# “You are Full of Hatred and Bigotry”

**I just read your article Contact: A Eulogy for Carl Sagan. I hope you live to understand the hatred and bigotry you people spread and the millions of deaths that your kind of blind stupidity has caused. You live based on a political system used to control gullible people; that in itself is not wrong but please try to use the brain you have and think, just once in your life think.**

**Don’t waste your life with a lie. The universe is a wonderful place, whatever you believe, being so large and wonderful, let’s all think big and not insular and earth bound.**

**Good luck with seeing the truth and being honest with yourselves.**

Sorry you had such a negative reaction to my article concerning Sagan and “Contact.” You’re certainly not the first to respond to me that way.

I certainly do think that the universe is a wonderful place. I simply believe I have a much better reason for thinking that way. The universe is wonderful because God created it that way and I can appreciate the beauty, wonder, and awe of what I see as a reflection of the Creator. Sagan, and I presume you, have no reason for awe and wonder. We’re just cogs in a mechanistic universe that did not have us or anything else in mind. We just happened. When we die, we’re dirt and our lives have had no real significance.

Sagan in his opening monologue to the *Cosmos* series claims “There is a catch in the voice and a tingle in the spine as we approach the grandest of mysteries.” He is referring to the origin and nature of the universe. However, if it’s just molecules colliding over time, what’s to get excited about? I

maintain Sagan is borrowing his awe and wonder from a Christian perspective. When I approach the origin and nature of the universe, I too get a catch in the voice and a tingle in the spine because I am approaching the Creator in all His majesty, wonder, complexity, and mystery. Now that is truly awesome.

Every worldview has had its moments of terror attributed to it. Materialists such as Lenin, Stalin, Hitler, Mao, and Pol Pot have put a dark stain on that worldview. On the other hand, the Christian West literally invented hospitals, orphanages, shelters for the poor and homeless, and relief aid around the world for centuries. Certainly Christianity has had its dark moments such as the Crusades and the Inquisition, to name just a few. However, I would argue that the perpetrators of those events were not consistent in their application of the Bible to their world, where the materialists listed above lived far more consistently within theirs in perpetrating their horrors.

So I agree that we all need to think more clearly and consistently.

Respectfully,

Ray Bohlin
Probe Ministries

© 2005 Probe Ministries

---

# “Aren’t We Sidestepping the

# Question of a Beginning?”

**I just read Sue Bohlin’s Answering the Big Questions of Life. I appreciate having this article available, and as an evangelical, I agree wholeheartedly with her perspective. However, there is a concept in the article that needs tightening up. She states pantheism sidesteps the issue of “why is there something rather than nothing” by claiming an impersonal beginning. But couldn’t Christian Theism be accused of the same thing? When asked where God came from we reply that He is the eternally existent one. Why is our answer any less of a sidestep (in their mind) than theirs is to us?**

A couple of reasons, none of which I am convinced are enough for those who don’t want to believe them, but that’s the way of faith. <smile>

First, there is a big difference between believing in an impersonal beginning and claiming that a very Personal Being has always existed. The difference between impersonal matter+space+time always “being there” (actually, then, there WAS no actual “beginning” for the pantheist) and an actual “Person with personality” existing before matter, space and time, is a huge one.

Secondly, our belief that God is the eternally existent one answers the problem of “First Cause.” Before anything happened or existed, something else had to be there, causing it to happen or exist. We live in a cause-and-effect universe. Eventually, if you go back far enough, you have to come to what philosophers call the “First Cause,” an “uncaused cause,” who (or that) simply WAS. If there was ever a time when God did not exist, then something or someone would have had to create Him. But that’s not the way it is; God is the “the buck stops here” First Cause where everything starts, except for Himself. It’s logical, but for those who don’t want to accept their accountability to God, they can blow it off. It doesn’t

make it any less true, though.

Boy, you make me glad I'm "preaching to the choir!"

I hope this hasn't clouded the issue further. But thanks so much for writing!!

Sue Bohlin
Probe Ministries

---

# "Did the Human Genome Project Prove that Darwin Was Right?"

**Help! I read Arthur Caplan's article "Darwin Vindicated!" about the results of the Human Genome Project and it is seriously shaking my faith!**

Caplan has never been a friend of Christians or creationists. In this inflammatory article, designed to stimulate public opinion, he has outdone himself. If Darwin were alive today, he would be astounded and humbled by what we now understand about the human genome and the genomes of other organisms. In some respects, it is difficult to know where to begin. So let's just pick a few of the more glaring statements to help us understand that little else should be trusted.

