RICHARD ANTHONY JEFFERSON PH.D

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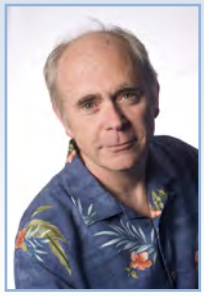

SYNOPSIS

Richard Jefferson was born in 1956 in Santa Cruz, California and began his molecular biology career in 1974 at the University of California, at Santa Barbara, obtaining his Bachelor's degree in Molecular Genetics from the College of Creative Studies in 1978.

He conducted his Ph.D. studies at the University of Colorado, Boulder, where he developed the reporter gene system GUS (β-glucuronidase) and co-developed transformation methods for the nematode C. elegans.

In 1985, with an NIH fellowship, he moved to the Plant Breeding Institute (PBI) in Cambridge, England, where he adapted the GUS system for plants and agriculture. The GUS reporter gene system - through active distribution to thousands of labs - is now arguably the most widely used tool in plant molecular biology.

GUS has been instrumental in developing efficient transformation of such crop plants as maize, wheat, rice, soybean and cotton, and was critical for the commercial development of many of the highest-profile innovations in agriculture.

While working at PBI, Richard also initiated and managed the world's first field release of a transgenic food crop on June 1, 1987.

In 1989, after United Nations consultancies in Africa, he joined the Food and Agriculture Organization as the first senior staff Molecular Biologist. He left the UN System in 1991 in order to establish Cambia as an autonomous private research and development institute, initially in the Netherlands.

In 1991, Cambia became responsible for trouble-shooting the Rockefeller Foundation's ongoing programs in rice biotechnology in Asia. As a base for this work Richard and Cambia's core team moved to Australia, where Cambia was registered in 1994 as a not-for-profit company limited by guarantee.

In conducting the work for the Rockefeller Foundation, the UN, the CGIAR, and other international agencies, Richard has travelled and taught extensively in the developing world, with numerous working visits to China, India, Indonesia, Vietnam, Pakistan, the Philippines, Thailand, Brazil, Colombia, Kenya, Zimbabwe, Egypt, Nigeria and many other countries.

From 1999-2001, he also served part-time as Director, Strategic and Applied Molecular Technologies for the International Institute of Tropical Agriculture (IITA) of the CGIAR, based in Ibadan, Nigeria.

Richard's work has been cited in the primary literature over 10,000 times. In the course of his career, Richard has given more than 400 invited seminars in over 35 countries, and has been plenary or keynote speaker at numerous international symposia.

Richard's areas of scientific interest and expertise have included molecular enabling technologies, non-destructive reporter systems, field analysis methodology, microbial population dynamics, gene delivery systems, molecular biology of glucuronide metabolism, apomixis and plant breeding technologies and is currently focused on microbial population genomics through the lens of the hologenome theory of evolution and its impact on health, environment and agriculture.

In the last decade, Richard's expertise in innovation systems and intellectual property strategy and policy have become widely recognised. Amongst many UN consultancies, he was appointed by the United Nations Convention on Biological Diversity as Author-in-Chief for the landmark study on Genetic Use Restriction Technologies ("GURTs" or "Terminator" technology).

Richard was chosen as an Outstanding Social Entrepreneur by the Schwab Foundation and is a regular participant and panelist at the World Economic Forum Annual Meeting at Davos.

In December 2003 he was named by Scientific American to the List of World's 50 most influential technologists, and cited as the World Research Leader for 2003 for Economic Development. He received the American Society of Plant Biologists (ASPB) "Leadership in Science Public Service Award" in July 2005, and that year was finalist as Wired Magazine's Rave Scientist of the Year.

He is recognized as a pioneer in new democratized innovation and intellectual property mechanisms as the founder of the biological open-source initiative called BiOS. Richard has been profiled in The Economist, New York Times, New Scientist, Newsweek, Financial Times, Science, Nature, Wired Magazine and many others.

