



## Corners



### News from the American Society for Cellular and Computational Toxicology

This spring was a very busy time for the newly formed American Society for Cellular and Computational Toxicology (ASCCT). In February, the Society released its first quarterly newsletter to members. To increase visibility of the Society, its activities and plans, the newsletter is now available to the general public via the ASCCT website ([www.ascctox.org](http://www.ascctox.org)).

In March, the ASCCT sponsored its first conference booth at the Society of Toxicology (SOT) meeting in Washington, DC. SOT's record-breaking attendance brought numerous attendees to the ASCCT booth. They were interested and pleased to learn of the new society, and many entered into a drawing to win a free one-year membership. Five complementary memberships were given

out, and many entrants who did not win took advantage of the chance to join the Society at the half-off rate of \$ 25 until the end of March.

In addition, several companies became new Founding Sponsors of ASCCT this spring. Founding Sponsors pledge \$ 1,000 of support to the Society and can look forward to one lifetime membership and other promotional benefits. The Founding Sponsors of the ASCCT now include Avon, Bioreliance, Clorox, Colgate-Palmolive, S.C. Johnson & Son, the Institute for In Vitro Sciences, and the Physicians Committee for Responsible Medicine. For more information see the ASCCT web site.

ASCCT members now can subscribe to *ALTEX* and to *Toxicology in Vitro* at a discounted rate. Members who are on

the social networking service LinkedIn ([www.linkedin.com](http://www.linkedin.com)) can join the ASCCT discussion group to collaborate with other ASCCT members.

Finally, in early summer, ASCCT will offer members free webinars on hot topics in *in vitro* and *in silico* toxicology, including regulatory agency, member, and OECD activities and emerging research and tools. Later this summer, you can find the ASCCT at the 8<sup>th</sup> World Congress on Alternatives and Animal Use in the Life Sciences in Montreal. ASCCT will be present in the exhibition hall and in a special session with our European friends from the European Society for Toxicology In Vitro. Check the web for more information soon. We hope to see you there!



# CAATfeed

## CAAT seeks nominations for three awards

### *Charles River Laboratories' Excellence in Refinement Award*

Sponsored by Charles River Laboratories, in cooperation with CAAT, this award will honor an individual who has made an outstanding contribution to the development, promotion, and/or implementation of refinement alternatives. This award includes \$ 5,000 to further the recipient's scientific endeavors.

### *CAAT Recognition Award*

This award, presented at every World Congress, honors an individual or organization that has made an outstanding contribution to the field of the 3Rs, the development of alternative methods, or the field of *in vitro* science.

### *Henry Spira Award*

This award was established in 1999 to honor the memory of Henry Spira, a pioneer in the animal rights movement whose campaign for the use of alternative methods led to the founding of CAAT. The award was created to recognize animal activists in the animal welfare, protection, or rights movements who work to achieve progress through dialogue and collaboration.

### *Nomination Guidelines for all three awards*

Please provide a nomination letter, the individual's CV and limited other material that supports your nominee.

Deadline for submission is May 15, 2011.

These awards will be presented in Montreal at the 8<sup>th</sup> World Congress on Alternatives and Animal Use in the Life Sciences (<http://www.wc8.ccac.ca>).

## Upcoming CAAT events

- IVTIP / ESTIV / CAAT-Europe Spring 2011 Meeting: In Vitro Reconstructed Human Tissue Models as Alternatives to Animal testing: Applicability and limitations. April 26-28, Monte Carlo, Monaco <http://www.ivtip.org/images/IVTIP-ESTIV-CAAT%20Conference%20Monaco%20April%202011.pdf>
- CAAT-Europe Chemicals Information Day, May 7, 2011, Pavia, Italy
- CAAT organized DNT 1 & DNT 2. ECVAM will now host DNT 3, May 10-13 in Varese, Italy. Information and registration available at [http://ihcp.jrc.ec.europa.eu/events\\_workshops/dnt-3conference](http://ihcp.jrc.ec.europa.eu/events_workshops/dnt-3conference)
- CAAT-Europe workshop on dog use and its alternatives. June 21-23, Budapest, Hungary. By invitation only. Contact Mardas Daneshian ([caat-eu@uni-konstanz.de](mailto:caat-eu@uni-konstanz.de))
- Information Day: Food (co-organized with Orange House Partnership), Baltimore, November 15, 2011. Contact Marilyn Principe ([mprincip@jhsph.edu](mailto:mprincip@jhsph.edu))
- CAAT-Europe: Workshop on identification of toxicants relevant to DNT (2011)
- CAAT-US: Workshop on metabolomics for pathway identification (2012)
- CAAT-US: Pathway identification (in preparation)
- CAAT-Europe: Integrated Testing Strategies (ITS) for REACH (in preparation)