First, he says, "Eric Lander of the Whitehead Institute in Cambridge, Mass., said that if you look at our genome it is clear that evolution must make new genes from old parts."

While it may be true that we can see some examples of shared sequences between genes, it is by no means true that we see wholesale evidence of gene duplication throughout the genome. According to Li, et. al., (*Nature* 409, 15 Feb 2001:847-848)

less than 4,000 genes belong to superfamilies that show sequences sharing at least 30% of their sequence. Over 25,000 genes demonstrated less than 30% sequence identity, indicating that as much as 62% of the human genes mapped by the Human Genome Project were unique, i.e., not likely the result of gene duplication. Determining that similar genes are the result of gene duplication is tricky business, not the least of which is trying to find out just how duplicated genes (which does occur) ever arrive at a new function. There are lots of guesses out there, but no observable mechanism exists at this time.

Second, he says, "The core recipe of humanity carries clumps of genes that show we are descended from bacteria. There is no other way to explain the jerry-rigged nature of the genes that control key aspects of our development."

Not everyone agrees. The complexity of the genome does not mean necessarily that it has been jerry-rigged by evolution. There is still so much we do not know. Caplan is speaking more out of ignorance and assumption than data. "Junk DNA" used to be a common term in genetics circles. Since only about 1.5% of the total human genome sequence codes for actual genes and proteins, the rest was thought to be junk, useless DNA. The term "Junk DNA" is rarely used in academic papers anymore because much of this "junk" is now known to have a purpose, usually a regulatory function. Even the highly repetitive elements are demonstrating patterns that indicate some kind of function. Listen to this comment from Gene Meyers, one of the principal geneticists from Celera Genomics:

> "What really astounds me is the architecture of life," he said. "The system is extremely complex. It's like it was designed." My ears perked up. Designed? Doesn't that imply a designer, an intelligence, something more than the fortuitous bumping together of chemicals in the primordial slime? Myers thought before he replied. "There's a huge intelligence there. I don't see that as being unscientific.

> Others may, but not me." ("Human Genome Map Has Scientists Talking About the Divine – Surprisingly low number of genes raises big questions," Tom Abate, Monday, February 19, 2001, *San Francisco Chronicle*)

Jerry-rigged? Hardly! Confusing at the moment? Certainly! But more likely to reveal hidden levels of complexity than messy jerry-rigging.

Finally, Caplan says, "No one can look at how the book of life is written and not come away fully understanding that our genetic instructions have evolved from the same programs that guided the development of earlier animals. Our genetic instructions have been slowly assembled from the genetic instructions that made jellyfish, dinosaurs, wooly mammoths and our primate ancestors."

This comes partly from the documenting of fewer genes (30,000-45,000 genes instead of the expected 100,000 or more) and the fact that some of these genes are indeed very similar in nearly all species looked at. Are there similarities? Certainly! Are the similarities only explainable by evolution? Not at all!

First, the fewer genes are not a given number yet since the computer programs used to look for new genes relied on already known gene sequences to spot potential genes. Only crude estimates were used for the possibility of completely novel genes. Even if the number is correct, this means that the organization of the genome is as important as the actual genes. We already know that many genes can be used to make several different proteins through complex patterns of regulation. This only raises the stakes for evolution. More organization, more complexity are the hallmarks of design, not messy natural selection.

Also even though we only have two or three times as many genes as a fruit fly, Svante Paabo, writing in *Science* (Feb. 16,

2001, vol 291, p. 1219) said, “A glimpse of what this will show us comes from considering the fact that about 26,000 to 38,000 genes are found in the draft version of our own genome, a number that is only two to three times larger than the 13,600 genes in the fruit fly genome. Furthermore, some 10% of human genes are clearly related to particular genes in the fly and the worm.”

Basic cellular processes require many of the same proteins and therefore the same genes. Even if flies and humans are not related, why would these genes be expected to be dissimilar? Human engineers frequently reuse common elements because they work. Besides, Paabo states that only 10% of the genes show any relationship. That means 90% do not. Far too much attention has been focused on the similarities and not enough on the differences. I welcome a sequence of the chimpanzee genome because I expect that among the many striking similarities, there will be uniquenesses unexplainable by Darwinian natural selection.