In 2009, with funding from the Bill & Melinda Gates Foundation, the Lemelson Foundation, and the United Nations, Richard became Professor of Science, Technology & Law at the Queensland University of Technology, and Founding Director of the Initiative for Open Innovation (IOI). With a focus on science-enabled innovation, the IOI seeks to make the world's innovation system more transparent, inclusive and navigable.

Richard is a dedicated musician, composing and performing on guitar and mandolin, in blues, celtic, bluegrass and new acoustic styles. While doing his Ph.D. in Boulder, he also studied juggling and modern dance with the USA National Juggling champions, Airjazz and many other fine performers, and still keeps these skills alive when time allows.

Richard is married to Osmat Azzam, a plant pathologist, and has an eight-year old daughter, Tanja.

PROFESSIONAL EXPERIENCE

2009 – present
Professor of Science, Technology & Law, Queensland University of Technology, Brisbane, QLD, Australia

2005 – 2010
Adjunct Professor, Australian National University, Canberra, ACT, Australia

2002 – 2008
Adjunct Professor, Charles Sturt University, NSW, Australia

1994 – 1999
Adjunct Reader, Australian National University, Canberra, ACT, Australia

1999 – 2001
Director, Strategic and Applied Molecular Technologies, International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria

1998 – present
Chairman and CEO, Cambia, Canberra, Australia

1992 - present
Executive Director, Cambia

1991 – 1992
Founding Director and Principal Scientist, Cambia, Wageningen, The Netherlands

1989 - 1991
Molecular Biologist, Food and Agriculture Organization of the United Nations, Joint FAO/IAEA Division on Nuclear Techniques in Food and Agriculture, Vienna, Austria

1989
Consultant in Agricultural Biotechnology and Molecular Biology to the Food and Agriculture Organization of the United Nations (FAO), Zimbabwe and Kenya

1989
Visiting Professor, Biotechnology Section, Nuovo CRAI (Center for Agro-Industrial Research) del gruppo SME, Caserta, Italy

1988 – 1989
Group Leader (Adjunct), Department of Molecular Genetics, Institute of Plant Science Research, Cambridge Laboratory, UK

1985 – 1988
Research Associate, Department of Molecular Genetics, Plant Breeding Institute, NIH Fellowship, Cambridge, UK

1978 – 1985
Graduate Research Assistant, NIH (National Institutes of Health) Fellowship, Department of Molecular, Cellular and Developmental Biology, University of Colorado, Boulder, US

1980 – 1981
Graduate Teaching Assistant, University of Colorado, Boulder, US

1977 – 1978
Undergraduate Research Student, Department of Biology, University of California at Santa Barbara. President's Undergraduate Research Fellowship, CA, US

1976 – 1977
Undergraduate Research Student, Department of Molecular Biology, University of Edinburgh, Scotland, UK

1974 – 1976
Undergraduate Research Student, Department of Biology, University of California, Santa Barbara, CA, US

EDUCATION

1978 – 1985
University of Colorado at Boulder Ph.D. 1985, Molecular, Cellular and Developmental Biology

1976 – 1977
University of Edinburgh Molecular Biology

1974 – 1978
University of California at Santa Barbara, College of Creative Studies B.A. Biology (Molecular Genetics)

SELECTED PROFESSIONAL ACTIVITIES

1974 – 1978
Appointed by the United Nations Convention on Biological Diversity as Author-in-Chief for the landmark study on Genetic Use Restriction Technologies (GURTs or Terminator Technology).

June 1, 1987
Initiated and managed the world's first field release of a transgenic food crop.

