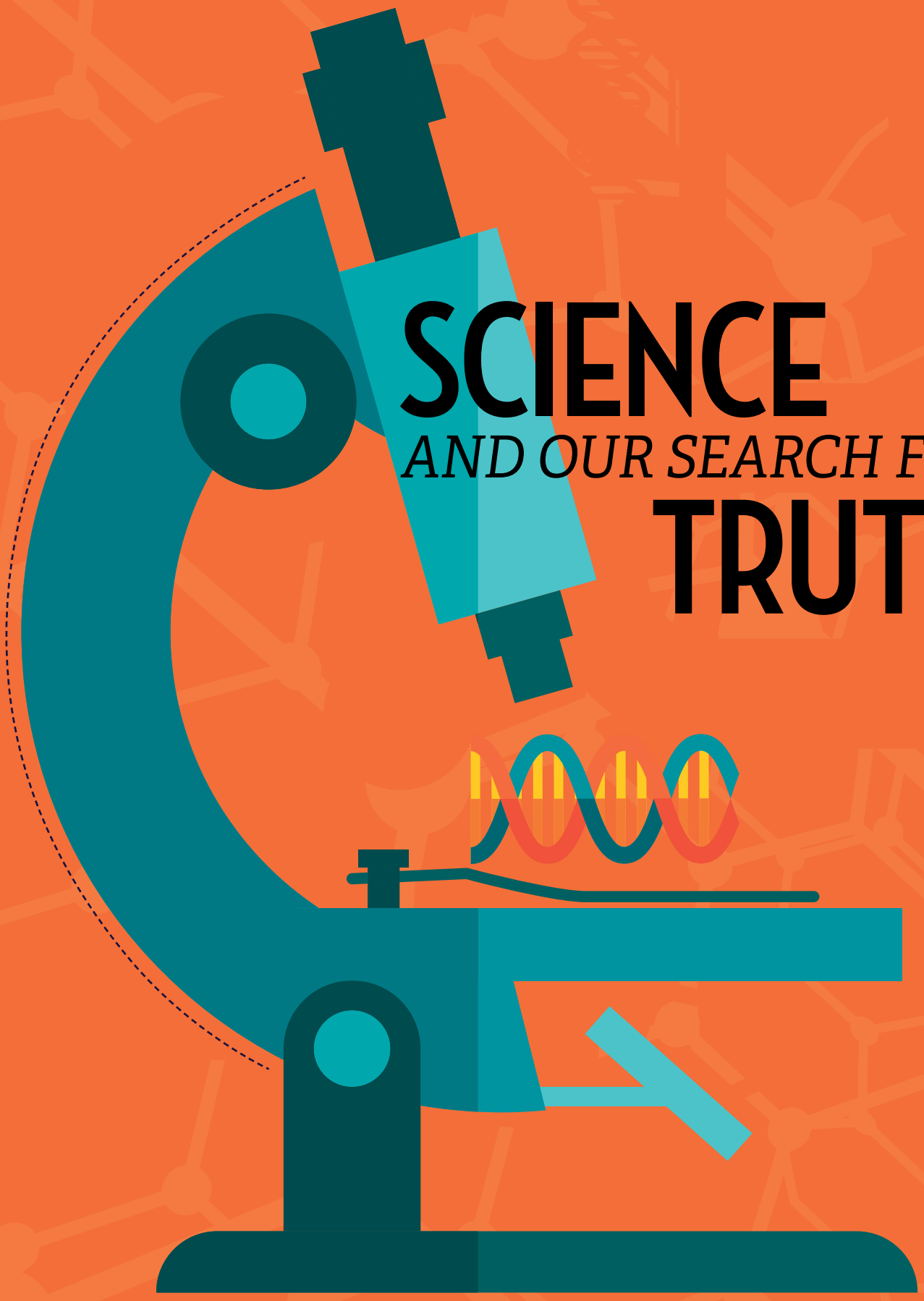


# SCIENCE
## *AND OUR SEARCH FOR*
# TRUTH

*There's no need to worry if there seems to be a conflict between your understanding of the gospel and what you learn through science.*

**By Alicia K. Stanton**

Can you imagine going to the dermatologist with a bad case of acne and being told the treatment will be to drain some of your blood? That might sound absurd to you, but it wouldn't have been far-fetched a couple of centuries ago. Back then, withdrawing a sizable amount of blood was considered standard treatment for almost any medical condition, including indigestion, insanity, and even acne. Nobody questioned that. Why should they have? After all, bloodletting had been used for thousands of years by many different cultures.