Arthur Caplan simply shows himself to be a part of the evolutionary establishment that appears to be worried by the inroads of intelligent design theory and is fighting back using only authority and bluster. “If I, Arthur Caplan, a bioethicist and Ph.D., say something loud enough and forcefully enough, some will believe it simply because of the position I hold.” This strategy is slowing falling apart as the clear and ever increasing weight of the evidence causes more and more people to say, “Wait a minute, these guys (Phil Johnson, William Dembski, Mike Behe, Jonathan Wells, etc.) aren’t dummies. Surely they can’t be dismissed as easily as that.” The bluster and appeals to authority are wearing thin and some are asking hard questions. Some will stop and begin to reevaluate; others, like Caplan, will only shout a little louder and ultimately lose credibility.

Stay tuned.

Respectfully,

Ray Bohlin
Probe Ministries

## Cracking of human genome confirms theory of evolution

By Arthur Caplan, Ph.D.
SPECIAL TO MSNBC

Feb. 21, 2001 — The media flubbed the headline for the biggest news event in the past 50 years of science. The reporters and TV talking heads who crammed the Washington, D.C., press conference on Feb. 12 did understand that the details they were hearing about the human genome offered the story of a lifetime. But, they missed the real headline. Their stories should have simply said, “Darwin vindicated!”

Most reporters ballyhooed the fierce competition between scientists working for the publicly funded Human Genome Project and those employed by the privately funded Celera Genomics Corporation of Rockville, Md., to gain credit for the discovery. Others wondered about the financial implications of allowing human genes to be patented.

Still other headlines were meant to give us pause about whether it would be good or bad to know more about the role genes play in determining our health. Knowing more about our genes, after all, might not be so great in an era in which there is not much guarantee of medical privacy but a pretty good chance of discrimination by insurers and employers against those with “bad” genes.

There were even a couple of headlines that suggested that humanity should not be quite so arrogant since we do not have as many genes as we thought relative to other plants and animals. In fact, as it turns out, we have only twice as many genes as a fruit fly, or roughly the same number as an ear of corn, about 30,000. Reductionism may not be all that

it has been cracked up to be by molecular biologists.

But none of these headlines capture the most basic, the most important consequence of mapping out all of our genes. The genome reveals, indisputably and beyond any serious doubt, that Darwin was right—mankind evolved over a long period of time from primitive animal ancestors.

Our genes show that scientific creationism cannot be true. The response to all those who thump their bible and say there is no proof, no test and no evidence in support of evolution is, “The proof is right here, in our genes.”

Eric Lander of the Whitehead Institute in Cambridge, Mass., said that if you look at our genome it is clear that evolution must make new genes from old parts.

The core recipe of humanity carries clumps of genes that show we are descended from bacteria. There is no other way to explain the jerry-rigged nature of the genes that control key aspects of our development.

No one can look at how the book of life is written and not come away fully understanding that our genetic instructions have evolved from the same programs that guided the development of earlier animals. Our genetic instructions have been slowly assembled from the genetic instructions that made jellyfish, dinosaurs, wooly mammoths and our primate ancestors.

There is, as the scientists who cracked the genome all agreed, no other possible explanation.

Sure the business side of cracking our genetic code is fascinating. And we all need to be sure that our government does not leave us in the genetic lurch without laws to ensure our privacy and protect us against genetic discrimination.

All that, however, is concern for the future. Right now the big news from mapping our genome is that mankind evolved. The theory of evolution is the only way to explain the arrangement of the 30,000 genes and three billion letters that constitute our genetic code.

The history of humanity is written in our DNA. Those who dismiss evolution as myth, who insist that evolution has no place in biology textbooks and our children's classrooms, are wrong.

The message our genes send is that Charles Darwin was right.

Arthur Caplan, Ph.D., is director of the Center for Bioethics at the University of Pennsylvania in Philadelphia.

---

# "How Should I, as a Non-Christian, React to Creationist Claims?"

**Hello, I'm a French science student interested in the creation/evolution debate. I have had no religious upbringing, and don't take the Gospel as gospel truth, so I guess I must be an Evil Darwinist. Where I live, there doesn't seem to be a great "debate" about evolution: I haven't heard of any creationist scientists, besides from when I find Religious sites on the Internet. So I guess we haven't yet been blessed with Pseudoscientific Creationists. True we have fanatics, but they're Catholic and tend to be old Nazis dressed in black who want to go back to saying Mass in Latin, so don't even go near calling themselves scientists. OK I'm being facetious**

**Anyway, how do you advise me, a non-christian, to react to creationist scientific claims? I hope you'll provide an answer other than "convert to Christianity" – you won't get away that easily: If your claims are scientifically sound, I should be able to accept that. However I often find them a mere imitation of the scientific method, a rational method I understand and respect more than your personal interpretation of the Bible.**

