators and government officials, is to prevent legislative overreach grounded in ideology rather than science, help in the creation of reasonable ethical and researchers, all in an effort to promote the public interest..."

Analysis/Bias

In review, the Genetic Literacy Project website publishes news and information on the fields of GMOs, genetics, evolution, and biotechnology. They publish original science reporting that is low biases and properly sourced such as this <code>How evolution could</code> thwart the new COVID vaccines and what we can do to prevent that. They also aggregate news related to their fields from sources such as the American Society for Microbiology and the <code>American Council on Science and Health</code>. Further, they also publish commentary based information that relates to science such as this, criticizing Mike Adams from the <code>Natural News</code> pseudoscience network Mike Adams: Natural News, "everyone's favorite uber-quack #1 anti-science website"—"even the quacks think he's a quack". Finally, the website is pro-GMO with an Anti-GMO Advocacy Funding Tracker that shows who and how much money is spent to advocate against GMOs. According to the Media Bias Fact Check Pseudoscience Dictionary, GMOs are proven to be safe and those who are promoting these dangers are promoting pseudoscience. In general, this is a pro-science organization.

Failed Fact Checks

 \cdot None in the Last 5 years

"Overall, we rate the Genetic Literacy Project Pro-Science based on evidence-based reporting of scientific information related to genetics and GMOs."

geneticliteracyproject.org



This website adheres to all nine of NewsGuard's standards of credibility and transparency.



A website that publishes information promoting the benefits of genetically modified organism (GMO's), gene editing, and sustainable farming.

Score: 100/100

CREDIBILITY



Does not repeatedly publish false content



Gathers and present information responsibly



Regularly corrects or clarifies errors



Handles the difference between news and opinion responsibly



Avoids deceptive headlines

TRANSPARENCY



Website discloses ownership and financing



Clearly labels advertising



Reveals who's in charge, including any possible conflicts of interest



The site provides names of content creators, along with either contact or biographical information

Credibility

Articles on the website are generally fact-based and well-sourced. Aggregated stories are republished from credible news organizations such as Agence France-Presse, Scientific American, and NPR. Stories that are original to the site typically source government agencies such as the European Chemicals Agency and U.S. Department of Agriculture, and news providers including Reuters, The New Yorker, and The Washington Post. Headlines accurately reflect content.

GeneticliteracyProject.org says in the about section that every author on the website "has primary responsibility for reporting, writing, and fact checking their stories.... Reports are subject to review by one or more editors, who retain responsibility to run or not run a story. When pertinent, we review written quotes and audio tapes of interviews." The page states that senior editors review "every online post."

The Genetic Literacy Project has been referenced as a source in articles produced by Cornell University's Alliance for Science, McGill University's Office for Science and Society, and fact-checking website Snopes, among others.

NewsGuard's review of GeneticliteracyProject.org found that the website did publish substantial criticism of IARC following its 2015 negative finding on aningredient in Monsanto's Roundup product, including a September 2019 opinion article that argued that "IARC is morally bankrupt and there is no indication of a will to change." (Most articles critical of IARC are labeled as opinion).

At the same time, NewsGuard found that GeneticliteracyProject.org has published articles critical of chemical companies including Monsanto. For example, the site ran a four-part series in February 2021 that criticized Monsanto for its "dicamba debacle," in which Monsanto's dicamba herbicide was found to be responsible for destroying millions of acres of crops in the U.S. A pair of articles published in July 2021 reported on studies that suggested that glyphosate might function as a cancer treatment, but included context about the quality of the evidence, stating, "Skepticism of this research is warranted ... because these are small, preliminary studies, it would be premature to make too much of them."

Moreover, the Genetic Literacy Project was hardly alone in its criticism of the IARC's finding on glyphosate. The U.S. Environmental Protection Agency stated that it "does not agree with IARC's conclusion." The European Food Safety Authority (EFSA) said that it does not consider glyphosate to be carcinogenic to humans, stating that "in total, EFSA assessed more evidence including additional keystudies that were not considered by IARC." The Canadian government also criticised the decision.