## Kick-off for Evidence-based Toxicology Collaboration (EBTC)

A group of toxicologists with backgrounds in industry, government oversight, academia and animal welfare created the EBT Collaboration to foster the development of a process, based on the Cochrane Collaboration in Evidence-based Medicine (EBM), for quality assurance of new toxicity tests for the assessment of safety in humans and the environment. To start the collaboration and solicit input from the stakeholder community, the EBT Collaboration steering group organized a kick-off meeting on March 10, 2011, immediately following Society of Toxicology Annual Meeting in Washington DC. The meeting attracted 130 people and many more have registered to be informed and become part of EBTC. The EBT Collaboration is anticipated to be a long-range activity and be pivotal in helping to influence the development and implementation of new toxicity tests. CAAT has safeguarded funding to run the secretariat for five years.

For a more detailed discussion of the EBTC, please see the news item by Dr. Joanne Zurlo, CAAT's Director of Science Strategy, in this issue. Contact: Joanne Zurlo ([JZurlo@jhsph.edu](mailto:JZurlo@jhsph.edu))

## CAAT at the 8<sup>th</sup> World Congress on Alternatives and Animal Use in the Life Sciences Montreal, Canada. August 21-25, 2011

- CAAT and the Human Toxicology Project Consortium are co-hosting a satellite meeting on implementation of the NAS Report: "21<sup>st</sup> Century Toxicology: Updates on Current Efforts" on Sunday, August 21, 9:00 AM. Room TBA.



- Please join us in celebrating CAAT's 30-year anniversary. Monday evening, August 22. Time and location TBA
- Altweb Project Team Meeting and 3Rs Organizations Meetings. Time and location TBA.

CAAT is planning once again to organize a meeting of representatives of the various 3Rs organizations world-wide, to be held at WC8 in Montreal. We will be sending out an initial invitation shortly. We also will hold a separate Altweb Project Team meeting, and will notify Project Team members of the date and time. If you have questions, suggestions, or wish to have your organization added to the 3Rs organizations list and website, please e-mail Carol Howard (choward@jhsph.edu).

#### **Recent publications by CAAT/ CAAT-Europe Faculty**

- Bal-Price, A. K. and Hogberg, H. (2011). Effect of pesticides on neuronal and glial cell differentiation and maturation in primary cultures. In M. Stoytcheva (ed.), *Pesticides – the impacts of pesticides exposure*, ISBN: 978-953-307-531-0, Publisher: InTech. <http://www.intechopen.com/articles/show/title/effect-of-pesticides-on-neuronal-and-glial-cell-differentiation-and-maturation-in-primary-cultures>.
- Bressler J., O'Driscoll C. et al. (in press). P19 embryonic carcinoma cell line: A model to study gene-environment interactions. In M. Aschner et al. (eds.), *CellCulture Techniques: 56 (Neuromethods)*, Heidelberg: Springer Science+Business Media.
- Dehus, O., Pfitzenmaier, M., Stuebs, G. et al. (2011). Growth temperature-dependent expression of structural variants of *Listeria monocytogenes* lipoteichoic acid. *Immunobiol.* 216, 24-31.
- Hartung, T. (2011). From alternative methods to a new toxicology. *Eur. J. Pharm. Biopharm.* 77, 338-349.
- Henn, A., Kirner, S. and Leist, M. (2011). TLR2 hypersensitivity of astrocytes as functional consequence of their previous inflammatory activation. *J. Immunol.* 186, 3237-3247.
- Hogberg, H., Sobanski, T., Novellino, A. et al. (2011). Application of microelectrode arrays (MEAs) as an emerging technology for developmental neurotoxicity: Evaluation of domoic acid-induced effects in primary cultures of rat cortical neurons. *Neurotoxicology* 32, 158-168.
- Rockel, C., Hartung T. and Hermann, C. (2011). Different *S. aureus* whole bacteria mutated in putative pro-inflammatory membrane components have similar cytokine-inducing activity. *Immunobiol.* 216, 316-321.
- Schildknecht, S., Pape, R., Müller, R. et al. (2011). Neuroprotection by minocycline caused by direct and specific scavenging of peroxynitrite. *J. Biol. Chem.* 286, 4991-5002.
- Stiegler, N., Krug, A., Matt, F. and Leist, M. (2011). Assessment of chemical-induced impairment of human neurite outgrowth by multiparametric live cell imaging in high-density cultures. *Toxicol. Sci.*, doi: 10.1093/toxsci/kfr034
- Zimmer, B., Kuegler P. B., Baudis, B. et al. (2011). Coordinated waves of gene expression during neuronal differentiation of embryonic stem cells as basis for novel approaches to developmental neurotoxicity testing. *Cell Death Differ.* 18, 385-395.
- Zimmer, B., Schildknecht, S., Kuegler, P. B. et al. (2011). Sensitivity of dopaminergic neuron differentiation from stem cells to chronic low-dose methylmercury exposure. *Toxicol. Sci.*, doi: 10.1093/toxsci/kfr054



