

SynBot Institute for Plant Sciences

Memorandum

From: **Director, SynBot Institute for Plant Sciences**

To: **Conceptual Synthesis Project Team**

Subject: **A Serious Challenge to Science**

It is a well-accepted idea in science that the living things that exist on the earth today have '*evolved*' through a process called '*natural selection*'. Much of modern biology rests upon the assumption that the basic ideas behind the theory of natural selection are correct. According to this theory, the first living things were single-celled organisms similar to bacteria. Scientists claim that the wide variety of living things here today all developed from these primitive forms.

Not every one is convinced!

Indeed, there are *many people* who would argue that evolution cannot explain the wide diversity of different living things around today. Some scientists claim that people who reject evolution are either *ignorant* of the science, or *will not listen* because they prefer to believe supernatural explanations. Yet, if scientific theories should be based on evidence, and connected through logical arguments, then we might expect that scientists should be able to convince people – *if* evolution by natural selection is really a viable scientific theory.

Can scientists have got it wrong?

At **SynBot** we believe that the reasons so many people doubt evolution are that (a) it has occurred over such a long time scale, and (b) evolution only makes sense when someone understands how a number of separate key ideas fit together.

A serious challenge to the work of scientists.

You will find attached a letter I have received from a local pressure group CAMMUL. This group has been agitating in the local community, and contacting local councillors and MPs, campaigning against the research we do here at **SynBot**. ***Please do not under-estimate the threat of this type of campaign.*** If politicians can be persuaded that our work is flawed, then they may stop future research (and our careers and livelihoods). This is appropriate in a democracy: if people believe that scientific work is

dangerous then they are entitled to lobby against it. However, much of the argument is based on ignorance, unsupported opinion, ill-formed fears and half-truths (see the attached letter). Society should make *value judgements* about which scientific work to approve, to fund, to restrict, or to ban. We should not tell the public how to make up their minds, but *we should make sure that they understand the science* well enough to make informed decisions.

I will need to respond to the letter from CAMMUL, countering each of the claims made. I am asking the **Conceptual Synthesis Project Team** to advise me on how to respond. Please read the arguments put forward by CAMMUL carefully, and think about how we can counter these arguments. You need to identify each of the points that CAMMUL are making, and identify what scientific ideas or information need to be used to challenge each point. **It is the responsibility of scientists to explain our work to the public who ultimately fund our research:** this is important, challenging work.