The Critical Importance of Science Education for Society

Bruce Alberts

Chancellor's Leadership Chair in Science and Education, University of California, San Francisco

Three ambitious goals for science education:

1. Enable all children to acquire the problem-solving, thinking, and communication skills of scientists – so that they can be productive and competitive in the new world economy.
2. Generate a “scientific temper” for each nation, with scientifically trained people in many professions, ensuring the rationality and the tolerance essential for a democratic society.
3. Help each nation generate new scientific knowledge and technology by casting the widest possible net for talent.

My preferred strategy for the United States:

1. Science education should have a much larger role in all school systems, but only if this science education is of a different kind than is experienced in most schools today.
2. Making such a change will require a redefinition of what we mean by the term “science education”.
3. To create continually improving education systems, we will need much more collaborative, effective, and use-inspired education research - research that is focused on real school needs and that integrates the best school teachers into the work.
4. Our best teachers need to have a much larger voice in helping to steer our national and state policies, as well as in our local school systems!