SELECTED PUBLIC HONOURS AND AWARDS

2010
Inaugural CSPO Medalist, Consortium for Science, Policy & Outcomes, Washington D.C. & Arizona State University

2009 - present
Vice Chairman, Global Agenda Council on Intellectual Property, World Economic Forum

2006 - present
Member of the Council of Social Entrepreneurs, Schwab Foundation

2005
Leadership in Science, Public Service Award, American Society of Plant Biologists

2004
Finalist, Scientist of the Year, Wired Magazine's Rave Award

2003 -
Named as Outstanding Social Entrepreneur, Schwab Foundation

2003
Scientific American World's 50 Most Influential Technologists: World Research Leader for Economic Development

2003 - present
Invited Panelist and Participant, World Economic Forum, Annual Meeting, Davos, Switzerland

PUBLICATIONS

Jefferson RA. (2007) Science as Social Enterprise: The CAMBIA BiOS Initiative. *Innovations*: MIT Press, 1(4): 13-44.

Connett Porceddu MB, Bacon N, Ashton D, Baillie B, dos Remedios N, Wei Y, Jefferson RA. (2007) Constructive Approaches to Intellectual Property Complexity in Today's Agricultural Technology World. *Plant Molecular Breeding*, 5(2): 294-295.

Brand L, Horler M, Nuesch E, Vassalli S, Barrell P, Yang W, Jefferson RA, Grossniklaus U, Curtis MD. (2006) A versatile and reliable two-component system for tissue-specific gene induction in Arabidopsis. *Plant Physiol*, 141(4): 1194-204.

Broothaerts W, Mitchell H, Weir B, Kaines S, Smith LM, Yang W, Mayer JE, Roa-Rodriquez C, Jefferson RA. (2005) Gene transfer to plants by diverse species of bacteria. *Nature*, 433:629-633.

Liang WJ, Wilson KJ, Xie H, Knol J, Suzuki S, Rutherford NG, Henderson PJ, Jefferson RA. (2005) The gusBC genes of Escherichia coli encode a glucuronide transport system. *J Bacteriol*. 2005 Apr;187(7):2377-85.

Connett Porceddu M, Jefferson RA. (2004) Fostering Democratic Innovation as a Means of Reducing the 10/90 Gap in Health. Global Forum 8 on Health Research to meet the Millenium Development Goals, Mexico City.

Connett Porceddu M, Jefferson RA. (2004) Intellectual Property and Promoting R&D for the Public Interest in the Asian Region: Inclusionary and Distributive Innovation System Options. UNCTAD / ICTSD Regional Dialogue "Intellectual Property Rights (IPRs), Innovation and Sustainable Development", Hong Kong, SAR, People's Republic of China.

Jefferson RA. (2001) Transcending Transgenics - Are there "Babies in the Bathwater," or is that a Dorsal Fin? *The Future of Food: Biotechnology Markets and Policies in an International Setting.* Ed. P.G.Pardey. Washington, D.C.: John Hopkins Press, pp. 75-95.

Jefferson, R.A., D. Byth, C.M. Correa, G. Otero, and C. Qualset. 1999. "Genetic Use Restriction Technologies: Technical Assessment of the Set of New Technologies which Sterilize or Reduce the Agronomic Value of Second Generation Seed, as Exemplified by U.S. Patent No. 5,723,765, and WO 94/03619" (UNEP/CBD/SBSTTA/4/9/Rev.1).

Durailagaraja Sudhakar, Le Tan Duc, Bui Ba Bong, Porntip Tinjuangjun, Shahina Bano Maqbool, Marta Valdez, Richard Jefferson and Paul Christou. (1998) An Efficient Rice Transformation System Utilizing Mature Seed-derived Explants and a Portable, Inexpensive Particle Bombardment Device. *Transgen Res*. 7(4): 289-294

Kilian A, Bowtell DD, Abud HE, Hime GR, Venter DJ, Keese PK, Duncan EL, Reddel RR, Jefferson RA. (1997) Isolation of a candidate human telomerase catalytic subunit gene, which reveals complex splicing patterns in different cell types. *Hum Mol Genet*. Nov; 6(12): 2011-9.

Kilian A, Bowtell D, Abud H E, Hime G R, Venter D J, Keese P K, Duncan E L, Reddel R R, Jefferson RA. (1997) Isolation of a candidate human telomerase catalytic subunit gene which reveals complex splicing patterns in different cell types, *Hum Mol Genet*. 6(12): 2011-2019.