It wasn't until doctors started approaching medicine from a scientific viewpoint that anyone questioned the practice. When bloodletting was finally examined more closely, doctors stopped using it for all but a few specific medical conditions.[1]

From this historical example, we see that just because a belief is widely accepted or has been around for a long time doesn't necessarily mean it's true. And we see that science can be a great tool in uncovering real truth.

For Latter-day Saints, that's a big deal. Not only does knowing truth give us a better basis for making practical decisions ("No, I won't have my blood drained today, thanks!"), but it also adds to our understanding of the gospel. As President Brigham Young (1801–77) taught, "There is no truth but what belongs to the Gospel. . . . If you can find a truth in heaven [or] earth, . . . it belongs to our doctrine."[2]

## The Why Versus the How

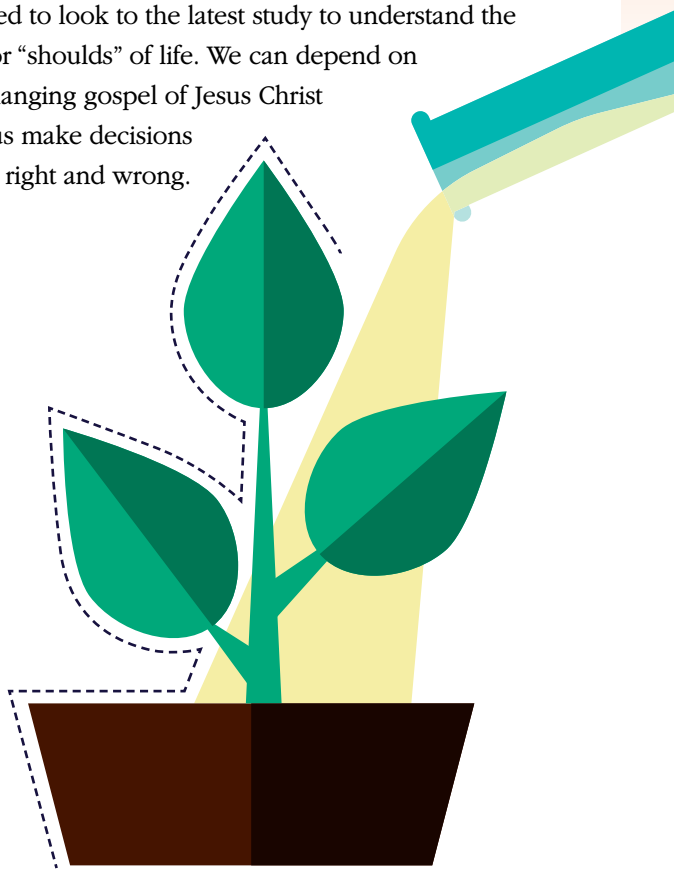
Of course, when we talk about how science contributes to the truths we know, we've got to be sure we understand what kind of truth science can uncover—and what kind it can't. One way to look at it is to ask what kinds of questions science can and can't answer.

Sister Ellen Mangrum, who studied chemical engineering at Rensselaer Polytechnic Institute in New York, USA, explains it this way: "Science explains the how. But it stops short of explaining the why." She adds that religion is what explains the why, such as why the earth was created and why we were put here.

The famous physicist Albert Einstein also believed that religion and science have different, complementary purposes.

"Science can only ascertain what is, but not what should be," he wrote. "Outside of [science's] domain, value judgments of all kinds remain necessary."[3]

What does that mean to Latter-day Saints? First, we know scientific understanding will keep changing. After all, science is all about trying to find better ways to understand the "hows" of the world around us. Knowing that, we don't need to look to the latest study to understand the "whys" or "shoulds" of life. We can depend on the unchanging gospel of Jesus Christ to help us make decisions between right and wrong.



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## It All Fits

President Russell M. Nelson, President of the Quorum of the Twelve Apostles and a renowned heart surgeon, has talked about how religion and science fit together.

"There is no conflict between science and religion," he said. "Conflict only arises from an incomplete knowledge of either science or religion, or both. . . . Whether truth comes from a scientific laboratory or by revelation from the Lord, it is compatible."[4]

So if you've ever had questions about how the age of the earth or dinosaurs or evolution or anything else you've learned in a science class fits into the gospel, that's great! It does all fit together, but there are still a lot of questions because there's still a lot that we're learning. Brother Brian Down, a pharmaceutical scientist in Quebec, Canada, said that he looks forward to the time when everything will be revealed to us (see D&C 101:32–34).

