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10 UNITED STATES DISTRICT COURT
11 CENTRAL DISTRICT OF CALIFORNIA

12 ASSOCIATION OF CHRISTIAN
13 SCHOOLS INT’L, et al.,
14 Plaintiffs,
15 v.
16 ROMAN STEARNS, et al.,
Defendants.

CIVIL ACTION NO.
CV 05-06242 SJO (MANx)
**PLAINTIFFS’ AFFIDAVITS:
AFFIDAVIT OF DR. MICHAEL
BEHE**

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1 This Affidavit is provided by Dr. Michael J. Behe:

2 1. I am an expert witness for Plaintiffs in this case. I submit this affidavit
3 in connection with Plaintiffs' opposition to Defendants' motion for summary judg-
4 ment. I have personal knowledge of the facts set forth in this affidavit, and am
5 competent to testify to the matters set forth in this affidavit. If called as a witness at
6 trial, I would testify to the following:

7 2. I teach in the Department of Biological Sciences at Lehigh University.
8 My Ph.D. is in biochemistry from University of Pennsylvania in 1978. I have pub-
9 lished over 100 peer reviewed articles, as well as two books, on issues relevant to
10 my testimony in this case. My education, academic activities, and experience are
11 further described in my curriculum vitae, filed as part of my earlier Declaration in
12 this case. That Declaration is incorporated by reference.

13
14 **I. ADEQUACY OF BIOLOGICAL SCIENCE CONTENT OF CHRISTIAN
TEXTS AND ADEQUACY TO PREPARE STUDENTS FOR UC**

15 **A. Sufficiency of Non-Evolutionary Biology Course Content**

16 **1. My partial agreement with Defendants' expert witness Professor
17 Donald Kennedy**

18 3. I substantively evaluated two biology textbooks published by Chris-
19 tian organizations, *Biology: for Christian Schools* (BJU Press, 1999) and *Biology:
20 God's Living Creation* (A Beka Book, 1997, with *Ecology* supplement) for their
21 adequacy of coverage of biological topics as preparation for Universities of the
22 caliber of the University of California's campuses.

23 4. To begin, it is noteworthy that in his expert report Professor Donald
24 Kennedy wrote:

25 **V. Findings**

26 *In general, I find that, where the two [Christian] texts treat such basic fac-
27 tual issues as biological structure, human anatomy and physiology, and
28 the different taxonomic status of plant and animal groups, they are gener-
ally acceptable. (emphasis added)*

1 In this conclusive statement, I concur with Professor Kennedy. In my judgment the
2 Christian biology texts do a fine job of preparing students for courses in biology at
3 universities of the caliber of the campuses of the University of California in teach-
4 ing what Professor Kennedy calls "such basic factual issues as biological structure,
5 human anatomy and physiology, and the different taxonomic status of plant and
6 animal groups."

7 5. It is instructive to see what fraction of the texts Professor Kennedy
8 found were "generally acceptable", which dealt with "biological structure, human
9 anatomy and physiology, and the different taxonomic status of plant and animal
10 groups." The A Beka text devotes 21 of 24 chapters to those topics, or 87.5% of
11 the text. The BJU text dedicates 22 of 24 chapters to those topics, or 91.7% of the
12 text.

13 6. It is also useful to compare the two textbooks by Christian publishers
14 for how much space was devoted to "biological structure, human anatomy and
15 physiology, and the different taxonomic status of plant and animal groups" with two
16 non-Christian texts which are used in biology courses approved by the University
17 of California. The two approved textbooks are *Biology: Visualizing Life* (Holt, 1998)
18 and *Biology: The Living Science* (Prentice Hall, 1998). The Holt text spends 31 of
19 35 chapters on those topics, or 88.6%, while the Prentice Hall text spends 37 of 40
20 chapters on those topics, or 92.5%. Thus the Christian and non-Christian texts de-
21 vote roughly the same overwhelming percentage of space in the textbook to these
22 non-evolutionary topics.

23 7. It is furthermore instructive to see what fraction of the biology text
24 Professor Kennedy gave particular attention to and what he didn't.

