

further information

Articles:

Faraday Papers. Several easy to read articles on subjects related to the science-faith interaction. www.st-edmunds.cam.ac.uk/faraday/Papers.php
Being a Christian in Biology ii) Molecular and Cell Biology and Being a Christian in Research. Other leaflets in this series, available at www.cis.org.uk/resources/articles-talks-and-links/students/

Books:

Alexander, D., *"Rebuilding The Matrix"* (2001) ISBN 978-0745912448
Collins, F., *"The Language of God"* (2007) ISBN 978-1847390929
Berry, R. J. (ed), *"Real Scientists, Real Faith"* (2009) ISBN 978-1854248848
Berry, R. J. (ed), *"Real Science, Real Faith"* (1991) Out of print but can be viewed online at www.testoffaith.com/resources/resource.aspx?id=213
Miller, K. R., *"Finding Darwin's God: a Scientist's Search for Common Ground Between God and Evolution"* (2007) ISBN 978-0060930493
McGrath, A., *"Dawkins' God: Genes, Memes, and the Meaning of Life"* (2004) ISBN 978-1405125383
Bookless, D., Frost, R., *"Planetwise"* (2008) ISBN 978-1844742516

Useful Websites:

Christians in Science: www.cis.org.uk
ASA, CiS's US sister organisation: www.asa3.org
Biologos: biologos.org
Be Thinking: www.bethinking.org/science-christianity
The Faraday Institute: www.faraday-institute.org
Test of Faith: www.testoffaith.com
A Rocha: www.arocha.org

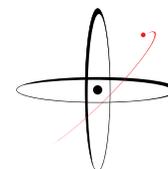


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being a christian in biology

i) Whole - Organism Biology



CHRISTIANS · IN · SCIENCE

studying biology as a christian

The world around us is alive and constantly changing. Studying biology provides intriguing glimpses into God's creation and its processes. Some Christians struggle with integrating such knowledge into their faith. Challenges of this nature can be especially daunting for students, who are bombarded by a host of new ideas, some of which may seem to conflict with their Christian understanding. This leaflet acknowledges some of the challenges associated with being a Christian in biology, while highlighting the positive aspects of studying the subject for a Christian.

about the authors



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biology as a calling

You do not have to be a biologist to experience the wonder of the living world, but as any scientist will tell you, there is a special insight that comes with deepening your understanding of it. The Bible tells us that God's signature is written in his creation (Psalm 19:1-2; Acts 14:17; Romans 1:20); the living world is a testament to God's creative action (Job 38-41; Psalm 104). Making new discoveries is exciting and uplifting, because through them we glimpse a previously unseen and often unexpected aspect of God. We are called to seek out the full glory of God in his creation.

Faith also gives us purpose. As Christians we are called to live in service to God and others – and science is an excellent medium for this.

We are entirely dependent on other living organisms to sustain us, whilst recognising their potential to cause disease and suffering. Understanding our connection with the rest of creation is an essential requirement for truly sustainable human wellbeing.

It is important to remember that the Church - the Christian body - has many parts and God calls all of us to particular roles in it, so that we can serve each other with our particular talents (1 Corinthians 12:18-28; Ephesians 4:11-16). Studying ecology or botany is no less a Christian calling than medicine or pastoral ministry. Biological science is deeply influential

in shaping modern world views; God needs Christians to be involved in such shaping, able to speak clearly and with authority (Matthew 5:14-16).

In N. T. Wright's words, Christian vocation is *"to stand at the interface between God and his creation, bringing God's wise and generous order to the world and giving articulate voice to creation's glad and grateful praise to its maker"*. As biologists we have a prophetic role to help our fellow humans understand the living world and how we can fulfil our role as God's stewards of it.

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biology and christianity - common challenges

The Bible is very clear that God is actively involved in his world – in history, in miracles, and supremely in the redeeming work of Jesus Christ – but only very rarely in the Bible are we told anything about the mechanisms that he uses. The challenge for anyone who believes in God is to identify exactly what these mechanisms might involve. This is a particularly acute question for scientists, because our task is to search out interactions and causes. A useful model for many is that God is the author of two books: a Book of Words (the Bible) and a Book of Works (Creation), books written in two very different languages, but by the same author.

