A Global Academy of Sciences

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“A ll politics is local,” according to a
clique 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
scientists 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,
publishation 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 finan-
cial 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, educa-
tors, 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 inher-
ently global activity, such an academy is long
overdue.

Conflict of interest
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