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The Newsletter of The National Association of
ScienceWriters

FEATURES

NEWS

COLUMNS

NASW AND ARAB SCIENCE JOURNALISTS FORM ALLIANCE

by Véronique Morin

One of the world's oldest science writers associations, the National Association of Science Writers (NASW), and one of the world's newest, the recently formed Arab Science Journalists Association (ASJA), have agreed to a partnership.

The agreement is part of a larger program coordinated by the World Federation of Science Journalists (WFSJ) that seeks to share the experience and expertise of journalists from the developed world with their counterparts in emerging nations.

"We have been trying to pull ourselves together as an association since 2003, and it's been very difficult," science writer and ASJA founder Nadia El-Awady admits candidly. "To have an association that is actually working closely with us, and to have people we trust, who we can turn to for advice, who have already been through what we're just starting, all this can cut a long, tortuous road short for us."

But, for long-time member and former president of NASW Deborah Blum, the learning curve goes both ways. "We hope to learn as well," says Blum, who now serves as liaison between NASW and WFSJ.

"I see this as a two-way learning experience," adds the Pulitzer Prize-winning journalist. "And, I would love to have our members learn more about science writing in the Arab world."

The new American-Arab partnership represents a major shift in the way the NASW has envisioned its role in the world.

"There was a time when it was difficult to get the interest of the American association in anything outside America," recalls James Cornell, president of the International Science Writers' Association and a founding member of WFSJ.

Now, according to Blum, "[NASW] increasingly believes that for science journalism to thrive, it must do so as part of a global community."

The rationale behind this new way of thinking is the realization that advances of science and technology, or the lack of them, affect the lives of everyone on the planet, and science journalists do play a vital role in understanding the impact of these scientific changes.

"One of the ways, we, as science journalists, can improve what we do is to share what we've learned and, in the case of 'twinning,' that works both

Journalist Véronique Morin was elected the first president of the World Federation of Science Journalists (WFSJ) at its founding meeting, in Brazil, in 2002. She is also past president of the Canadian Science Writers' Association (2001-2005).

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Spring . . . . . **March 1, 2008**

ways," notes Blum.

"Both organizations can learn from each other about reporting science out of different cultural contexts. We also hope to learn from them about new ways to energize an association, new attitudes toward science," she adds.

…for science journalism to thrive, it must do so as part of a global community.

On the Arab side, the twinning with an American association did not come easily. El-Awady, who is also the first president of ASJA, had to reassure her board and build arguments in the name of trust. The credibility of veteran American reporter Blum, as well as the involvement of WFSJ, weighed heavily in the decision.

"Because Deborah and I know each other personally, and because I was able to reassure the group, which in turn trusts me, my colleagues and I were able to convince the board that this was a good choice," explains El-Awady

The positive experience with WFSJ's "peer-to-peer mentoring," a program that pairs individual reporters from different cultures and countries, also influenced the board in favor of the new partnership. One of the board members of ASJA is a mentor in the program. "We were also fortunate to have a mentee attending this particular board meeting, although she isn't a board member," says El-Awady. "She spoke about her experiences, and explained that she had been in the U.S. for training a couple of years back and how much she had learned from this trip."

El-Awady, who is also deputy editor-in-chief of IslamOnline believes there is a strong symbolic meaning in the new American-Arab partnership. "I think that it is extremely important to create trust at many levels," she says. "The situation in the Middle East now is tense, and, in the opinion of many Arabs, due in large measure to American military intervention.

"However, when Americans and Arabs work together at the grass-roots level, when they find common areas of interest, when they can create mutual trust, and this might eventually have an impact on U.S.-Arab relations in the future," says El-Awady. "I think the twinning of two journalists' associations can have a far greater impact than on just the individuals involved. In the future, it could impact the readers of those journalists as well."

This reflection is echoed by Blum: "We're delighted to be involved with an Arab-American project. We hope to show that we are capable of building better international relations."

The two associations, both members of the WFSJ, are the first to officially announce that they will work together for the improvement of science journalism worldwide, within a framework provided by the federation. An unusual WFSJ program called Twinning of Associations is designed to encourage partnerships between well-established science writers associations and new—even fledgling—ones in the developing world.

"We want to promote networking, and the creation of new associations in parts of the world where science journalism is not as well supported," says Jean-Marc Fleury, executive director of the federation. More associations are expected to be twinned in this way as part of the next World Conference of Science Journalists scheduled for Melbourne, Australia, in April.

As for the Arab-American twinning, "We hope to work out of the details—and begin a long and mutually beneficial relationship—in Melbourne," adds Blum, who will participate in the conference. ■

*"American and Arab Associations Conclude 'Twinning Agreement,'" WFSJ Web page (**www.wfsj.com**), Jan. 26, 2007.*

GENERALIZATIONS VANISH WHEN ARAB AND WESTERN WOMEN SCIENTISTS MEET

by Monica Bradford

We all know that at conferences, the real exchange of ideas happens during the breaks and meals. Through informal communications, we discover common bonds and passions on which we build future collaboration. The International Conference of Women Leaders in Science, Technology, and Engineering, in Kuwait, this month, which brought together Arab scientists and engineers from the Middle East and North Africa (MENA) with U.S. women holding similar positions, was an effort to spark such connections. Against the backdrop of the present political climate, charged with concerns about terrorism, nuclear proliferation, and economic vulnerability, I was thrilled to see business cards being swapped at an astonishing rate. The richness and sincerity of these interactions provided tangible evidence of the catalytic effect that women could have on the region.

The conference was organized by the Kuwait Foundation for the Advancement of Science, the Kuwait Institute for Scientific Research, the Arab Fund for Economics and Social Development, the American Association for the Advancement of Science, and the

Monica Bradford is the executive editor of Science.

U.S. Department of State, under the auspices of the prime minister of Kuwait. A central purpose of the meeting was to foster leadership skills by creating networks among female scientists in the region and between those scientists and U.S. women. As Yasmin A. Almubarak Altwaijri, an epidemiologist from Saudi Arabia, wrote, "Our mere presence together there, created a dialogue that will lay down the foundations for future collaborations."

…all remained focused on making a contribution through their work even when societal norms presented obstacles.

Clearly, a vibrant community of women scientists is emerging in the region. At the conference, many Arab women met regional counterparts for the first time. As personal stories were shared, generalizations quickly vanished. Some of the attendees were internationally known, whereas others had traveled outside their home country for the first time; some were avant-garde, others traditional; many had children before pursuing their degrees; some had returned home hoping to make a difference after years abroad, while others had found opportunities in their own countries. Yet all remained focused on making a contribution through their work even when societal norms presented obstacles. Confident and articulate, these women understand that socioeconomic development of the region depends on global capacity-building and strategic investment in science and technology.

Before the meeting, my own image of Arab women was of an oppressed and marginalized group. Yet statistics presented during the meeting by Samira Islam painted a more nuanced picture. Drawing from a 2005 United Nations Educational, Scientific, and Cultural Organization report, she noted that 74 percent of science graduates in Bahrain are women, as compared to 43 percent in the United States. Unfortunately, this positive indicator is offset by the World Bank Group GenderStats data for 2004, which point out that women make up only 19 percent of the total labor force in Bahrain, while they account for 46 percent in the United States. The World Bank sector brief *Gender in MENA* focuses on this paradox and notes that "unlike in other regions of the world, significant progress in reducing gender gaps in education and in lowering fertility rates has not carried through into MENA's labor market." These observations were borne out by some of the attendees for whom a science education is a reality, but full participation in the work force is still elusive. As the 2006 InterAcademy Council report *Women for Science* stated, "global capacity building … is impossible without full engagement of women at the grassroots." Hopefully, this conference will signal to the region that the time for full engagement is now.

In stepping out of my own comfort zone to attend the conference, I carried some unease. I was not eager to fly over Baghdad and felt a limited knowledge about the Arab world. My daily world as an editor provides intellectual stimulation and, I thought, a sufficient level of engagement. But the eyes of a Yemeni woman—all that I could see of her—showed me that there is more to encounter, and her gaze spoke volumes: a shared thirst for knowledge, professional achievement, and the chance to make a difference. On the meeting's last day, she spoke of her gratitude for the conference and of how it had liberated her. Her eyes, her presence, had equally liberated me and, no doubt, others. ■

"Catalytic Connections" (editorial), Science*, Jan. 26, 2007. Reprinted with permission from AAAS.*

HOW A MEDICAL STORY MAKES ITS WAY TO THE FRONT PAGE

by Timothy J. McNulty

When does a story on medical research deserve to be on the front page? Looking at [*Chicago Tribune*] editors' decisions in the last year, that call is neither science nor art but the result of strong and sometimes impassioned debate.

Reports of new research flood in each month. But not all of those reports are equal—there is serious science from the major medical journals and then there is pseudo-science and surveys that are fascinating but do not bear much scrutiny.

Tales of supposed medical advances by special-interest and advocacy groups are usually dismissed from front-page consideration. So are bubble-gum stories about sexual potency, fad diets, and the other stuff of supermarket tabloids.

There also are medical stories that go beyond basic science and have social, moral, and political dimensions. Stem-cell research is one example, cloning another. Those added dimensions create lively debate on whether the story goes on the front page.

But the most difficult decision is when a study, even one well reported and clearly written, may sow

Timothy J. McNulty is the Chicago Tribune*'s public editor. He listens to readers' concerns about the paper's coverage and writes periodically about journalism issues. His e-mail address is tmcnulty@tribune.com. The views expressed are his own.*

confusion or suggest to readers that they change their behavior. Editors want to avoid *The Onion*'s classic satirical headline: "Eggs good for you this week."

On Jan. 26, for instance, *Tribune* editors considered a story from the online version of the *British Medical Journal* that suggested pregnant women could safely consume moderate amounts of caffeine.

…the most difficult decision is when a study...may sow confusion or suggest to readers that they change their behavior.

Some editors argued to put it on the front page. The study had sure readership value, especially among women who had given up coffee during pregnancy because they worried about premature delivery and low birth weight.

Another editor countered that coffee is a popular research topic and reports are often contradictory. The science behind the study under consideration was excellent, but the real test would come only when other scientists replicated the results. The editor opposed giving the report an implicit stamp of approval by putting it on the front page.

In the end, editors split the difference, making a teasing reference to the story on the front but placing it on Page 9.

Similarly, editors rejected a story for the front of the Feb. 9 paper that reported on a new federal survey showing a higher rate of autism among American children.

While autism is a subject of concern for many parents, the report noted that the new numbers did not mean autism was on the rise, but only that the survey used different criteria than in the past. Nor did it shed any light on possible causes for the mysterious disease.

After much discussion, editors put the story on Page 3, the lead national affairs page. The report gave readers new information, but it didn't merit the front page, they decided.

Stories on new heart drugs, hormone replacement therapy, and how often women should get mammograms are assessed not only for the science behind them but for their importance in relation to other studies on the same topics.

A Dec. 15 front-page story headlined "Breast cancer cases plunge, study finds" with the subhead "Drop in use of hormone therapy a likely reason" was an interesting story about statistics compiled by the National Cancer Institute. But was it significant?

Again, there were competing views about whether it actually told readers anything useful. For the second year, the number of new breast cancer cases declined, but some argued that did not constitute a trend and even the raw numbers did not signal that the tide had turned.

Other editors insisted that a drop in cases for the second year, for whatever reasons, was news enough because it showed there was movement in the dismal fight against these diseases. Their arguments prevailed. The article became the lead story that day.

Because many medical journals release their reports in advance with an embargo date several days away, the newspaper's reporters get the opportunity to seek out independent opinions from other scientists about the value of the research studies.

Beyond not wanting to hold out false hope or expectations, the editors I talked with expressed concern about upholding the paper's credibility and the reputation of its science reporting. The burgeoning number of stories about medical research has made some editors skeptical, including one who rejects any story involving mice and rats, unless he can be convinced of its value.

Some medical articles just have it all, however. They are based on serious scientific research, they affect every single reader, and provide legitimate hope. As a bonus, they are even local. On Oct. 24, one of the *Tribune*'s senior science writers, Ron Kotulak, reported on a six-year study of 4,000 Chicagoans by researchers at Rush University Medical Center that suggested eating two or more vegetables a day may help slow mental decline in the elderly.

It was a slam-dunk for the front page. ■

"How a medical story makes its way to the front page," Chicago Tribune*, Feb. 16, 2007.*

TRUST ERODED WHEN HEALTH/MEDICINE COVERAGE INFLUENCED BY PHARMA

by Peter Aldhous

In mid-October, an e-mail landed in my inbox that set me thinking. It was an invitation to a meeting organized by the U.K. Medical Journalists' Association (MJA), described as "an evening workshop with arthritis experts." Paid for by an "educational grant" from Merck Sharp & Dohme, the U.K. arm of the drugs giant Merck, it included a presentation by the company about its clinical research, with comments from other experts.

Ordinarily I might have deleted the mail, but at the time I was helping to complete a report into whether drug firms are exerting undue influence on patient groups

Peter Aldhous is San Francisco bureau chief of New Scientist.

(*New Scientist*, 28 October 2006). An important part of that story was the industry's use of educational grants, so I decided to take a closer look at the MJA meeting.

Merck's aim was to introduce journalists to the MEDAL trial, which has investigated the safety of a painkiller called etoricoxib. The drug belongs to a class called Cox-2 inhibitors, which have proved controversial. Merck faces thousands of lawsuits from patients who believe they suffered heart attacks after taking its Cox-2 inhibitor rofecoxib—better known as Vioxx—which was withdrawn in 2004.

Many freelance writers flit between journalism and writing publicity material for pharmaceutical companies.

Merck is trying to convince the U.S. Food and Drug Administration (FDA) that etoricoxib is a safer alternative. MEDAL was designed to compare the safety profile of etoricoxib with that of diclofenac, which belongs to a broad class of painkillers known as NSAIDs.

