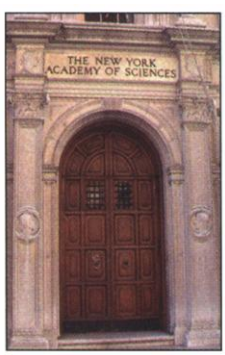
The Future of the NYAS

JEFFREY MERVIS'S PROFILE OF THE NEW YORK Academy of Sciences (NYAS) ("How fast can an old dog learn new tricks?" News Focus, 8 March, p. 1824) illustrates the challenges faced by multidisciplinary organizations in serving their members in a rapidly changing world—how to fulfill our missions and stay relevant to our members, while remaining financially healthy and independent.

Mervis largely excludes what the Academy is doing to meet these challenges. While searching for a new leader, we are already putting in place several strategies that exploit our core strengths, such as expanding our program of conferences on interdisciplinary frontier issues. Under a new initiative on "mind, brain and society," for example, we have already scheduled integrative conferences on the cell biology of Parkinson's disease and the roots of mental illness in children, as well as programs that bring biologists, social scientists, ethicists, and humanities scholars together to discuss the nature of the self, the prevention of youth violence, and the role of beauty in art and science.



Our meetings in New York have been strengthened by the addition of new series of programs in "hot" areas, and we are exploring Academy-sponsored lectures and multidisciplinary meetings in different cities on issues of current interest in the United States and abroad, to allow more members to participate in activities closer to where they live.

The Academy's science education efforts also are being enhanced by organization of national and international discussions and working groups on specific issues related to how students are taught and learn science. And we will continue to serve government, business, and society at large in an advisory capacity.

In short, the "old dog" of your headline is well on its way to demonstrating some bright new tricks as it approaches its 200th birthday.

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MERVIS'S ARTICLE DOES NOT PRESENT A complete picture of a vital and important organization in the scientific community. From his article, it would seem that everyone on the Academy's Board of Governors is either unhappy about recent events or abandoning the ship altogether. As a current Board member and former Board chair, I can assure you that this is not the case. I believe that the majority of my colleagues are committed to the organization, confident about its ability to withstand the current storms, and excited about its future. As in any governing body, there are differing opinions about particular directions or actions to take, but there is strong endorsement of the overall strategies and support for current chairman Torsten Wiesel.

Two issues before the Board repeatedly in recent years were the future of *The Sciences* magazine and declining membership numbers. The magazine was a respected publication that many of us loved, but it was a terrible financial drain on the Academy and it provided virtually no coverage of Academy activities or concerns. Consequently, few members of the public even knew that the magazine represented the Academy. Many of our members expressed dismay when the magazine was shut down, but the greatest decline in the Academy's membership occurred while the magazine was being published. In fact, the 12-month membership renewal rate has actually improved slightly since the magazine's demise.

The Academy is 15 years away from its 200th anniversary. I believe—as do many, many others—that it will reach that milestone in fine shape, with an even stronger future ahead.

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IN HIS ARTICLE ABOUT THE NYAS, MERVIS reports several assertions by former Academy CEO Rodney Nichols that seriously distort both the financial circumstances of the Academy's erstwhile magazine, *The Sciences*, and the views of Academy members toward it.

Most misleading is the claim in Mervis's article that *The Sciences* was "losing about $750,000 annually." Those "losses," however, were a consequence of the way members' dues were allocated. Shortly before the magazine was shut down in May 2001, the allocations of members' dues to income for *The Sciences* were reduced to zero. That did indeed produce a $750,000 "loss."

Another of Nichols's misdirections, also reported by Mervis, is the claim that people who dropped their Academy membership rarely took out a subscription to *The Sciences*. What Nichols neglected to mention is that the Academy never tried to identify "stealth" subscribers who had once been members, nor did it ever knowingly market subscriptions to lapsed members. Most members were probably not even aware that stand-alone subscriptions were available at about $20 a year.

In fact, member surveys done throughout the 1990s and continuing into 2000 consistently showed that Academy members rated *The Sciences* as the most important and most satisfying tangible benefit of their membership. Members also rated *The Sciences* as the top reason for renewing their memberships. Perhaps less relevant—but nonetheless a matter of justifiable membership pride—was that the American Society of Magazine Editors repeatedly honored the editors of *The Sciences* for producing one of the best magazines in America.

With good will and renewed interest from the Academy, it is not impossible, even at this late date, that *The Sciences* could be revived. For the reasons amply

Letters to the Editor

Letters (~300 words) discuss material published in *Science* in the previous 6 months or issues of general interest. They can be submitted by e-mail (science_letters@aaas.org), the Web (www.letter2science.org), or regular mail (1200 New York Ave., NW, Washington, DC 20005, USA). Letters are not acknowledged upon receipt, nor are authors generally consulted before publication. Whether published in full or in part, letters are subject to editing for clarity and space.

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documented in Mervis's article, however, the time for such a revival is growing short.