Despite the criticism described above, most articles on GeneticliteracyProject.org are well-sourced and accurate. Although the site does present more positive news about GMOs than negative news, it has run content critical of the agro-chemical and biotechnology industries and does not make outlandish claims about GMOs and pesticides, which remain contentious subjects in the scientific community.

Therefore, NewsGuard has determined that the website does not repeatedly publish false information and that it does not gather and present information responsibly.

GLP challenges science conspiracists







Top 10 biotech propagandizers: Who are the science deniers and snake oil peddlers undermining science in agriculture and medicine?



'The New Apartheid'? Conspiracist Robert F. Kennedy, Jr's latest antivaccine film spins real history of medical racism to scare Black Americans into rejecting COVID shots

Will Stone | NPR | June 18, 2021

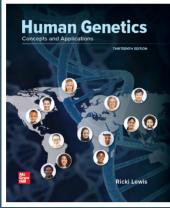


Ted S. Warren/AP

COVID-19 coverage: Technophobia, vaccines and denialism

The spread of the coronavirus and the global efforts to contain it dominated headlines. Our contributing writers addressed fast-evolving COVID news, with primary coverage by geneticist Dr. Ricki Lewis, who covered the origins of the virus, the development of the vaccines and their relative safety, and the science and social impact of the vaccine roll-out. Her work was also featured at DNA Science at Public Library of Science.







Debating the possible origins of COVID-19: A lab-escaped bioweapon? Animal poop? Random mutations of an existing virus?



'Challenge studies': Should we be testing COVID vaccines by intentionally infecting volunteers?



Anxious about getting a COVID vaccine because you don't know what's in it?
We know a lot more about it than the safety of hot dogs



What our embattled world looks like through the 'eyes' of SARS-CoV-2



Good and bad news: What we know about vaccines and containing COVID variants



When the faster-spreading and more virulent COVID-19 mutant came to my home town, it shook up everyone. Here's an explainer of what it foreshadows.



A dangerous stage in the evolution of the novel coronavirus is upon us with the discovery of "escape mutations". Artificial intelligence may be our best response



Infographic: 5 different ways COVID vaccines work



Coronavirus immunity passports could create a world of 'us and them'. But here's why they make sense

The GLP not only reported developments, we made news. We addressed the puzzling phenomenon of why sub-Saharan Africa emerged as a coronavirus 'cold spot'. Why are there fewer cases and deaths from COVID-19 with the poorest health care and lowest vaccination rate on Earth? Hypotheses: the youth of the continent's population; immunity acquired from exposure to prior health challenges; but most importantly, the genetic profile of Africans. It took more than a year after the GLP first raised the genetic angle before news organizations were willing to wade into the controversial issue of population-based differences in disease susceptibility.





Taboo: Why Is Africa the Global COVID 'Cold Spot' and Why Are We Afraid to Talk About It?

Jon Entine and Patrick Whittle 30 Mar 2021 • 20 min read "We already know that environmental inequalities impact at-risk racial populations (such as those in the US defined as African Americans, Hispanics, Native Americans, and Pacific Islanders.

While age, geography, and co-morbidities are major risk factors in contracting or dying from COVID-19, the insights from genetic research are invaluable if we are to effectively tackle this and future pandemics.

There are critical genetic differences in responses to disease and treatments ... With Africa in particular, the vast genetic diversity within the continent is already revealing much about humanity's long and deadly evolutionary duel with this scourge.

A failure or refusal to explore this extraordinary phenomenon borders on scientific malpractice."

European **Scientist**

Defying all predictions, Africa is the global COVID-19 'cold spot'. (Part 1)



In our daily COVID Outbreak special section, we addressed the disturbing growth of vaccine rejectionism — which we found prevalent not only on the hard right but on the 'natural-worshipping' left, where resistance to childhood vaccinations has been a feature for decades—we are talking about you, Robert F. Kennedy, Jr. (see our coverage on prior page). We were among the first outlets Paul Offit, Director of the Vaccine Education Center at Children's Hospital of Philadelphia and a CDC and FDA advisor, agreed to talk with to address the crisis. GLP Biotech Facts & Fallacies podcast hosts Cameron English and professor Dr. Kevin Folta, and Dr. Henry Miller, among numerous contributing writers, addressed the often-bungled government response and the tension between individual rights and societal responsibilities.



