

February 3, 2006

Dear Texas Public School Science Teachers and Librarians:

Recently an organization named Texans for Better Science Education Foundation (TBSEF) offered to provide you with a free DVD titled *Where Does the Evidence Lead?*. This DVD is a version of *Unlocking the Mysteries of Life* produced by the Discovery Institute that has been converted into six 10-12 minute segments so that it can be shown in a science classroom with time for discussion. If you have not received the TBSEF solicitation letter, it is located at <http://www.tbsef.org/Teacher.Letter.htm>. Their web form for ordering the free DVD is at <http://www.tbsef.org/SendDVD.htm>. Let's examine the logic and substance of the TBSEF attempt to get their DVD into public school science classrooms.

Untruthful statements in the TBSEF Letter

The TBSEF letter claims that this "DVD's approach is appropriate and legal for both public and private schools, as it includes a wide range of observational evidence but leaves the philosophic and religious implications of scientific theories and evidence out of the presentation." But this statement is untrue in several ways. First, the DVD is inappropriate to show in *any* science class of *any* school, since it presents a creationist attack on the biological concept of organic evolution by attempting to refute or cast doubt upon well-understood and long-accepted scientific facts and theories, and then suggests that a creationist intelligent design account explains the evidence better. The DVD is pseudoscientific in nature, presents a false view of science, and attempts to confuse the viewer by misrepresenting the reliable and accurate knowledge that scientists possess today about biological evolution.

Second, while the DVD is legal to show in private schools, it is almost certainly illegal to show in Texas public schools, since it presents an intelligent design (ID) creationist concept that has recently been found to be constitutionally unacceptable in one federal court, and almost certainly would be found the same in a federal court in Texas. The Federal District Court in Pennsylvania ruled, after examining the evidence of both sides, that ID is a form of creationism that is ineluctably religious, and mandating the presentation of this in science classrooms violates the Establishment Clause of the First Amendment. Teaching creationism in public school science classrooms has been illegal for about two decades, and the most recent Federal District Court decision has now determined that ID is a form of creationism, as scientists have repeatedly maintained.

Third, and most insidiously because they are cleverly concealed, *implicit* philosophical and religious implications about science are pervasive throughout the DVD the TBSEF wants you to show. In brief, the DVD attempts to persuade the viewer that pseudoscientific, supernatural explanations of natural evidence and processes are appropriate in science, when in fact they are not. In legitimate science, supernatural explanations or concepts are avoided or ignored, not opposed or contested, as often misstated by creationists who try to create an imagined controversy. Science uses only natural explanations because only they can be tested using empirical evidence and logical reasoning, and the scientific method depends on the testing of hypotheses. Supernatural explanations, while potentially true, cannot be tested by the methods of

science, and thus are avoided by scientists. That's why ID is unscientific: while it *may* be true (as the judge wrote), it invokes supernatural causes and processes that cannot be tested using natural evidence.

Of course, the DVD tries to convince the viewer that the ultimate character or identity of the Intelligent Designer is of no consequence, so ID promoters are not really proposing supernatural causes and explanations, but that is misleading nonsense. The first thing a true scientist would want to know, if there was any actual evidence for ID, is the identity and attributes of the Designer, so claiming non-interest in this vital information is a shameless ploy, and a very unscientific one at that. Early in the 19th century, before evolution was an accepted biologic process, many natural theologians and scientists tried to demonstrate the attributes of the Deity using the presumed evidence of Its creation. All of the ID promoters—especially the ones who created and are marketing this DVD, especially the Discovery Institute and TBSEF—believe the Intelligent Designer is the Deity, a supernatural spirit. That makes ID religious, not science, and thus inappropriate and illegal as a topic in the public schools.

The claim made by TBSEF that the “design inference is based on observation and does not depend on any religious premises or particular religious beliefs” is clearly false. There is no observational evidence known to scientists that supports a design inference. No scientist in the world has seriously proposed that a natural superhuman extraterrestrial alien is responsible for designing and propagating all forms of life on Earth, because there is no evidence for such a thing. On the contrary, all the biological evidence strongly supports an abiogenic origin of life with subsequent evolution of all species on Earth. A Divine Designer may have had some interest in these processes, but there is no evidence for Its willful interference or activity, and it is not something science would investigate in any case, so it is a misrepresentation to suggest in a DVD aimed at students that there is.