Some have complained that this is not an appropriate comparison, because diclofenac itself raises the risk of adverse cardiovascular events compared with other NSAIDs. David Graham, the FDA epidemiologist who blew the whistle on Vioxx, has been scathing about MEDAL. Yet at the MJA event, none of the speakers alluded to the trial's controversy—not even the individual put forward by the association in the name of balance.

Does this matter? As an isolated incident, perhaps not too much. Unfortunately, it is just the tip of the iceberg when it comes to the influence the industry has on medical reporting. For one thing, the sheer volume of publicity material emanating from drug firms leads to a preponderance of reports on the benefits of new drugs at the expense of articles about other interventions. Furthermore, several studies have raised concern about what writers put in and what they leave out.

For example, last April Steven Woloshin and Lisa Schwartz of Dartmouth Medical School, in New Hampshire, analyzed media coverage of restless legs syndrome—currently the focus of a marketing campaign by GlaxoSmithKline, which makes a drug for the condition. They found that stories typically exaggerated the prevalence of the disease and the need for treatment, while failing to consider problems of over-diagnosis.

What's more, financial conflicts are rife. Many freelance writers flit between journalism and writing publicity material for pharmaceutical companies. Media organizations—including *New Scientist*—rely heavily on income from advertisers, which include drug firms. Responsible media outlets have "firewalls" to prevent advertisers exerting influence over editorial content, but it can be a tough line to hold. As medical news migrates online, it may become tougher still. On the Web, individual news items can be tagged so that they appear alongside ads that relate to the topic. Under these circumstances, we can expect companies to try harder to ensure their ads do not appear next to "negative" content.

Perhaps the biggest concern is a trend for medical news to appear in dedicated slots sponsored by drug firms. The TV network CNN led the way in the 1980s, financing a large team of medical reporters and producers through an association with Bristol-Myers. Firewalls were supposed to prevent the company exerting influence, but some who worked in the network's medical unit say that stories dealing with adverse effects of drugs were either not pursued or had to struggle for slots outside the sponsored segment. Despite such concerns, medical sponsorship is alive and well at CNN today and the sponsorship model has spread across other media organizations.

Thankfully, some media outlets recognize that medical news tends to be more reliable if not brought to you by a major drug company. The MJA's U.S. counterpart, the Association of Health Care Journalists, struck a blow for independence three years ago when it decided not to accept any industry funding. The AHCJ's Web site also includes a "statement of principles" reminding medical journalists of their professional responsibilities—which include avoiding conflicts of interest.

Those conflicts are not going to disappear. Other medical journalists' groups should set an example by following the AHCJ's progressive approach. Pressure from consumers could also make a difference. If enough viewers complained that CNN's approach to medicine belies its boast of being "the most trusted name in news," executives might just rethink their attitude to sponsorship. ■

"Prescribed Opinions," New Scientist *(www.newscientist.com), Jan. 6, 2007.*

NATURE ABANDONS ONLINE PEER REVIEW EXPERIMENT

Citing a lack of participation, the British journal *Nature* is ditching a closely watched online experiment that allowed scientists to comment on their peers' research before publication.

The four-month trial, which began in June 2006, was aimed at democratizing the peer-review process, a time-honored tradition in which a group of select scholars critique scientific manuscripts and decide what appears in print.

In the *Nature* experiment, authors whose manu-

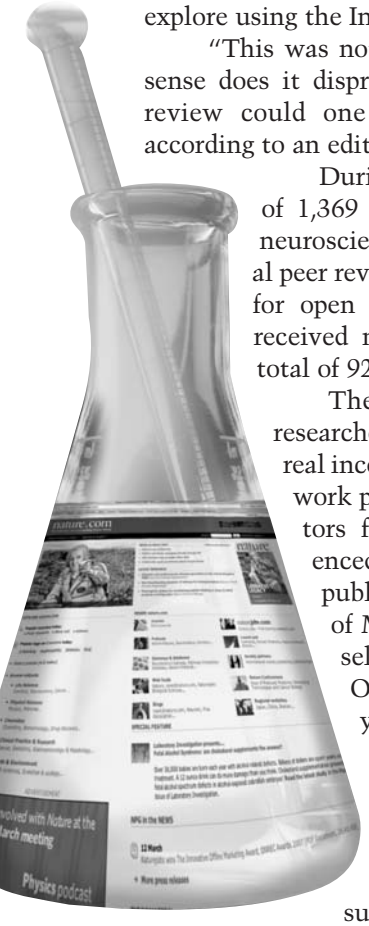
scripts were selected for traditional peer review could also opt to have them simultaneously posted on the Internet for feedback by rank-and-file scientists. Journal editors then weighed both sides when deciding whether a paper gets published.

The experiment generated high online traffic, about 5,600 page views a week, according to *Nature*. But it was ultimately canceled because few authors participated and many of the online comments were nothing more than "nice work."

The journal concluded that many researchers were either too busy or had no real incentive in evaluating their colleagues' work publicly.

Journal editors said they would continue to explore using the Internet for scientific discussion.

"This was not a controlled experiment, so in no sense does it disprove the hypothesis that open peer review could one day become accepted practice," according to an editorial published Dec. 21, 2006.



During *Nature*'s trial, only five percent of 1,369 papers ranging from astronomy to neuroscience that were selected for traditional peer review were also posted on the Internet for open commentary. Of those, 33 papers received no comments. The rest received a total of 92 technical comments.

The journal concluded that many researchers were either too busy or had no real incentive in evaluating their colleagues' work publicly. In addition, none of the editors found the posted comments influenced their decision whether a paper gets published. *Nature*, published by an arm of Macmillan Publishers Ltd., is highly selective of the research it publishes. Of the 10,000 papers it receives every year, the journal rejects about 60 percent outright. Only about seven percent of submissions are published.

Supporters of open peer review fretted the end of *Nature*'s experiment, but said they weren't surprised because authors are typically reluctant to share their results before publication for fear of being scooped by their rivals.

"It's a shame. I would have been very pleased if *Nature* had great success and adopted this form of peer review," said Chris Surridge, managing editor of the open peer-reviewed journal *PLoS ONE*. ■

(Source: AP wire story)

SLOAN AWARD FOR SCIENCE AT SUNDANCE FILM FESTIVAL

by JoAnn M. Valenti

The dark side of science won the fifth annual Alfred P. Sloan Foundation $20,000 cash award at the 25th annual Sundance Film Festival, held in the mountains of Utah. "Dark Matter" exposes the competitive world of university-based science research, in this case, an astronomy lab largely staffed by Chinese graduate students. The dramatic film, selected from among 123 feature films representing 25 countries, was directed by Chen Shi-Zheng and written by Billy Shebar. The film stars Liu Ye, an impressive newcomer from China, Aidan Quinn, and Academy Award-winning actress Meryl Streep.

The film's storyline, inspired by real events, reveals scientific passions, career politics, and a disturbing insensitivity to cultural differences. The Sloan Award is presented to the independent film deemed the highest quality thematic portrayal of science and technology. True stories from independent filmmakers don't just recount events, festival senior programmer Trevor Groth said. They get to the core in an insightful way. Putting a face on problems to inspire action and change attitudes seemed this year's festival mantra.

Sloan Award Director Doren Weber, who hailed "Dark Matter" for revealing that science is not all about heroes, noted that some [scientists] "go off the rails," and praised the role of films as "a delivery system for ideas." Festival founder, actor/director Robert Redford said at the opening press conference he was "taken with how entertaining a sharp-edged truth can be."

The Sloan Award is designed to increase the visi-

JoAnn Valenti, an emerita professor and AAAS Fellow, has attended Sundance since 1992.

bility of outstanding independent films on science and technology and to showcase the work of emerging filmmakers tackling compelling topics within these fields. Documentaries are not considered for the award.

This year's jurors for the Sloan science award were: Darren Aronofsky, an award-winning writer/director whose films include "Supermarket Sweep" (his senior thesis film), "Pi," "Requiem for a Dream," and "The Fountain"; Ann Druyan, co-author of the "Cosmos" television series, co-creator of CONTACT, and creative director of NASA's Voyager interstellar message system; Brian Greene, Columbia University professor of physics/mathematics and author of *The Elegant Universe* and *The Fabric of the Cosmos*; Howard Suber from UCLA's school of theater, film, and television and author of *The Power of Film*; and John Underkoffler, science consultant from "Minority Report," "The Hulk," and other productions.

More information about the festival and films can be found at **www.sundance.org** or in the summer issues of *Science Communication* and *SEJournal* (key word "Sundance"). ■

NAS PRESIDENT WORRIED SCIENTISTS AREN'T COMMUNICATING WELL

by Ralph J. Cicerone

At the National Academies Keck *Futures Initiative* interdisciplinary conference on "smart prosthetics" held recently at the Beckman Center, Bill Wulf, Harvey Fineberg, and I had the pleasure of awarding the Academies' communication awards. These annual prizes recognize and encourage excellence in communicating science, engineering, and medicine to the general public. Now in their fourth year, and with three prizes of $20,000 each, they have become much sought after awards for science writers, producers, and their editors, publishers, and broadcast executives.

I'd like to reflect on something that struck me as we presented the awards. In each case, the winners focused on subjects of serious importance to society in which science, engineering, and medicine play a critical role. One winner traced human evolution back to its beginnings, explaining how the scientific evidence supports Darwinian theory. Another worked alongside archaeologists to assemble and write about scientific evidence about our earliest human ancestors in the Americas, painting a pre-1492 picture of the continent that is very different from the one we learned in grade school. The third winner and several finalists reported on global climate change and its potential impacts.

But even as we celebrate these excellent communicators, we are also seeing troubling signs that communicating science, engineering, and medicine to the general public is getting harder. With recent downsizings at newspapers, magazines, and broadcast outlets, there are now fewer full-time science writers and less space or time for serious, in-depth reporting. The Internet does offer new, nontraditional outlets, but it is still unclear whether it can successfully replace newspapers in making science news accessible to a broad general audience.

This means that scientists themselves must do a better job of communicating directly to the public. To do that at the Academies, we have started work on finding new ways of stimulating public interest in science. Specifically we are looking at new avenues to provide evidence-based information on select science-based topics to help educate the informed public, key opinion leaders, and other influential actors in appropriate fields. Our goal will be to communicate the valuable role science plays in the world and to reinforce and enhance positive attitudes toward science and the scientific process. This initiative won't be easy; some of the challenges we'll face have their roots in long-standing problems in U.S. science education. But we are making a start, and I welcome your ideas, suggestions, and especially your help. ■

Ralph J. Cicerone is president of the National Academy of Sciences.

"Celebrating and Rethinking Science Communication," The National Academies In Focus*, Fall 2006.*

Recipients of the NAS 2006 Communication Awards

Book
Charles Mann, author of *1491: New Revelations of the Americas Before Columbus* (Alfred A. Knopf), for his engaging and thought-provoking rediscovery of the early human history of our continent.

Newspaper/Magazine/Internet
Elizabeth Kolbert, staff writer, *The New Yorker*, for her authoritative treatment of the science and politics of global climate change in the three-part series "The Climate of Man."

TV/Radio
Nic Young, director, **Anna Thomson**, producer, and **Bill Locke**, executive producer, for The History Channel and Lion Television's "Ape to Man," an accurate and entertaining overview of human evolution made accessible to broad audiences.

DOCUMENTARY TAKES HUMOROUS LOOK AT EVOLUTION-ID DEBATE

by Jillian J. Goodman

Whatever happened to the cool kid who sat in the back of high school honors chem and snickered because he was smarter than the teacher?

He got his Ph.D. from Harvard, abandoned academia for the film industry, and is now poised to appear in a movie theater near you.

Introducing Randy Olson, a 1984 graduate of the Graduate School of Arts and Sciences, who stopped by the Museum of Fine Arts last Saturday to screen his first full-length documentary feature, "Flock of Dodos," as part of a nation-wide, week-long screening tour in honor of Darwin Day. Olson is the kind of guy who banters about embryology over a hand of poker, and includes his mother, Muffy Moose, in a documentary about evolution versus intelligent design.

Olson's documentary is a hybrid of these two ways of life: armed with the science of evolution, he has created "Flock of Dodos" with a good-natured sense of absurdity that makes sure that the scientists get mocked just as much as the intelligent designers.

Olson described his challenge as finding "a charismatic voice for the world of science." His film casts the conflict between evolution and intelligent design as one of politics rather than science, in which the key weapon, as in any political contest, is likeability.

According to Olson, the intelligent designers are gaining ground not because their arguments are more compelling, but because they have catch phrases to back them up. The scientific community, on the other hand, struggles to be comprehensible putting themselves at risk of following the dodo into extinction.

The most obvious comparison for Olson's work is to that of another laid-back Midwestern documentarian, Michael Moore. Olson says he welcomes the overlap—to a certain extent.

"I have admiration for [Moore], but there's no persuasion," Olson said. "I don't want to beat people over the head."

He talks to intelligent design advocates in his home state of Kansas over pints of beer at the university bar, or over brownies and lemonade at the home of one of the Kansas school board members pushing to include intelligent design in the state's education standards. He is polite but firm, letting them have their say without hesitating to call them out when it's ridiculous, and always presenting their words in context.

PHOTO BY KATARZYNA BALUG

A Ph.D. in biology (Harvard) and an M.F.A. in cinema (USC) equipped Randy Olson to tackle the evolution-intelligent design debate as a documentary filmmaker.

With the evolutionists Olson is a little tougher, and a recurring humor device in the movie is his interrupting their segments to define particularly academic terminology. The only appreciable difference in his treatment of the two sides is that he doesn't doubt the science behind the evolutionists.

Olson spent his entire life studying biology—marine biology, evolutionary biology, and embryology—before scrapping it all in 1994 to attend film school at the University of Southern California. Both parts of his biography seem to play an important part in the way he chooses to tell stories: as a scientist, he deduces conclusions from data collected in the field; as a film school graduate, he pieces separate bits of film together into a coherent whole.

Olson was also frustrated by what he found to be the dry, dull,

Jillian J. Goodman is a staff writer for The Harvard Crimson.