## News from NICEATM and ICCVAM



We are pleased to provide this update on recent and planned activities of the National Toxicology Program (NTP) Interagency Center for the Evaluation of Alternative Toxicological Methods (NICEATM) and its Interagency Coordinating Committee on the Validation of Alternative Methods (ICCVAM). ICCVAM is an interagency committee composed of representatives from 15 U.S. Federal regulatory and research agencies that require, use, or generate toxicological and safety testing information. ICCVAM is charged by law with evaluating the usefulness and limitations of new, revised, and alternative safety testing methods with regulatory applicability and providing recommendations on their scientific validity to U.S. Federal agencies. The agencies must respond to ICCVAM within 180 days. ICCVAM promotes the scientific validation and regulatory acceptance of safety testing methods that more accurately assess the health hazards of chemicals and products while reducing, refining (decreasing or eliminating pain and distress), and replacing animal use.

NICEATM administers ICCVAM and provides scientific and operational support for ICCVAM-related activities. Consistent with the NTP mission, NICEATM also conducts and coordinates international validation studies on high priority improved safety testing methods and strategies. NICEATM and ICCVAM collaborate to evaluate new and improved test methods and strategies applicable to the needs of U.S. Federal agencies and to achieve national and international harmonization of safety testing methods.

### **NTP Director signs international agreement at Society of Toxicology Annual Meeting**

Dr. Linda Birnbaum, Director of NTP and the National Institute of Environmental Health Sciences (NIEHS), joined international counterparts last month in signing an agreement that expands cooperation to reduce the number of animals required for safety testing worldwide. The agreement brings a new country, the Republic of Korea, into an existing effort to promote international cooperation that should permit more rapid acceptance of new safety testing methods for chemicals and products. New testing methods can better protect public health and also reduce the number of animals needed for safety testing.

The agreement, a modification to the April 2009 International Cooperation on Alternative Test Methods (ICATM), was signed in a ceremony on March 8 during the 50<sup>th</sup> Annual Meeting of the Society of Toxicology (SOT) in Washington, DC, USA. Dr. Birnbaum signed as the U.S. representative on behalf of NICEATM, one of the national organizations participating in the agreement. Other attendees at the ceremony included Dr. Joachim Kreysa of the European Centre for the Validation of Alternative Methods (ECVAM), Dr. Yasuo Ohno of the Japanese National Institute of Health Sciences, Mr. Michael Inskip of Health Canada, and Dr. Seung Hee Kim of the Korean Food and Drug Administration.

The ICATM agreement will promote international cooperation on the scien-

tific validation of new test methods. Test methods that are shown to be sufficiently accurate and reproducible based on strong scientific information will be more readily accepted by regulatory agencies worldwide. This, in turn, will lead to broader acceptance and use of these methods, benefiting both public health and animal welfare.

More information on the ICATM agreement is available on the NICEATM-ICCVAM web site at: <http://iccvam.niehs.nih.gov/about/icatm.htm>

### **SOT informational session on the International Cooperation on Alternative Test Methods (ICATM)**

NICEATM Director Dr. William Stokes co-chaired an information session on ICATM at the SOT Annual Meeting. The goal of the session, attended by about 100 people, was to inform SOT members of the important role of ICATM in facilitating the rapid international adoption of newly validated alternative safety testing methods. In addition to chairing the session, Dr. Stokes gave an introductory presentation that described the purposes and goals of ICATM. His presentation also outlined the validation process for new test methods and noted the contribution of the ICATM collaboration to the adoption of several international guidelines for chemical safety testing in 2009 and 2010.