Further Misrepresentations

The TBSEF letter contains further misrepresentations. It and the DVD mention the concept of *irreducible complexity*, but that is not a legitimate biologic concept. Designating any biologic system as irreducibly complex is a question-stopper, something no scientist would tolerate. A true scientist would continue to investigate the structure and origin of biologic components by experimentally reducing the biologic system to these smaller parts. The letter mentions “leading intelligent design research scientists.” These individuals certainly exist, but they are not scientists: they do not use scientific methods, do not publish in the scientific literature, do not work within established scientific theories or paradigms, and do not have the accepted scientific attitude—a willingness to explain natural phenomena using only natural explanations. In fact, the ID researchers with scientific credentials are pseudoscientists—individuals pretending to be scientists by using science's great prestige and legitimacy to try to persuade unsuspecting non-scientist students, teachers, and other viewers to buy into their unscientific ideology.

The TBSEF letter contains the statement that the “scientists consider the possibility that observable physical evidence suggests that design is a better explanation for some aspects of complex life than is the idea of random natural processes.” First, no real scientist today is considering the possibility of design as an explanation of anything—only pseudoscientists are

investigating this possibility, since design necessitates a superhuman or supernatural designer, for which there is no evidence or reason to invoke as an explanation. But more importantly, the statement contains the frequent canard that evolution relies on “random natural processes.” This is a misrepresentation: natural selection, the most important of all the many evolutionary processes, is a completely determinative and nonrandom natural process, albeit one that manifests itself in nature in a probabilistic way. Also, all living organisms are composed of chemical structures that self-construct according to very nonrandom chemical properties and physical laws.

Random processes could never produce the chemical and biological diversity we witness today, and no evolutionary scientist has ever claimed they have. The constant, gratuitous creationist effort to present evolution as a mechanism that relies only on random processes is deliberately misleading and false, and clearly reveals their ulterior motive to cast doubt on evolution by falsely mischaracterizing it. This same tactic is used constantly by creationists to falsely mischaracterize the nature of a scientific theory, the highest form of human knowledge about the natural world, to imply that theory means only a suggestion, idea, guess, or speculation, the popular understanding of the word “theory” for most individuals. Teachers must constantly be aware of such duplicity and work to inform their students of the true scientific understanding of words and processes.

Strengths and Weaknesses

But wait, there’s more . . . mischievous mendacity from TBSEF. Their letter invokes the TEKS and its notorious section §112.43 (b)(3)(a), the requirement that—in order to promote critical thinking—students must be exposed to both “strengths and weaknesses” of evolution. There is a lot I could say about this section, including the fact that it was inserted into the TEKS a decade ago by creationist State Board of Education members specifically to provide a mechanism to attack evolution during textbook selection and weaken the books’ coverage of the topic (in which case it has failed to accomplish its intended task). But let me merely say this: the TEKS requires that “strengths and weaknesses” be taught for *every* scientific theory and hypothesis, not just evolution, in *all* science courses, not just biology. If a teacher presents weaknesses *only* for the theory of evolution, then that teacher is both ignoring the TEKS *and* misrepresenting science, since all science is theoretical, and modern theories are highly reliable and accurate. The major aspects of evolutionary theory, for example, are totally accepted by all biologists in the world today, similar to the acceptance among scientists for quantum theory, relativity theory, thermodynamic theory, plate tectonic theory, genetic theory, the Big Bang theory, and many other highly-developed and reliable scientific theories.

But even more importantly, the correct way to interpret section (3)(a) is to be sure to present only *scientific* “strengths and weaknesses,” not pseudoscientific ones. The full phrase of the TEKS is “strengths and weaknesses using scientific evidence and information.” Weaknesses using pseudoscientific evidence and information are not permitted. The biology textbooks contain many *historical* scientific weaknesses of evolutionary theory that have been corrected through decades of scientific investigation, making the theory of evolution today extremely accurate and reliable. These historical weaknesses can be and are legitimately presented to students by Texas teachers. It is unscientific, inappropriate, and probably illegal, however, to present the so-called

“weaknesses” of evolution claimed by the ID creationists in their books and DVDs, including the DVD titled *Where Does the Evidence Lead?*, because what they present as “weaknesses” are actually mendacious misrepresentations, polemical misinterpretations, and deliberate distortions of what we actually know to be true, not true weaknesses of evolution at all, but an attempt by pseudoscientists to hoodwink the viewer, present a biased and bogus program, and perpetrate a fraud.