GLP Podcast: Hollywood's vaccineautism nonsense; COVID lab-leak story won't die; Africa ignores Greenpeace on pesticides

Genetic Literacy Project / June 17, 2021



Science Facts and Fallacies podcast: Dr. Paul Offit takes on anti-vaccine activism as COVID shots stem new infections

Genetic Literacy Project | May 12, 2021



Podcast: Media's COVID hypocrisy; Mandatory vaccines; Biodegradable plastic from GM plants

Genetic Literacy Project | April 21, 2021

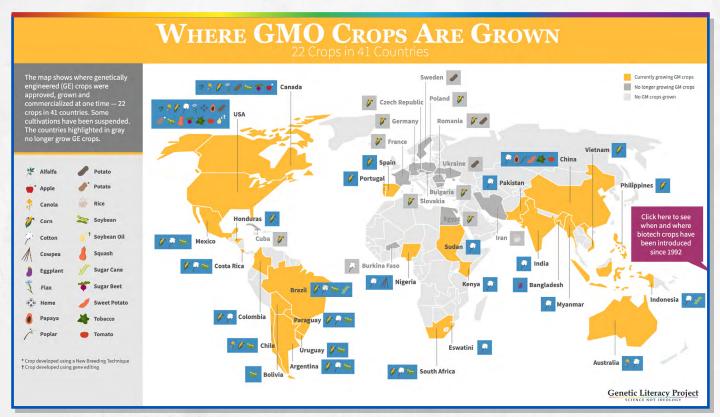


Viewpoint: Why the Wuhan lab escape theory explaining the origin of the global pandemic isn't going away anytime soon

Genetic Literacy Project | June 7, 2021

Innovative infographics

The GLP continued to expand its series of informative infographics under the guidance of neuroscientist and visualization specialist Dr. Kayleen Schreiber. This two page graphic addressing the global status of GMO approvals received more than 12,000 downloads.



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Sustainable Food & Farming

Global food security is one of our most pressing challenges. The GLP has taken the media lead in proposing constructive solutions—and challenging entrenched interests, from corporations to environmental groups, that put ideology ahead of sustainability. To reach their full potential, biotech innovations including gene editing need a favorable regulatory and political climate. GLP's contributing writers, including Dr. Henry Miller, Dr. David Zaruk, Andrew Porterfield, Marc Brazeau, Steven Cerier, Phil Harvey, Luis Ventura in Mexico, and Uchechi Moses and Abdullahi Tsanni in Africa provided expert commentary and guidance.



Window to act is closing': Climate change is already devastating our global food system, UN report coauthor says



Organic farming has a sustainability problem — and now the EU is in a dilemma of their own making



Agriculture and climate change: Taking the best of all farming systems could tip the carbon scale in the right



Technology vs. global warming: How genomics, remote sensing and big data can safeguard our food

The GLP is actively involved on a world stage, pushing back against the European Union's Green Deal 'Farm to Fork' proposal. Its goals are laudatory—reducing the environmental and climate impact of farming—but its proposed solutions would greatly exacerbate climate change and retard innovation: increasing the share of organic farming to at least 25% while banning biotechnology, including CRISPR gene editing, that the rest of the world is embracing. Yields from organic farming lag conventional by as much as 45%; organic and forms of regenerative agriculture rely on tilling, which releases greenhouse gases; and organic farmers depend on fertilizer from cows that burp methane gas, 25 times more toxic than carbon. While Europe looks backward, shackled by precautionary fears about rejecting safe technologies to address the climate crisis, the rest of the world, including now the UK, is fast embracing gene editing and other biotech solutions.