The tools for reading the Book of Works are those of science, interpreted by faith. The temptation and danger is to read only one of the books. Christian biologists should be aware of their special privilege, knowing that they are studying God's work as they investigate the natural world. We wonder and rejoice at creation, but we inevitably ask: to what extent does God use natural processes? Is evolution God's mechanism? Does viewing the natural world as creation affect how we treat it?

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naturalism

It is important to recognise that there is no contradiction between knowing the scientific cause of an event and accepting God's action in and control of the event. This leaflet can be comprehensively described 'scientifically' in terms of the distribution of chemicals on paper, but also – and equally comprehensively but more importantly – as a way of communicating information. Both "explanations" are true; they overlap completely yet do not conflict in any respect.

It is unnecessary to invent any additional ways or particular signs of God's involvement. We should not be afraid to acknowledge that a full scientific understanding of an event does not exclude or diminish the possibility of God's authorship and control of that same event. In scientific experiments, we have to concentrate on a selection of potential agents at any one time (methodological naturalism); this is not the same as assuming that there are no other factors which might be operating (doctrinaire naturalism).

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We do not deny that the sovereign God may change natural processes at any time, but such interventions are normally rare. Rare events we often call 'miracles' although it is virtually impossible to know if God is 'intervening' directly or using a 'natural process' unknown (and perhaps unknowable) to us. Exodus 14:21 tells us that the Israelites were able to escape the pursuing Egyptians because *"the Lord drove the sea away with a strong east wind."* The miracle here was the timing of the event rather than its mechanism. As scientists we should never be scared to investigate the cause of any event, but as Christians we should be aware that the cause may not be discoverable. The important factor is to recognise that God is in control whether the cause is 'natural' or 'supernatural'.

evolution

Many Christians reject the idea that God might work through evolutionary processes. Notwithstanding decades of argument and passion, there is no reason in principle that he should not use the mechanisms of mutation, selection, and so on to bring his creation into being.

If God worked through natural processes, there is no inevitable conflict between conventional biological understanding and acknowledging God as the Creator of all things. The key is to understand and worship God as sovereign in his creating work.

However, if God did work through such natural processes, we have to face the fact that a by-product of evolution is massive amounts of death and suffering. This is nothing to do with humans or human sin: it has been taking place ever since life appeared and long predates the appearance of humans.

We tend to regard death and disability as somehow perverse, but such an interpretation is anthropocentric. Pain is important for survival. If organisms did not experience pain, they would repeatedly endanger themselves.

It may appear to us that the evolutionary process involves enormous waste. All we can do is to accept that God's ways are not ours. As far as our own role is concerned, we have to acknowledge that we are much more than biological machines. We are not robots; God has granted freedom to his creatures to choose evil as well as good.

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creation care

God has committed his creation into our hands to care for on his behalf: we are his appointed agents or stewards. This is a great privilege but an enormous responsibility. We have been given dominion over creation (Genesis 1:28) as those made in God's image (which is what distinguishes us from all other animals and implies trustworthiness).

'Dominion' is a royal attribute, but we must remember that the Old Testament ideal of kingship was not greedy despotism, but responsible servanthood, as shown by the calling of David and Solomon (see Psalm 72) and most clearly in Jesus himself.

We are commissioned to use the world as entrusted to us by God; we must not regard it as something which must be zealously protected and preserved in its present state. God has given us creation to manage, and this involves farming and gardening, and taking our needs from it.

We have a mandate for research: *Great are the works of the Lord, studied by all who delight in them* Psalm 111:2, carved on the gates of the Cavendish (Physics) Laboratory in Cambridge.

We work in the expectation of a renewed creation as Christ returns to this earth to reign. Our task is to prepare this world for Christ's coming again.

This is a positive warrant to explore structure, function and behaviour in both laboratory and field and with all permissible techniques – accepting the boundaries of animal welfare and experimental legislation but willing to examine in the light of scripture common assumptions about culling and restraining animals, vivisection, genetic manipulation and so on.

Christians often disagree among themselves about such issues, but we should be prepared to work out a reasoned and responsible attitude to them. We work in the expectation of a renewed creation as Christ returns to this earth to reign. Our task is to prepare this world for Christ's coming again.

Sam Berry and Nick Higgs