The information session also included updates on recent ICATM contributions



and future plans by each of the ICATM participating organizations. Dr. Kreysa and Mr. Inskip provided updates from ECVAM and Health Canada, while former ICCVAM Chair Dr. Marilyn Wind and Dr. Hajime Kojima of the Japanese Center provided updates on U.S. and Japanese activities for the Validation of Alternative Methods, respectively. Dr. Soon Young Han, director of the Korean Center for the Validation of Alternative Methods, gave a summary of recent activities in the Republic of Korea.

Presentations from the SOT session on ICATM and information on all NICEATM-ICCVAM activities at the 2011 SOT Annual Meeting can be found on the NICEATM-ICCVAM web site at: <http://iccvam.niehs.nih.gov/meetings/SOT11/sotablst.htm>

### **U.S. Federal agencies accept ICCVAM recommendations for new test methods to identify ocular toxicity hazards**

U.S. Federal regulatory and research member agencies of ICCVAM have endorsed ICCVAM recommendations on the usefulness and limitations of new alternative ocular safety testing methods. The recommended test methods serve to replace animal use for some eye safety testing and to provide for pain-free testing when it is necessary to use animals to confirm whether chemicals and products may cause eye injuries.

ICCVAM developed these recommendations following a comprehensive evaluation of the scientific validity of the proposed test methods and approaches, which included independent scientific peer review by a panel of international experts at a public meeting. Acceptance of these recommendations by regulators is expected to result in the use of fewer animals for eye safety testing as well as the elimination of discomfort for those animals that still are required for testing according to U.S. Federal regulations.

In response to requests from the U.S. Environmental Protection Agency, NICEATM and ICCVAM evaluated several *in vitro* test methods proposed for classifying ocular hazards without the use

of live animals. ICCVAM recommended one of these methods, the Cytosensor microphysiometer (CM) test method, as a screening test to identify some types of substances that will not cause sufficient injury to require eye hazard labeling. The CM test method is the first *in vitro* eye safety testing adopted for use in what is referred to as a “bottom-up approach” to testing. ICCVAM also recommended that the CM test method could be used to identify some types of substances that may cause permanent or severe eye injuries.

ICCVAM evaluated several other *in vitro* test methods and testing strategies but concluded that their ability to predict ocular hazard potential needs to be improved before they may be used for the specific regulatory safety testing applications under consideration. Accordingly, ICCVAM made recommendations on future studies that could potentially improve these test methods and testing strategies.

ICCVAM recommended that pain management procedures always be used when it is necessary to use animals for ocular safety testing. The procedures include the routine use of topical anesthetics similar to those used for human eye surgeries as well as systemic analgesics. The procedures also include specific clinical signs and lesions that, if observed during the animal study, can be used as humane endpoints to terminate the study early.

The ICCVAM recommendations form the basis for proposals being considered this year to update the existing OECD test guideline on ocular safety testing and a proposed new test guideline for the CM test method.

Protocols for the CM test method, the pain management procedure for *in vivo* testing, and other ICCVAM-recommended test methods are available on the test method protocols page of the NICEATM-ICCVAM web site at: <http://iccvam.niehs.nih.gov/methods/protocols.htm>. Additional information on the September 2010 ICCVAM recommendations on ocular safety testing methods and approaches can be found on the NICEATM-ICCVAM web site at: <http://iccvam.niehs.nih.gov/methods/ocutox/Transmit-2010.htm>

ICCVAM recommendations on ocular safety testing methods and approaches were presented at a January 2011 workshop on “Best Practices for Regulatory Safety Testing.” Materials from this workshop are available on the NICEATM-ICCVAM web site at <http://iccvam.niehs.nih.gov/meetings/Implement-2011/ImplmntnWksp.htm>. These include the workshop presentations, links to an archived webcast of the plenary session of the workshop, workshop agenda, abstracts of poster session presentations, and background information.

### **ICCVAM peer panel reviews *in vitro* test method for identification of potential endocrine disruptor activity**

In a public meeting on March 29-30, 2011 at the National Institutes of Health, an independent international peer review panel agreed with ICCVAM draft test method recommendations stating that an *in vitro* test method may be used as an initial screen to identify substances with the potential to enhance or inhibit activation of the estrogen receptor. More than 40 scientists representing industry, academia, and U.S. Federal regulatory agencies attended the peer panel meeting, which was open to the public.

