

US Congress's 'rocket scientist' to lead world's largest science organization

Representative Rush Holt on science in Congress: "There are some real frustrations."

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18 November 2014



Tony Kurdzuk/The Star-Ledger/Corbis

Rush Holt was the second physicist elected to the US House of Representatives.

An article by *Scientific American*.

US Representative Rush Holt, a physicist and Democrat from New Jersey, was named today (18 November) as the chief executive officer of the American Association for the Advancement of Science (AAAS), a non-profit that promotes science and publishes the *Science* family of journals.

When Holt retires from his eight terms in the House of Representatives in a few months he will succeed Alan Leshner, a neuroscientist, who has held the AAAS job since 2001. During Holt's tenure on Capitol Hill he has been a strong advocate for integrating science into decision-making. Holt was only the second physicist elected to Congress, after Vern Ehlers, a Republican from Michigan who served from 1993 to 2011. Holt spoke with *Scientific American* today to talk about his time representing New Jersey and his next steps at AAAS.

[An edited transcript of the conversation follows.]

Is it distressing that science funding has been slashed in recent years?

It's not just science funding. In Congress, the public understanding of science has slipped in recent years and the way science is integrated into public policy has deteriorated somewhat so there is a lot of work to be done. This is not just communication and education but also making sure scientists understand the importance of integrating their work into public policy.

Why has that slippage taken place?

For a variety of reasons, some of which go back to the fact that for 50 years now in schools we have been teaching science primarily for future scientists rather than for every future member of society and every future citizen.

How can we change that?

AAAS has worked on this and has very good ideas about it. Some years ago, when AAAS launched an effort to reform science education, it said that true reform will take about as long as Halley's Comet's orbital period — that's why they labeled their initiative Project 2061. This was back in the 20th century. They said that if you are talking about changes in the education of a population, it takes time.

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How do you feel that science in general and your work in Congress will help inform your next steps?

As an educator, a researcher and a policy maker, I think the mission statement of AAAS is really marvelous. It's enhancing communication among scientists, engineers and the public, promoting the integrity of science, strengthening support for the science enterprise, and making sure science is used constructively in public policy and that people understand the role of science in society. Fostering science and public engagement and advancing science in international affairs is what I've been doing for decades in one way or another.

In the current political climate of Congress, what have been your major frustrations?

Over the years in Congress I have gotten great satisfaction and encountered real frustrations in dealing with funding for research, trying to make sure science is applied constructively in intelligence, military affairs, transportation, justice, gun safety, environment protection — in all of those things. There are some real frustrations. I'll leave it at that.

Is there one issue in particular that nags at you from your terms in Congress?

Science and international affairs. That means bringing good scientific thinking to matters of arms control and intelligence and war and peace. I think we would all benefit from thinking like scientists, and those are important areas. Also, in areas of environmental protection and public health we need more scientific thinking. Most recently, I think we would benefit if more people thought like scientists in confronting Ebola. We would benefit if more people thought like scientists in facing climate change.

NASA has seen extensive budget cuts. What would you say about the direction of space funding here and globally?

In all that we do in science we want to talk about how research helps our fundamental understanding of science and also our fundamental understanding of the human condition and human welfare. Space science and astrophysical science is important for its own sake and its beauty, but also for what it brings to our understanding of the physical world and how that affects us. NASA funding supports studies of distant things in space and time whose relevance won't be apparent to us for many years to come, as well as things that are of more immediate interest. That's difficult to communicate.

Will there be any specific focus areas for you in this new job?

I ticked off some of the planks of the mission statement. All of those are really very exciting to me, and AAAS has a wonderfully distinguished record and enormous opportunities in all of those areas. It's too early to have a plan.

Your "My Congressman IS a Rocket Scientist" bumper stickers were quite popular. Any plans to bring that approach to AAAS to further science?

I have a number of unused bumper stickers. You can have some of the extras. To have a bumper sticker campaign for AAAS that's interesting — I like that suggestion! Yes!

Where will you live with your new job?

I suspect there will be a significant amount of travel. The headquarters for AAAS are in Washington DC. I don't know yet [if I will keep my New Jersey home].

I know you still have time left in your Capitol Hill job, but do you see a shift in the way you will think about certain problems or areas you want to tackle at AAAS?

It's premature for me to talk about my plans. There is a very good CEO still on the job. He's continuing to run the organization very well, and I have much to learn and much to think about before I comment on the specifics of the organization.