**By the way I worked on Genetic Algorithms a little (programs using genetic mechanisms to solve specific problems), and have therefore witnessed how complexity and ingenious patterns can arise out of chaos – and how the dominant pattern will switch in a fairly short time, not showing so many intermediate genomes (punctuated equilibrum, generally used to explain holes in the fossil reccord). I am aware that you don't seem to disagree with microevolution, but I don't believe that "micro-" and "macro-" evolution mean anything. You seem only to use that definition by defining "macroevolution" as what can't be witnessed directly at our scale, and is therefore false. Why not "micromechanics" and "macromechanics"?: We can't prove that planets follow Newtonian mechanics, therefore the sun goes around the moon, 'cos I think the Bible says so.**

**Anyway, what should I think of your site? It seems cunningly made, maybe even honest. I wouldn't mind discussing this.**

**PS: I hope I get a better answer than "Go look at our site – it contains all the answers you need".**

**PPS: I hope you don't get too much of these. Actually I wish you get a lot and read them all. I don't want to be a nuisance, I'm just curious.**

Thank you for your interesting message. I am glad to know a little of your background and familiarity with our site. I will therefore assume a few things as I talk with you and rely on you to let me know if anything needs clarification. I

certainly do believe that the Intelligent Design movement has something to offer science today. I think the contributions of Michael Behe and William Dembski in their books, *Darwin's Black Box* and *The Design Inference,* lay the critical theoretical and evidential groundwork for a scientifically workable theory of design. It is crucial to realize that this does not mean a complete overhaul of science. Design is only meant to allow for design to be a legitimate hypothesis when addressing questions of the origin of complex systems. Some systems will carry the earmarks of design and some will not.

Behe's concept of "irreducible complexity" claims to identify molecular machines within cells that require a design hypothesis due to the fact that they are composed of multiple parts which rely on each other for any activity. Our own experience tells us that when we see such things, like a mousetrap, an intelligence was necessary to put it together. Even things as ridiculous as a Rube Goldberg machine, inefficient and wasteful as they appear, are still designed. Arguments about the intent and intelligence of the "designer" are theological and superfluous to the scientific merit of the hypothesis.

Dembski's emphasis on complex specified information being an indicator of design is another crucial piece of the puzzle. The DNA code is both complex and specified. All other codes we know of from experience require an intelligence to bring them about. These codes may operate on their own once in existence, but require intelligence to put them together. Now this does not in itself require an intelligence to bring about the DNA code, but it should at least be a viable option. Science will currently categorically rule out this possibility since it does not propose a naturalistic process for bringing about the DNA code. I believe this is done out of a philosophical prejudice as opposed to a legitimate scientific problem.

The connections between irreducible complexity and intelligence, and complex specified information and

intelligence, are the crucial components of a viable theory of Intelligent Design (ID). I think there is plenty of data from molecular biology and astronomy (fine-tuning parameters of the universe) which already make Intelligent Design a worthwhile scientific pursuit.

Even Richard Dawkins admits that biology is the study of complicated things that give the appearance of having been designed for a purpose. Maybe it isn't just an appearance. If they have been designed for a purpose, we should be able to tell and it should fall under the umbrella of science since science is primarily a search for truth.

Genetic algorithms are still operating from a computer program utilizing the designed computer itself to arrive at its designs. In other words the potential for design is built into the program and the computer. The genetic algorithm program willl not write itself and the program will not run itself apart from the computer, a designed machine.

This perhaps provides a starting point. There are other places on our site that can give you some more details but this should do for now.

BTW, the micro-macro distinction is one that many evolutionists recognize and use so it is not just some creationist invention. But you are correct that it does have to do with the distinction between the minor changes we see happening all around us and the unobserved changes that must have occurred in the past which there is often no discernible fossil evidence for. There is also an embryological component to the distinction. Currently observed microevolutionary changes are all changes that would occur late in embryological development; the overall body plan is not affected. Body plans are determined very early in embryological development which, if all life is descended from a common ancestor, must have also changed in the past. But nearly all mutations observed that occur early in development result in catastrophic

deformities. You can't just add up microevolutionary, late development changes and eventually get an early developmental, body plan mutation. They are very different things.