Jefferson RA, Bicknell R (1996) The potential impacts of apomixis: A molecular genetics approach. In: The Impact of Plant Molecular Genetics. B.W.S. Sobral (ed)., pp. 87-101, Birkhäuser, Boston.

Wilson KJ, Sessitsch A, Corbo JC, Giller KE, Akkermans AD, Jefferson RA. (1995) beta-Glucuronidase (GUS) transposons for ecological and genetic studies of rhizobia and other gram-negative bacteria. *Microbiology*. Jul;141 (Pt 7):1691-705.

Wilson K J, Peoples M B, Jefferson RA. (1995) New techniques for studying competition by Rhizobia and for assessing nitrogen fixation in the field. *Plant and Soil* 174: 241-253.

Wilson K J, Sessitsch A, Corbo J C, Giller K E, Akkermans A D L, Jefferson RA. (1995) β-Glucuronidase (GUS) transposons for ecological and genetic studies of rhizobia and other Gram-negative bacteria. *Microbiology* 141:1691-1705.

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Jefferson RA. (1993) "Beyond Model Systems: New Strategies, Methods and Mechanisms in Agricultural Research" in Proceedings of the UNIDO International Symposium on for Science Policy for Development: Biotechnology R & D, Ann. New York Acad Sci.

Jefferson RA. (1993) Agricultural Biotechnology, By Whom and For Whom. *Biotechnology and Development Monitor* 14:24.

Jefferson RA. (1992) The GUS Fusion System: Summary and Future Perspectives *in* "GUS Protocols: Using the GUS Gene as a Reporter of Gene Expression". ed. S. Gallagher. Academic Press, New York.

Wilson, K.J., Hughes, S.G. and Jefferson, R.A. (1992) The Escherichia Coli GUS Operon: Induction and Expression of the GUS Operon in *E. coli* and the Occurrence and use of GUS in Other Bacteria. *in* "GUS Protocols: Using the GUS Gene as a Reporter of Gene Expression". ed. S. Gallagher. Academic Press, New York.

Wilson, K.J., Giller, K.E. and Jefferson, R.A. (1991) ß-Glucuronidase (GUS) Operon Fusions as a Tool for Studying Plant-Microbe Interactions. *in* "Advances in Molecular Genetics of Plant-Microbe Interactions", vol. 1, ed. H. Hennecke and D.P.S. Verma, pp 226-229. Kluwer Academic Publishers. Dordrecht, The Netherlands.

Schmitz, U.K., Lonsdale, D.M. and Jefferson, R.A, (1990) Glucuronidase Gene Fusion System in the Yeast, *Saccharomyces cerevisiae*. *Curr Genet*. 17: 261-264.

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Harkins, K.R., Jefferson, R.A., Kavanagh, T.A, Bevan, M.W, and Galbraith, D.W. and (1990) Expression of Photosynthesis-related Gene Fusions is Restricted by Cell Type in Transgenic Plants and in Transfected Protoplasts. *Proc. Natl. Acad. Sci. USA*. 87:816-820.

Jefferson, R.A. and Wilson, K.J. (1990) ß-Glucuronidase as a Gene Fusion Marker in Agricultural Molecular Biology. in "Plant Molecular Biology Manual". ed. Gelvin, S., Schilperoort, R., and Verma, D.P. Kluwer Academic Publishers.

Iturriaga, G., Jefferson, R.A. and Bevan, M.W. (1989) Endoplasmic Reticulum Targeting and Glycosylation of Hybrid Proteins in Transgenic Tobacco. *The Plant Cell* 1:381-390.

Bevan, M., Shufflebottom, D., Edwards, K., Jefferson R. and Schuch, W. (1989) Tissue- and Cell-Specific Activity of a Phenylalanine Ammonia-Lyase Promoter in Transgenic Plants. *EMBO J*. 8:1899 - 1906.