Coming to cable and DVD

"Flock of Dodos: the Evolutionary-Intelligent Design Circus" had its world premiere at the Tribeca Film Festival, in New York, in April 2006, and since then has played at film festivals all over the U.S. and abroad. The documentary was shown in museums and universities as part of a "Dodos Darwin Day" event (celebrating Charles Darwin's birthday) on or around February 12, 2007. Flock of Dodos" will be released to television and DVD shortly thereafter in the spring of 2007. The film's Web site is **www.flockofdodos.com**.

and downright boring science documentaries he saw that were giving his profession a false reputation. "Flock of Dodos" is the antithesis of all of these stultifying films, keeping the masses entertained with clever animations, rousing bluegrass background music, and occasional periodic commentary from the sparkling Muffy Moose, who may very well be the liveliest 83-year-old on the planet.

Though the film has yet to be released widely, there have been dozens of screenings of the film all across the country, including many in Kansas just before the state school board's Feb. 13 decision to strike intelligent design from its state education standards, which led some pundits to throw part of the credit to "Flock of Dodos." Showtime network also plans to air the documentary in May, suggesting that the scientific community may have found its voice at last.

…the intelligent designers are gaining ground not because their arguments are more compelling, but because they have catch phrases to back them up.

No matter the flaws of the intelligent design argument, human beings like simple answers, and the established scientific community has yet to oblige. Olson and his film aspire to act as liaisons between the "pointy-headed intellectuals" Olson grew up with the distinctly round-headed public.

"It's not a very cerebral movie," Olson said of "Flock of Dodos." "It kind of comes from the heart, from the gut." ■

"A Dodo Celebration for Darwin Day," The Harvard Crimson *(online), Feb. 22, 2007.*

SIGMA XI HONORS K.C. COLE AND ROSALIND REID

K.C. Cole and Rosalind Reid have been selected as Sigma Xi's newest honorary life members.

K.C. Cole is a visiting professor at the University of Southern California's Annenberg School, where she is developing a master's program in science journalism. She has been a science writer and columnist for the *Los Angeles Times* and is the author of seven nonfiction books —most recently *Mind Over Matter: Conversations with the Cosmos*. Her articles, which have been featured in

PHOTO BY MAGGIE SMITH TAPLIN

K.C. Cole

The Best American Science Writing (2004 and 2005) and *The Best American Science and Nature Writing 2002*, include contributions to *The New Yorker*, *Smithsonian*, *New York Times*, *Newsweek*, *Discover*, *Newsday*, *Esquire*, *Ms.*, and *Washington Post*. She has developed and taught courses in science and culture at Wesleyan University, Yale, and UCLA. She has also been a regular commentator on science issues for KPCC-FM and also for NPR's Science Friday year-end science wrap-up.

Cole particularly likes to show how science is integral to the arts and politics (and vice versa), and firmly believes, in the words of an artist friend that "the worst disease afflicting human kind is 'hardening of the categories.'" To that end, she runs a monthly series of informal events on science/art/politics known as Categorically Not! She's made a point of writing about science in unlikely venues (such as women's magazines) and unlikely forms (at the *LA Times* she wrote about the mathematics of voting, the science of affirmative action, and why the O.J. Simpson trial had everything to do with the discovery of the top quark).

Cole has been honored with the American Institute of Physics' Science Writing prize; the Los Angeles Times Award for deadline reporting; the Skeptics' Society Edward R. Murrow Award for Thoughtful Coverage of Scientific Controversies; Los Angeles Times Award for best explanatory journalism, and the Elizabeth A. Wood Science Writing Award from the American Crystallographic Association. Cole has been associated with San Francisco's "museum of human awareness," the Exploratorium, since 1972, and is currently working on a philosophical biography of its founder (and her mentor), the late physicist Frank Oppenheimer.

Rosalind Reid

Rosalind Reid has been editor of *American Scientist*, the interdisciplinary magazine of Sigma Xi, since 1992. Under her direction, the magazine has played a prominent role in the communication and public discussion of scientific research and issues on the interface of science and society. Reid launched the magazine's first Web site in 1995 and in 2003 directed the development of American Scientist Online, a fully illustrated content database and suite of online services.

An advocate for improving the use of pictures in communicating complex scientific ideas and for broad access to the results of research, Reid has been a co-

organizer and presenter for Image and Meaning, the MIT/Harvard-sponsored series of collaborative workshops aimed at improving the visual expression of science. She has also led communication workshops for scientists in the U.S., Latin America, Scandinavia, Canada, and Europe and taught course modules in the public communication of science at Duke University. In 2003 she was the first Journalist in Residence at the Kavli Institute of Theoretical Physics, at the University of California, Santa Barbara.

Trained as a newspaper journalist, Reid holds a master's degree in public policy sciences from Duke University and was an award-winning reporter for daily newspapers in Maine and North Carolina. She came to Sigma Xi in 1990 after her first stint as a science writer—six years as assistant news director and research news editor at North Carolina State University.

The 2007 Sigma Xi awards will be presented at the society's Annual Meeting and Student Research Conference in Orlando, Nov. 1-4, 2007.

Founded in 1886, Sigma Xi is the international honor society for research scientists and engineers, with more than 500 chapters in North America and around the world. In addition to publishing *American Scientist*, the society sponsors a number of programs that promote science and engineering. ■

(Source: news release)

MILEAGE-DEDUCTION RATES INCREASE IN 2007

by Julian Block

Freelancers who use a car to travel to NASW conferences or for other business reasons can deduct their actual car expenses. The list of deductible items includes gas, oil, tires, repairs, license tags, registration fees, insurance, garage rent, lease payments, and depreciation. As an alternative to writing off actual expenses, you may be able to use a standard mileage rate that is adjusted each year to reflect inflation. The advantage of the optional standard rate is that it eliminates the extra burden of tracking actual costs; records need to be kept only of business miles driven for the year in question.

Gas is a major factor in the optional figure, but the Internal Revenue Service also considers other items, such as insurance and the price of new vehicles. The Internal Revenue's definition of "cars" includes vans, pickups, panel trucks, or motorcycles.

The Internal Revenue's definition of "cars" includes vans, pickups, panel trucks, or motorcycles.

For 2007, the standard rate is 48.5 cents per mile, up from 2006's 44.5 cents per mile. Do you qualify to claim both actual expenses and the mileage rate? Then there is just one way to know which option provides a larger write-off: figure your deduction both ways. Usually, actual expense is more advantageous than the per-mile rate, particularly when there is a prolonged spike in gas prices or your vehicle is a gas-guzzler. But the reverse can be true for folks who have extremely low outlays or scant business mileage.

The Revenue Service allows individuals who require medical care and drive to and from doctors, clinics, hospitals and the like to deduct actual costs of gas and oil or a standard rate—for 2007, 20 cents, up from 2006's 18 cents.

Individuals who move for job-related reasons and use their cars to transport themselves, members of their households, or their belongings can deduct actual costs of gas and oil or a standard mileage rate that is the same as the one for medical driving—for 2007, 20 cents, up from 2006's 18 cents.

Persons who use their cars to perform services for such charitable organizations as schools and religious institutions can deduct actual costs of gas or oil or a standard mileage rate. It is 14 cents for 2007 and 2006, a rate fixed by law.

Besides claiming mileage allowances, remember to take separate deductions for parking fees, as well as bridge, tunnel, and turnpike tolls. And drive within speed limits. The feds forbid deductions for traffic tickets. It makes no difference that you were on the way to teach Sunday school or racing the stork to the hospital.

If the IRS audits your return and questions car expenses, it will not challenge standard-rate deductions, provided you are able to substantiate the miles driven; actual expenses are disregarded. So it is advisable to keep a glove-compartment diary or other record in which you list the details of when, how far and why you went, along with the cost of parking and tolls. ■

*Julian Block, an attorney in Larchmont, N.Y., has been cited as "a leading tax professional" (*New York Times*) and "an accomplished writer on taxes" (*Wall Street Journal*). This article is excerpted from* Tax Tips for Small Businesses: Savvy Ways for Writers, Photographers, Artists, and Other Freelancers to Trim Taxes to the Legal Minimum*. For information about his books and to read more articles, go to* ***www.julianblocktaxexpert.com****.*

WRITING INSTRUCTORS: WHAT'S ON YOUR BOOKSHELF?

The Association of Health Care Journalists (**www.healthjournalism.org**) recently posted a science writing course reading list, compiled by Michael McCarthy M.D., North American Editor of *The Lancet*, from submission on the AHCJ listserv.

Top of the list are handbook-type publications. Lower down are more focused publications, followed by useful Web sites. Names of NASW member authors indicated in **bold**.

Handbooks

A Field Guide for Science Writers (2nd Edition) by **Deborah Blum** (ed.), **Mary Knudson** (ed.), and **Robin Marantz Henig** (ed.) (Oxford University Press, 2005)

Ideas into Words: Mastering the Craft of Science Writing by Elise Hancock (Johns Hopkins Press, 2003)

Health Writer's Handbook (2nd edition) by **Barbara Gastel** (Blackwell Publishing, 2005)

News & Numbers: A Guide to Reporting Statistical Claims and Controversies in Health and Other Fields (2nd edition) by **Victor Cohn** and **Lewis Cope** (Iowa State University Press, 2001)

Medical Journalism: Exposing Fact, Fiction, Fraud by Ragnar Levi (Iowa State University Press, 2001)

The Basics of Bioethics (2nd edition) by Robert M. Veatch (Prentice Hall, 2003) (NOTE: Contains a concise, 200-page introduction to bioethics.)

Covering Health Issues published by the Alliance for Health Reform (**www.allhealth.org/sourcebook2006/toc.asp**)

Topical

Narrative Matters: The Power of the Personal Essay in Health Policy by Fitzhugh Mullan (ed.), Ellen Ficken (ed.), and Kyna Rubin (ed.) (Johns Hopkins University Press, 2006)

Powerful Medicines: The Benefits, Risks, and Costs of Prescription Drugs by Jerry Avorn (Vintage, 2005)

Science, Money, and Politics: Political Triumph and Ethical Erosion by **Daniel S. Greenberg** (University of Chicago Press, 2001)

Hope and Hype: The Obsession with Medical Advances and the High Cost of False Promises by Richard Deyo and Donald Patrick (AMACOM Books, 2004)

Selling Sickness: How the World's Biggest Pharmaceutical Companies are Turning us all into Patients by Ray Moynihan and Alan Cassels (Nation Books, 2005)

Should I Be Tested for Cancer? Maybe Not and Here's Why by H. Gilbert Welch (University of California Press, 2004)

On the Take: How Medicine's Complicity with Big Business Can Endanger Your Health by Jerome P. Kassierer (Oxford University Press, 2004)

The Spirit Catches You and You Fall Down by Anne Fadiman (Farrar, Straus & Giroux, 1997)

Blind Eye: The Terrifying Story of a Doctor Who Got Away with Murder by James Stewart (Simon & Schuster, 2000)

Web sites

PubMed (**www.ncbi.nlm.nih.gov/entrez**) is a service of the U.S. National Library of Medicine that includes over 16 million citations from MEDLINE and other life science journals for biomedical articles back to the 1950s. PubMed includes links to full text articles and other related resources.

Kaiser Daily Reports: **www.kaisernetwork.com**

Alliance for Health Reform (**www.allhealth.org**) is a nonpartisan, nonprofit group that offers balanced information to help audiences understand the roots of the nation's health care problems.

Health News Review (**www.healthnewsreview.org**) is a Web site dedicated to improving the accuracy of news stories about medical treatments, tests, and procedures.

Knight Science Journalism Tracker (**ksjtracker.mit.edu**) is a service for science journalists, created and funded by the Knight Science Journalism Fellowship Program at MIT. The principal tracker is **Charles Petit**. When Charlie's away, **Boyce Rensberger** fills in.

U.K. National Library of Medicine (**www.library.nhs.uk/rss**) serves as a centralized database for high-quality knowledge about disease and medicine. The site also critiques news coverage of medical stories.

Association of Health Care Journalists (**www.healthjournalism.org**) is an independent, nonprofit organization dedicated to advancing public understanding of health care issues through improved quality, accuracy, and visibility of health care reporting, writing, and editing.

NIH health information Web site (**health.nih.gov**) is the portal to the 27 Institutes and Centers of the National Institutes of Health.

Centers for Disease Control and Prevention (**www.cdc.gov**). Founded in 1946 to help control malaria, the CDC is at the forefront of public health efforts to prevent and control infectious and chronic diseases, injuries, workplace hazards, disabilities, and environmental health threats.

Quackwatch (**www.quackwatch.org**) is a nonprofit corporation whose purpose is to combat health-related frauds, myths, fads, fallacies, and misconduct.

HOW IMPACT FACTORS CHANGED MEDICAL PUBLISHING—AND SCIENCE

by Hannah Brown

George Lundberg spent the early 1980s lamenting the loss of his journal's once great reputation. *JAMA* (*Journal of the American Medical Association*), which he had taken over in 1982, had been in decline since its peak of popularity in the 1960s. And a new set of rankings that pitted medical journals against each other on the basis of article citations now seemed to confirm that *JAMA* was a long way behind the best. To make his editorship successful, Dr. Lundberg needed a recovery strategy.

So, while other medical journals continued to dismiss as an irrelevance their citation rankings—labeled "impact factor" by the data crunching company that devised and compiled the system—Dr. Lundberg seized the opportunity to make them work in *JAMA*'s favor. Recognizing that impact factors were derived from citations, Dr. Lundberg reasoned that chasing high-profile authors and institutions could help boost *JAMA*'s rank and, therefore, its reputation. He instructed his editorial team to seek out studies that had the potential to become staple references in other papers and try to woo the authors into submitting to *JAMA*. "We were looking for prestige," Dr. Lundberg recalls.