25 I read both *Biology: God's Living Creation* (hereinafter referred to as A
26 Beka) and the Teacher's Guide that is given to teachers to accompany
27 this text. I gave particular attention to Chapters 14 and 15 in both A Beka
28 and the Teacher's Guide and evaluated the material in light of the stan-
dards set out in the University of California's a-g guidelines. I also read
Biology for Christian Schools, Second Edition, paying particular attention

1 to Chapter 7C: Theories of Biological Evolution (hereinafter, referred to as
2 BJU)...

3 Professor Kennedy wrote that he gave particular attention to chapters 14 and 15 in
4 the A Beka text. Since there are 24 chapters in the book, that means he closely
5 examined only 8.3% of the book. He examined closely Chapter 7C of the BJU
6 textbook, one-third of a chapter of a book that has 24 chapters, which is 1.4% of
7 the textbook.

8 **2. Fraction of biology courses devoted to non-evolutionary topics**

9 8. Thus it is important to realize that the portion of the Christian texts that
10 received a jaundiced judgment from Professor Kennedy are a very small fraction of
11 the content of either the Christian or non-Christian texts, ranging from 2.3% to
12 11.4%, and that the portion of the Christian texts he judges to be adequate are the
13 overwhelming majority, ranging from 87.5% to 96%, which is similar to the portion
14 of the non-Christian texts spent on those topics (88.6% to 92.5%).

15 9. *Thus if a semi-diligent student were given a comprehensive, propor-*
16 *tional test on all aspects of the Christian biology textbooks, but only studied the*
17 *portions that Professor Kennedy admits are covered acceptably, the student would*
18 *earn a grade of B+ (88.6%) to A (92.5%), which would be a fine grade at any top*
19 *university in the country.*

20 **B. Sufficiency of Evolutionary Biology Course Content**

21 10. I have substantively examined the Christian biology texts and deter-
22 mined that they teach standard evolutionary biology course content sufficiently to
23 prepare a student for universities of the quality of the campuses of the University of
24 California. The standards I have used in my review include: 1) the University of
25 California's a-g guide, in particular its certification criteria for laboratory science; 2)
26 The California State Board of Education Standards for evolutionary biology; and 3)
27 an exemplary course description (Pacific Coast Charter School) that is posted on
28

1 the UC website.

2 11. The University of California certification guide for (d) laboratory science
3 is a short (less than half a page), very general statement, requiring that courses: a)
4 must specify elementary algebra as a prerequisite or co-requisite; b) take an ap-
5 proach consistent with the scientific method in relation to observing, forming hy-
6 potheses, and so on; and c) include hands-on scientific activities that support the
7 other class work. After reviewing the Christian biology texts I have determined that
8 they could be used to meet these general criteria.

9 12. The California State Board of Education lists thirteen standards for
10 evolution. As I wrote in my previous Declaration, the Christian texts meet 8 and 10
11 of those standards, comparable to the non-Christian Holt and Prentice-Hall texts,
12 which met 9 and 10 standards, respectively. Thus none of the texts meets all of
13 the standards, but all of the texts meet most of the standards. I have now further
14 reviewed the Christian texts to determine whether they substantially teach the evo-
15 lutionary (and non-evolutionary) topics sufficiently to prepare students for colleges
16 of the quality of the UC campuses, and I conclude that they do.

17 13. On its website the University of California lists exemplary course appli-
18 cations, to provide a guide for the type of courses which would gain approval. I ex-
19 amined the exemplary course application from the Pacific Coast Charter School.
20 The application states under the heading "Course objectives" that "Students will
21 meet the California State Science Content Standards for Biology/Life Sciences (1-
22 10)". In my previous declaration I showed that the Christian texts met 60-64 out of
23 67 listed standards, while the non-Christian texts met 58-60 standards. Thus the
24 Christian texts meet about the same number of standards as non-Christian texts
25 that are used in approved courses. Under the heading "Course outline" the Pacific
26 Coast Charter School exemplary application gives a condensed summary of the
27 CBE standard categories. Thus, again, the Christian texts meet this feature of the
28 exemplary application. Having now further reviewed the Christian texts to deter-

1 mine whether they substantively teach the 67 listed standards sufficiently to pre-
2 pare students for colleges of the quality of the UC campuses, I conclude that they
3 do, as further discussed below.