Leaders from EU and U.S. Debate Farm to Fork Strategy and Future of Global Trade



JON ENTINE

director of Genetic
Literacy Project, a
nonprofit focused on
educating the public
about biomedicine and
agricultural biotechnology.
Jon is also known for his
writings on corporate
social responsibility and
environmental
sustainability, and was US
editor for 15 years of the
UK-based publication

Ethical Corporation



EU AFFAIRS ~ THE WORLD ~ KASSANDRA ~ ENERGY ~ FAITH & RELIGION TECH & CULTURE ~ OUR WORLD



The GLP's reporting on the EU's unsustainable Farm to Fork policy prompted Department of Agriculture Secretary Sonny Perdue to feature the GLP on its weekly radio show. In the months that followed, the USDA consulted with the GLP on the implications of Europe's biotechnology rejectionism on US-global trade relations, in Europe and Africa. After the election, under the Biden Administration, the GLP was invited to speak at the USDA 2021 Annual Outlook Forum keynote session, addressing how organic and conventional farming, including the use of CRISPR gene editing and other biotechnology innovations, can further promote sustainability. Our work with the USDA across the current and former administrations was widely disseminated, particularly in sustainability circles.





Addressing Climate Change and Sustainability Through Innovation

A discussion of how genetic innovations continue to enhance agricultural productivity and offer promise in addressing climate change and other environmental challenges. The speakers will also discuss the role of public policy and how the regulatory and trade environment can affect the adoption of these technologies.

Jon Entine, Founder and Executive Director, The Genetic Literacy Project

GMO alfalfa



Biomedicine, Synthetic Biology and Gene Drives

If you try to ban the future, the revolution will just happen someplace else. The biotechnology revolution is in flight and the GLP covers it daily. The graphic on the prior page shows the rapid evolution and global migration of modern humans; evolution now continues with transhumanism, one of the many subjects the GLP engages on a daily basis. We constructively engage the public conversation, and challenge special interest groups that try to censor innovation and debate. Our contributing writers span the world, from Patrick Whittle in New Zealand, Sam Moxon in the UK, Kastas Vavitsas in Greece, and Dr. Henry Miller and Dr. Geoffrey Kabat and others in North America.

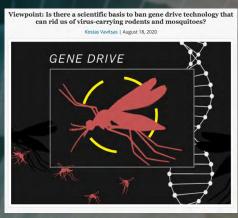
Science and ethics: From evolving theories on evolution to genetic quirks in human nature to the exploding adoption of Artificial Intelligence to revolutionary advances in bio-medicine, GLP covers the most impactful stories, including many that fly under the radar of many mainstream publications.







Gene drives and risk: Many advocacy groups target gene drives, which are designed to control disease-carrying rodents, mosquitoes, plant pests, and plant infections that threaten our food supply, spread disease, and lay the ground for future virus outbreaks. Critics often invoke quasi-religious terminology, claiming they 'threaten the natural order' or 'undermine Nature', and often oppose not only their application but basic research. We think they are wrong, and we have devoted dozens of articles, videos, and podcasts to challenging this simplistic view and encouraging respectful debate.





Video: Here's how synthetic flies could become a major tool in the quest to control insect-borne diseases

University of California San Diego | June 22,

CRISPR-based technologies offer enormous potential to benefit human health and safety, from disease eradication to fortified food supplies. As



Challenging orthodoxy: GLP tackles prickly subjects that other media ignore out of ignorance or political correctness—and we share our perspectives not only on the GLP but in outside publications. Our goal is to encourage constructive discussion on issues that some people believe are divisive. If we are unwilling to transparently review controversial issues, social divisions will only multiply. With that in mind, we engage the science and the ethics, including religious perspectives that other groups believe should be sidelined.



deniers and snake oil peddlers undermining science in agriculture and medicine?

Genetic Literacy Project / February 16, 2021









GLP Educational Outreach and Influence

As an educational and media nonprofit, we make our stories, podcasts, infographics and other resources available for free to schools and academic institutions. Close to 300 institutions and school systems across North America and globally interface with the GLP and our database of more 35,000 articles, and use them in classroom and research projects. We partner to develop targeted resources as well, often working directly with teachers and students.