Frankly, there are no weaknesses in or controversies about the modern theory of evolution at the level it is presented to high school students, or any other scientific theory, for that matter. No knowledgeable science educator would have written section (3)(a), and indeed none did, since it was inserted into the TEKS by elected public officials with an anti-science agenda. Scientific controversies about specific aspects of evolutionary theory manifest themselves only at the highest levels of research at universities and museums, where scientific problems and disagreements are investigated by professional scientists working on the frontiers of knowledge, where they deal with our admittedly incomplete knowledge of evolutionary processes (or gravity, plate tectonics, heredity, physical properties of matter and energy, etc.). These controversies or gaps in knowledge should not be considered weaknesses, but are more accurately characterized as simply acknowledged ignorance and an opportunity to learn more. Thousands of scientists are working in laboratories, museums, and universities all over the world because our knowledge of nature is incomplete. Our incomplete knowledge of nature is a strength of science, not a weakness, since it spurs us to work hard to discover more.

All scientific theories are incomplete, and it is mendaciously misleading to characterize this fact as a weakness, considering how successful science has been over the centuries in discovering reliable knowledge about nature, and how this knowledge has contributed so much to human civilization and happiness. High school students who possess the ability and knowledge to understand the true scientific controversies about evolution are welcome to explore those, but in reality few have this ability. None of these evolutionary controversies involve the occurrence of evolution, the fact of common descent, genetic continuity over billions of years, the generation of biodiversity primarily by natural selection acting on inherited genetic diversity, and many other topics long accepted as facts by the scientific community. Entire books have been written about the real scientific controversies concerning evolution, so I will say no more about them.

The major themes and illustrations of evolution have been successfully corroborated for many decades, in some cases for over a century, and it is only these that are taught to high school students. The cultural controversies involving scientific knowledge are important, but should be studied in a history, government, or philosophy class, not a science class. So the conceit of teaching “weaknesses” of evolution is really a charade that must be sustained by administrative and statutory mandate, not by any real ideal of promoting students’ critical thinking skills. There are plenty of ways to encourage and teach critical thinking in science without resorting to misrepresentation and duplicity, but I won’t take the time here to discuss these here.

Argumentum ad Ignorantiam

Let us now turn to the DVD and present the major criticism of its claims. This DVD promotes ID by claiming that the theory of evolution has unavoidable weaknesses, is inadequate to explain

complex biological phenomena, and in fact has failed to provide an adequate explanation for biological complexity; for those reasons evolution will never be able to explain biological complexity, and ID is therefore a more responsible and promising explanation of complex life that should be taught to students in addition to evolution. This is a fallacious, illogical argument, termed by philosophers the *argument from ignorance* or the *appeal to ignorance*. Nothing true can be concluded from an illogical argument, so *all* the DVD's conclusions about the proximate inadequacy of evolution and the ultimate promise of ID are invalid and almost certainly untrue.

The appeal to ignorance takes two forms: (1) P hasn't been proved true; therefore, P is false, or (2) P hasn't been proved false; therefore, P is true. ID advocates use the first form to attack evolution, and the second to support ID. In an appeal to ignorance, the conclusion does not follow from the premise, because positive knowledge cannot be affirmed from a state of ignorance. The conclusion *may* be true, but the premise does not give us license to believe this is the case. Amazingly, this fallacious argument underlies the entire edifice of creationism, including intelligent design, since creationists have never been able to point to a single piece of actual empirical evidence that supports their claim of a creator or designer. Thus, they have had to point to their imagined, fabricated, distorted, misinterpreted, and misrepresented shortcomings of evolutionary science to make their case. Creationists sincerely feel that as they beat evolution down, creationism is thereby raised up, but that belief is fallacious. Their time and effort would be better spent figuring how to recognize and interpret supernatural processes using natural evidence. Philosophers have pretty much given up on that problem, so creation scientists can devote to their efforts to a wide-open field of research.

The argument from ignorance in the case of ID marketing is the claim that since some method or explanation (scientific method and evolutionary theory) has not provided us the knowledge and understanding of life's complexity we seek, we must therefore use a different method or explanation, specifically ID (allowing supernatural and intelligent design explanations), to give us that knowledge and understanding. The slightest bit of objective analysis will reveal several reasons why this argument is illogical: First, our ignorance of some specific knowledge may be due to insufficient research or insight, not to an irremediable flaw in our method or explanatory investigation. Perhaps all we need is more time, greater effort, or more money for research, and we will ultimately gain that knowledge and understanding of nature that we desire (this is, in fact, what scientists believe, and both history and philosophy support this position). ID creationists posit that evolutionary science has been unable to explain biologic complexity, and that their ID methods are therefore preferable. But for them to posit this, ID proponents must actually demonstrate that the scientific method is ultimately and irremediably unable, not just unable so far, to explain biologic complexity, and they have never done this. Unless it can be proved that natural science is permanently unable to explain life's complexity, it is still the best method we have.