4
5 **C. Critical Thinking and Other Skills in Biology**

6 14. The UC website describes the skills that it expects of entering students
7 as follows (in Exhibit 61), which I will refer to as critical thinking and other skills (or
8 in Part IV critical thinking skills) beyond substantive knowledge in a given disci-
9 pline:

10 The purposes of the a-g subject area requirements are to ensure that en-
11 tering students

- 12 • Can participate fully in the first year program at the University in a
13 broad variety of fields of study;
- 14 • Have attained the necessary preparation for courses, majors and pro-
15 grams offered at the University;
- 16 • Have attained a body of knowledge that will provide breadth and
17 perspective to new, more advanced studies; and
- 18 • Have attained essential critical thinking and study skills.

19 The following general criteria must be satisfied for courses to meet the re-
20 quirement:

- 21 • Be academically challenging;
- 22 • Involve substantial reading and writing;
- 23 • Include problems and laboratory work, as appropriate;
- 24 • Show serious attention to analytical thinking as well as factual content;
25 and
- 26 • Develop students' oral and listening skills.

27 15. I have substantively examined the Christian biology textbooks and
28 concluded that they do an acceptable job at preparing students for the critical

1 thinking and other skills needed in non-evolutionary biology topics at universities of
2 the quality of the University of California campuses. Throughout the texts, and at
3 the end of each text chapter, the Christian biology textbooks, like the non-Christian
4 textbooks, present review questions, "thought" questions, and problems to hone
5 the critical thinking and other skills of students. Additionally, each text comes with a
6 laboratory component, where students learn to conduct experiments, measure
7 variables, and draw conclusions based on evidence. Furthermore, in sections
8 concerning the theory of evolution, the Christian texts pose skeptical questions
9 and discuss quandaries, conundrums, and false claims from the past, which other
10 texts do not, so that a student exposed to this material would have a much better
11 grasp of how science is a human activity, which contains all the positive and nega-
12 tive traits that that entails. A student who diligently read the Christian texts and per-
13 formed the exercises they contain would be well prepared to succeed at universi-
14 ties of the caliber of the campuses of the University of California.

15 **D. Conclusion on Adequacy of Christian Textbooks**

16 16. I have further reviewed the Christian biology texts substantively, and
17 have concluded that they sufficiently teach standard course content (defining stan-
18 dard course content as what is required by UC's a-g Guide for the subject, the
19 California State Board of Education Standard's for the subject, and UC's exem-
20 plary course description from the Pacific Coast Charter School (attached)) and
21 critical thinking and other skills adequately to prepare students for colleges of the
22 quality of the University of California campuses.
23

24 **II. RESPONSE TO THE REPORT OF PROFESSOR DONALD KENNEDY**

25 17. In his Introduction to his report Prof. Kennedy lists a number of gen-
26 eral goals under the UC a-g guidelines for an acceptable high school course, in-
27 cluding:
28

- 1 X Be academically challenging;
- 2 X Involve substantial reading and writing;
- 3 X Show serious attention to analytical thinking as well as factual
- 4 content;
- 5 X Develop students' oral and listening skills.

6 The Christian texts can be used to meet all of these goals, and Prof. Kennedy
7 does not give reasons why they couldn't. The Christian texts contain nearly 700
8 pages of biological content, only a small fraction of which Prof. Kennedy objects to
9 (see above). Even if the disputed content were bracketed, the textbooks could still
10 meet such general goals as Prof. Kennedy lists from the a-g guidelines.

11 18. However, it turns out that Prof. Kennedy does not use these criteria to
12 determine the suitability of the Christian biology textbooks. Instead, in the section
13 "Standards Applied", he lists three other criteria, without establishing their rele-
14 vance to the UC guidelines: 1) a clear presentation of the nature of science; 2) in-
15 struction in the factual and experimental underpinnings of the discipline and in the
16 concepts and theoretical structures of the discipline; and 3) promotion of critical
17 thinking skills. The Christian texts however, meet all of these goals. I will treat them
18 each in turn.

19 19. The reason Professor Kennedy objects only to a small fraction of the
20 Christian texts is, as he and his National Academy of Sciences booklet on evolu-
21 tion said in the opening paragraph:

22 After all, many questions in biology can be answered without mentioning
23 evolution: How do birds fly? How can certain plants grow in the desert? Why
do children resemble their parents? . . .

