A Global Academy of Sciences

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“All politics is local,” according to a cliché commonly quoted¹ by candidates for public office. But this statement could equally well be turned on its head: nowadays, even local politics is global. The same issues confront the entire planet and all its inhabitants, from the remotest Alpine village to the latest Asian mega-city.

Much of what the scientific community can offer to address the world’s problems is similarly global. Let us consider the topic of stem cell therapies. The potential of this technology, the known or predictable hazards in its application, the pros and cons of using embryonic, adult-derived, or trans-differentiated materials—these are the same everywhere. Yet, each country is busy making national laws and calling upon scientific experts from its own jurisdiction to advise on the process. Time and effort could be saved if there was only one body that could speak for all, and whose advice could be copied to national parliaments and health providers worldwide.

Of course, these agencies are, to some extent, wasting their own time as well. A global organization representing the world’s scientists could encourage governments to harmonize practice and establish universal ethical and regulatory guidelines for safely developing regenerative therapies.

There are many such issues, where we need not only a globally distilled scientific view, but a machinery to act on the advice. The regulations for genetically modified organisms are another obvious example. Not to mention the rules which govern science itself: the use of animals in research, publication ethics, the principles of peer

review, the system of IPR management, or norms for academic degrees.

The universality of the opinions scientists voice is a pre-requisite for their validity. Expert consultation exercises could be conducted far more efficiently and authoritatively, were we to meld ourselves into one Global Academy of Sciences. We already operate and interact as a worldwide community, so it should be relatively simple to devise a structure embodying that norm.

How would such an academy function and what could it realistically achieve?

To be truly representative of such a diverse and idiosyncratic community, it would have to be constituted so as not to fall prey to any sector, lobby, or ideology. On some issues, it would undoubtedly speak with one voice, such as on the protection of research integrity. On others, it would present a plethora of views with equal authenticity and validity, advertising the fact that science itself deals in interpretations, not certainties. It would have to be both democratic and inclusive. The expression of minority opinions and the questioning of orthodoxies would be as important as robust statements of consensus views, even if that might lead to uncomfortable conclusions, such as on climate change. None of these hurdles is insurmountable. They have already been solved in many national science academies as well as in international associations of scientists in specific sectors.

The very existence of a Global Academy of Sciences would make a clear statement to our governments and to our fellow citizens. Whoever actually pays our salaries, we really work for humanity as a whole. If our work leads to a useful invention, to an

advance in medical practice, or just to new knowledge, it is not done for the glory of France, the profit of Peru, or the national security of the United States. We should lobby for funding of basic research to be removed from the hands of national agencies and administered instead by a world body to which nations contribute fairly. This might help eliminate the pernicious effects of short-termism in science: the need always to claim that we are on the brink of a major societal impact that in reality may be decades or centuries away: but nevertheless requires our full engagement and their financial support in the present.

In the event of a global threat—some are already upon us—a global academy could marshal all available expertise to devise the most effective response. It could also create tools and implement programs to improve communication between scientists, educators, and the public. We share a universal obligation to explain ourselves and earn the confidence and respect of humanity.

Global agencies for many complex areas of human activity already exist, some of them intergovernmental, others UN-sponsored or non-governmental: the World Trade Organization, the International Maritime Organization, Amnesty International, to name but a few. Creating a world body to represent scientists and promote the wise application of scientific knowledge is not an idealistic goal beyond reach. For an inherently global activity, such an academy is long overdue.

Conflict of interest

The author declares that he has no conflict of interest.

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¹ Attributed to House Speaker Tip O’Neill: O’Neill TP, Hymel G (1994). All Politics is Local and Other Rules of the Game, Bob Adams Inc., Holbrook MA, ISBN 1-55850-470-2
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