Respectfully,

Dr. Ray Bohlin
Probe Ministries

---

# "Your Articles on Intelligent Design Have Given Me Hope!"

**Wow! I feel like I have hope! Lately I've seriously been having doubt about the Christian faith. A big reason for this is the creation/evolution controversy. I'm a freshman at Baylor University. I've been working on my research paper on Christians' reservations on evolution. It's a topic I picked. . . I thought it might help me out with my struggle. Thank you so much for the articles that you have posted on the Probe Ministries website. After all the negative things I've read about evolution and even Jesus, denying that He was even a historical person, I feel more hopeful now. I feel like there's something with this intelligent design theory! It's a much better sounding alternative than some of the other stuff I've read.**

**Thanks again!**

---

# “I Have No Problem Deriving Meaning in Life as an Evolved Biological Organism”

**Dear Raymond Bohlin,**

I am also a graduate of the University of Illinois and found your article on the Probe Ministries website interesting reading. I was surprised at the low-quality answers you had received from evolutionary biologists about morality and meaning. To me it is absolutely wonderful, amazing, and awe-inspiring that you and I, or any human beings can have actual conversations and exchange ideas. It is amazing to me because I believe that we are a result of evolution unguided by any supernatural god. To me there can be deep conviction that we are biological organisms and that there is no god while also maintaining a deep sense of meaning and purpose. It seems to me that if you believe God created everything around us, then He did an embarrassingly poor job. Why have around 50% of our DNA be wasted garbage from a violent evolutionary past? If people are created in God’s image, why give them an appendix? Surely if you were truly an all-powerful being capable of anything, you should have done much better. But, if we are a result of random chance and evolutionary process unguided by a supernatural power, then the world is amazing. It is awe-inspiring to have such amazing diversity of life and to have a species with the power to be aware of itself.That 50% of our DNA actually works becomes amazing and wonderful testimony to the glory of the evolutionary process. If we are merely a creation of an all-powerful god, then we are clearly his rejects, because he should have been able to do much better. But if we are a result of an evolutionary process then we are amazing and valuable.

**Similarly, I see the same problem with meaning. You claim that if we are "merely" biological then there is no real meaning. I would argue just the opposite. If we are merely the result of a supernatural god, then the best we can do is discover God's predetermined meaning. We are unimportant and can never create any meaning in our lives. But if we are biological organisms in the absence of a supernatural god, then we are the creators of meaning. We are the meaning pioneers who must establish meaning, value, and morality as we go. To me, my life seems so much more meaningful if I feel that I can create meaning and values, and be one of the first species to truly experience love, beauty, and understanding. If I am just some all powerful-god's creation, then my personal life seems meaningless because all meaning has been pre-established by some supernatural force beyond my meager comprehension. To say we are "merely" or "just" biological to me is insulting. Being biological does not prevent me from having as much meaning and purpose as I want in my life. But now, the responsibility lies on me. If I have a meaningless life, then it is my own fault for not creating any meaning. I personally find deep meaning and purpose in the love, compassion, and discovery of ideas that I share with my fellow humans who are also creating meaning and purpose in their own lives.**

Whether you consider the answers I received from evolutionary biologists to be disappointing or not, they are the standard answers. Your willingness to reach for something more and create meaning is what I would categorize as the third response, that of an existential leap for hope and meaning.

But first to your criticisms of the Creator's workmanship. Please be aware that the previous estimates of useless DNA were closer to 90%. I would not be so quick to assume that the remaining 50% unaccounted for will remain so. We have only begun to unravel the mystery of DNA and its organization. My prediction is that there will be little left without some function after the next 100 years. One of the principal

geneticists with Celera Genomics, the private company that arrived at its own independent human DNA sequence, was quoted in the *San Francisco Chronicle* saying,

> "'What really astounds me is the architecture of life,' he said. 'The system is extremely complex. It's like it was designed.'. . . There's a huge intelligence there. I don't see that as being unscientific. Others may, but not me." (February 19, *SFC*, Tom Abate, "Human Genome Map Has Scientists Talking About the Divine").

So what we already know reveals not some clumsily ordered mess thrown together by natural selection, but a highly ordered and specified arrangement.

Over 100 years ago, there were dozens of reputed vestigial human structures such as the appendix, tonsils, and tailbone, but all of these have since yielded a function. The tonsils and appendix are members of the integrated immune system. Can we live without them? Yes, but we are better off with them. Surgeons rarely take out the appendix anymore as part of routine abdominal surgery unless absolutely necessary. The more we learn about our bodies the more complex and truly amazing they are. The power of adult stem cells is proving to be truly amazing and they have resided inside us all the time. I think it is rather presumptuous of anyone to suggest that they could have done a better job of designing our bodies. Our knowledge of how everything works is still progressing. What may seem sloppy today may soon be revealed as the right combination of characteristics to achieve an amazing design. That at least seems to be the pattern. We used to think cells were simple accumulations of membrane, protoplasm, and protein. The last sixty years have revealed ever increasing levels of complexity and organization never even dreamed of. I just don't see how you can view our bodies as rejects. What would you change? What could have been done better in your mind?