Jefferson RA. (1989) New Approaches for Agricultural Molecular Biology: Single Cells to Field Analysis. *in* "Gene Manipulation in Plant Improvement II - Proceedings of the 19th Stadler Symposium" ed. P. Gustafson. pp 365-400.

Jefferson RA. (1989) The GUS Reporter Gene System. *Nature*, 342:837-838.

Jefferson RA. (1988) Plant Reporter Genes. *in* "Genetic Engineering, Principles and Methods". ed. J.K. Setlow, 10: 247-263.

Kavanagh, T.A., Jefferson, R.A. and Bevan, M.W. (1988) Targeting a Foreign Protein to Chloroplasts Using Fusions to the Transit Peptide of a Chlorophyll a/b Protein. *Mol. Gen. Genet.* 215: 38-45.

Scott, R., Draper, J., Jefferson, R.A., Dury, G. and Jacob, L. (1988) Analysis of Gene Organisation and Expression in Plants *in* "Plant Genetic Transformation and Gene Expression". ed. Draper, J. et al. pp 263 - 340. Blackwell (Oxford).

Jefferson, R.A., Klass, M., Wolf, N. and Hirsh, D. (1987) Expression of Chimeric Genes in *Caenorhabditis elegans*. *J. Mol. Biol.* 193: 41-46.

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Jefferson, R.A., Kavanagh, T.A. and Bevan, M.W. (1987) GUS fusions: ß-Glucuronidase as a Sensitive and Versatile Gene Fusion Marker in Higher Plants. *EMBO J.* 6: 3901-3907.

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Sleat, D.E., Gallie, D.R., Jefferson, R.A., Bevan, M.W., Turner, P. and Wilson T. M. A. (1987) Characterisation of the 5' Leader Sequence of Tobacco Mosaic Virus RNA as a General Enhancer of Translation *in Vitro*. *Gene* 217: 217-225.

Galbraith, D.W., Harkins, K.R. and Jefferson, R.A. (1987) Flow Cytometric Characterization of the Size Distributions and Chlorophyll Contents of Plant Protoplasts. *Cytometry* 9: 75-83.

Jefferson, R.A., Burgess, S.M. and Hirsh, D. (1986) ß-Glucuronidase from *E. coli* as a Gene Fusion Marker. *Proc. Natl. Acad. Sci. USA* 83: 8447-8451.

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Hirsh, D., Kemphues, K., Stinchcomb, D. and Jefferson, R.A. (1985) Genes Involved in Early Embryogenesis in *Caenorhabditis elegans*. Cold Spring Harbor Symposium on Quantitative Biology, 50: 69-77.

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PATENTS

Glucuronidase and Glucuronide Permease Gene System

The invention relates to the β-glucuronidase (GUS) gene fusion system, and to the cloning and characterisation of the β-glucuronidase and glucuronide permease genes of *Escherichia coli*. Because of the abundance and availability of useful substrates for β-glucuronidase enzyme, GUS gene fusions may serve as a superior reporter gene system as well as an effective means of altering cellular phenotype. In conjunction with recombinant glucuronide permease, which may be used to render host cells permeable to β-glucuronidase substrates, the GUS gene fusion system offers almost unlimited applications.

Issued Patents:
US 5,268,463 (United States), US 5,432,081 (United States),
US 5,599,670 (United States)

Chimeric Genes - Gene Fusion Comprising Glucuronidase

A gene fusion product comprising a gene coding for β-glucuronidase (GUS), e.g. the E.coli gusA gene under control of a plant or plant virus promoter. This gene fusion may be used to monitor transformation and introduction of a gene of interest.

Issued Patents: GB 2197653 (Great Britain)

A Gene Coding for Glucuronide Permease

The invention relates to the gene encoding the transport protein glucuronide permease. Expression of glucuronide permease in transformants allows cellular uptake of β glucuronides. This system can conveniently be used together with GUS gene fusions because it permits the detection of β-glucuronidase activity in vivo. In addition, glucuronide permease also can be used in a method to selectively alter the permeability of cells. Because of the variety of substances that can be conjugated to β-glucuronides, glucuronide permease provides cellular entrance for a multitude of compounds.