24 Professor Kennedy chaired the group of authors, and lists the booklet on his publi-
25 cation list. (Exhibit 498.)

26 **A. A Clear Presentation of the Nature of Science**

27 20. Contrary to Professor Kennedy's report, both Christian biology texts
28

1 give extensive discussions of the nature of science, and contrast science with
2 other ways of knowing, including religious ways of knowing. For example the first
3 chapter of the Bob Jones text contains a sustained, fairly sophisticated discussion
4 of how we know something is true — a topic that has kept philosophers busy for
5 millennia. For example, a section entitled “A Definition of Science” states:

6 **Science** can be defined as a body of facts that man has gathered by ob-
7 serving the physical universe. (There are many other possible definitions
8 of science, some of which will be discussed later in this chapter.) One
9 question arises immediately from this definition of science: what are facts?
10 A **fact** is something that is *true*. What is *truth*, and how does one know
11 that a supposed fact is *true*? This concept has kept man’s mind busy for
12 thousands of years. Some commonly accepted theories about truth are
13 discussed here.

14 The text then gives page-length discussions of the possible definitions of truth, in-
15 cluding: 1) Truth: what everybody believes? 2) Truth: a hunch that works? 3) Truth:
16 repeated observations? 4) Truth: that which is logical? Truth: that which is ac-
17 cepted by faith? and 5) Truth: the Word of God. None of the discussions of these
18 topics is simplistic. The text follows these sections with an extensive discussion of
19 the scientific method, including what is scientific and what is religious.

20 21. Contrary to Professor Kennedy’s report, a student who used the Chris-
21 tian biology texts would have a much more sophisticated understanding of the na-
22 ture of science and other ways of knowing than a student who used some other
23 non-Christian biology texts, which generally tread lightly on these topics.

24 **B. Instruction in the Factual and Experimental Underpinnings of the**
25 **Discipline and in the Concepts and Theoretical Structures of the Dis-**
26 **cipline**

27 22. As stated earlier, Prof. Kennedy concedes that 90% of the content of
28 the textbook is acceptable. Only when the topic turns to the approximately 10% of
the course that involves evolutionary content does he demur. However, as I have
pointed out in my earlier report, the Christian texts do indeed treat the topics on

1 evolution listed in the CBE standards, at least comparably to other texts.

2 23. Professor Kennedy objects when the texts make remarks critical of
3 evolutionary theory, for example, that "radiometric dating of fossils ... is also based
4 on circular reasoning." Without disputing that statement, he asserts that a student
5 at UC would be asked to use isotope ratios to determine dates of millions of years,
6 far outside of the Christian texts' Biblical chronology. However, it is often the case
7 in science that assumptions are involved in dating phenomena, and a student who
8 was not apprized that a lot of theorizing goes into a date for a fossil or event —
9 theories whose assumptions may not be correct — is a student woefully ignorant
10 about how science works. Prof. Kennedy defends the late Steven J. Gould from
11 the text's characterization that his idea of punctuated equilibrium reduces to evolu-
12 tion that is "too fast to leave fossils behind, but too slow to observe today." Prof.
13 Kennedy states that "various geological conditions and differences in evolutionary
14 rate can account for the observation that evolution appears to have occurred in
15 historical spurts." Yet whether it can be rationalized or not, the pithy, irreverent
16 quote of the Christian text still fits the observed data. Neither the UC a-g guidelines
17 nor the CBE standards require that textbooks treat majority ideas in tones of
18 hushed deference.

20 **C. Promotion Of Critical Thinking And Other Skills**

21 24. As I wrote above, both Christian texts contain throughout their length
22 end-of-chapter questions, exercises, and critical thinking questions which promote
23 critical thinking and other skills. Furthermore they contain laboratory exercises
24 which promote the critical study of nature.