NICEATM convened the peer review panel meeting as part of the ICCVAM test method evaluation process. The panel, which included expert scientists from seven countries, reviewed data from a NICEATM-sponsored validation study to assess the accuracy and reliability of an *in vitro* estrogen receptor (ER) transcriptional activation (TA) test method. This test method, the BG1Luc ER TA, was considered for qualitative identification of substances with *in vitro* ER agonist or antagonist activity. The BG1Luc ER TA test method uses human ovarian cancer cells to measure whether and to what extent a substance induces or inhibits TA activity via an ER-mediated pathway.

Endocrine disruptors are substances that interfere with the normal function of hormones in the endocrine system. These interferences can lead to abnormal growth, development, or reproduction. Studies in-





dicating that animal populations exposed to high levels of these substances have an increased incidence of reproductive and developmental abnormalities have raised concerns about the potential human health effects of these substances.

To comply with new Federal laws addressing the health effects of endocrine disruptors, the U.S. Environmental Protection Agency implemented an Endocrine Disruptor Screening Program to assess pesticides and environmental contaminants for their potential to affect the endocrine systems of humans and wildlife. The BG1Luc ER TA test method may be appropriate for use as an initial screen in the EDSP.

A report of the peer review panel meeting containing a detailed summary of the panel's discussions and conclusions will be published in May and will be available on the NICEATM-ICCVAM web site at: <http://iccvam.niehs.nih.gov/methods/endocrine/PeerPanel11.htm>

### **Save the date: International Workshop on New Approaches to Rabies Vaccine Potency Testing: State of the science and the way forward**

A recent international workshop organized by NICEATM, ICCVAM, and its international partners identified rabies vaccines as one of the three highest priorities for future research, development, and validation of alternative test methods that could further refine, reduce, and ultimately replace animal use for potency and safety testing. Based on recent scientific and technological advances, several alternative approaches have been proposed or are currently available. NICEATM and ICCVAM will convene an International Workshop on New Approaches to Ra-

bies Vaccine Potency Testing on October 11-13, 2011, at the US Department of Agriculture Center for Veterinary Biologics in Ames, Iowa. The workshop will bring together international scientific experts from government, industry, and academia to review the available methods and approaches and to define efforts necessary to achieve global acceptance and implementation. Registration information and a workshop program will be available on the NICEATM-ICCVAM website at: <http://iccvam.niehs.nih.gov/meetings/schedule.htm>

### **NICEATM-ICCVAM requests nominations and submissions of test methods with potential regulatory applications**

NICEATM and ICCVAM welcome nominations and submissions from the public for new or revised alternative safety testing methods with the potential to improve the accuracy of safety assessments and the potential to reduce, refine, or replace the use of animals. Test methods that incorporate advances in science and technology are especially encouraged.

- *Nominations* can be submitted for proposed test method validation studies, specific test method or validation issues, or requests for test method evaluations. Such nominations are typically addressed with international validation studies, workshops, conferences, or test method independent scientific peer review meetings.
- When validation studies that adequately characterize a test method's usefulness and limitations for a specific proposed regulatory requirement or application have been completed, a *submission* can be sent to ICCVAM for review and technical evaluation of the test method.

ICCVAM then develops a test method evaluation report and formal recommendations that are forwarded to U.S. Federal agencies for acceptance consideration.

Organizations or individuals that wish to propose nominations or submissions of promising test methods are encouraged to contact NICEATM for information and guidance on preparing proposals. Submission and nomination guidelines also are available on the NICEATM-ICCVAM website at <http://iccvam.niehs.nih.gov/SuppDocs/submission.htm>

#### *For More Information*

Questions about NICEATM and ICCVAM activities are welcomed and can be directed to Dr. William S. Stokes, Director, NICEATM, at [niceatm@niehs.nih.gov](mailto:niceatm@niehs.nih.gov); phone +1 919 541 2384; fax +1 919 541 0947. Copies of documents mentioned in this update also can be obtained by contacting NICEATM.

Information on the availability of NICEATM and ICCVAM draft documents, requests for nominations of experts to participate at workshops and on peer review panels, and specific information about NICEATM-ICCVAM meetings are communicated via the ICCVAM-all e-mail list and in notices posted in the U.S. *Federal Register*.