Second, because one cannot affirm knowledge from a state of ignorance, ID creationists cannot claim support for ID because it has never been proven false. ID proponents must demonstrate that there is positive evidence for intelligent design that directly explains phenomena that evolution doesn't. They have never accomplished this necessary task, either, despite their creation of a voluminous library of books and essays expositing ID. The reason for this lack of positive demonstration is simple: ID has no real explanatory power as required by the scientific

method. Intelligent design in its present form is intrinsically supernaturalistic, so it cannot explain natural effects from natural causes—causes that can be observed, investigated, and tested. Intelligent design must invoke supernatural causes to achieve its biologic ends, but for public consumption ID proponents maintain the abject nonsense that it is unnecessary to provide or even attempt to explain the workings of these ultimate causes. Better to just ignore that tough problem and hope no one notices.

Of course, ID'ers don't even attempt to explain the workings of *proximate* causes; instead, they think it is sufficient to just cast doubt on evolution, but that strategy is fallacious. If real evidence for intelligent design actually exists, ID advocates should explicitly propose the existence of a superhuman extraterrestrial life form with enormous creative powers, superior to humans to the same extent that humans are superior to a flatworm. The existence of this ET would be a natural conjecture, capable of being investigated and tested (but perhaps not falsifiable, since there is a big universe to look for it). The ID proponents could explain how the ET designer's activity through Earth history, or just long ago early in our planet's formation, allowed life to begin and diversify. The ID proponents would not be creationists, in this case, since they would be dealing solely with natural causes, processes, and evidence. If they started working on this truly-scientific research program, I would cease my criticisms. But they never will do this, since it's too much work and won't yield the promising results of their pseudoscientific ID marketing program.

Third, even if we accept the idea that evolution is unable to explain biologic complexity, that does not mean the ID is the default explanation. For a century, creationists have implicitly believed that if they can show that evolution is false, then creationism must be true, but that belief does not logically follow. Other natural explanations are possible, such as superhuman extraterrestrial aliens or a non-evolutionary process that scientists haven't yet discovered. There are other evidence-poor but natural explanations that human ingenuity can propose and has, in fact, proposed. Prior to Darwin's discovery of natural selection and for about fifty years after, several perfectly natural non-Darwinian explanations of biodiversity and life's history were proposed and investigated by scientists. These could be termed evolutionary explanations, since they were conjectured to explain species diversity and changes through time, but most had nothing to do with the evolutionary processes we accept today. All, or example, presented alternatives to natural selection. Any one of them would be more reasonable than creationism of any kind—special creation, progressive creation, or intelligent design creation—because they have the most excellent benefit of being testable and falsifiable (which is why they were all tested, falsified, and ultimately rejected, and are now found only in the history books). ID creationism as promoted by the DVD *Where Does the Evidence Lead?* cannot be tested or falsified, which is why it is unscientific.

Let's look at some specific examples. Using the example of the bacterial flagellum, *Where Does the Evidence Lead?* claims that *irreducible complexity* is real and that evolutionary explanations cannot account for it, so ID must be used to explain it. The DVD also claims that DNA is a form of information termed *specified complexity* by ID advocates, and that information theory makes it improbable for such specified complexity to be generated by a mechanistic natural processes such as evolution, so it must be the result of an intelligent designer. However, both of these claims are false: irreducible and specified complexity are nonsense terms—invented by ID

proponents for their own rhetorical, polemical purposes—that no legitimate evolutionary scientist believes describes any biologic organism or system. But the point here is that even if they were true—that evolution can't explain irreducible or specified complexity—jumping to the conclusion that ID must be responsible is an illogical argument. Evolution may and probably will ultimately explain all aspects of biological complexity, or another undiscovered *natural* biological mechanism will.

What I have written should be sufficient to guide you in your evaluation of the TBSEF DVD, *Where Does the Evidence Lead?*. The DVD is a work of creationist pseudoscience, religious-political ideology masquerading as legitimate science. It would be inappropriate, unscientific, and almost certainly illegal to show this DVD in your science classroom.