If we are the product of an evolutionary process than we truly are amazing. I will grant you that. So amazing that I would suggest that we are alone in the universe. The odds are so stacked against any kind of unguided evolution producing sentient beings such as ourselves, that there just isn't anybody else out there.

I don't understand your revelry in the ability to create meaning. What are we to create it out of? Nothing? Something doesn't come from nothing. Meaning grabbed out of thin air is still air no matter what you call it. In an evolutionary world view all that matters is survival and reproduction and as I said in the article, this ultimately fades away at death which is nothing more than extinction. So what good is the meaning you create? It is ultimately an illusion. A survival device and nothing more. How is that exciting? I am sorry if you are insulted by the characterization of being merely biological, but again, in an evolutionary worldview, that is reality. Your brain has evolved only as an aid to survival and reproduction, not as a truth- and meaning-creating machine.

If we share this meaning and purpose creating capacity with our fellow humans, certainly we arrive at different conclusions. If our conclusions are different, how do we judge who is right? Or does it really even matter? I would suggest that it doesn't matter at all. You are left with the post-modern dictum of "it may be true for you but it's not true for me." The statement is self-contradictory because it assumes that at least that statement is universally true, but how can it be?

Theism can provide true meaning and purpose through the One who is self-existent. Why you think God's assignment of true meaning and purpose somehow cheapens it baffles me. If I were to create a robot, I the creator determine its function and usefulness, not the machine itself. Remember also, that something must be eternal. As I said earlier, something does not come from nothing. So the fact that something is here

means something has to have always been here. That something can be either material or immaterial. The material universe, according to current Big Bang cosmology, had a beginning. Therefore it certainly seems reasonable to assume that God is eternal. I don't suggest that the Big Bang proves God, but it does make the assumption eminently reasonable.

You may choose to create your own meaning if you like, but I cannot see how it can be anything but an illusion in an evolutionary, purely materialistic worldview.

Respectfully,

Ray Bohlin, Ph.D.
Probe Ministries

---

# "Do You Have More Information on Human Cloning?"

**I am looking to inform my class on the steps to cloning a human and also the most recent experiments done in this field of work. I have read your articles, but is there any additional information you could provide me?**

Below is the recent announcement by the first group to publicly say they are actively going to seek to clone a human. There is no published results from any laboratory anywhere in the world. The potato is just a little too hot yet. The story from the BBC may also provide some additional links for you.

The article confirms some of the scientific and ethical problems I have mentioned elsewhere.

Respectfully,

Ray Bohlin
Probe Ministries

**Tuesday, 30 January, 2001, 17:08 GMT**
**Cloned human planned 'by 2003'**

http://news.bbc.co.uk/hi/english/sci/tech/newsid_1144000/1144694.stm

*By BBC News Online's Alex Kirby*

A private consortium of scientists plans to clone a human being within the next two years.

The group says it will use the technique only for helping infertile couples with no other opportunity to become parents.

It says the technology will resemble that used to clone animals, and will be made widely available.

One member said the group hoped to produce the world's first baby clone within 12 to 24 months.

It was founded by an Italian physician, Dr Severino Antinori, whose work includes trying to help post-menopausal women to become pregnant.

A spokesman for the group is Panos Zavos, professor of reproductive physiology at the University of Kentucky, US.

*No alternative*

He said it would "develop guidelines with which the technology cannot be indiscriminately applied for anybody who wants to clone themselves."

As with animal cloning, he said, the technology would involve injecting genetic material from the father into the mother's egg, which would then be implanted in her womb.

"The effort will be to assist couples that have no other

alternatives to reproduce and want to have their own biological child, not somebody else's eggs or sperm," Professor Zavos said.

He said he believed human cloning was achievable. It could at first cost $50,000 or more, but he hoped that could come down to around the cost of in vitro fertilisation, about $10,000 to $20,000.

Professor Zavos said he was well aware of the ethical dimensions of the project.

"The world has to come to grips [with the fact] that the cloning technology is almost here," he said. "The irony about it is that there are so many people that are attempting to do it, and they could be doing it even as we
speak in their garages.

