Contemporary Scientists who Believe, Doug Hayhoe, October 2022

Many leaders of the Scientific Revolution were Christians who believed in God's Two Books. Similarly, many of the scientists who contributed to the Industrial Revolution were Christian believers. Are there any in our generation today? In this essay, I profile five of them.

Francis Collins, American geneticist, past president of the National Institutes of Health

Credit: National Institutes of Health

Francis Collins directed the Human Genome Project, which decoded the human genome (1993-2008). He then directed the National Institutes of Health (2009-2021). Near the end of this time, he was deeply involved with the development of COVID vaccines, which most of us have benefitted from these past two years. He wasn't in the news as much as Anthony Fauci, but he was actually Fauci's boss and strongly supported Fauci.

Collins began his career as an atheist doctor, but was challenged by the question "What's after death?" from a patient who didn't have long to live. This got him thinking about spiritual issues. Reading C.S. Lewis's book, *Mere Christianity*, brought him to conversion and the decision to follow Christ in his life. For him it was a huge decision that affected all parts of his life.

Collins strongly believes in God's two books, the book of nature and the book of Scripture. At the 2019 conference of *Biologos*, a faith and science organization he founded, he gave his testimony, referring to this theme. The message is titled "Is there a God, and does he care about me?" It is readily available on the web. Collins has also written a book to explain his understanding of how science and Christian belief intersect: *The Language of God: A Scientist Presents Evidence for Belief* (Free Press, 2006). My favourite lesson by Dr. Collins is a one-hour talk that he gave to the American Scientific Affiliation, titled, "Scientific and Spiritual Lessons in the Time of COVID" (starting at 8.05). **Credit: National Institutes of Health**

Barth Netterfield, Canadian astrophysicist and balloon scientist, University of Toronto

Credit: University of Toronto

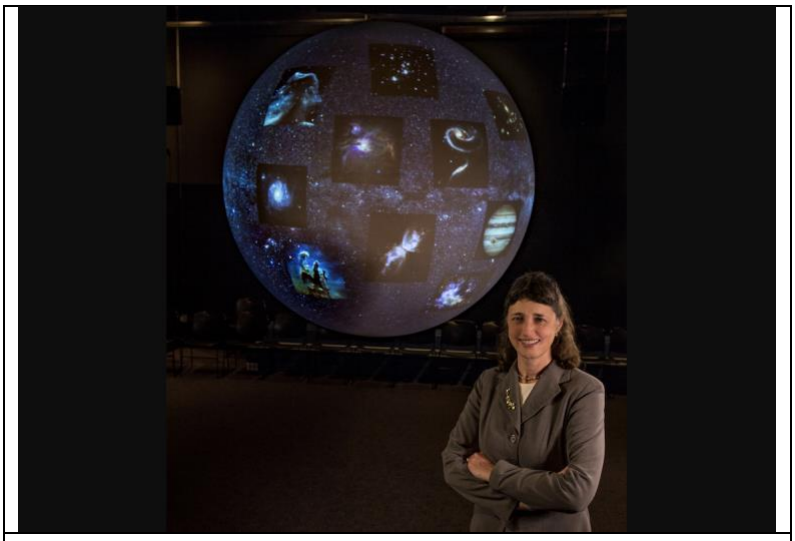
Netterfield is a professor at the University of Toronto, my "alma mater." In his research, he is a leader in balloon-borne telescopes. One of his current projects is developing instruments to observe the cosmic microwave background radiation from the early universe. This is part of the crucial evidence for the "big bang" origin of the universe. He is also interested in using telescopes for "Seeing Stars."

The University of Toronto is a large, well-established university that in my time has always been quite secular. You can image the surprise of many students and alumni, thus, when the university magazine came out with a comic page that not only introduced

Netterfield's scientific work, but also featured his strong Christian beliefs. It is titled, "How Did the Universe Begin? Professor Barth Netterfield's lifelong journey into faith, physics and astronomy."

Although I was surprised to find this in the University of Toronto magazine, I wasn't surprised to read about Netterfield's strong faith. For he has served an elder at a local Baptist church near where we live, and some close friends have had the privilege of serving with him there.

Jennifer Wiseman, Senior Project Scientist for the Hubble Space Telescope



Credit: NASA

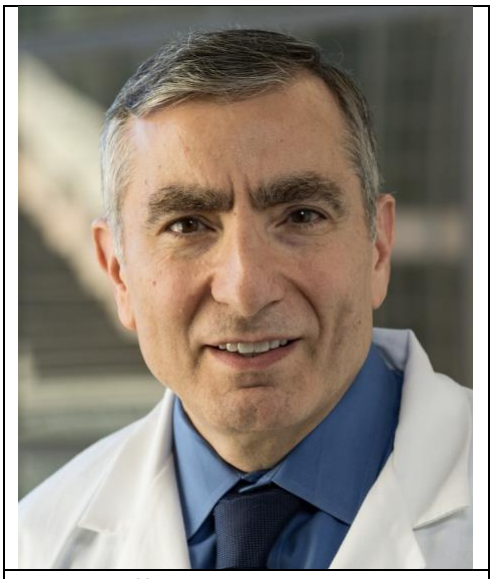
Dr. Wiseman studied at MIT and Harvard. While still an undergraduate, she discovered comet Wiseman-Skiff. Since then, her interest in the formation of stars and planetary systems has only increased. In her studies, she uses radio, optical, and infrared telescopes. Her expertise in these fields contributed to her being appointed senior project scientist for the Hubble Space Telescope. At present, she is Director of the *AAAS Dialogue on Science, Ethics, and Religion*. (AAAS is the largest society of scientists in general across the world.)