Sincerely,

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President, Texas Citizens for Science
<http://www.texscience.org/>

Note from SDS:

I want to recommend that you also read the June, 2003, letter from Andrea Bottaro, excerpted below. The original letter, complete with references, can be found at http://www.ncseweb.org/resources/articles/2730_bottaro39s_letter_to_wnye_7_8_2003.asp. Dr. Bottaro objected to the broadcast of the video *Unlocking the Mystery of Life* on New York educational television. This video is also available on DVD from several creationist sources and is the original, un-segmented version of *Where Does the Evidence Lead?*.

Unlocking the Mystery of Life (UML) presents itself as a well-crafted, purely scientific documentary, while it is factually misleading in many respects, and its main purpose is propaganda for a pseudo-scientific movement known as Intelligent Design Creationism. UML has its (strategically concealed) origins close to religious fundamentalist and Creationist circles, and displays a pattern of poor scholarship, including misrepresentation/omission of key scientific evidence. Ultimately, these result in a misleading picture of the facts and of current scientific knowledge, as well as of the ultimate goals of the documentary itself.

Unlocking the Mystery of Life -- More omissions than facts

The source:

"Unlocking the Mystery of Life" is the first and only production of an entity called "IllustraMedia". In fact, "IllustraMedia" is one and the same with "Discovery Media Productions"¹. Discovery Media is a production company whose previous videos are devoted to evangelical topics, such as "Heaven and Hell" and "The End Times"². While there is nothing wrong with an evangelical video company producing a science documentary, the fact that to do so it was felt necessary to create a "shell" production outfit highlights the aura of ambiguity that

pervades the entire enterprise (more examples to follow). Furthermore, the purpose of the video as a propagandistic and religious, rather than scientific/educational tool is underscored by how UML is being publicized within fundamentalist circles. For instance, Mission Frontiers, the Bulletin of the evangelical U.S. Center for World Missions, hails it as "the most impressive evangelistic tool ever made"³.

The contents:

As a documentary, UML is a skillful and sophisticated production, showing some well-made computer animations of cellular processes at the molecular level. In discussing such mechanisms, the video claims that the scientific evidence points to insurmountable difficulties for standard evolutionary theory, and supports instead the hypothesis that a superior intelligence directly intervened to create and/or diversify life (hence the name "Intelligent Design", or ID, Creationism⁴). The video discusses such purported evidence and devotes much of its time to the historical origins and philosophical underpinnings of the ID movement.

The fundamental question is whether UML conforms to basic scientific standards of adherence to evidence and facts. In this, it fails at several levels. First of all, throughout the documentary mainstream scientific views, supported by the overwhelming majority of scientists, are not even independently presented. Instead, oversimplified, sometime downright scornful presentations of mainstream scientific theories and hypotheses are provided by supporters of ID (as a counterexample, the recent PBS "Evolution" series, though clearly favoring a scientific view, featured the opinions of several prominent representatives of Creationism). In UML, therefore, the viewers are treated to descriptions of scientific evidence and theories that have little connection with what is in fact going on in the science world. For reasons of space, I'll just mention a few examples.

The most glaring omission deals with UML's discussion of Origins of Life (OoL) science. The only non ID-based views on OoL discussed in the video are those proposed, in the late '60s, by one of the current ID proponents, Dr. Dean Kenyon. According to UML, those models have been later shown by Kenyon and colleagues to be insufficient to explain key aspects of early molecular and cellular evolution. In fact, most of Kenyon's original views have long been superseded by more thorough, and better empirically supported, scientific hypotheses -- indeed, it was those hypotheses and evidence that led to the demise of Kenyon's ideas in scientific circles long before ID Creationism appeared on the scene. Alas, what is arguably the current (and has been for more than a decade now) favored hypothesis about OoL, the so-called "RNA World" model⁵, finds no mention whatsoever in UML. This is not surprising, perhaps, since the objections raised in UML by ID proponents to Kenyon's original theory would not stand against this new model. Thus, the viewer is given the false impression that the current scientific choice is between ID Creationism and its outright miraculous Origin of Life, or Dr. Kenyon's outdated 1960's theory. Of course, our understanding of OoL is still very limited, and highly speculative. Nevertheless, it is far more advanced and scientifically solid than the UML parody would want its audience to believe.

Other mistakes in UML include an equally superficial, almost mockingly simplified discussion of cooption, a crucial evolutionary mechanism for which in fact significant evidence exists in the biological world. UML's "experts" even commit a basic error regarding the role of nucleic

acids in the cell, which are presented as uniquely involved in genetic information storage and transfer, while it is now well known that they are directly active in crucial molecular processes functionally comparable to those carried out by protein enzymes -- a key piece of evidence in favor of the "RNA World" hypothesis mentioned above (and the possible reason why it also went unmentioned).

