## **ELEMENTS**

## Scientists Without Borders

A new web portal helps connect scientists and coordinate scientific efforts to address the challenges of the developing world.

When Ellis Rubinstein, president of the New York Academy of Sciences (http://www.nyas.org/), was at the World Economic Forum in Davos, Switzerland a few years ago, he overheard two pharmaceutical company CEOs talking about obstacles to distributing drugs in developing nations: "If I'd only known you figured out how to get around that Minister. We wasted six months trying to satisfy their paperwork!" (http://www.nyas.org/publications/updateUnbound. asp?updateID=107). From this experience, coupled with interactions with Jeffrey Sachs, an economist committed to sustainable global economic development, Rubinstein recognized that coordinating existing scientific efforts in the developing world and providing resources where and when they are most needed could have a tremendous effect. But doing so would require networking tools that were then unavailable. To address this need, the NYAS, along with 24 partners that include the Academy of Sciences for the Developing World, the Drugs for Neglected Diseases initiative and the Pasteur Institute, has created a new initiative: Scientists Without Borders (http://scientists withoutborders.nyas.org).

How do you connect the world's scientists? The initial idea was simple: create a web-based portal to serve as a central source of information that mapped organizations' and individuals' activities in developing countries and indicated what these entities needed or could offer. To create this website, Rubinstein enlisted the help of Evelyn Strauss, now the executive director of Scientists Without Borders. Strauss had co-created a website on aging for *Science* (Science of Aging Knowledge Environment, SAGE KE) and thus had experience in designing a web database that responded to the needs and desires of a scientific community. When Rubinstein ran into Strauss at the 2006 Lasker Awards, publication of SAGE KE had recently stopped, and Rubinstein seized the chance to get her involved. Strauss says she was immediately interested; the idea of creating a tool that would enhance scientists' efforts to improve quality of life in the developing world "spoke to me."

Given her broad mission, as Strauss describes, she spent many months talking to people in both the developed and developing worlds to hone the plan for the website. With people in the developing world, one key question Strauss asked was, "what common mistakes do you see foreign organizations making?" The answer was always the same: organizations are continually 'reinventing the wheel'. For example, the people she spoke with told her that "a very well meaning organization may come in and try to do exactly what someone tried to do five years earlier and run into exactly the same stumbling blocks." In other cases, efforts could be even more redundant—as Strauss heard, "three organizations could be in the same place at the same time trying to do the same thing."

When speaking with organizations that had worked in developing countries, Strauss asked questions such as, "when you were setting up shop in Kenya, what challenges did you encounter that someone else might have been able to help you solve if you had known who to ask?" Perhaps more surprisingly, there wasn't just a lack of communication between an organization and one that had preceded it. "Someone told me that he had attended a meeting in Kenya of organizations that were all working within a relatively small area. People were meeting other people that they hadn't previously known were there, even though they were literally working only a few miles apart." The enormity of the communication gap, Strauss says, is obvious to everyone who works in the developing world.

With these stories in mind, Strauss and her colleagues at NYAS and Enforme Interactive, a website development company, have created an online resource that will serve as a virtual network to connect scientists. Profiles can be created for individuals, projects and organizations that describe, for example, what they do or want to do, the resources they need, the resources they can offer and what regions of the world they work in. People can also include details about their scientific expertise and their willingness to travel. For projects, a lasting record will be created through descriptions of what has been accomplished, what the next steps are and what the challenges to these next steps are likely to be. Once you have created a profile, you can connect. With



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the 'globe trekker' tool on the site, you can browse geographically for people, projects and organizations that might be of interest to you. Or you can use the 'find a match' tool to search the information on the site however you'd like. For example, you can seek what you need or an agency that can use what you'd like to provide.

Will Scientists Without Borders work? With very little publicity, at the time of the website launch on May 12, 2008, there were already almost 400 individuals, 140 organizations and 80 projects with profiles. This is a promising sign because, like other networking websites, success will depend on the recruitment of large numbers of active users contributing profiles and information to the database. Thus, despite the many potential challenges (*Nature* **453**, 564, 2008), there is hope that this portal will succeed and be just the first of many initiatives for Scientists Without Borders.

In their early discussions, Strauss recalls that Rubinstein told her that "there is a huge untapped resource in the form of academic researchers who would be willing to donate their time—for example to teach somewhere else in the world—who now have no good way to plug in." However, Strauss notes, trying to figure out who in sub-Saharan Africa needs a chemistry teacher is currently no trivial task for a busy academic. "Activation energy is everything," Strauss says; "if you can lower the activation energy for doing something helpful in the developing world, a lot of people would engage." The barriers are down now—so go ahead and connect!

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