At the time the strategy was implemented, *JAMA* had a lot of ground to make up in the impact factor stakes. "When we started, *JAMA* and the *BMJ* (*British Medical Journal*) were roughly similar at around four, *The Lancet* was higher, and *NEJM* (*New England Journal of Medicine*) were higher still," Dr. Lundberg explains. "But then *JAMA* started rising and it's never stopped," he says. Over several years, Dr. Lundberg successfully raised the journal's impact factor to around 11, while those of the *Annals of Internal Medicine* and the *BMJ* rose only slightly in the same time.

Since Dr. Lundberg took the decision to embrace impact factors in the 1980s, these indices have grown into something of an obsession among editors of medical journals. Editorial strategies designed to get the best impact factor results by chopping, mixing, and categorizing content in different ways have become the norm. But Dr. Lundberg—who says his dedication to impact factors extended only as far as getting a respectable, rather than an outstanding, number—believes the now central importance of this ranking to many editors has distorted the fundamental character of their journals, forcing them to focus more and more on citations and less and less on readers.

According to Dr. Lundberg, research shows little correlation between papers that are cited a lot and those that are considered landmark articles by panels of experts decades later. So medical journals that aim to pull in only those papers likely to be highly cited—at the expense of potentially less citable but important work—may be doing science, and their readers, a disservice in the long run.

Whether the popularity of impact factors itself has distorted editorial decisions during the past decade's frenzy has become a well rehearsed debate. But such concerns as the fact that a bad paper may be cited because of its infamous errors and that a journal's rank has no bearing on the quality of individual papers it publishes, has not stopped this neat metric capturing a growing army of devotees outside journal publishing. The impact factor now has a worrying influence not just on publication of papers but on the science behind them, too.

Attracted by an apparently simple measure of quality, academic employers, funding, bodies, and even governments have begun using the impact factor of journals in which researchers most frequently publish to guide decisions on appointments, grant allocations, and science policy. This trend has been particularly noticeable in the U.K., where impact factors have been used heavily in the research assessment exercise, a regular evaluation of research activity that determines the allocation of part of the higher education budget. One consequence has been to make universities prioritize laboratory-based life sciences that produce research published in the highest impact factor journals, causing substantial damage to the clinical research base. Impact factors, it seems, have a lot to answer for.

Counting citations

So how did a simple calculation become so influential? The impact factor was first proposed in the early 1960s by information scientist Eugene Garfield, now chairman emeritus of the multinational information company Thomson Scientific. It was conceived as a way to make better use of the reams of data that resulted from his Science Citation Index, set up in the 1950s to track the "subsequent history" of scientific ideas through their citations in future publications.

With the hundreds of thousands of references from scientific journals Dr. Garfield and his team at the Institute of Scientific Information (ISI) collected and categorized for their index, they were able to analyze the publication histories of individual authors, identify papers that caught the imagination of other scientists, and, importantly for publishing, rank journals according to their talent for picking popular papers.

Although initial efforts at journal rankings simply totted up the numbers of mentions each publication received in the reference lists of future papers, Dr. Garfield quickly realized that this method favored journals that published a lot but did not necessarily pick the

Hannah Brown is a freelance journalist.

best studies. He suggested that dividing the number of times a journal is cited by the number of articles that it publishes would eliminate the bias toward big journals and produce a meaningful measure of the importance of a journal—the impact of an average paper published.

In 1975, ISI started publishing an annual summary of citations in journals including the impact factor calculation, primarily as an aid for librarians making budget decisions who needed to choose the most cost-effective journals to buy. The process involved loading the references from each published paper onto the science citation index database and then, to get the impact factor for each journal, adding up the numbers of citations published in all journals in the current year to articles published in the journal of interest over the two previous years and dividing that total by the number of "scholarly" items published in the previous two years. The result was a number that quantified the average number of citations accrued by a paper published in a particular journal during a given year—the impact factor.

Three decades later, an almost identical system underlies the *Journal Citation Reports* still produced by ISI, which is now subsumed by Thomson Scientific. Rather than ranking just the 152 top journals Dr. Garfield began with, ISI now produces yearly impact factor lists, groups by specialty, for the 6,088 journals in their science citation index, which is growing by an astonishing 200 journals every year.

Inclusion in the index is something of a badge of honor for new journals, which must pass ISI's stringent assessment procedure before being incorporated. Suitable candidates have to meet basic publishing standards and have a fairly good chance of influencing the scientific record. "We take a look at what they have been able to do since the beginning of the year and whether the journal can attract authors that make an impact. If it passes that test we go on to quantitative analysis," says James Testa, senior director of editorial development for *Journal Citation Reports*.

But whereas the theory hasn't changed in 40 years, the mechanics of the calculation have. ISI has to take into account changes in the nature of scientific publishing from print only to an increasing proportion of electronic publications. "We index everything from print to direct feed to FTP files," says Marie McVeigh, senior manager of *Journal Citation Reports*. And a lot of work goes into keeping up with the journals' changing editorial content. "It's six months of pretty non-stop work," she says. "We have begun the first preparatory steps for the year 2006 now and we'll be publishing [this year's impact factors] in mid to late June."

For ISI, one of the most difficult aspects of the indexing process is deciding which articles from each journal should count as part of the scholarly record and should, therefore, be added into the denominator for calculating the impact factor. Many scientific journals—and medical journals are particularly bad offenders in this respect—publish an eclectic mix of article types that marry journalism with research, narrative reviews with clinical cases. Editorial policy changes that create new sections, alter numbers of references, or reorganize article types are made with what seems like—at least from ISI's perspective—dizzying frequency. All of them can affect the eventual impact factor.

David Tempest, associate director of research academic relations for the scientific publisher Elsevier, which publishes *The Lancet*, says the denominator is the difficult thing for ISI to get right. "*BMJ*, *JAMA*, and *The Lancet* might not have the same article types, and ISI has to work out what should be included," he explains.

But whereas in the 1970s journals were uninterested enough in their rankings to let ISI do its calculations unimpeded—"they ignored them," says Dr. Garfield—editors and publishers are now active participants, helping ISI make sure their numbers are correct at every step of the way. Tempest says he and his colleagues count the number of scholarly articles in Elsevier's journals to highlight any possible misclassifications by ISI. "What we try to do is work with ISI to get the citable items, the dominator, to be as accurate as possible. Things like news items and conference listings don't get a lot of citations, so they are seen as non-citable by ISI. We work together to get the best outcome for journals," he explains.

But for many journal editors, particularly those outside the big publishing houses, checking on the accuracy of ISI's indexing of their own journal's content is no easy task. The first difficulty is ascertaining from ISI which articles have been counted as "citable," and

Top 15 journals by impact factor, 2005

Journal	Total cites	Impact factor
CA	4,218	49.794
Annual Review of Immunology	14,745	47.400
New England Journal of Medicine	167,894	44.016
Annual Review of Biochemistry	16,313	33.456
Nature Reviews: Cancer	9,823	31.694
Science	345,991	30.927
Nature Reviews: Immunology	8,686	30.458
Reviews of Modern Physics	19,446	30.254
Nature Reviews: Molecular Cell Biology	11,438	29.852
Cell	132,371	29.431
Nature	372,784	29.273
Nature Medicine	40,386	28.878
Physiology Reviews	14,943	28.721
Nature Immunology	16,989	27.011
Nature Genetics	52,387	25.797

therefore contribute to the denominator in the impact factor calculation. Getting these data can be, according to Mabel Chew, formerly deputy editor of the *Medical Journal of Australia* and now a *BMJ* associate editor, a tortuous process. Even in cases where there have been obvious errors—such as the erroneous classification of news articles published by *CMAJ* during the 1990s as citable items, which caused the journal's impact factor to drop significantly—ISI takes months to respond to editors' queries. Dr. Chew believes the process could be made fairer if ISI committed to transparency about its indexing process, enabling journal editors to see for themselves why changes in their impact factors are occurring. "ISI could make public its policies on the steps it takes to determine whether something is considered a citable item or not and say these are the steps we take when we come across a funny article type," she says. "They could be more transparent about how they do things."

Working the system

This system of negotiations—or, as ISI's Ms. McVeigh prefers it "discussions or clarifications"—has made journals far more cognizant of how editorial decisions can affect impact factors. As well as monitoring cases in which ISI gets it wrong, editors are using this knowledge to their advantage. By keeping the numbers of scholarly articles as small as possible, journals can maximize their ranking. "Every time you get a number you get people working out how to make it work to their advantage," admits Dr. Lundberg. Several artifacts can influence a publication's ranking in journal lists. Review articles or letters are generally cited more than research papers, so boosting review content can make journals perform better in the ranking. Inclusion of news article, editorials, and media reviews that are among articles considered "non-source" by ISI can win a journal citations without increasing the denominator. And journals can, of course, deliberately try to inflate self citations by asking authors to reference papers in their journal.

"There are ridiculous things that people do to boost their impact factors," says Dr. Garfield. "There were one or two German journals that listed all the articles that had appeared in the journal in the past year, and that increased the citation count by enough to boost the impact up a notch," he says. But Dr. Garfield thinks that although these strategies can force small increases in impact factor, since the index is essentially a measure of quality, "the best thing the publisher can do is to publish good articles." The striking stability of the impact factor rankings over time supports Dr. Garfield's view. "The same set of journals tends to appear top year in year out," he says. "*Nature* and *Science* are not 'Johnny come latelys;' they have always been at the top and they will remain there.

Journals' minor manipulation of content in their jostle for better ranking positions is not the issue that causes most concern, however. Despite the fact that the index has now existed for 30 years, there remains a worrying lack of awareness about the other scientific uses to which impact factors can appropriately be applied—and situations where it is completely inappropriate. This ignorance about what the impact factor can and cannot do has persisted while journals' increasing tendency to tout their numbers on promotional material has helped disseminate the concept to wider audiences. Dr. Lundberg suggest the impact factor's meteoric rise is simply a question of nomenclature: "Because the impact factor has that word 'impact' it has got in people's heads that this is something that is really important," he says.

When used properly—that is, to describe the use of scientific information by other scientists within a particular field—it is a useful and powerful measure. But, as Dr. Garfield emphasizes, the impact factor's only real value is in assessing the relative importance of papers published in one journal compared with those published in another of similar content. It is not an absolute measure and should not be used for comparing journals from different field. Michael Mabe, chief executive of the International Association of Scientific, Technical, and Medical Publishers, explains: "There is a common misunderstanding that the actual impact factor has meaning, but it

Impact factor for general medicine journals, 2005

Journal	Total citations	Impact factor
New England Journal of Medicine	167,894	44.016
Lancet	131,616	23.878
JAMA	95,715	23.494
Annals of Internal Medicine	38,396	13.254
Annual Review of Medicine	3,517	10.383
BMJ	59,516	9.052
PLoS Medicine	519	8.389
Archives of Internal Medicine	28,432	8.016
CMAJ	7,272	7.402
Medicine	4,372	5.057
American Journal of Medicine	21,513	4.388
Journal of Internal Medicine	5,168	4.040
Mayo Clinic Proceedings	7,190	3.933
Annals of Medicine	2,694	3.848
British Medical Journal	2,273	3.179
American Journal of Preventive Medicine	4,725	3.167
Journal of General Internal Medicine	5,086	3.013
Current Medical Research and Opinion	1,801	2.945
QJM	4,407	2.829
European Journal of Clinical Investigation	4,199	2.684

doesn't. In fundamental life sciences, for example, a typical impact factor is 3 or 4 while in maths it is 0.4. But you wouldn't assume that mathematicians are eight times more stupid than life scientists, would you?"

Distorting influence?

For these reasons, the trend toward use of impact factors to guide decisions on research funding is worrying. "People are looking at it, studying it, using it in ways that it really shouldn't be used," Mr. Mabe says. In the U.K., many universities' obsessions with selectively encouraging research that achieves publication in high-impact factor journals—a result of a heavy reliance on impact factors within the research assessment exercise—has, according to Michael Rees, who chairs the *BMA*'s medical academic staff committee, introduced a bias against important fields in which few journals boast an exceptional figure.

Universities trying to second guess the research assessment exercise, focus on exactly the kind of cross-specialty comparison of impact factors the Dr. Garfield and Mr. Mabe caution against. Academic medicine has been particularly badly affected. There has been a hemorrhage of clinical academic staff from universities during the past 10 years—mirroring the existence of the research assessment exercise—and wide-ranging cuts in specialist teaching available in medical schools, with some subjects now completely absent. Professor Rees says 1,000 members of staff have been lost from medical schools, most of them clinical researchers. He attributes this damaging decline to the fact that papers reporting laboratory based research get published in journals with generally higher impact factors than their clinical counterparts, so universities selectively return those sorts of papers for departmental evaluations in the research assessment exercise and funding for clinical investigation decreases as a result.

Professor Rees believes that because impact factors reflect only the immediate response of research communities to a journal's content they are not wholly suitable for judging clinical research, whose true impact can take a decade or more to emerge. The next research assessment exercise, planned for 2008, will be the first to deliberately reduce the contribution of impact factors, and Professor Rees hopes it will reverse the downward spiral in academic clinical research. However, a just finished consultation on the shape of research assessment after 2008 indicates that in the future bibliometrics (although not necessarily the impact factor) might play an even greater part in decisions as universities demand less bureaucratic ways to assessing research quality.

According to Dr. Garfield, use of the impact factor as a general surrogate to aid decision making is not necessarily bad. "It is perfectly OK to use impact data in a general way. I always like to point out 20 years ago when the Soros Foundation had to make quick judgments on who to give grants to in the Russian Federation. They would give priority to scientists that had published in a journal with an impact factor above a certain number," he says. "It was a good measure… It is the mindless use of citation data and impact factors that gets people upset."

But why this particular measure? ISI's Web of Science database can be used as a starting point to calculate plenty of alternative bibliometrics that are better aids to decision making in various circumstances. The Hirsch index, for instance, which ISI also calculates, is a good way of assessing the impact of individual researchers' work by analyzing the distribution of citations of all their work. And the Journal Performance Indicator, which is like the impact factor but excludes citations to non-scholarly articles, gives a better indication of long-term performance of journals. This would theoretically better suit ranking of clinical journals, whose research publications may take years to filter through into practice, than the impact factor, which favors the short timeline from publication to impact in basic life sciences journals. Both measures, however, are languishing in relative obscurity among the many bibliometric calculations that have failed to catch academics' and editors' imaginations. "There is only so much ISI can do to make people aware of all these databases," says Dr. Garfield. "The impact factor is available and known whereas the others not everybody gets." It comes down to the fundamental problem that people want a simple, easy-to-calculate number to do their comparisons. Complicated maths is just not so appealing.