North America

- · Academy of Art University, San Francisco
- Aims Community College, Colorado
- Albany Medical College
- American Public University System
- Arizona University Andrew Weil Center for Integrative Medicine
- Arizona University
- Babson College, MA
- Baptist Health Sciences University, TN
- Beaver School, MA
- Belmont University, TN
- Binghamton University
- Bloomsburg University, PA
- Boston University
- Brigham Young University
- Britannica School
- Brownsburg, IN Community School District
- Bucknell University
- CalPoly Pomona
- California State University-Channel Islands
- California State University-Long Beach
- California State University-Northridge
- California State University, Monterey Bay
- California University of Pennsylvania
- Centennial College, Canada
- Central Michigan University
- Central New Mexico Community College
- Central Oregon Community College
- Charles R. Drew University of Medicine and Science, CA
- Chowan University, NC
- City University of New York
- Clark College, MA
- Classroom Google
- Clemson University
- Cleveland Metro School District
- College of Western Idaho
- Colorado State University
- Cornell University
- Corpus Christi College
- County College of Morris, NJ
- Culinary Institute of America
- Davis Joint Unified School District, CA
- Davidson University, PA
- Delaware Valley University, PA
- Denison University, OH
- Drexel University, PA
- Duke University
- Durham College, NC
- East Central College, MO
- Elon University, NC
- Eden Prairie, MN Schools
- Everglades University, FL
- Franciscan University, OH
- George Mason University

- Georgia Gwinnett College
- George Washington University
- Grand Canyon University, AZ
- Greenwood Schools, Millerstown, PA
- Hamline University, CA
- Harper College, IL
- Harvard Medical School
- Harvard University
- Henry Ford College, MI
- Huntington University
- Illinois Mathematics and Science Academy
- Illinois State University
- Indiana State University
- Johns Hopkins University
- Kirkwood Missouri School District
- Lake Superior State University, MI
- Lane Community College, OR
- Lenoir Community College, NC
- Long Island University
- Los Angeles Unified School District
- Louisburg College, NC
- Loyola University, Chicago
- MacEwan University, Alberta
- Marian University, IN
- McGill University, QC
- Middle Tennessee State University
- Misericordia University, PA
- Mitchell Community College, NC
- Minnesota State University, Mankato
- Moorehead State University
- Moraga (CA) School District
- Morningside College, IAMt. Holyoke College
- · National Agriculture in the Classroom
- Newton (MA) Public Schools
- New York Times Learning Network
- New York University
- North Carolina State University
- Northampton Community College, PA
- Northeast State Community College, TN
- Normandale Community College, MN
- Northern Illinois University
- Northwest Missouri State University
- Northwestern University
- Nova Southeastern University, FL
- Oakton Community College, IL
- Ontario Tech University
- Oral Roberts University
- Palo Alto Unified School District
- Palm Beach State University
- Paradise Valley Community College, AZ
- Penn State Huck Institutes of the Life Sciences
- Penn State University
- Peru State College, NB
- Pequea Valley School District, PA
- Portland Community College



- Prince Georges Community College, MD
- Purdue University
- Rasmussen University, FL
- Rice University
- Riverside, BC Secondary School
- Rocky View, AB Schools
- Sampson University, NC
- Santa Rosa Junior College, CA
- San Angelo Independent School District, TX
- Salk Institute
- Stanford University
- Seneca College, ON
- Sinclair College, OH
- South Dakota Public Universities (Dakota State, Black Hills State, University of South Dakota, South Dakota School for the Death, South Dakota School for the Blind and Visually Impaired)
- Northern State University
- South Western Illinois College
- St. Bonaventure University
- St. Louis Community College
- St. Michael's University School, British Columbia
- St. Paul's School, MD
 - St. Joseph's University
 - Southeast Missouri State University
 - T. Colin Campbell Center for Nutrition Studies
 - Texas Performance Standards Project
 - Texas Tech University
 - Thomas College, ME
 - Trident University. CA
 - Trinity Western University, BC
 - Triton College, IL
 - Tulane University
 - University of Arizona
 - University of Arkansas
 - University of British Columbia
 - University of California, Davis
 - University of California, Los

