A new international alliance of eminent scientists, including several at MIT, is working to pair young people with mentors to bolster the understanding and appreciation of molecular science.

Molecular Frontiers, a new nonprofit based in Cambridge, Mass., is the brainchild of Swedish physical chemist Bengt Nordén, former chair of the Nobel committee for chemistry.

Earlier this year, Shuguang Zhang, associate director of the Center for Biomedical Engineering (CBE), and others at MIT became catalysts with Nordén to launch the idea into a high-energy reaction.

Zhang is on the group's governing board. Three others from MIT serve on the group's 24-member scientific advisory board: Susan Lindquist, professor of biology and member of the Whitehead Institute for Biomedical Research; Nobel laureate Richard R. Schrock, the F.G. Keyes Professor of Chemistry; and Jackie Ying, former professor of chemical engineering.

The organization, which plans to hold biannual forums, will award $500 prizes, computers, medals and diplomas each year to 20 boys and 20 girls, age 15 and younger, for submitting the best question about molecular science. The goal is to engage students who did not have a strong prior interest in science and to stimulate them to ask questions that may lead to experimental breakthroughs in scientific inquiries.

Molecular Frontiers will center many of its activities around the World Wide Web, with virtual clubs and opportunities for children from elementary through secondary school to connect with individual researchers and graduate students who have expertise in the field a student addresses in his or her question.

"The main impact we hope for is to engage young people and stimulate them to think in scientific terms, and stimulate them to think that very simple scientific thinking helps in everyday life," Nordén said during a recent visit to MIT. "Increased attention to and interest in science will lead to a heightened consciousness about the importance of science that will propagate out into society."

"We focused on the molecule because the molecule is a common denominator of so many things," Nordén said. "We're hoping that bringing all these things together will nucleate and lead to new ways of thinking."

By connecting with young people, Molecular Frontiers also hopes to convey the importance of scientific reasoning to parents and teachers. With the help of MIT CBE postdoctoral associates Andreas Mershin and Liselotte Kaiser, MIT students Christopher Love, Brian Cook

Deborah Halber, News Office correspondent
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and Swedish visiting student Hanna Eriksson are creating a Molecular Frontiers Club to launch a local effort.

Nordøn and Zhang recently introduced Molecular Frontiers at international scientific meetings in Hungary and Poland; Zhang also will make a presentation about the group Dec. 5 to the Knight Science Journalism Fellows at MIT.

For more information, visit www.molecularfrontiers.org.

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