"It is time for us to develop the package in a responsible manner, and make the package available to the world. I think I have faith in the world that they will handle it properly."

*'Irresponsible' plan*

But the plans of Professor Zavos and his colleagues received an unenthusiastic response in the UK.

Dr Harry Griffin is assistant director of the Roslin Institute, Scotland, which successfully cloned Dolly the sheep.

He told BBC News Online: "It would be wholly irresponsible to try to clone a human being, given the present state of the technology.

"The success rate with animal cloning is about one to two per cent in the published results, and I think lower than that on average. I don't know anyone working in this area who thinks the rate will easily be improved.

“There are many cases where the cloned animal dies late in pregnancy or soon after birth.

“The chances of success are so low it would be irresponsible to encourage people to think there’s a real prospect. The risks are too great for the woman, and of course for the child.

“I remain opposed to the idea of cloning human beings. Even if it were possible and safe—which it’s not—it wouldn’t be in the interest of the child to be a copy of its parent.”

Tom Horwood, of the Catholic Media Office in London, told BBC News Online: “A lot of our objections come down to questions of technique.

*‘Morally abhorrent’*

“But beyond that, cloning human beings is inconsistent with their dignity, and involves seeing them as a means, not an end.

“The scientists involved in the project are planning a conference in Rome to explain their plans.

“I don’t think you’ll start getting lots of papal pronouncements just because they’re meeting in Rome.

“The reaction in the Vatican will be the same as everywhere else—that the project is morally abhorrent and ethically very dubious.”

---

# “What Do You Think of the

# ‘Many Universes’ Theory?”

**Hi Dr. Bohlin, my name is _____ and I wrote to you a while back. Your answer was greatly appreciated and helped me a great deal. You see my problem was with continuing to believe in my Christian faith and dealing with scientific evidence. Most of it I can deal with, without any problem at all. In fact sometimes it helps to increase my faith. But one area in science that I cannot come to grips with is the new research being done in cosmology. From all of my research, I found that the majority of astronomers and cosmologists favor the “inflationary” theory of our universe. It may not seem like a problem at first, but after further examination it has created a huge problem for me. According to the inflationary universe model, there may be and probably are an infinite amount of universes. Each one spawning like a new bubble and having different laws than the other universes. It attempts to easily explain our design seen throughout the universe. If there are an infinite amount of universes, surely through probability, you will end up having one which fits the requirements for life. I thought that this was just one person’s theory, but soon found out that a lot of evidence points in the direction of inflation. Could you tell me what you know of this and how this can or if it can fit with my faith. My faith has always been the most important thing to me, but I cannot just believe that easily if a major part of my belief is incorrect. How do Christians deal with an issue like this, and if this theory turns out to be true, in what way does this affect the Christian faith? I have read a book by Robert J. Russell, William Stoeger, and George Coyne, but it seems to go around the question. Any input that you have would be greatly appreciated.**

The many universes hypothesis is not so much a part of the inflationary universe theory as an addendum to it. It has been added as an attempt at an explanation for the fine-tuned

nature of our universe from an explosion. While inflation is somewhat testable scientifically, the many universes hypotheses is pure conjecture. How can we ever discover other universes with properties different from ours? Its only value is to suggest multiple universes to overcome the odds of this one occurring by chance just this once, which in many cosmologists' and astronomers' eyes indicates the necessity for an intelligence to order it. The many universes hypothesis is therefore a thinly disguised rationalization to avoid the necessity of intelligence in the universe.

The many universes model also relies on quantum mechanics to suggest that the universe emerged from a quantum fluctuation from nothing to something. While quantum fluctuations are mysterious, we only know them to operate within a space-time universe. Without a space-time universe, there is no such thing as quantum mechanics. So this would negate the use of quantum mechanics to explain the origin of the universe from nothing since quantum mechanics didn't exist until the universe existed.

By the way, while my faith in Jesus does depend on evidence (the resurrection, historicity of the Bible, etc.) it does not rest on the accuracy of the latest scientific theories. Men will always find ways to order their universe without God. Just because they think they can, doesn't mean God is any less real. Be careful of being willing to jettison your faith based on scientific theories. There is still much we don't know about the universe and even the Bible to be that tenuous about our faith because of science. When scientists proclaim that the facts argue against God, they are usually simply showing their own bias and refusal to consider the mountain of evidence in favor of His existence. Scientists are human too.