Angeles

- University of California Press
- University of California, San Diego
- University of California-Santa Cruz
- Science Justice Research Center
- University of Connecticut
- University of Florida
- University of Georgia
- University of Houston-Downtown
- University of Illinois
- University of Maryland
- University of Massachusetts
- University of Memphis
- University of Minnesota
- University of Montana
- University of Nevada
- University of New England, ME
- University of New Hampshire
- University of Puerto Rico-Aquadilla
- University of Puerto Rico
- University of Redlands, CA
- University of Regina
- University of Rhode Island
- University of Texas

- University of Texas, Arlington
- University of Texas, El Paso
- University of Texas, Rio Grande Valley
- University of Toronto Mississauga
- University of Toronto
- University of Southern California
- University of Vermont
- University of Virginia
- University of Waterloo, ON
- University of Washington
- University of Wisconsin
- Vermont State Colleges System
- VHS Learning, MA
- Virginia Commonwealth University
- Wake Technical College, NC
- Washington State University
- Western Kentucky University
- West Coast University
- West Coast University, CA
- Winthrop University, SC
- Winston-Salem Forsyth County Schools
- William Patterson University, NJ
- Xavier University, LA
- Yale University
- York University, Toronto

Global

- Aalborg University, Denmark
- American University of Kuwait
- Canterbury Christ Church University, UK
- Comenius University, Slovokia
- De La Salle University, Philippines
- Dún Laoghaire Institute of Art, Design and Technology, Ireland
- Franklin University, Switzerland
- Friedrich-Alexander University Erlangen-Nürnberg, Germany
- Istanbul Bilgi University
- London School of Economics and Political Science
- Loughbrough College, UK
- Maastricht University, Netherlands
- National University of Singapore
- St. Margaret's/St. Aiden's Anglican Girls Schools, Australia
- Swedish University of Agricultural Sciences
- The Open University, UK
- Trinity College, South Australia
- Universidad del Rosario, Columbia
- Université de Lille, France
- University of Basilicata, Italy
- University of East Anglia, UK
- University of Halle-Wittenberg, Germany
- University of Macau
- University of Melbourne
- University of Notre Dame, Australia
- University of Oxford
- University of Pakistan
- Universidad San Francisco de Quito, Ecuador
- University of Turin
- University of Wollongong Australia
- Uppsala University, Sweden
- Virtual University of Pakistan

GLP Staff



Swathi Chakravarthy Social Media Manager

Master's degree in bioengineering from San Diego State University and worked as a scientist in a biotech company. She is also a certified digital marketer who aspires to become a full-time content creator.



Leah Garden Editor and Director of Sustainability

2021 Environment Fellow at Young Professionals in Foreign Policy Project. She holds an M.S. in Sustainability Management from American University's Kogod School of Business and a B.S.B.A. from Bucknell University.



Alison Getker Researcher and Editor, Biomedicine and Human Genetics

University of Florida graduate involved in neuroscience research, with plans to attend medical school and become a specialist in treating infectious disease.



Jon Entine
Executive Director

Life-long journalist, science writer, book author and think tank scholar focusing on ethics, sustainability and genetics; Former ABC and NBC network TV news producer/executive



Andrew Ladenheim Researcher and Editor, Agriculture

A J.D. student at University of New Hampshire School of Law and a graduate of Fairleigh Dickinson, he holds a life-long passion for agronomics and agricultural science.



Brian Muia
Director of Finance, Advisor to the Board

CPA at Loblolly Solutions, member of the American Institute of Certified Public Accountants



Anne Nesathurai Editorial Manager and Director, Content and Social Media

GLP Daily Digest Editor, and responsible for social media implementation across Facebook and Twitter



Kayleen Schreiber

Infographics and Data Visualization Specialist

Visual design editor with a PhD in neuroscience. Focus on science literacy, agricultural sustainability and technical communication

GLP Contributing Writers



Marc Brazeau Senior Contributing Columnist

Food politics, sustainable agriculture and nutrition expert



Ricki Lewis Senior Contributing Columnist

Science writer with PhD in genetics, author of numerous popular and text books on genetics