Issued Patents:
AU 620827 (Australia), DE 3853955 (Germany), DK 17322 (Denmark),
FR 0383808 (France), GB 2229184 (Great Britain), NL 03083808 (The Netherlands)

Glucuronide Repressors and Uses thereof

Clones containing a sequence encoding a glucuronide repressor are described. The nucleotide and amino acid sequences of a repressor (gusR) are presented. A glucuronide repressor may be used to control expression of a transgene, detect glucuronides in a sample, and isolate glucuronides from a sample, among other uses.

Issued Patents:
US 5,879,906 (United States), US 6,429,292 (United States), AU 730213 (Australia)
Pending Applications:
US 2003/0143709 (United States), CA 2257849 (Canada)

Microbial Genes for Secreted β-Glucuronidases, Gene Products and Uses thereof (GUSPlus™)

Genes from Bacillus and Escherichia coli that encode a secreted form of β glucuronidase are provided. These genes may be used as effectors in transformation of plant and animal cells.

Issued Patents:
US 7,141,719 (United States), US 6,391,547 (United States), AU 760275 (Australia),
NZ 503020 (New Zealand)

Pending Applications:
USAN 09/936,759 (United States), EP 00921396 (Europe)

Microbial Genes for Secreted β-Glucuronidases, Gene Products and Uses thereof (Neo Guses)

Genes that encode β glucuronidase from a number of bacterial species, including Thermatoga, Staphylococcus and Salmonella, are provided. These genes may be used as effectors in transformation of plant and animal cells.

Issued Patents:
US 7,176,006 (United States), US 6,641,996 (United States), AU 775238 (Australia)

Pending Applications:
USAN 09/936,759 (United States), EP 00921396 (Europe)

Preparation of Cellobiuronic Acid from Polysaccharide

A preferred embodiment of the method includes hydrolyzing gellan gum with a protic acid under reaction conditions that convert at least 95 wt% of the gellan gum to a hydrolysate comprised of cellobiuronic acid and monosaccharides and isolating a separated fraction of the hydrolysate where cellobiuronic acid comprises at least a 95 wt% of saccharides in the separated fraction. Cellobiuronic acid may be prepared by hydrolysis of gellan gum. The method may further include isolation of a separated fraction of the hydrolysate where the separated fraction comprises cellobiuronic acid.

Issued Patents:
US 6,268,493 (United States), AU 764652 (Australia)

Methods for Site-Associated Modification of Gene Activity and Nucleic Acid (Trans-activation)

This invention may be a useful "work-around" for many patent claims on promoters which requires that the promoter be operably linked to the gene of interest. Structures and methods for generating transgenic plants that have modified gene activity or modified nucleic acid structure are provided. The plants may be grown from seeds derived from a cross between two transgenic plants, or a plant transformed using two unlinked loci. One has a gene encoding a nucleic acid binding molecule under control of a minimal promoter and the other has a recognition sequence for the nucleic acid binding molecule. When the gene encoding the binding molecule is in the vicinity of an endogenous gene, the binding molecule is expressed and activates endogenous gene(s) located near the recognition sequence.

Published as WO 01/21781

Megagametophyte-specific Transcriptional Control Elements and Uses Thereof

Transcriptional control elements specific for megagametophytes are provided. More specifically, a nucleotide region that confers specificity of expression is described. This region, an enhancer, may be used to control expression of a toxin gene to generate female-sterile transgenic plants, or to promote expression of an embryogenesis gene to allow apomixis.

Published as WO 01/21785

Biological Gene Transfer System for Eukaryotic Cells (Transbacter™)

This invention relates generally to technologies for the transfer of nucleic acids molecules to eukaryotic cells. In particular non-pathogenic species of bacteria that interact with plant cells are used to transfer nucleic acid sequences. The bacteria for transforming plants usually contain binary vectors, such as a plasmid with a vir region of a Ti plasmid and a plasmid with a T region containing a DNA sequence of interest.