25 25. Ironically, however, in my opinion the place where the texts most effec-
26 tively promote critical thinking and other skills is in their treatment of Darwinian
27 evolutionary theory, for which Professor Kennedy castigates them. The texts dis-
28 cuss such puzzles for evolutionary theory as the Cambrian explosion, which is

1 missing from other biology texts. Furthermore they ask critical questions such as
2 whether small mutations can add up to large, coherent changes. Other texts sim-
3 ply assume that is true without argument. As a university professor, I would much
4 rather have in class students who had been taught to question the very founda-
5 tions of accepted theories than students who had been implicitly taught not to
6 question foundations because scientists were supremely confident they were cor-
7 rect. Even a brief tour through the history of science (phlogiston theory, phrenol-
8 ogy, theory of the ether, etc., etc.) shows that supreme confidence in particular
9 scientific theories is often misplaced.

10 **D. Professor Kennedy's Conclusions**

11 26. In his section VI Conclusion, Professor Kennedy offers three conclu-
12 sions: 1) the Christian texts do not properly distinguish between what is science
13 and what is not; 2) The textbooks fail to provide an adequate presentation of the
14 theory of evolution; and 3) the textbooks do not promote critical thinking on the part
15 of students.

16 27. All of those assertions are mistaken: 1) As I made clear earlier, both
17 Christian texts contain extensive, chapter-length discussions of the distinction be-
18 tween science and religion, as well as related topics. They have a much better
19 treatment of these topics than do non-Christian texts; 2) As I wrote earlier, the
20 texts do indeed provide an adequate, if skeptical, treatment of the theory of evolu-
21 tion, using the criteria of the University of California's a-g guide, in particular its cer-
22 tification criteria for laboratory science, the California State Board of Education
23 Standards for evolutionary biology, and an exemplary course description (Pacific
24 Coast Charter School) that is posted on the UC website. 3) As I wrote earlier, the
25 textbooks do indeed promote critical thinking and other such skills, both in non-
26 evolutionary content, and — in particular — in evolutionary content, where legiti-
27 mate fundamental problems and questions are raised which are ignored by other
28

1 biology textbooks.

2
3 **E. Professor Kennedy's Response to My Expert Report**

4 28. Professor Kennedy has written a brief response to my initial expert re-
5 port. He admits that my reports shows the Christian textbooks cover "such basic
6 material as cell structure and function, morphology, taxonomy, and the like."
7 (These topics account for roughly 90% of the content of both Christian and non-
8 Christian textbooks.) However, he goes on to claim "the textbooks emphasize facts
9 and vocabulary, not processes and syntheses or critical thinking skills." This is
10 pure assertion on Professor Kennedy's part. He offers no comparison of textbooks
11 to support his contention, let alone any evidence that any differences prepare stu-
12 dents more or less rigorously for university.

13 29. Professor Kennedy castigates me for "hewing closely to the California
14 State Framework Standards". However, several applications approved by the Uni-
15 versity of California, including the web-posted exemplary application from Pacific
16 Coast Charter School, state explicitly that "Students will meet the California State
17 Science Content Standards for Biology/Life Sciences (1-10)". Thus applications
18 which emphasize the state standards have been approved by the University of
19 California.

20 30. Finally he states that "an agricultural biology course could well teach
21 the nature of science, evolution, and critical thinking skills perfectly well; the text-
22 books at issue here do not." For reasons stated above, I disagree. The Christian
23 texts are excellent vehicles for teaching about the nature of science and other
24 ways of knowing, and in teaching real critical thinking and other skills.

25
26 **III. RESPONSE TO THE REPORT OF PROFESSOR FRANCISCO AYALA**

27 **A. Basic Inconsistency Between Profs. Kennedy and Ayala**

28 31. In his expert report Professor Kennedy states directly that:

1 Thus the problem is not, since these are private not public schools, that
2 the creationist view is taught as an alternative to scientific explanations,
3 but that the nature of science, the theory of evolution, and critical thinking
4 are *not* taught adequately.

5 (Contrary to Prof. Kennedy, I have shown above that the nature of science is
6 taught well in the Christian texts, and that the theory of evolution and critical think-
7 ing and other skills are indeed taught adequately.) The important point in this
8 statement is that Professor Kennedy purportedly does not object to the inclusion of
9 a religious view in texts used in private schools.

10 32. Professor Ayala, however, takes the completely opposite stance. In his
11 Introduction, Professor Ayala states:

12 **I have concluded that neither one of these two [Christian biology]**
13 **books is appropriate for use as the principal text in a UC-preparatory**
14 **high school biology course, because they present information con-**
15 **trary to knowledge generally accepted by the scientific community**
16 **concerning physics, chemistry, astrophysics, geology, and biology.**
17 (emphasis in the original).