Steven E. Cerier Contributing Columnist

International economist and analyst focusing on financial transparency and governance and with a special interest in agriculture



Samuel Moxon Contributing Columnist

Biomedical engineer with PhD in tissue engineering and expertisein regenerative medicine



Angela Dowden Contributing Columnist

Food science and nutrition expert and member of the Association of Nutrition (UK)



Andrew Porterfield Contributing Columnist

Science writer and former PIO for the Salk Institute and the University of California-Irvine



Cameron English Senior Contributor, Facts & Fallacies Podcast

Co-host of GLP's Science Facts and Fallacies podcast; Director of Science at the American Council on Science and Health



Luis A. Ventura-Martinez Contributing Columnist

Biology Phd with expertise in biosafety, biotechnology and science communication, and fellow at Cornell's Alliance for Science



Kevin M. Folta Senior Contributor

Professor of Horticultural Sciences at the University of Florida, winner of CAST Borlaug Award



Patrick Michael Whittle Contributing Columnist

Science writer focusing on the ethical ethical and political implications of genetic technology and evolutionary biology

GLP Boards and Advisors



Mahaletchumy Arujanan

Founder, Global Coordinator of BioTrust Consortium (International Service for the Acquisition of Agri-biotech Applications): ISAAA AfriCenter, ISAAA SEAsiaCenter and Malaysian Biotechnology Information Center (MABIC)



Mary J. Boote (Roth)

CEO of Global Farmer Network (formerly Truth About Trade and Technology)



Jon Entine

GLP Founder, Executive Director. Former network TV news producer/executive; author; print journalist focusing on ethics, sustainability and genetics; former professor and think tank



Nina V. Fedoroff

Emeritus professor in molecular biology, Penn State University, former president of the American Association for the Advancement of Science



Kathleen Hefferon

Instructor of microbiology, Cornell University; Fulbright Canada Research Chair of Global Food Security; former visiting professor at the University of Toronto



Laurie Zoloth

Dr. Ganesh Kishore

Ronald E. Kleinman, M.D.

Robert L. Thompson

Advisory Board

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Physician-In-Chief, MassGeneral Hospital for Children, Boston,

MA; Charles Wilder Professor of Pediatrics, Harvard Medical

Professor emeritus at the University of Illinois at Urbana-

Champaign; Former Dean of Agriculture at Purdue University

Senior advisor to the Provost for Social Ethics at the University of Chicago Divinity School and Margaret E Burton Professor at the University of Chicago



Brian Muia Director of Finance. Advisor to the Board

CPA at Loblolly Solutions, member of the American Institute of Certified Public Accountants



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Drew Kershen

Professor emeritus University of Oklahoma College of Law, agricultural biotechnology



Matt M. Winkler

Former associate professor cell and molecular biology, University of Texas, chairman and founder of Asuragen and Ambion; chairman of the Winkler Family Foundation



Ben Locwin

President Healthcare Science Advisors, PhD in behavioral neuroscience, MBA, MS; former director of Biogen



Advisors Who Helped Launch the GLP



Kevin Davies

Executive Editor, The CRISPR Journal; founding editor of Nature Genetics; former editor of Bio-IT World; former publisher of Chemical & Engineering News



Elizabeth Finkel

Editor-at-large, co-founder of COSMOS magazine (Australia), PhD in biochemistry

Henry Harpending

Professor of Anthropology,

of Kalahari People's Fund

(deceased)

University of Utah; Co-founder



Geoffrey Kabat

Cancer epidemiologist and author; former faculty member at Stony Brook University School of Medicine and Albert Einstein College of Medicine



Gary L. Kreps

Director, Center for Health and Risk Communication, George Mason University



Caroline Lieber

Director Emeritus of Sarah Lawrence College's Joan H. Marks Graduate Program in **Human Genetics**



Ariella Oppenheim

Professor Emeritus, Hebrew University-Hadassah Medical School; Steering committee of the Israeli National Center for Gene Therapy