Subscribers to the ICCVAM-all e-mail list are notified directly of NICEATM-ICCVAM activities. Subscribers receive e-mail notification of NICEATM-ICCVAM Federal Register notices, availability of NICEATM-ICCVAM reports, notices of upcoming meetings, requests for public comments or data, and other events of interest to our stakeholders. If you would like to subscribe to the ICCVAM-all list, or for more information, please visit the NICEATM-ICCVAM website at [http://iccvam.niehs.nih.gov/contact/ni\\_list.htm](http://iccvam.niehs.nih.gov/contact/ni_list.htm)



## IIVS News

### Pew Health Group Stakeholder Workshop

Dr. Rodger Curren was an invited speaker at the stakeholder workshop titled *Enhancing FDA's Evaluation of Science to Ensure Chemicals Added to Food are Safe* (April 5-6, 2011 Washington, D.C.). Co-sponsored by the journal Nature, the Institute of Food Technologists (IFT) and The Pew Health Group, the workshop was designed to contribute to the US FDA's *Advancing Regulatory Science Initiative*, specifically the priority to better understand the risk of toxins in food by adapting science at FDA to meet the challenges of increasingly complex issues. The specific goals of the workshop were to:

- Promote a better understanding of the interaction between academic science and regulatory science;
- Identify areas of common interest and understanding within the chemical safety regulatory system among the many stakeholders;
- Review FDA's procedures to identify and initiate changes in its guidance for testing chemicals; and
- Publish a summary report of the key issues identified.

Experts from government, industry, academia, and public interest organizations participated in a facilitated discussion regarding the role of academic, hypothesis-based studies and protocol-based studies on regulatory decisions. Dr. Curren presented on the use of alternative test methods and their current role in regulatory decisions.

### ECVAM's Scientific Advisory Committee (ESAC)

Comprised of 15 experts, including Dr. Rodger Curren of IIVS, the ESAC is organized to provide ECVAM with independent scientific advice on the validity

of alternative test methods. The ESAC, chaired by Dr. David Basketter, met last October to discuss the review of an ECVAM-coordinated prevalidation study of three cell transformation assays (CTAs) for carcinogenicity.

These tests detect phenotypic changes in cells following exposure to test materials. These changes are detected by variations in clonal morphology (Syrian Hamster Embryo cells) or focus formation (Balb/c 3T3 cells). In order to conduct a detailed review of the ECVAM study, a working group of 5 experts was formed, including Dr. Curren and Dr. Erwin Roggen (chairperson) who represented ESAC.

The conclusions of the review were reported back to the full committee and will be incorporated into an ECVAM test method recommendation.

### Posters available from Society of Toxicology Annual Meeting

To view the IIVS posters presented at the SOT meeting, please visit the Resources section at: [www.iivs.org](http://www.iivs.org)

- Considerations for Demonstrating the Inter-Laboratory Reliability of Chorioallantoic Membrane Vascular Assay (CAMVA) and the Bovine Corneal Opacity and Permeability Assay (BCOP)
- Evaluation of an Oral Care Product Safety Screening Program Utilizing the In Vitro SkinEthic Human Gingival Epithelium (RHG) and Oral Buccal (RHO) Models
- Improvements and Limitations of the Bovine Corneal Opacity and Permeability Test (BCOP, OECD Test Guideline 437) in Routine Testing for Severe Ocular Irritants
- In Vitro Assessment of Skin Irritation Potential of Surfactant Based Formulations Using 3-D Skin Reconstructed Tissues and Cytokine Expression Analysis



Institute for In Vitro Sciences

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- Quantification of UVA-Induced Reactive Oxygen Species in Primary Human Keratinocytes Treated with Antioxidants
- The KeratinoSens Assay to Detect Skin Sensitizers Based on Nrf2-dependent Gene Activity: Exploring the inter-laboratory reproducibility and the applicability domain

### IIVS launches new website design

IIVS is pleased to announce the official launch of our new web site design. Visit us at [www.iivs.org](http://www.iivs.org) to take a look at the following changes and improvements:

- Step-by-Step general assay procedures with photos in the “Science” section;
- A breakdown of current training opportunities and highlights of both institute and non-institute sponsored workshops in the “Education” section;
- An explanation of key science-based advocacy programs and partners in the “Outreach” section.

If you were familiar with the previous site, you may have used our “Resources” section to find publications and copies of IIVS newsletters. The search feature is greatly improved in this new site (and powered by Google). Feel free to contact us if you have difficulty finding any materials.

In addition to the improved features, the new website offers several options for keeping in touch with IIVS and getting the latest updates from us. You can click the “RSS feeds” button to be notified whenever we update our news and events postings. You can also follow us on Twitter, connect with us on LinkedIn, and friend us on Facebook to receive updates and interact with us in the forum that works best for you.

Please visit our new website today and send us some feedback or ask any questions that you might have.