

Title: **Send a message to elected officials with Science March**  
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# Send a message to elected officials with Science March

DR. STEVEN MATZNER

“Who’s reality are you going to believe?” That was the question I heard from an old friend while talking about the current political situation. It seems like every day there is a new barrage of tweets, accusations of fake news, or claims of biased evidence and people don’t know who or what to believe.

I see the upcoming March for Science on April 22 as a reminder that we do have mechanisms to get at the truth. While science has certainly had its missteps, it tends to be self-correcting and provides a mechanism for gathering evidence that can be used in our decision making process.

As Neil deGrasse Tyson talked about in his recent address at Augustana University, scientific discovery occurs not when one person discovers something, but when competing scientists design experiments trying to disprove that discovery, but instead confirm it.

When there are multiple independent lines of evidence pointing toward the same conclusion, science advances. This is also true within the media. One story may or may not get it right, but when multiple reporters, all trying to disprove the original story find

evidence supporting the same conclusion, then the story gains credibility. This doesn’t just apply to science or the media. The importance of

evidence-based decision making has a long history in my faith tradition as well. Martin Luther used the idea of *Solo scriptura* (by scripture alone) as justification to reject many of the practices of the Catholic Church of that time. He rejected these practices (like the selling of indulgences) because he could not find evidence within the Bible to justify these practices. This is evidence-based decision making.

We seem to be in an era where both evidence-based decision making and the entities that provide that evidence such as the scientific community and the media are being attacked because the evidence they are providing too often does not support the vested interests of those in positions of power or special interest groups.

The cigarette industry wrote the book on how to attack science. First they said the science (the link between smoking and cancer) was not clear and they called for more research. They funded doctors

and pseudo-scientists to question the links between smoking and cancer. They also attacked individual scientists, questioning their credibility. Does this sound familiar? These same strategies have also been used by anti-evolution groups, groups opposing stem cell research, and most recently the anti-climate change lobby.

In his book, “Denialism: How irrational thinking harms the planet and threatens our lives,” author Michael Specter points out that this practice of picking the evidence we want to accept, and denying the evidence that doesn’t support our preconceived notions is widespread in America today. In his discussion about groups that reject the use of vaccines (because they mistakenly believe they cause autism) and GMO foods (also based on unsubstantiated evidence) Specter accurately points out that what he calls denialism is prevalent across the political spectrum. Both liberals and conservatives engage in this practice. Rather than accept-

ing the evidence that has been repeated and verified, people pick and choose “evidence” that supports what they want to believe (like the debunked study linking vaccines and autism). In his debate with

creationist Ken Ham, Bill Nye tried to make the point that the basic math, chemistry, and physics that provides the scientific foundation that gives us GPS, pacemakers, and cell phones is the same science that informs us of climate change, evolution, and the benefits of vaccination. We can’t pick and choose which science we want to accept.

I hope South Dakotans will support the Science March on April 22. Like the Woman’s March in January which sent a message about the importance and value of women in our society, let’s send a message to our elected officials that science has value and it is time to stand up for evidence-based decision making. As Neil deGrasse Tyson said, “our health, wealth, and future depend on science.” This is true in South Dakota, as well. According to a March 2017 press release by SD EPSCoR, 28 percent of S.D.’s job growth in the last five years has come from value-added agriculture, energy, advanced manufacturing, human health and information technology/cyber security. If you don’t think S.D.’s economy depends on science, take a ride with a farmer whose tractor uses GPS to precisely plant or fertilize their fields.

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### **MY VOICE**

**Dr. Steven Matzner** is a professor of biology and chair of the Augustana University Biology Department. He was the 2015-2016 president of the South Dakota Academy of Sciences. My Voice columns should be 500 to 700 words. Submissions should include a portrait-type photograph of the author. Authors also should include their full name, age, occupation and relevant organizational member-

ships.

Send columns to Argus Leader, Box 5034, Sioux Falls, SD 57117-5034, fax them to 605-331-2294 or email them to [letters@argusleader.com](mailto:letters@argusleader.com).