In both publishing and science, the impact factor's ubiquity has definitely distorted priorities during the past 10 years, concur Mr. Mabe and Professor Rees. And a side effect of this change has been that many medical journals have dispensed with their traditional measure of success, such as subscriber numbers and readership. "If you want something read by the clinical community you would want to go to the most widely read journal, the impact factor doesn't mean anything," says Dr. Garfield.

But is this change a bad one? What journals, editors, and funders should really be prioritizing, reckons Dr. Lundberg, is what matters most to them. "It all depends on the goals of the journal and what the publisher wants," he explains. "You set plans for what you are trying to achieve and you measure against those plans. If the publisher's goal is to attract authors to communicate with others in their field, then the impact factor is a good measure to use. But if the goal is to earn money by selling subscriptions, then it is irrelevant." One thing he is sure about is that the impact factor will not wane anytime soon. "Everyone loves a number," he says. ■

"How Impact Factors Changed Medical Publishing—and Science," BMJ*, March 17, 2007*

PRESIDENT'S LETTER

by Robert Lee Hotz

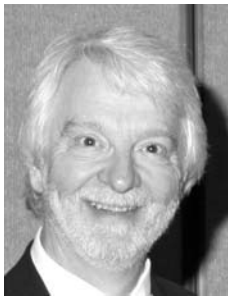


PHOTO COURTESY OF SIGMA XI

I want to share some good news.

Tinsley Davis, who many of you know as our superb workshop organizer, has joined the staff of NASW in the new position of associate executive director. This is a major step for NASW in its effort to properly manage the complicated day-to-day operations of an increasingly professional and active organization.

She will work closely with our able executive director, Diane McGurgan, who has labored so selflessly on NASW's behalf for 29 years. With their collaboration to date on the very successful annual Science in Society workshops, they have already demonstrated that they are truly a formidable team.

Vice president Mariette DiChristina, treasurer Nancy Shute, and I thought long and hard for months as we considered this next strategic step for NASW. It grew from long-range planning talks that began with past president Laura van Dam. We consulted widely, getting the advice of former NASW presidents and studying the operations of other professional organizations like ours. It was abundantly clear that NASW has grown to a point where management of our activities demands added continuity and professionalism not always available through the good offices of our many volunteers.

For those who have not yet had a chance to work closely with Tinsley in the annual meeting, let me introduce her to you:


Tinsley Davis

Tinsley is an experienced educator and science writer who holds an M.S. in bacteriology from the University of Wisconsin-Madison and a B.A. from Swarthmore College. She has collaborated with education researchers as a National Science Foundation K-Through-Infinity fellow, and, in 2001, was awarded an AAAS Mass Media fellowship to write for the *St. Louis Post-Dispatch*. In 2002, she joined the Current Science & Technology Center at the Museum of Science (Boston) where she is part of a team developing innovative ways for science centers to bring current research to the public.

Robert Lee Hotz can be reached at leehotz@earthlink.net.

In her role at the Museum of Science, she developed material for daily public seminars, science segments for New England Cable News, podcasts, and exhibits.

In 2004, Tinsley received a grant to explore best practice science communication efforts in the United Kingdom. In addition, Tinsley organizes the annual Science in Society conferences for NASW and is a freelance science writer for the *Proceedings of the National Academy of Science*.

She is, of course, a member of NASW and also the Sigma Xi Scientific Research Society.

In her spare time, she rides horses and volunteers as a puppy trainer with Guiding Eyes for the Blind.

To be sure, Tinsley certainly will need all that experience to keep pace with us.

Consider this:

The long-awaited freelance market data base will be ready to launch this spring, thanks to the creative energy of the freelance committee led by Dan Ferber. Our cybrarian Russ Clemings has done the programming and Richard Robinson will manage it. This will culminate a project four years in the making, unmaking, and remaking. The committee has reworked the entire database since fall and has been conscientiously beta-testing the database over the past two months.

And that's not all.

At the February AAAS annual meeting, Jeff Grabmeier, John Travis, Jenny Cutraro, Terry Devitt, and their colleagues on the NASW education committee worked hard to nurture the next generation of science writers, surely the most important thing that NASW does for the craft.

Their efforts reflect NASW's commitment to the educational opportunity that the AAAS annual meeting offers for beginning science writers.

Through the NASW mentorship program at AAAS, the education committee matched each of 38 young and aspiring science writers with an experienced journalist, freelancer, or PIO attending the meeting.

This was by far the largest participation we have had, Jeff told me. One reason for the large turnout of students was a generous travel stipend program sponsored by AAAS that allowed 10 of the most promising young writers to attend the meeting for free. John Travis and the education committee helped administer that scholarship effort.

Many of those same students also attended the NASW Internship Fair, where 49 students met with 15 recruiters representing 16 employers.

According to Jeff, we had a few new publications at the fair this year including *Nature*, *Nature Medicine*, *New Scientist*, *Chemical & Engineering News*, *Conservation* magazine, and *Science Editor*, as well as several new organizations (National Superconducting

Cyclotron Lab and the Genetic Public Policy Center). Repeat performers included *Smithsonian*, *Discover*, *Science News*, *Science*, and *Natural History*, as well as FermiLab, Argonne, and the Stanford Linear Accelerator Center (SLAC).

After all that thirsty work, NASW also contributed $500 to help fund the science writers party, hosted by the Northern California Science Writers Association, at the California Academy of Sciences.

This meeting was the last for John Travis as education co-chair, as he has recently moved to England to become European news editor for *Science*. While we will miss John, he helped identify a worthy replacement as co-chair: Rob Irion, program director of the science writing program at UC Santa Cruz.

Like John, I too am changing jobs.

By the time you read this, I will have resigned from the *Los Angeles Times*, after 14 years as a science writer, to join the *Wall Street Journal*, where I will take over the paper's well-regarded science journal column, which was so ably pioneered by Sharon Begley. I will also be doing special reporting projects. It is an exciting step for me.

For all of us, the best is yet to be. ■

CYBERBEAT

by Russell Clemings

By the time you read this, a long-awaited addition to the NASW Web site should be up and running—a market reports database.

The database (**www.nasw.org/members/market**) is designed to help members share information on rates and contract terms for writing, editing, project management, and other work. It is managed by longtime member Richard Robinson, who can be reached at swaparate@nasw.org.

Incidentally, that name—Swap-a-rate—is purely temporary. One of Richard's first orders of business is to take suggestions for a new name. But whatever it ends up being called, the new database is certain to be a popular resource for members who want to know, "How much should I charge for this job?"

From time to time, members have proposed that NASW publish suggested rates for different kinds of work. But after consulting an attorney the board has concluded that to recommend specific fees would lead NASW into hazardous legal territory.

As background, here is the pertinent section from attorney correspondence.

> Is exchanging information about the fees subject NASW to antitrust liability?
>
> The general rule is that a vendor may not enter into an agreement with other vendors to set a certain price within a certain market. For example, where competitors agree to sell their goods or services at a specified price, minimum price or maximum price, and they receive profits from such an agreement, they are in violation of price fixing.

Price fixing is prohibited by numerous state and federal laws. It is not possible, therefore, absent a thorough review of the laws of each state, to say with certainty that a certain practice could not be cast as anticompetitive. Given the NASW's stated goal of avoiding liability, the policy of not recommending or agreeing to demand specific fees should continue.

On the other hand, nothing prevents individual members from reporting what they were paid for specific jobs. That's what the database will let them do.

The database includes a form that allows members, anonymously, to submit details on the type of job, client, contract terms, rate, and turnaround time for payment. There is also room for a description of the work and free-form comments. A separate page permits searches of the database, tailored to almost any criteria.

To use the database, you'll need your NASW Web site user name and password. If you don't have one, you can apply at **www.nasw.org/members.htm**. If you have one but can't remember it, drop me a line at cybrarian@nasw.org.

What will make the database a success for all NASW members is a steady stream of contributions. Every new addition increases the value of the database.

We hope that the database will help members educate themselves about what their work is worth in a free market. If so, the payoff will more than cover the modest cost of an NASW membership.

NASW-PR

Jumping from journalism to public relations was the subject of a thread started Dec. 19 by Laura Woodmansee, who currently is practicing the former but has been taking classes in the latter.

Several respondents told her that she was starting out with a distinct advantage—journalism experience tends to be valued in public relations and public information offices. But the differences between the two fields also got attention.

Laura Kinoshita, PIO for Hawaii's W. M. Keck

Russell Clemings is NASW's cybrarian and a reporter for the Fresno Bee. *Drop him a note at cybrarian@nasw.org or rclemings@gmail.com.*

Observatory, listed some things about PR that might drive journalists nuts:

"The world of PR is a service-oriented business—which means the client is always right, no exceptions…If they want to pay (you/your agency) $100-$300 an hour to go against your best counsel and not do what it takes to get newsworthy stories, then just shrug your shoulders, do the work, and bill your time. Don't take it personal…

"Practice keeping track of your time in 15-minute increments. Understand the reason for everything you do, because you will have to report back to the client in painfully time-consuming and detailed activity reports…

"Never, ever work on a 'million dollar account.' Nothing you ever do will ever be to the client's satisfaction…Show me a person who works on a million dollar account, and I will show you someone who secretly hates their job."

On the brighter side, North Carolina science writer Becky Oskin listed some ways in which PR compares favorably to journalism.

"PR means better pay and better hours, though you still work some nights and weekends," she wrote. "You still get to find the stories (fun). You convince other people to tell the stories (sometimes not so fun)…You can learn PR on the job."

But even she acknowledged some drawbacks:

"PR is much more structured and business-like, even in academia. At the paper (and when I was a scientist), I felt my opinion was valued if I had a good supporting argument. That's not always the case anymore. Can you be happy in that kind of environment?

"Be prepared to handle a lot of messes/crises that may never make it to the public eye. You'll spend a lot of time on potential problems."

NASW-Freelance

Chicago writer and consultant Lara Pullen sought advice Feb. 13 after a client canceled a final round of revisions on a writing project—along with, at least implicitly, the final 25 percent of her fee.

Her contract called for a draft and two rounds of revisions, but after she completed the first revisions and received 75 percent of her fee, the client canceled the second round—and said nothing about the remaining payment.

"Does this seem as wrong to you all as it does to me?" she asked.

The answer: A definite "yes."

"I'd review your contract or letter of assignment first, but my tendency would be to invoice them for the balance due," replied Washington biomedical writer Bob Roehr. "It appears to me that you fulfilled your part of the bargain and they are attempting to change the terms unilaterally."

"This is definitely outrageous," Katherine Austin wrote. "I just don't see how final revisions could possibly account for 25 percent of the work that went into the manuscript. (Especially since you've already spent a huge amount of time on the first round of revisions.)"

California writer Jennie Dusheck offered an analogy.

"The purpose of their holding back the 25 percent was to ensure that you would complete any final revisions, not because those final revisions were 25 percent of the job. When you hire a general contractor to remodel your kitchen, you do the same thing; hold back a percentage of the job to be paid on completion."

From West Virginia, John Gever suggested that the client might be simply ignorant, rather than malevolent. "Possibly they're now hoping to avoid paying the final 25 percent, but maybe not; maybe it just hasn't occurred to them they should pay it now."

Dan Ferber, chairman of NASW's grievance committee, said that Pullen should contact the committee if she runs into a wall trying to collect the remainder. ■

THE FREE LANCE

by Howard Wolinsky

Fifteen years ago, I did a series of articles for the old *Physicians' Weekly* that required calls to Belgium, Germany, England, South Africa, and Israel. I ran up something like a $1,500 phone bill.

I gulped and so did my editor, but he managed to get me paid.

These days, I probably could have accomplished the same calls for under $20.

My secret? Voice over the Internet or VOIP.

Ten years ago, I was among the first to try out VOIP. It was a crude tool. The sound was bad. You couldn't easily connect with the people. I remember speaking to random strangers, such a guy who claimed to be swaying on a hammock on a Hawaiian beach.

But in recent years, with the advent of broadband Internet, the pipes are accommodating high-quality, CD-like sound. You can hook up with other computer users anywhere in the world for free or with regular landlines for dirt-cheap prices, such as about 2 cents to London. It's as easy as calling out on your mobile phone—maybe easier.

There are a variety of services out there, such as Google and Yahoo! and Gizmo as well Vonage. I've tried

Howard Wolinsky is a Chicago tech and medical freelancer and a staffer at the Chicago Sun-Times. *He can be reached at Skype at howardwolinsky.*

them all and the one I prefer is Skype.

Skype software can be downloaded for free at **Skype.com**. You can listen over your computer speakers and speak over an inexpensive microphone, even the one you may have built-in to your laptop. I prefer a headset with a built-in microphone (more on that later).

If it weren't for Skype, there are some international assignments I might have to pass up. The cost for calls might be too much.

For example, I have become a frequent contributor to *EMBO* (European Molecular Biology Organisation) *Reports'* Science & Society section. Typically, an assignment pays $1,800 (U.S.) or so. *EMBO* reimburse up to a maximum $30 for phone calls. Maybe that works for European freelancers.

But if I were using conventional phone lines for these assignments, I suspect my bills would exceed $500 per assignment. I would have to think twice about making calls and might feel as though I needed to watch the clock to keep down expenses. You shouldn't have to feel like you need to skimp while doing your reporting.

Using what is known as SkypeOut, the name for the service linking a PC to traditional landlines, I called a bioethicist in Edinburgh, Scotland, and spoke for 49 minutes and 27 seconds, at a rate of .021 cents per minute, for a grand total of $1.09.