Chavali Kameswara Rao

Executive Secretary, Foundation for Biotechnology Awareness and Education

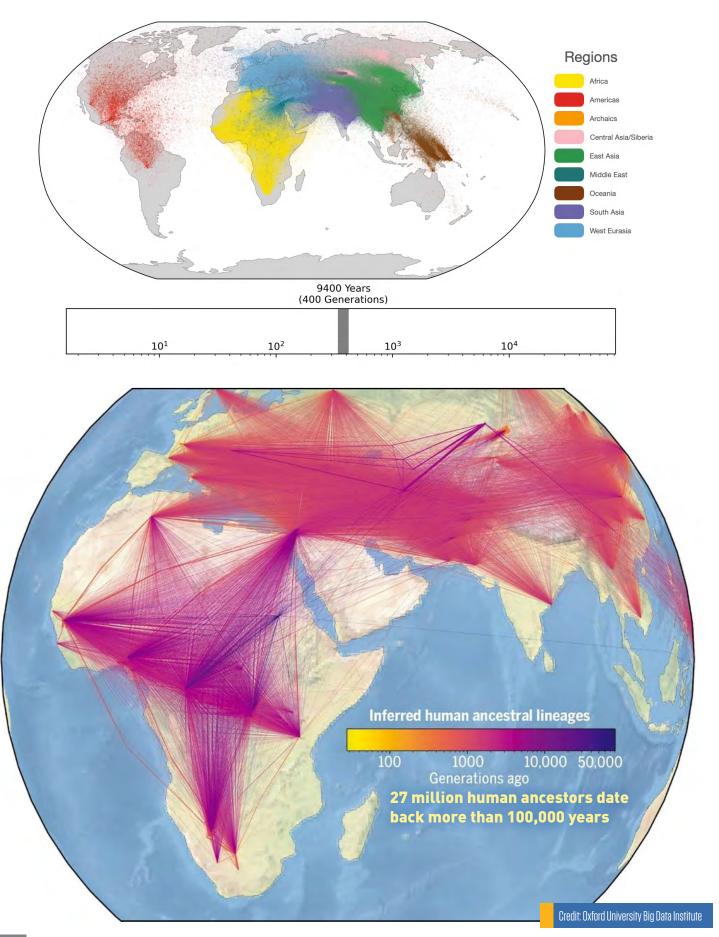


Sharon Terry

President, CEO, Genetic Alliance, a network of thousands of genetic disease-specific advocacy organizations



Human Ancestry & Family Tree



GLP Financial Information

EVENUE AND SUPPORT	FYE 2020	FYE 2021
Winkler Family Foundation	\$210,000	\$75,000
DKT Liberty Foundation	\$110,000	\$60,000
John Templeton Foundation	\$267,685	\$89,228
Charles Koch Foundation	\$68,500	
Gerry Ohrstrom	\$17,000	\$10,000
Kayser Family Foundation Fund of the DuPage Foundation	\$10,700	\$10,000
John Kayser	\$10,000	
Bader Family Foundation	\$10,000	
David Frank	\$5,000	
Aqua Bountry	\$2,500	\$5,000
Perry and Carol Hackett	\$8,000	
The Modzelewski Charitable Fund	\$2,500	\$5,000
Richard Lounsbery Foundation		\$60,000
Donors Trust		\$25,000
Bayer		\$100,000
Peter Treadway		\$12,000
Donations under \$5000	\$82,213	\$28,707
Total Contributions	\$735,598	\$493,276
Investment Income	\$5,585	\$799
Total Revenue and Support	\$741,183	\$494,075

EXPENSES	FYE 2020	FYE 2021
Educational Outreach, Labor and Benefits	\$377,264	\$298,009
Consulting and Freelance	\$123,326	\$27,094
Digital Expenses	\$65,567	\$49,302
General, Fundraising and Admin	\$47,698	\$58,268
Total Expenses	\$613,855	\$432,673

NET ASSETS	FYE 2020	FYE 2021	
Change in Net Assets	\$127,328	\$62,103	
Cash on Hand	\$510,308	\$572, 411	