Respectfully,

Ray Bohlin
Probe Ministries

# “Your Position Against Stem Cell Research Disregards Diabetics”

**I know that you don’t think it’s right to use stem cells and you have that right, it’s granted to you in the constitution. But do you have diabetes? Do you know what it’s like to have to get blood 4 times a day to know what your blood sugar is so that you can make good decisions so you don’t die and every time you get in a car to drive? Then have to stick a needle into your skin to give yourself insulin to survive because your body does not produce insulin anymore. Do you know what that’s like? Do you? The way I see it from your webpage you’re not looking at the 16 million Americans with diabetes that have to live with this. If the stem cell research was to succeed then there would be no more Diabetes, Parkinson’s and many other diseases.**

I appreciate your passion for a desire to cure diabetes. It is a difficult disease, and I am sorry to learn that you suffer from it. However, allow me to reframe the argument.

We need to make a distinction between embryonic stem cells and adult stem cells. We have no problem with using adult stem cells to research treatment and cures of disease. What if embryonic stem cell research *doesn’t* succeed? There are no guarantees. We haven’t even cured a mouse, let alone treated any human disease with embryonic stem cells. Then we have will have wasted thousands of human embryos for nothing. Not to mention all the women who had to endure hormonal treatments to obtain their eggs to make the embryos. How much is their sacrifice worth to you?

What if adult stem cell research (research with no ethical questions and much hope of success) achieves a treatment before embryonic stem cell research? Again, we will have wasted thousands of human embryos for nothing.

I have a genetic disease myself, hemochromatosis, excess iron in the blood and organs. When left untreated it can lead to liver disease and cancer. I simply need a pint of blood withdrawn every 2-3 months to keep my iron levels under control. This is not the inconvenience of diabetes. But I am not without understanding of the issues. My health and convenience is not worth the sacrifice of human embryos who have no option of informed consent. I refuse to sacrifice the next generation in any way for my convenience. It's always been the other way around, the current generation sacrificing for the next.

You are also entitled to your opinion. But don't assume I have callously tossed aside the suffering of others. I simply choose the life of human embryos, embryos who have every potential to form a human being if left in their natural surroundings, over my convenience. To suggest that these early embryos are simply reproductive cells like sperm and egg is disingenuous and medically incorrect.

Respectfully,

Ray Bohlin
Probe Ministries

---

# "Help Me Understand the

# Genetics of Skin Color”

**Ray,**

**I’ve got a genetics question for you. A pastor friend posed the following for me, which he says is the argument of some creationists he knows. He sums up their argument this way:**

**1. Adam and Eve were the first parents of all the races.**

**2. Adam and Eve contained all the genetic information from which eventually all the races came.**

**3. From Adam to Noah, all descendants of Adam and Eve were probably all a mid-brown color since Adam and Eve were also mid-brown.**

**4. After the global flood and the tower of Babel incident, descendants of Noah separated into people groups according to their own languages and traveled to different parts of the world.**

**5. As different “people groups” were exposed to different environments, natural selection occurred resulting in certain genetic traits to be enhanced for adaptability (for example: darker skin pigmentation for environments with more intense sunlight due to the genetic “potential” to increase more melanin).**

**6. As the “people groups” were isolated and intermarried with each other with a certain group, they eventually lost certain genes that were not needed for adaptability. (That would explain, from this point of view, why African Negroes who move to different northern environments or European Whites who move down to Africa, do not change back to another color because over time they previously lost the genetic potential to do so.)**

**Ray, from your knowledge of genetics, does this hold water? Or**

**is it speculation? Thanks.**

Your pastor friend is essentially correct. This scenario as regards to skin color is emminently workable genetically. There are at least three and perhaps four genes involved in skin color and several alleles at each gene producing differing amounts of melanin. It would not take long for these to segregate out into different inbred populations creating true-breeding lines for particular skin color shades. I even discussed this back in the late 70s with my genetics professor and he saw no genetic problem with this scenario.

The only change I would make in the scenario would be to emphasize the critical role of the wives of Noah's three sons. They are actually more important than Adam and Eve. Noah's sons would most likely be very similar genetically so the major variation would need to originate with their wives since the world is repopulated from these three pairs. The full genetic range could easily be incorporated into these individuals. Adam and Eve would not necessarily need to possess the entire range of skin gene possibilities since there is some time for accumulation of mutations between them and Noah's sons. With that said, since Adam and Eve would both possess two copies of each gene, that means a possible total of at least 4 different alleles at each gene and if there are 3 different genes, that means 12 different alleles which could be combined 144 different ways. This would seem more than adequate to accomodate the full range of human skin color.

Respectfully,

Ray Bohlin

Probe Ministries