Over AT&T Illinois, it would cost me more than that to speak for the same period to my brother here in the Chicago suburbs.

You buy SkypeOut minutes with your credit in $10 or $25 quantities. There are no monthly fees, but the credits expire in six months. So use them or lose them. If you are U.S.-based, be sure to buy them in dollars and not in euros to avoid exchange fees.

Last year, Skype offered free calls to any U.S. or Canadian landlines. That got me hooked. Now you have to pay for that service. A subscription to the 12-month unlimited calling plan goes for $29.95. I got a special rate for less than half and it is saving me a ton for calls to the U.S. and Canada. I use Skype to call friends and family in the United States, bypassing local phone service.

And the savings are tremendous if the person you are calling overseas happens to be on Skype. I interviewed a researcher in Australia and an economist in London in their offices over their university networks.

That's a big change. A year ago, it was rare to find someone using Skype on the job because their network administrators feared that Skype might open their networks to mischief.

Skype is spreading—171 million people signed up now compared with 137 million one year ago.

Many CEOs I know use Skype when they are calling home or the office while they are traveling in Europe or Asia, hooking up via local broadband networks on their laps and bypassing hotels. Skype is becoming so common that it is not unusual to find a Skype address on business cards and online sigs.

Skype also sells regular phone numbers, including VoiceMail, for just under $40 per year. Say you're covering a meeting in Washington or Paris. Editors, friends, or family can buzz you on that number at local rates as though they were calling you at home—while you speak over your laptop in a hotel room or coffee shop.

Skype also has a chat function over which you can send real-time messages and drag and send your story file.

A cottage industry is emerging with software and hardware for Skype, just as it did for the iPod.

For $9.99, you can purchase a Skype Starter Pack, with basic stereo ear buds and a microphone. You can use these ear buds, which are available from **Skype.com**, to listen to music. The kit comes with a credit for 10 minutes of SkypeOut talking time.

Software can record your interviews, which is a pretty handy way to keep track of your interviews. Now all I need is an automated transcriptionist.

Skype's Pamela system records MP3 or larger WAV files. A lifetime license in the professional version of Pamela 3.0 can be downloaded for $24.95 at **www.pamela-systems.com/products**. The software includes an answering machine, a Skype Video recorder and Video mail, blog support, and more.

If you live in a Microsoft Outlook-centric world, you might consider Skylook, a Skype system, which is integrated into Outlook. When you complete a conversation, Skylook files the MP3 in a file in Outlook. You also can take notes in Skylook call monitor, which are archived in Outlook. Skylook has an answering machine built in. Skylook can be downloaded at **www.skylook.biz** in a couple of different flavors. I'd recommend Skylook 1.5, which goes for $49.95 for business users and $24.95 for you pointy-headed professors.

You might also consider a Skype Wi-Fi phone, which makes possible Skype calling without a computer, but requires a Wi-Fi link. They're a bit pricey and don't have the longest battery life, but they are handy, especially for personal calls. You can make calls even without cracking open a laptop if you can access a free wireless network. The Belkin Wi-Fi phone, which lists for $189, and NETGEAR Skype Wi-Fi Phone (SPH101), which lists for $230, practically set themselves, downloading your Skype contacts from your computer. As with other gear, shop for the best price from **PriceGrabber.com**, **Froogle.com**, or similar price-comparison Web sites.

I have used Wi-Fi Skype phones as a second phone line, talking to friends and relatives for free or free cheap in Latvia, U.K., Mexico, and Israel, while riding my recumbent exercise bike.

You can keep Skype simple by using a cheap or

built-in mic and computer speakers, or you can spend a little more or a lot more to fashion your own Skype ecosystem.

I prefer hands-free headsets, which I can use while typing out notes, using a $30 Logitech headset. I like to record conversations.

There are loads of other choices. USRobotics makes the USR9602 USB Internet Phone ($25) that simply plugs in your USB port. If you prefer a speaker phone, they range from a basic USRobotics USR9610 Speakerphone, listing for $50, or a higher-end Polycom Communicator, listing for $130.

You can merge your Skype and landline calling into a single phone. There are a range of "dual phones," from the $110 RTX USB Cordless DUALphone that plugs into the computer's USB port to the $199 Philips VoIP841, cordless that doesn't require a computer.

If you're a Bluetooth fan, you can link a headset to your cell phone and Skype with the Motorola Wireless Internet Calling Kit ($100); you can forward Skype calls to your mobile phone when away from the PC.

Personally, I have no use for a Webcam. Maybe I'm camera shy. But with a Webcam costing $50 or less, switch on Pamela and you can record your conversation and post it on a Vidcast or even at YouTube.

Most of this gear is for PCs, but, fortunately, Skype is becoming Mac friendly.

The bottom line: VOIP is here and it can help you reach out to sources in other countries at low cost or no cost. Skype is the market leader, but other good options include Gizmo, Yahoo!, Voice, and Google Talk. You don't have to spend a fortune to get started, but you can accessorize according to your personal requirements. Why wait? You too can be an international woman or man of mystery and productivity. ■

PIO FORUM

By Dennis Meredith

A Letter to Researchers

In nearly four decades working with researchers from postdocs to Nobelists, I've found that nearly all are perfectly cooperative when PIOs come to call. But almost none have really understood that the communications PIOs produce can help advance their research and their career. So, this PIO Forum is directed not at my fellow PIOs but at the researchers they cover—with the aim of helping them better understand the important role PIOs play in their work and in their institution's research mission.

PHOTO BY JIM WALLACE, DUKE U. PHOTOGRAPHY

Dennis Meredith

Dennis Meredith, a veteran PIO and freelancer, is writing a book Explaining Research*, from which this column is adapted. Reach him at meredith@nasw.org.*

Dear Researcher,

At last, you have published your definitive research paper! It is the proud product of years of rigorous experiments and meticulous data recording. You have assiduously analyzed your data, and you are confident of your compelling conclusions. You have precisely written up the work, submitted it to a top journal, and run the gauntlet of editors and reviewers to get it accepted. Now it is published in print or posted on the journal's Web site, and your job is done…you think.

Or instead, maybe you are delivering a talk presenting your hard-won discoveries to your peers. You have perfected your PowerPoint slides, rehearsed your delivery, and anticipated every possible question. Everything goes beautifully, the audience is rapt, and your colleagues are no doubt green with envy at your brilliance. Again, you may believe you have done everything necessary to tell the world about your research. After all, you did clearly elucidate your findings to your most important audience, your peers.

However, such professional communications are really only the first—albeit most important—step in explaining your research to the many important, even necessary, audiences to your research success. Lay-level communications—Web sites, news releases, feature articles, multimedia, and media coverage—should also be fundamental components of your research communications.

Besides reaching your fellow researchers, lay-level research communications can find their way to foundations and funding agencies, private donors, prospective students, your institution's leaders, corporate partners, legislators, and your own family and friends. You are not doing your research justice unless you make such broader communications effective. And your institution's public information officer (PIO) knows how to do that.

There are certainly pitfalls in such communications. You might not reach people who need to know about your work. You might find the media stories on your findings incomplete or misleading. Or you might even find your collaborators unhappy about how you have credited their participation. Again, your PIO knows how to help you avoid such pitfalls.

Lay-level communications might, in fact, be *more* effective than scientific papers at reaching key professional audiences, such as researchers in other fields. While your peers in your specialty will read your paper, researchers outside your immediate area might not. Researchers these days often depend on interdisciplinary collaborations to make progress in their research.

And if you are, say, a molecular biologist, you cannot expect a biomedical engineer who could contribute to your work to read the molecular biology journal that publishes your latest paper. However, that engineer may well read *USA Today*, *Scientific American*, *Science, Nature*, *New Scientist*, or *Chemical & Engineering News*—all of which may publish articles on your research findings. So, besides alerting your peers about your work, lay-level research communications will broaden your reach to other fields.

Also, with the ubiquity of the Internet, news releases now disseminate information on your research instantly and globally, and on an equal basis with the major media. For example, a news release on your latest paper, distributed by such global research news services as EurekAlert!, will be listed on Google News and Yahoo News right along with stories from the *New York Times* and other media outlets.

In contrast, your scientific paper might or might not be picked up by search engines, depending on the journal. In fact, many scientists search out news releases as accessible summaries of a piece of work and its implications. So, unless you effectively use this global information medium, as well as the other available news outlets, you are only doing part of the job of communicating your research.

You might find it hard to believe, but media coverage can also influence literature citations of your findings by other researchers. Indeed, studies have shown that media stories on a paper can influence subsequent citations of your paper.

For example, in a classic 1991 study in the *New England Journal of Medicine* (*NEJM*), David Phillips and colleagues reported finding such media influence when they analyzed coverage of medical research papers in the *New York Times*. In a clever approach, they took advantage of a 1978 strike at the *New York Times*. During that strike, *Times* reporters continued to select scientific papers for coverage and to write articles for "editions of record." However, these articles were not printed or distributed in published *Times* editions.

In their study, Phillips and his colleagues compared the number of subsequent scientific citations of a sample of *NEJM* papers covered in published *Times* articles with citations for those papers covered during the strike, but only for the record. They found that the *NEJM* papers covered in published *Times* articles received a disproportionate number of scientific citations compared to those written during the strike.

More anecdotally, my PIO colleagues and I have found over our careers that our news releases generate many queries for further information from other researchers. And those queries have led to scientific contacts and to citation of the work in other papers.

News releases and other communications also serve an important protective function for you. They constitute your approved public statement about your research and its implications, explained precisely as you want it explained. They also formally give credit to colleagues and funding agencies.

Such public statements are important because invariably some media reports on your work will misrepresent your experiments or fail to give credit to colleagues. In such cases, you can point to your own news releases as the authoritative public statement on your work. And since the news releases distributed by your institution appear on Google, Yahoo!, and other search and Web news sites alongside those media reports, they offer an instant public correction of mistakes.

News releases and other lay-level explanations of your work can also explain the implications of your research in a way that even the most brilliant scientific paper cannot. For example, a scientific paper—even a widely read review paper that highlights your research—usually only has room for the briefest allusion to the implications of your work. Explaining your work through lay-level communications enables you to offer such a broader perspective.

So, for these many reasons, explaining your research beyond even your most seminal research paper or your most brilliant talk should be integral to your research communications strategy. And your PIO can be an invaluable ally in developing that strategy. ■

INAUGURAL LAURA VAN DAM FELLOWSHIPS ANNOUNCED

NASW is pleased to announce the three recipients of the inaugural Laura van Dam Travel Fellowships, which were awarded this year as a tribute to our late NASW president.

Each will receive a $2,500 fellowship toward their attendance at the upcoming meeting of the World Congress of Science Journalists in Melbourne, Australia. The recipients are:

Emily Sohn, a freelance science writer based in Minneapolis, Minn, who is interested in reporting science news for children and middle schoolers.

David Wolman, a freelance science writer and author based in Portland, Ore., a former Fulbright Fellow who has a strong interest in environmental issues.

Betsy Mason, a staff science writer at the *Contra Costa Times*, who expects to report on a variety of issues arising from presentations at the conference.

Screening the fellowship applications was Deborah Blum, at the University of Wisconsin, and NASW's international liaison. The NASW officers made the final selection. ■

TOM SIEGFRIED WINS AGU'S COWEN AWARD IN SCIENCE JOURNALISM

Tom Siegfried, freelance writer and former science editor of the *Dallas Morning News*, has been named winner of this year's Robert C. Cowen Award for Sustained Achievement in Science Journalism. The award is presented by the American Geophysical Union (AGU) to "an individual who has made significant, consistent, and lasting contributions of high quality in science journalism, particularly in the coverage of subjects related to the Earth and space sciences."

In selecting Siegfried, AGU recognized above all his tenure at the *Dallas Morning News* (1985-2004), where he created and nurtured one of the most respected science departments of any U.S. newspaper. He wrote over 900 weekly columns on aspects of science and its role in society, demonstrating a broad knowledge of diverse scientific fields. His column now appears every second week in The Why Files, an online science publication of the University of Wisconsin-Madison.

At the *Dallas Morning News*, Siegfried hired and trained a team of reporters to specialize in specific aspects of science and medicine. Siegfried has considered it a duty to encourage and mentor young science writers. He annually hosted an AAAS Mass Media Fellow, as well as interns, at the *Morning News*, and some of his "alumni," both staff and fellows, have developed distinguished careers of their own at such publications as *Nature*, the *Los Angeles Times*, and the *St. Louis Post-Dispatch*. As a member of the board of directors of the Council for the Advancement of Science Writing, Siegfried has helped assure that science journalists stay abreast of new developments and that reporters meet with leading researchers in a variety of fields.

The Robert C. Cowen Award for Sustained Achievement in Science Journalism is named for the distinguished former science editor of the *Christian Science Monitor*. ■

(Source: AGU news release)

ScienceWriters *welcomes letters to the editor*

A letter must include a daytime telephone number and e-mail address. Letters may be edited. Letters submitted may be used in print or digital form by NASW. Send to Editor, *ScienceWriters*, P.O. Box 1725 Solana Beach, CA 92075, fax 858-793-1144, or e-mail lfriedmann@nasw.org.

RELIGION NEWSWRITERS LAUNCHES ONLINE RELIGION STYLEBOOK

The Religion Newswriters Association (RNA) announces the first religion stylebook aimed at the mainstream media. ReligionStylebook.org, a stylebook and glossary created for journalists who write about religion, is free and posted online.

Modeled after the well-known *The Associated Press Stylebook*, RNA's stylebook includes definitions, usage guidelines, preferred spellings, religious titles, pronunciation guides, terms for current news stories and other entries the AP stylebook does not cover.