Wiseman has also served as Council President of the American Scientific Affiliation (ASA). This is made up of scientists who accept the orthodox beliefs of Christianity as well as "their responsibility as stewards of God's creation to use science and technology for the good of humanity" (see ASA Beliefs). In a guest editorial on page 3 of its March 2011 magazine, she advised ASA members on how to have a godly impact on discussions, even disagreements, within their community, and in the United States as a whole. Here are two of her points:

- Always affirm that what binds Christians together is our united allegiance to Jesus Christ as our one and only Savior. Affirm that many Christians who share a complete devotion to Christ hold differing views on modern science and related Scripture.
- Outside the church, discussions on "science and religion" can be opportunities to "provide a reason for the hope that is within you, with gentleness and respect" (1 Peter 3:15). It is not "religion" that saves people, it is a Person, Christ the Lord. Keep an eye toward whether our discourse helps or hinders people from seeing the Lord.

Despite her important responsibilities, Wiseman still finds time to speak to civic and church groups about her work and her faith, as a Christian scientist. This four-minute video, "A NASA scientist's journey of faith," is a quick snapshot of her faith and love for creation.

James Tour, American Chemist, Nanotechnologist, and Inventor



Credit: Jeff Fitlow

James Tour is professor of chemistry, computer science, and materials science and nanotechnology at Rice University. He has published 700 research articles and 130 patents. His current work centers on graphene, a revolutionary material made of carbon atoms bonded together in a sheet one atom thick. It has potential for many fields, such as medicine and climate change, as well as nanotechnology. The *New Yorker* described it as "the most remarkable substance ever discovered.

Tour grew up in a Jewish family, but converted to Christ in his first year at college. He identifies himself as a Messianic Jew (Tour, personal statement). He is a tireless worker in his science lab at Rice University. He is also a prayerful believer. The *New Yorker* article referenced above, ends with an interesting discussion of both his scientific work and Christian commitment.

James Tour wouldn't agree with some of Francis Collins's beliefs. For while Collins accepts evolution as the process God used to bring the different forms of life into being, Tour challenges the core concept of abiogenesis. (The opening video to his lecture series is entitled "Addressing Abiogenesis & Common Misconceptions.") Because of this, some have labelled him a proponent of Intelligent Design. But he resists that label: "as a modern-day scientist, I do not know how to prove intelligent design using my most sophisticated analytical tools" (Tour, Evolution-creation). Despite their differences, Collins and Tour have the same deep respect for God's Two Books.

Sir John Houghton, Welsh climate scientist, co-chair of the IPCC scientific assessment

Credit: Wikipedia. No author cited.

Sir John Houghton is the only one of these five scientists who is not still living. He passed away in 2020, after getting COVID at the age of 88. My daughter, who is a climate scientist, refers to Houghton as "the grandfather of climate change,"for he has been at the forefront of scientific concern about climate change for several generations.

When the first Intergovernmental Panel on Climate Change (IPCC) authors first met in 1989, he insisted that they need "a metric for standardized emissions measurements… the result remains the gold standard for policy: global warming potential (GWP), which compare the impact of different

greenhouse gases on climate" (Obituary: John Houghton).[1] This work with the IPCC later led to the awarding of the Nobel Peace Prize in 2007, given jointly to Al Gore and the IPCC, whom Houghton represented at the ceremony.

While Houghton has many publications on climate change, it was his book *The Search for God* (1993, 2007) that caught my attention. I was keen to see how he answered theological questions about miracles, since he was more knowledgeable about the science of the atmosphere than almost anyone else, yet also believed in the God of the Bible. What really happens, for example, when farmers pray for rain, if the atmosphere is governed by strict scientific laws?

Houghton's book begins with two complimentary descriptions of reality, the scientific story and the faith story. He uses the concept of a fifth spiritual dimension to show how both stories can be true simultaneously. Rain can fall on farmer's fields because of prayer, even though what happens can also be completely accounted for on a scientific basis. Houghton called this a type 1 miracle. But he also believed in type 2 miracles, those that clearly transcend any known scientific laws. These would include the miracles of Jesus, especially the resurrection, of course.

Conclusion

Faithful scientific work and deep personal faith in Christ can go hand in hand. This has been demonstrated not only by prominent scientists of the past, such as Kepler and Faraday, but also by many contemporary scientists, such as the five profiled here. These people are not perfect, and they would be the first to say that. They may not share all the exactly same beliefs of Christianity, but they all have a tremendous respect and love for God's works and God's Word. The Bible verse that James Clerk Maxwell had written in Latin over the doorway to the famous Cavendish Laboratory, 150 years ago, still represents them today: "Great are the works of the LORD; they are pondered by all who delight in them" (Psalm 111:2 NIV).

[1] For a longer tribute to Houghton, see http://news.lwccn.com/index.php/2023/01/09/tribute-to-sir-john-houghton/