Pending Applications:
USAN 10/954,147 (United States), USAN 10/953,392 (United States)

SELECTED MEDIA

Primary Literature

- Jefferson RA. (2006) Science as Social Enterprise: The CAMBIA BiOS Initiative. Innovations: MIT Press 1(4): 13-44.
- Jefferson RA. (2005) Gene transfer to plants by diverse species of bacteria, Nature 433: 629-633.
- Jefferson RA, Kavanagh TA, Bevan MW. (1987) GUS fusions: ß-Glucuronidase as a Sensitive and Versatile Gene Fusion Marker in Higher Plants. EMBO J. 6: 3901-3907.
- Jefferson RA. (1987) Assaying Chimeric Genes in Plants: The GUS Gene Fusion System. Plant Molecular Biology Reporter 5: 387-405.

Featured Editorials

- The Plant Cell: Freedom to Innovate. A privilege or a right? May 2007
- Nature Biotechnology: Patently Transparent, May 2006
- Red Herring (Cover edition): BioRevolutionary, April 2006
- Nature Biotechnology: Open Sesame, June 2005
- Nature: Open-source biology, September 2004

Profiles of Richard Jefferson

- Red Herring (above): Open-Source Biotech, April 2006
- Nature Biotechnology: Open Source Biology, June 2005
- Newsweek: Juggling Two Worlds, November 2004
- The Economist: Grassroots Innovator, December 2001
- New Scientist: Seeds of dissent, October 2000

Press Coverage

- CIO: Collaboration key to biological energy production, October 2009
- The Economist: New initiatives to cure diseases of the poor world, July 2009
- Business Standard, India: A singular victory for open innovation, August 2009
- The Economist: A Patent Improvement, September 2007
- The Australian: Freely sharing innovation is the only way to face the future, August 2007
- Fortune Magazine: Tools For Better Living, December 2006
- Science Business: Out to break biotech's IP stranglehold, June 2006
- Businessworld India: Now, open source in BIOTECH, March 2006
- The Economist: Open, but not as usual, March 2006
- Nature: Navigating the future(s) of biotech intellectual property, March 2006
- Nature Biotechnology: The zinc finger nuclease monopoly, August 2005
- The Scientist: Open-Source Initiative Circumvents Biotech Patents, April 2005
- Nature Biotechnology: Adding diversity of plant transformation, March 2005
- New York Times: Open-Source Practices for Biotechnology, February 2005
- The Economist: The triumph of the commons, February 2005
- Nature: Gene Exchange by Design, February 2005
- Wired: Super Organics, Cover Story, June 2004

SELECTED VIDEO PRESENTATIONS & FEATURES

Featured Videos

- Interviewed by Newsclick, India, May 2010:
  http://newsclick.in/international/open-source-biology-field-science-all-us-interview-dr-richard-jefferson-eminent-molecu
- Featured by ABC, Catalyst, Australia, March 2009:
  http://www.abc.net.au/catalyst/stories/2526618.htm
  http://www.youtube.com/watch?v=lBIWWPTE7lg
- Interviewed by Swiss TV during the 2007 World Economic Forum meeting in Davos:
  http://www.cambia.org/daisy/cambia/3042.html

Video Presentations

- Speaks at the Acacia Learning Forum, Dakar, Senegal, October 2009:
  http://www.youtube.com/watch?v=1F5hnf44SPo
- Keynote presentation at ABIC, August 2008:
  http://video.google.com/videoplay?docid=1380668008978121434
- Speaks at Alfred Deakin Innovation Lecture, July 2007:
  http://www.cambia.org/daisy/cambia/3565.html
- Presentation at Google Tech Talks, January 2007:
  http://www.cambia.org/daisy/cambia/3046.html
- Plenary lecture at Cold Spring Harbor, September 1994:
  http://www.youtube.com/watch?v=pgL3rmZL9P0