The guide is searchable online in beta form at **www.ReligionStylebook.org**. To suggest entries, please e-mail comments@ReligionStylebook.org. ■

LETTERS

Many thanks for Earl Ubell's report on the latest technology (*SW*, Winter 2006-07)! It brought back vivid memories of the machines that changed my life, my beloved Xerox 820 computer and NEC Spinwriter Thimblewheel printer. For only $6,000 (1980 dollars), which today would probably buy me enough computing power to run my own space station, I acquired the dazzling devices that thrillingly supercharged my productivity. It only took a few minutes to load the 820's operating system each time I booted up. Remembering the dozens of keystroke combinations wasn't hard, because they were always right there, taking up half of the gray screen, which was about half the size of a sheet of typing paper. The 820's screen was a soothing white on gray, none of that down-market, eye-burning green of lesser machines. A floppy disk could hold 10 whole pages of text, which meant that I could write a book on a mere 30 or so disks. And the printer, miraculously, clattered out a perfectly typed page of text just about every minute.

This was a revelation and a revolution. No more struggling not to smear the corrections on the fourth carbon! No more retyping an entire article in order to add a line! When I entered the computer age, buying my Xerox CPM system, with brilliant technological prescience, a mere month before the first IBM PC appeared on the market, I was an early adopter. (And Darwin notwithstanding, CPM was a sweet, elegant system and far less clunky than the MS systems that made it extinct.) Now, the advance of computer technology has left me in the dust. But nothing—not even the joys of the Internet—has since matched that sense of dramatic

possibility, that moment of wild surmise, when I first glimpsed, at a pioneering computer show in the D.C. Armory, what these mysterious new machines could do for me.

Beryl Lieff Benderly
Freelance
Washington, D.C.

You made Earl and me very happy with your letter and copies of the newsletter. He is in a nursing home with dementia, but comprehends much more than he can express. He loved hearing his article, of so long ago, read to him. Thanks.

Shirley Ubell
Hackensack, N.J.

NOTICES FROM DIANE

Dues, roster, database

PHOTO BY ANDREW SKOLNICK

The bell has tolled. If you wish to be listed in the 2007 Member Roster your checks and credit card numbers must get here ASAP. May 15 is the cut-off date. Miss that date and you will be dropped from the database and stop receiving member benefits. A reminder: If renewing dues online (**nasw.org/NASW/renewals.htm**) by Visa or Mastercard the three-digit security number (back of the card) is needed to process your payment. Also needed is your billing address for the card.

Victor Cohn Award deadline

Deadline for this year's CASW-Victor Cohn Prize in Medical Science Writing deadline is July 31. Entry form brochures will be mailed out soon. The award will be presented during this year's CASW New Horizons in Science Briefings, in Spokane, Wash.

2006 New Horizons videos available

Videos of most of the 2006 New Horizons in Science Briefing presentations, synched with the presenter's PowerPoint slides, are available at **www.jhu.edu/newhorizons**. This is a first and hopefully proves to be a valuable resource for NASW members. ■

SCIENCE WRITERS 2007 JOIN SASQUATCH IN SPOKANE

NASW's Science in Society Meeting and CASW's New Horizons in Science Briefing* takes place Oct. 19-23, 2007, in Spokane, Wash. Plan to attend for:

- Skill-Enhancing Workshops
- Briefings on Top Science and Medicine Developments
- Lab Tours and Field Trips

Program, registration, and hotel information (featuring rates as low as $70/night) available online Aug. 1.

In the meantime, for more information contact NASW Science in Society annual meeting organizer Tinsley Davis at workshops@nasw.org or 617-417-3632.

*Hosted by the Pacific Northwest National Lab. ■

This playful invitation is a call for science writers to gather for the "Big Waves, Great Minds, and Fine Wines" of Spokane, Wash. It remains to be seen if the elusive—and apparently sophisticated—Sasquatch will appear to sample the grape, but the stimulating dialog and informative workshops are sure to tame the biggest and wildest of science journalists.

COURTESY OF PACIFIC NORTHWEST NATIONAL LABORATORY

STATUTE OF LIMITATIONS ON STUDENT MEMBERSHIPS

In recent months, a number of membership renewals have been received in which members have attempted to change their membership status from "regular" to "student" (and sent in correspondingly lower dues). It doesn't work that way.

- Once accepted as a regular member you cannot return to student status
- Renewing student membership requires proof of course credit
- Student membership is valid for two years only
- Therefore, student members must apply formally for regular membership (i.e., you cannot renew online and bump yourself up to the regular category) which means an application, two NASW members as sponsors, and the submission of five clips

Frankly, it's hard to figure a motivation for a regular member to wish to revert to student membership. Students ARE NOT listed in the printed roster or online database, DO NOT receive mailings, and CANNOT run for the board nor vote in board elections. ■

OUR GANG

by Jeff Grabmeier

PHOTO BY JO McNULTY, OHIO STATE

Heroes. NASW members swept the American Geophysical Union's 2007 journalism awards. This year's awards honored three writers on issues related to natural hazards and human impacts. **Betsy Mason** (elmason@nasw.org) received the David Perlman Award for Excellence in Science Journalism—News for her series in the *Contra Costa Times* on the centennial of the San Francisco earthquake, based on a conference commemorating the event. **Kenneth Weiss** (ken.weiss@latimes.com) and **Usha Lee McFarling** (usha.mcfarling@gmail.com) received the Walter Sullivan Award for Excellence in Science Journalism—Features for their series with the overall title, "Altered Oceans," published by the *Los Angeles Times*.

Happy Days. Freelancer **Alison Bass** of Newton Lower Falls, Mass., was one of eight journalists selected to receive American journalism's oldest writing fellowship, an Alicia Patterson Foundation grant. Alison received the prestigious 2007 fellowship for a book she is currently researching and writing. The book, which is slated to be published by Algonquin Press in early 2008, is tentatively titled *Speaking Truth to Power: A Story of Greed, Betrayal, and Justice in the Making of a Best-Selling Drug*. Alison can be found at abass@rcn.com.

Everybody Loves Kelli. Another award-winning freelancer is **Kelli Whitlock Burton** of Columbus, Ohio. She won the Association of American Medical Colleges' 2007 Robert G. Fenley Writing Award. Kelli won for a story she did for the University of Chicago's *Medicine on the Midway* magazine. The story, "Mind Over Matter," appeared in the summer 2006 issue. Ask Kelli about the award at kelli_whitlock@nasw.org.

Northern Exposure. **Peter Calamai**, national science writer for the *Toronto Star*, is the 2006 recipient of the Sandford Fleming Award, presented by the Royal Canadian Institute for the Advancement of Science. The award is presented for outstanding contributions to the public understanding of science. It honors those "who bridge the gap between the lab and the people, increasing understanding of the methods, subjects and results of scientific study," the institute said. Send your congratulations to pcalamai@thestar.ca.

Science Writing With The Stars. **Marcia Bartusiak**, veteran freelance science writer and a visiting professor at the Massachusetts Institute of Technology, joined several venerable physicists in receiving the American Institute of Physics' Gemant Award. The Gemant Award annually recognizes the accomplishments of a person who has made significant contributions to cultural, artistic, or humanistic dimension of physics. Marcia won for her body of work which includes numerous popular books on astronomy and cosmology, among them "Einstein's Unfinished Symphony," "Thursday's Universe," "Through A Universe Darkly," and most recently, "Archives of the Universe." Marcia can be congratulated at bar2siak@mit.edu.

The Wonder Years. **Kenneth Chiacchia**, senior science writer at the University of Pittsburgh Medical Center, has been busy lately. He has taken over responsibility for the *UPMC Health Journal*, a quarterly magazine that profiles faculty, staff, and patients at the medical center. Ken also received honorable mention in the journalism category of the 2007 Carnegie Science Center awards. He received the honor for his journalistic body of work since 1993, which included both PR and freelance articles, including "8 Things Hackers Hate about You," a piece on civil liberties and the crackdown on hackers. Talk to Ken at chiacchiakb@yahoo.com.

Who Wants to Be a Science Writing Award Winner? The honors just keep on coming to NASW members! Please give a round of applause to **Peter Brown**, editor-in-chief of *Natural History* magazine and

Jeff Grabmeier is assistant director of research communications at Ohio State University in Columbus, Ohio. Send news about your life to Jeff at Grabmeier@nasw.org.

Dan Drollette, a freelance writer based in Northampton, Mass. They are among this year's six National Tropical Botanical Garden environmental journalism fellows. The program will take place May 21-26 on the island of Kauai, Hawaii. The NTBG Environmental Journalism Fellowship provides journalists in broadcast, print, and online media information about tropical ecosystems and deep background in tropical ecology to enhance the accuracy of reporting on science and environment issues. Peter is at pbrown@nhmag.com and Dan can be found at DanDrollette@nasw.org.

Extreme Makeover: Magazine Edition. Big changes are afoot at *Chemical & Engineering News*. **Pamela Zurer**, a pillar of *Chemical & Engineering News* for the past 26 years, retired early this year as deputy editor-in-chief. Also at the 84-year-old magazine, **Ivan Amato** moves up to managing editor from his previous position as senior editor. Ivan can be found at i_amato@acs.org.

The West (Coast) Wing. **Warren Froelich** has switched coasts again. Warren, most recently director of communications at the American Association for Cancer Research, in Philadelphia, is now the director of communications and public relations at the San Diego Supercomputer Center, which is based at the University of California, San Diego. This is a homecoming of sorts for Warren who, prior to working at AACR, was director of science communications at UCSD and later director of communications at The Salk Institute. Warren's new e-mail address is froelich@sdsc.edu.

Touched By A PIO. Former freelancer **Hannah Hickey** has a new job. Hannah has given up freelance writing on physical science and biology to become a PIO at the University of Washington's college of engineering. She will be covering the university's computer science, biotech, robotics, and some global-health research. Hannah reports that she may eventually go back to freelancing on the side, but for now will concentrate on her new job. Chat with Hannah at hickeyh@nasw.org.

America's Funniest Science Writers. Freelancer **Lynne Friedmann** got the middle finger from Galileo. And no, I am not making this up (too much). Lynne received a letter from the U.S. Navy recently thanking her for past participation in its summer internship program for engineering students at the San Diego Space and Naval Warfare Command (SPAWAR) and asking for a repeat visit this summer. And, as a small token, enclosed in the envelope was a handsomely struck coin, one side of which was stamped with a rather conventional Navy symbol the other side engraved with an artist's rendition of a photograph of Galileo's middle finger. Huh? The insert explains the photo of the digit was surreptitiously taken by a SPAWAR employee while visiting Italy. The finger was taken as a souvenir from Galileo's body in 1737 (95 years after his death) and put on public display. But in answer to the question "Why Galileo's finger on the coin?" The answer from the Navy: Because we had this cool picture! Lynne is at lfriedmann@nasw.org.

Myth Buster. **Hal Hellman**, a freelancer from Leonia, N.J., scored an appearance on the Jan. 21 edition of *CBS News Sunday Morning*. Martha Teichner was doing a segment on the Donald Trump/Rosie O'Donnell feud; Hal explained how their feud contrasted with some of the great feuds he covered in his four "feuds" books (*Great Feuds In…Science, Medicine, Technology, and Mathematics*). Hal can be contacted at hal.hellman@earthlink.net.

Survivor. After seven years as a science writer at *Newsday*, **Bryn Nelson** is moving on. For a couple of months, Bryn is traveling through Central and South America. Upon his return, he will pursue a freelance career. Wherever he ends up, you will be able to reach Bryn through his NASW e-mail address bdnelson@nasw.org.

The (New) Office. **Jennifer Donovan** is leaving Howard Hughes Medical Institute (HHMI), where she has been communications officer, to be director of public relations at Michigan Technological University, in Houghton. Congratulations Jennifer! ■

REGIONAL GROUPS

by Suzanne Clancy

New York


PHOTO BY MARC LIEBERMAN

On Dec. 5, the New York Public Library's Science, Industry, and Business Library (SIBL) presented a session designed for SWINY (Science Writers in New York) entitled "Free Resources for Science Writers." Catering to a packed house of more than 30 inquisitive writers at computer terminals, librarians covered the burning questions of who can get a New York Public Library card, how to use the library's resources onsite, and how to maximize the library's online databases from home with a library card. Library cards are free to NY state residents, but anyone can do research on-site at SIBL—34th Street and Madison Avenue, in Manhattan. SIBL has also been providing free space this year for SWINY board meetings.

Last year SWINY started holding its annual party in the middle of winter, to honor a famous scientist with a midwinter birthday. This Feb. 7 it toasted

Suzanne Clancy manages corporate communications for Nanogen, Inc., in San Diego, Calif. Send information about regional meetings and events to sclancyphd@yahoo.com.

astronomer and physicist Galileo Galilei, born in February 1564 (Gregorian calendar). A crowd of around 60 people navigated to the elegant Chemist's Club, in midtown Manhattan, to meet old friends and make new ones. Many attendees won door prizes such as astronomy books supplied by local publishers. To see highlights of the event, including photos of guests, as seen through the lens of the camera and the eyes of quick-sketch artist Marty Macaluso, visit the party's slide show on **www.swiny.org**.

Washington, D.C.

The D.C. Science Writers Association had a busy fall and winter packed with monthly programs. Current membership now stands at 426. Most members are from the D.C. area. However, the group's low annual dues ($20), extensive members-only membership directory, public freelance writers' list, and free, real-time, members-only jobs listing, has attracted members from as far away as Argentina. A new Web site also features discussion boards and member profiles at **www.dcswa.org**. Highlights from recent activities include:

- Blogs, Beyond, the Buzz—According to Matthew Nisbet, assistant professor, school of communications, American University, and author of the Framing Science blog, a key use of blogs is akin to political talk radio, they promote a certain point of view and reinforce that point of view for their readers.
- Billiards Bash—DCSWA and the Society of Environmental Journalists enjoyed a rousing 8-ball tournament. DCSWAn and NASW member Jonathan Lifland was crowned the evening's top pool shark.
- Lab on Chip—A panel of experts from the Carnegie Institution of Washington and the National Institute of Standards and Technology described the rapid advances occurring in miniature chips designed to look for life on Mars, recreate the "recipe" that started life on Earth, and speed up analysis of forensic DNA samples. Best quote of the evening: "If it is ACGT on Earth, it could be LMNOP on Mars."
- Winter Gala—As usual the highlight of the year with about 125 attendees, good food, and science-themed musical entertainment.
- Science of Shipwrecks—Talks by a marine archeologist and historian from East Carolina University and the Naval Historical Center described expeditions to two Civil War-era shipwrecks, the Confederate submarine the H.L. Hunley, which sank in the Charleston, S.C., harbor and the U.S.S. Monitor, which sank off Cape Hatteras, N.C.
- House Science Committee—Bart Gordon (D-TN), chairman of the House of Representatives Science and Technology Committee and 10 of the committee's staff members highlighted the committee's plans for the 100th Congress and answered questions. Gordon said the committee will emphasize competitiveness and innovation issues highlighted in the National Academies' 2006 report, *Rising Above the Gathering Storm*, such as science and math education, improving energy independence, and reducing costs and improving health care with interoperable information systems. ■

NEWS FROM AFAR

by Istvan Palugyai

The European Union of Science Journalists' Associations (EUSJA) is celebrating its 35th anniversary. This is a very respectable jubilee, since few nonprofit, non-governmental, unincorporated organizations exist in the field of science communication in Europe or even worldwide. This is a remarkable milestone for our community.