In the meantime, "we are limited in our ability to comprehend all the mysteries of the world around us through scientific endeavors," he says. "Likewise, we are limited in our understanding of the mysteries of God and His grand design for His children."

There's no need to worry, then, if there seems to be a conflict between your understanding of the gospel and what you learn through science. In reality, nothing that science reveals can disprove your faith.

So if you like science, learn all you can about your area of interest! Your faith can even give you an advantage. Brother Richard Gardner, an associate professor of biology at Southern Virginia University, says that his faith in the gospel of Jesus Christ has been a big help to him.

"At times when research got difficult, and nothing seemed to be working—research is like that a lot—having a perspective on the blessings of the gospel helped me get through it," he says.

Brother Down also feels that his faith has helped him with his work in science.

"I always worked with the faith that there was logic and order in everything and that if I pursued a question long and hard enough, Heavenly Father would eventually open my mind to the answer," he says.

## Rejoicing in Scientific Discovery

Our faith in Christ and His gospel can also help us stay humble and open to the truth we're seeking, whether it's scientific or spiritual.

"There is a lot we don't know in science, and a lot about God that He has not yet revealed," Professor Gardner says. "So it is important to keep an open mind as more information comes to us, and not to get worried in the meantime."

For example, some people believe in God simply because they see no other explanation for their observations of the world. This is called believing in a "God of the gaps," and it can make people feel nervous about scientific discovery. Professor Gardner gives an example:

"Some people have believed in God because there are gaps in the fossil record (meaning, to them, that evolution cannot explain how we got here). But what happens to our faith when these gaps are closed by the discovery of new fossils? Rather, we need to obtain positive evidence of God, through the Holy Ghost, and then we can rejoice in any scientific discovery instead of worrying about it."

When we take this approach, we remember that both science and religion can help us along in our search for truth, and that, ultimately, all of that truth comes from the same source: God.

"God could reveal anything He wants to, including all scientific facts," Professor Gardner says. "And He definitely has inspired scientists, inventors, and engineers—but He doesn't just give them all the answers. He wants them, and

us, to use our brains, so He lets us work out the science, and His revelations to the Church are instead about how to organize the Church, and especially how we can come to Christ and be saved.

"His personal revelations to us may be on any subject, but especially to let us know that He lives and loves us, that Christ put into effect the plan of salvation, that we have a living prophet today, that we can follow God's plan, and that it is totally worth it to do so." ■

*The author lives in Utah, USA.*

**NOTES**

1. See, for example, K. Codell Carter and Barbara R. Carter, *Childbed Fever: A Scientific Biography of Ignaz Semmelweis* (1994).
2. *Teachings of Presidents of the Church: Brigham Young* (1997), 16.
3. Albert Einstein, in "Science and Religion," in Ken Wilber, *Quantum Questions: Mystical Writings of the World's Greatest Physicists* (1984).
4. Russell M. Nelson, in Marianne Holman Prescott, "Church Leaders Gather at BYU's Life Sciences Building for Dedication," *Church News,* Apr. 17, 2015, LDS.org.

## Q&A WITH DR. RICHARD GARDNER

*Molecular and Cell Biologist*

***How did you get interested in science?***

My father, a botanist, got me interested in science. Growing up, I used to play with his microscopes and other lab equipment and hear him talk about plants and fungi. And his geneticist father gave me some fruit flies when I was about nine. I took all the science I could in high school and especially enjoyed the assignment to create an insect collection. I determined when I was very young to get a PhD in science because I like to know how things work and I love learning.

***How have your scientific pursuits strengthened your faith?***

The more I have learned about the complexity inside a single cell, the more amazed I am. I have two large posters diagramming in small print most of the chemical reactions in a typical cell; all of these reactions are tightly controlled. Once I showed them to a priesthood class I taught. I reminded them of the *Christus* statue on Temple Square and at other LDS visitors' centers. Behind the statue is a painting of the universe, and the implication is, "Here is the Creator of all this!" But I suggested, let's put these posters behind the statue. They aren't as pretty as the universe painting, but He created this cell chemistry too and understands it all in detail!

***How has your faith helped you in your scientific pursuits?***

When I was doing research and now that I am mostly teaching science, my faith is important to me because I cannot have the complete picture without it. To learn how cells work but not why they or we are on this earth would leave me unsatisfied.