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Collaborating on Public Health Issues

MARCIA HAMBURG'S EDITORIAL "PUBLIC health preparedness" (22 Feb., p. 1425) reminds us that public health remains the essence of domestic security. We neglect it at our peril. But if the anthrax scare was a wake-up call, many states have hit the snooze-alarm, cutting basic public health services yet taking federal dollars earmarked for "bioterrorism." And while federal agencies give monies to states to "plan their planning efforts" and fund yet more "needs assessments," urgent public health needs go unmet.

Computer programmers in the Open Source movement (GNU/Linux) have shown how motivated talent can solve problems collaboratively regardless of institutional borders or commercial or official sanction. Academics and public health professionals in New England are organizing a mechanism to allow the many people with talent and experience in our region to contribute to solving the problems facing public health. We are also working with New England academic institutions to provide cross-institutional educational opportunities for public-sector workers who need additional training to meet the new challenges. New challenges sometimes require new solutions.

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Differing Views on Spinal Cord Repair

IN HIS VIEWPOINT "REPAIRING THE INJURED spinal cord" (Bodybuilding: The Bionic Human, 8 February, p. 1029), Martin E. Schwab summarizes four different repair strategies, namely, neutralizing growth inhibitors, grafting of peripheral bridges (both strategies for inducing regeneration), restoring the activity of remaining fibers, and increasing neuronal plasticity. His lack of emphasis on neuroprotection (rescue of spared axons from delayed posttraumatic degeneration) is puzzling because he points out that in patients with spinal injury, complete anatomical separation of the spinal cord is very rare. This would suggest that spared neurons should receive attention to ensure their continued viability and function. Such neuroprotection is a prerequisite for the therapeutic strategies he mentions.

Schwab's sole reference to neuroprotection concerns treatment with methylprednisolone, currently the only drug approved for use in patients with spinal cord injuries. He comments that whether inflammatory reaction causes further damage to the spared neurons is a matter of debate. We suggest that this statement is an oversimplification. Inflammation is not a single phenomenon of uniform manifestation, but rather a variety of processes that vary in nature, complexity, and outcome. Accordingly, and in light of recent findings in this connection, it would seem that the time has come to stop considering inflammation as "good" or "bad" for recovery, and instead to recognize that inflammation is the way through which the body heals itself and hence that therapeutic intervention should be aimed at controlling and boosting rather than suppressing it.

It is widely acknowledged that the immune system protects us from damage inflicted by external pathogens. A considerable body of evidence indicates that when the damage is caused by an insult that is the result not of foreign pathogens but of destructive self-compounds, protection can be achieved physiologically through an immune response directed against self-compounds. This autoimmune mechanism of spinal cord repair can be boosted by a variety of manipulations, such as transplantation of activated macrophages, passive immunization with autoimmune T cells, or active posttraumatic T cell–based vaccination with myelin peptides (*1*–*6*). These treatments do not merely "enhance myelin clearance." They serve the strategic purpose of boosting a well-controlled inflammation as a tool, directing immune cells to the lesion site (by vaccination with myelin antigens) and helping the body to apply its own repair mechanism for protection and regeneration.

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References
1. O. Rapalino *et al.*, *Nature Med.* **4**, 814 (1998).
2. G. Moalem *et al.*, *Nature Med.* **5**, 49 (1999).
3. E. Hauben *et al.*, *J. Neurosci.* **20**, 6421 (2000).
4. E. Hauben *et al.*, *J. Clin. Invest.* **108**, 591 (2001).
5. E. Hauben *et al.*, *Proc. Natl. Acad. Sci. U.S.A.* **98**, 15173 (2001).
6. M. Schwartz, J. Kipnis, *Trends Mol. Med.* **7**, 252 (2001).

Response

SCHWARTZ AND HAUBEN MISS THE WELL-established point that neuroprotection and repair are two very different kinds of processes.

Neuroprotection has to occur acutely, in the case of the central nervous system within minutes, hours, and perhaps the first few days after the lesion. The processes involved in secondary injury are extremely complex, and the many ways that have been tried to effectively preserve central nervous system tissue after severe trauma or ischemia (stroke) have been largely unsuccessful. The recent data of Schwartz and collaborators showing protective roles of the immune system are very interesting but require confirmation, as findings from other labs emphasize a damaging rather than a protective role of the immune/inflammatory system. My own view is that there is probably a fine balance between positive and negative effects, both probably happen, and we certainly don't understand this system at present. Accordingly, the literature is vast and rather inconclusive. It is for these reasons that I restricted my Viewpoint to aspects of repair rather than neuroprotection.

Repair happens after the damage is done, and the mechanisms involved in spinal cord repair, especially as far as experimental manipulations are concerned, are very different from neuroprotective approaches. The separation of neuroprotection and repair is not only valid in the spinal cord field, but also in brain injury and particularly in stroke. I see no reason to confuse these issues, and I also do not think it is possible to make adequate and in-depth, balanced statements on neuroprotection in the context of a short note beyond what I have already done in the introductory paragraph of my Viewpoint.

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CORRECTIONS AND CLARIFICATIONS

REPORTS: "Field-effect modulation of the conductance of single molecules" by J. H. Schön *et al.* (7 Dec., p. 2138). An incorrect version of Fig. 4 appeared in print. The correct version appears here.