Colleagues from seven science journalist associations laid the foundations of EUSJA in March 1971 creating an umbrella organization to promote contacts between science writers in different countries in Europe. This was an initial step for a large international network of professionals who were active in the field of communication linking scientists and society. Through several study trips—which became the basis of EUSJA activities—science journalists were able to get to know each other, become friends and gained personal impressions and useful information form several foreign science institutions. After the fall of the Berlin Wall, EUSJA opened the gate toward the East and now our family consists of 24 science journalists associations from 23 countries.

This year we changed our constitution and from now on more than one science journalist association from an individual country can become a EUSJA member. Medical,

Istvan Palugyai is president of EUSJA, a networking organization for European science writers that promotes responsible science journalism and the public understanding of science. More information at ***www.esf.org***.

EUSJA Publishes History of European Science Journalism

In commemoration of its 35th anniversary, EUSJA has published history of the umbrella organization and many of its member groups. *The Barriers Are Down, EUSJA Advances Across Europe*, is a unique book on science journalism in Europe. Much of the book's content is available online at **www.pm-magazin.de/de/nurinternet/artikel_id448.htm**

technical, or environmental journalist associations can now apply to join us. At the last assembly we voted positively for the application by the German science journalist association, WPK, to be an official EUSJA member.

With these more flexible regulations, together with the necessity of the preliminary reconciliation of the compatriot associations and the unchanged "one country one vote" principle, I really hope the viability and visibility of EUSJA will be stronger.

However, we really need to revitalize the motivation in several member associations for organizing EUSJA visits, study trips, and events because this is a key to our future.

One tool for strengthening the united EUSJA feeling is the current WONDERS project which is an interesting European initiative of three nonprofit organizations in the field of science communication—EUSCEA (European Science Events Association), ECSITE (European Network of Science Centers and Museums), and EUSJA. We gained generous EC (European Commission) funding, and I hope all the participating member associations will finish the project at the end of the year well satisfied. In addition, EUSJA's bank balance will be happier as the association, as well as individual members, will benefit financially. Our next project is the celebration of our 35th anniversary at the end of the year. ■

Upcoming international meetings

Sept. 9-15, 2007. ***British Association Festival of Science***, City of York, U.K. (**www.the-ba.net/the-ba/Events/FestivalofScience**).

June 16-18, 2007. ***36th Annual Conference of the Canadian Science Writers Association***, London, Ont. (**www.sciencewriters.ca**).

June 25-27, 2008. ***10th PCST Conference***, Malmo (Oresund Region), Sweden (**www.vr.se/pcst**).

July 18-22, 2008. ***3rd Euroscience Open Forum (ESOF08)***, Barcelona, Spain (**www.esof2008.org**).

CORRECTION

Conspicuous by its absence. Some eagle-eyed members noted the last issue carried an inside-this-issue teaser on the "Charlie Rose Science Series" (*SW*, Winter 2006-07). That story was pulled due to a last-minute layout substitution. Information on this series can be found at **www.charlierose.com**. ■

BOOKS BY AND FOR MEMBERS

By Ruth Winter

Honored recently with the NASW Diane McGurgan Service Award for writing this column, I began to think about when I first started producing it on a word processor that had replaced my Royal typewriter. It was the golden age of science writing and a number of the members' books became best-sellers. Newspapers had science editors and there were many educational science writers' conferences for journalists. You know how things have changed. Newspapers have cut back and there are few science specialists on their staffs. Popular magazines—from which one could make a decent living 20 years ago—have mostly abandoned serious science articles for entertainment and sensational exposes. Books have become products and writers must have a "platform"—which really means their books have to have a "pre-sold" audience. On the positive side, we may now do most of our research on line and interact with editors and scientists by e-mail. There are currently ways for us to produce our books without an editor or publisher. Our books may be downloaded (in fact I did my master's thesis on the non-print book).

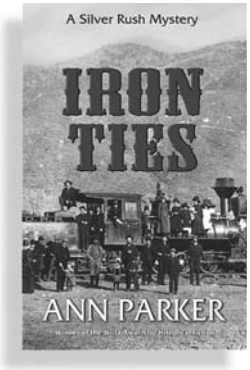
John Miedema, who bills himself as a part-time librarian student and full-time geek, writes in an online article "The persistence of the book" (**johnmiedema.wordpress.com**):

> The persistence of the book through the digital age is cause to stop and reflect. Everyone has heard the prediction of a paperless society in which books were to be replaced by superior digital technology. A generation believed this prediction. Even those whose livelihood depended on books, the librarians, believed it and struggled to recast their profession. There was some basis for this belief. Other technologies like the typewriter had passed on in favor of the computer, and each year a new and improved version of e-book was touted on the market; it seemed only a matter of time. It has been more than a generation since the prediction was first made. Yet books persist. Paper, books, and libraries are thriving and essential elements of our daily business and culture. The prediction was in error.

My son, a computer engineer, always tells me when I complain about the writing market, "It all comes down to content… It doesn't matter the form it is in!"

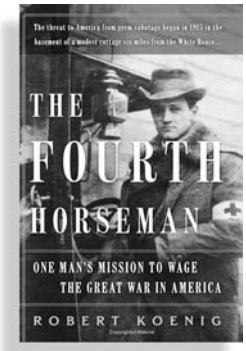
As this column proves, members of this organization still persist and turn out worthwhile books on subjects in which they have a great interest—whether or not the books will make them richer or poorer. Of course, hope springs eternal and every writer hopes for a best-seller or at least a long seller. As long as NASW members keep writing books, therefore, I'll keep describing them for as long as I am capable. I thank NASW for the Diane McGurgan Service Award, but for me, this column is a privilege and I will continue to appreciate the creativity of our member-authors.

***Iron Ties* by Ann Parker (NASW), published by Poisoned Pen Press.**



Parker's book is the sequel to her first historical mystery, *Silver Lies*. She says she originally became interested in Leadville, Colo., in the late 1990s when she first learned her paternal grandmother had been raised there—something she learned about long after her grandmother's death. "I did a little research at the urging of my uncle and became fascinated by the town's rambunctious history—particularly the 'silver rush' period that ran from the late 1870s through the 1880s." Parker, a science writer at the UC/Lawrence Livermore National Lab, said. "This period was much like other boom times in our history…gold rush, dot-com boom, etc. I like to frame my stories around certain historical events that catch my interest." In the case of *Iron Ties*, the events that got Parker going were: 1) The coming of the railroad to Leadville in July 1880 (when the town already had well over 20,000 people and more coming in every day). There was an explosive (literally!) railroad war between the Denver & Rio Grande RR (D&RG) and the Atchison, Topeka and Santa Fe RR (ATSF) as to which would get right-of-way through the Royal Gorge and be the first to get to Leadville. They fought on the tracks and in the courts, and the D&RG won. The "what-if" of fiction led Parker to think, "Surely just because the courts said that D&RG won, not all were happy with that decision." 2) The first train to Leadville, on July 22, 1880, brought none other than Ulysses S. Grant. When she read this, Parker thought, "Hmmm. It's only 15 years after the Civil War. There were veterans from both sides building the tracks and working the mines. How would they have felt, knowing this man was coming to town?" Parker can be contacted at 925-784-2578 or annparker@annparker.net. More information appears on her Web site www.annparker.net. Poisoned Pen Press can be reached at 800-421-3976.

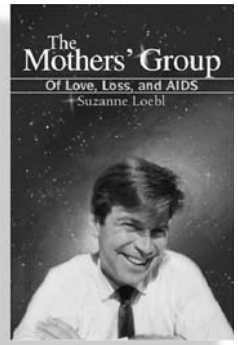
***The Fourth Horseman: One Man's Secret Mission to Wage the Great War in America* by Robert L. Koenig (NASW), published by PublicAffairs/Perseus Books Group.**



If a movie company doesn't snap this one up, it will be surprising. *The Fourth Horseman* tells the story of the 20th century's first foray into biological warfare, a World War I German Army sabotage campaign that featured a "germ factory" in the basement of a cottage in Washington, D.C. The book's main character is a Virginia-born doctor and German spy, Anton Dilger, who studied medicine at the University of Heidelberg and Johns Hopkins University, and was the descendant of a great German physiologist. Ironically, Dilger's own immigrant father won the Congressional Medal of Honor but Dilger, himself, was awarded Germany's Iron Cross for his sabotage and espionage. Koenig, based in Pretoria, South Africa, is a contributing correspondent for *Science*. He says he started researching the topic—the origins of biological warfare and sabotage in the 20th century—in the months following the anthrax bioterror attacks in the fall of 2001. "Originally, I intended to write about how and why the anthrax bacterium, *Bacillus anthracis*, has been used as a weapon of war, sabotage or terror. I spent a great deal of time in 2002 pouring over documents at the National Archives and Records Administration, in College Park, Maryland, and the single most fascinating story I encountered involved the circumstances surrounding the first use of anthrax as a weapon by German saboteurs in 1915-16. It was a story that had been mentioned previously, but never fully told." Koenig said he eventually decided to focus on this one man's story to the extent that he could dig up the details from archives, family letters, interviews, and secondary sources. "My goal was to reconstruct the mindset, motives, and techniques of a doctor turned spy who betrayed his native country in the service of a Prussian autocracy that eventually abandoned him. That task proved to be daunting. Piecing together Dilger's story was like reassembling shards of a smashed mosaic that had been scattered for nearly a century. He was a German spy, after all, and spies don't tend to leave paper trails." Koenig says that while *The Fourth Horseman* is partly a story about science, it is also a story of espionage, military history, and U.S. social history—reflecting the divided loyalties among German-Americans in the years leading up to the Great War. Ironically, in the end, the germ warfare pioneer fell victim to a lowly

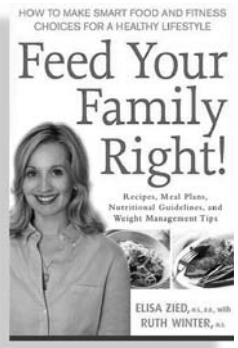
virus—the Spanish flu. Koenig can be reached by phone/fax 27-12-998-9503, by cell 27-73-343-6880, or at rob.koenig@gmail.com.

***The Mother's Group: Of Love, Loss, and AIDS* by Suzanne Loebl (NASW), published by ASJA/ iUniverse.**



Loebl, a Brooklyn, N.Y., freelance, writes about AIDS not only as a science writer but as a mother who lost a son to the disease. She says that in 1983 many parents turned their backs on their children with AIDS, while a few rallied to their side. When the virus infected Loebl's son, David, she joined a support group that came to be known as the Mothers' Group. Her book chronicles the lives of the members who fiercely and tenderly stood by their children. The women quietly submerged their own grief, confronted a hostile world, and dealt with complex medical issues. Most of all, they helped their progeny enjoy whatever time they had left on earth and provided an anchor amidst fear and despair. She says, "When the disease entered my life, it affected only a handful of people, mostly gay or intravenous drug users. Since society considers these groups marginal, no great effort was expended to stop the disease. By the time scientists, physicians, educators, and epidemiologists marshaled their forces, the disease had spread around the world…Even though HIV/AIDS can now be controlled successfully, the drugs are so expensive that in developing countries only one patient out of six receives adequate treatment." It took Loebl, a science writer, 10 years to write this book. She concludes her book, "Perhaps, at long last, I am able to accept that David is no longer physically here on earth, but that he will be with me wherever I am." Loebl can be reached by fax/phone at 718-875-2622 or Suzylo@aol.com. Her Web site is SuzanneLoebl.com.

***Feed Your Family Right!: How to Make Smart Food and Fitness Choices for a Healthy Lifestyle,* by Elisa Zied, MS, RD with Ruth Winter, MS (NASW), published by Wiley.**



Zied is a registered dietitian, a national spokesperson for the American Dietetic Association, and the co-author (with Winter) of *So What Can I Eat?!* Zied's work has appeared in *Weight Watchers* magazine and in *Seventeen* magazine, where she was a contributing editor. Zied is frequently quoted in national publications and she appears regularly on CBS TV's The Early Show. *Feed Your Family Right* contains nutrition guidelines and recipes designed to make family meals simple, healthy, and delicious. It shows how to make a nutrition plan for each member of the family, set realistic goals, and achieve and maintain a healthy weight. Zied's Web site is elisazied.com and Winter's is brainbody.com. Zied can be reached at 212-249-5078, by fax at 212-249-5079, or at nutritionmadeez@aol.com. [NOTE: Zied and Winter originally wanted to title the book *Fitting Into Your Genes* or *How To Avoid Family Food Fights* but they were over-ruled, as most authors are, when it comes to titles. This is Ruth Winter's 36th book.] ■

Send material about new books to Ruth Winter, 44 Holly Drive, Short Hills, N.J. 07078, or e-mail ruthwrite@aol.com. Include the name of the publicist and appropriate contact information, as well as how you prefer members get in touch with you.

NEW MEMBERS

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