18 Thus Professor Ayala would ban a textbook from use simply because it presents
19 information from another perspective which disagrees with that generally accepted
20 by the scientific community. In Professor Ayala's view, the majority view of the sci-
21 entific community is sacrosanct in science texts — beyond criticism or an alterna-
22 tive interpretation. In my own professional judgment as an educator, Professor Ay-
23 ala's position is utterly contrary to the development of "critical thinking". In fact, it is
24 the opposite of critical thinking.

25 33. Professor Ayala's expert report consists almost entirely of quotations
26 from the Christian textbooks that discuss religious matters or religious criticisms of
27 scientific theories. Thus in his view simply including religious statements that con-
28 tradict the position of the majority of scientists is enough to poison a textbook, dis-

1 qualifying it from use. So much for “other ways of knowing” — in a science text, in
2 Ayala’s view, there is only one way of knowing that bear’s mention. No other
3 views, even for contrast, are permitted.
4

5 **B. Professor Ayala’s Response to My Expert Report**

6 34. In Appendix B of his expert report Professor Ayala writes “Professor
7 Behe considers that the two textbooks under consideration in the present report . .
8 . meet either 8 or 10 of the 13 CDE Standards in Evolution.” Here, like Professor
9 Kennedy, Professor Ayala is ignoring the 90% of the textbook that does not con-
10 cern evolutionary topics. Since nowhere in his expert report does he deal with
11 those sections of the texts, I assume he agrees with Prof. Kennedy that they are
12 taught adequately. Thus, again, the very great majority of the Christian texts, which
13 concern nonevolutionary biology topics, are not criticized by either Kennedy or
14 Ayala.

15 35. Professor Ayala also writes:

16 Professor Behe further asserts that “the Christian texts can also be used
17 to meet the criteria of the University of California ... including a good un-
18 derstanding of the scientific method” (p. 26). However, as the statements
19 quoted as examples in my report make it eminently clear, the two text-
20 books under consideration affirm that the authority of the Bible trumps any
21 conclusions reached by the scientific community. This affirmation is con-
22 trary to the scientific method as generally accepted by the scientific com-
23 munity.

24 This statement is deeply confused. It confuses *understanding* the scientific
25 method with *accepting* the scientific method as the supreme arbiter of all disputes.
26 The Christian textbooks contain entire chapters explaining the scientific method to
27 their students, but also explaining (correctly) that other, nonscientific considera-
28

1 tions can influence the weight one assigns to an idea. However, *the decision*
2 *about what weight to give the scientific method versus other ways of knowing is*
3 *not a scientific decision.* The scientific method has nothing to say about whether
4 the scientific method is the correct method to use in all circumstances.

5 36. Responding to my statement that it is personally abusive to students
6 to de facto require them to believe a certain scientific theory which goes against
7 their deeply held religious beliefs, Professor Ayala counters that the Christian
8 texts require students to subscribe to certain religious beliefs, which is also abu-
9 sive. That is a spurious comparison. The texts are being used in private schools
10 which the students voluntarily choose to attend (or their parents, acting on their
11 behalf, choose for them.) The texts are written from a religious point of view that
12 the students already share, and presumably are eager to learn more about. Chris-
13 tian students who choose to attend Christian schools are not being taught Chris-
14 tian doctrine against their wills.

15 **IV. UNIVERSITY OF CALIFORNIA'S REJECTION OF SPECIFIC COURSES** 16 **BECAUSE OF THEIR VIEWPOINTS**

17 **A. ACSI School Courses Rejected by UC Because of an Added Religious** 18 **Viewpoint**

19 37. UC reviewed and rejected the following course descriptions, and I
20 have also reviewed them. UC did not obtain information about the teacher and the
21 quality of instruction, and so it and I assume that the course is taught competently
22 by a competent teacher. UC stated its ground(s) for rejection with a checkmark(s)
23 beside a reason, and typically added a "comment" explaining the ground.