The crucial argument underlying the whole ID philosophy, widely discussed in the video, is the concept of "irreducibly complex" systems, and the purported impossibility of conventional evolutionary mechanisms to generate them. Although it was quickly rejected by biologists on theoretical and empirical grounds⁶, "irreducible complexity" has remained the main staple of ID Creationism. Ironically, this argument was just recently delivered a fatal blow in the prestigious science journal *Nature*, where a computer simulation based entirely on evolutionary principles (undirected random mutation and selection) was shown to be able to generate "irreducibly complex" outputs⁷. While of course the video cannot be faulted for not predicting the results of future scientific research, this episode serves as a good example of the shaky grounds on which ID reasoning is built. Indeed, not only does scientific evidence continue to accumulate contradicting the ID arguments, but even more damningly, in over 10 years from the onset of the "movement", no single scientific result supporting ID has been published in the scientific literature, despite its supporters continuing claims of the existence of such results. Indeed, even the ID advocates' own journal, the electronically published *Progress in Complexity, Information and Design*, has failed to publish any experimental result supporting ID⁸.

In short, despite the appeals by ID advocates to "let the evidence speak for itself", there is in fact no positive scientific evidence in support of ID, and on the contrary the theoretical arguments of its advocates are constantly being proven erroneous in the professional literature. To avoid facing this lack of evidence, UML resorts instead to systematic distortions of mainstream science theories and omissions of key ideas and pieces of evidence.

The people:

The experts interviewed for UML, and ID advocates in general, are fond to present themselves as "scientists", often accompanied by the qualifier "a small but growing number of". In fact, most ID advocates are not scientists by any meaningful definition of the term, and their numbers (for which "small" is an overstatement) are anything but growing. . . .

Jed Macosko, whose image is accompanied in UML by the qualifier "Molecular Biologist, UC Berkeley", although a Berkeley graduate and former postdoctoral trainee, in fact is not, or has ever been, on the Berkeley faculty, as that title could suggest. Indeed, Dr. Macosko is apparently not even affiliated with UC Berkeley anymore; if he was at the time of interview, he certainly was there as a junior postdoc trainee, hardly an "expert" in the field by any standards. Currently, Dr. Macosko is listed on some ID web sites as teaching chemistry at the religious La Sierra University in Riverside, CA¹⁰, although he does not appear on the faculty list there either¹¹. Such "generous" use of credentials is not unique in the documentary. One of the leading proponents of ID, William Dembski, is labeled as a "mathematician -- Baylor University" in UML, although he is affiliated with Baylor's Institute for Faith and Learning, which focuses on theology and philosophy¹². Indeed, almost the entirety of Dr. Dembski's vast published opus, with the exception of a mathematics paper in 1990, is about various aspects of theology,

apologetics and philosophy¹³ (Dr. Dembski holds PhDs in Mathematics and Philosophy, and a M.Div. in Theology). [William Dembski is currently on the faculty of the Southern Baptist Theological Seminary in Louisville, KY, a post that finally matches his vocation. Note added by SDS] Finally, Jonathan Wells, presented as "biologist" in UML, does hold a PhD in Developmental Biology from UC Berkeley. By his own words, however, he entered the program not based on any genuine interest in science and biology, but following the direction of the Rev. Sun Myung Moon, with the expressed goal to "devote his life to destroying Darwinism"¹⁴. Not surprisingly, there is no record of Dr. Wells performing any meaningful research work after his training at Berkeley, and he has since entirely dedicated himself to anti-evolutionist propaganda (including the book "Icons of Evolution", some editions of which even contained stickers for students to deface biology textbooks¹⁵).

Thus, the definitions of professional background and academic affiliation used throughout UML are at the very least ambiguous, and clearly result in an inflation of the apparent academic clout and relevant expertise of the participants.

In summary, "Unlocking the Mystery of Life" is a depiction of a fringe, at best semi-scientific philosophical movement very close, ideologically and organizationally, to religious Creationism. The documentary misrepresents itself, its goals, the existing scientific evidence and its own experts in several significant ways. While it is your prerogative to air the programs that you believe best suit your audience's needs and interests, it is equally important that your viewers be provided with information that may help them put this product's contents and purpose in the appropriate context. This is necessary not only in the spirit of openness and full disclosure, but also to avoid that your broadcast of the documentary appear as an implicit endorsement of this new form of "stealth" Creationism by one of the largest Departments of Education in the country.

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