24 38. The statement below that a course contains standard course content
25 sufficient to prepare students for colleges the quality of UC's campuses is accurate
26 whether that standard course content is defined as what is required by UC's A-G
27 Guide, by UC's course descriptions placed on its website, or by the California
28 State Board of Education Content Standards for biology.

1 39. I do not personally agree with the viewpoint added by the Christian
2 texts (the BJU Press and Beka texts), and I personally believe that evolution from
3 a common ancestor, via changes in DNA, is very well supported. I have evaluated
4 these courses without regard to my personal beliefs on the issue.

5 **1. Group 1: Biology Courses that Use a Secular Text and Add a Christian
6 Text**

7 40. This first group is rejected courses (Exhibits 623-627) that use a secu-
8 lar text (one used in various UC-approved courses), and add a Christian text (the
9 BJU Press or the Beka Books text discussed in I). Because these courses use a
10 secular text, and their Course Descriptions state that they teach evolution, they
11 cannot reasonably be treated as not teaching standard content or not teaching
12 "knowledge generally accepted in the scientific community." With their added
13 Christian text, these courses add additional viewpoints.

14 41. Exhibit 623—Biology, Big Valley Christian High School. (i) UC's stated
15 ground for rejecting the course was this single ground:

- 16 • "Other: See comments below. Comments: ... The content of the
17 course outline submitted for approval is not consistent with the
18 knowledge generally accepted in the scientific community. As such,
19 students who take such courses may not be well prepared for suc-
20 cess if/when they enter science courses/programs at UC."
- 21 • "Course has potential and might well be acceptable except for the fo-
22 cus on religious/biblical approaches to life.) If you do resubmit,
23 please provide detail about content/quantity of lab work."

24 The UC staff in an internal email elaborated on why the course was rejected:

- 25 • "Let me guess—Xtian school tried to teach creationism so no bio on
26 courselist Are my articulating skills being honed?"

27 However, this is not a valid ground for rejection, and is unreasonable. First, UC
28 admitted that the course "might well be acceptable except for the focus on relig-
29 ious/biblical approaches"—in other words, the standard content might well be ac-
30 ceptable except for a viewpoint added. Second, UC's objection was not to the
31 text, because at this stage only a secular text (Holt, Reinhart & Winston) was used
32 for the course (the school having been forced by UC to abandon the text it chose

1 in Exhibit 629). Third, UC's objection was to a viewpoint being added by a relig-
 2 ious school course, which used a secular text and taught standard biology content
 3 including evolution, even though that addition was not by the text but only by the
 4 instructor's opinion. The outline said they would teach both "Theories of Evolu-
 5 tion" and "Biblical Creationism," as 2 of 42 topics in biology (page 0264). Also, the
 6 10th of 35 assignments was "Creationism/Evolution" (page 0266). Thus, despite
 7 using a secular text and teaching evolution by it, "Xtian school tried to teach crea-
 8 tionism," so its biology course was rejected ("no bio on courselist"). Fourth, the ob-
 9 jection that the added viewpoint is not consistent with majority scientific opinion is
 10 an invalid objection (discussed in C.3).

11 (ii) The course teaches standard course content and critical thinking
 12 skills adequately to prepare students for colleges the quality of UC's campuses. In
 13 reaching that conclusion, I found the following to be true:

- 14 ✓ Course Description: The Course Description was of at least the quality
 15 of science courses approved under 'd' in Exhibits 688-689. UC said
 16 "might well be acceptable except for" the added viewpoint.
- 17 ✓ Course Outline: The Outline states that the course teaches evolution.
- 18 ✓ Textbook: The text is a secular text from Holt, Reinhart & Winston
 19 (pages 0265 and 0272) plus the BJU Press text, which teaches stan-
 20 dard content and adds a viewpoint (as described in I above).
- 21 ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for
 22 rejecting the course was only what was quoted above, not a deficiency
 23 that UC rejects other courses for.

24 This course should have been approved as a 'd' science course, under the stan-
 25 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

26 (iii) The UC staff in fact rejected this course because of its added viewpoint
 27 (course "might well be acceptable except for the focus on religious/biblical ap-
 28 proaches"), rather than because of any failure to teach standard content. This is a
 rejection for viewpoint, and is unreasonable (as discussed in IV.C below).

After that, the school was forced to remove the added viewpoint from its
 course outline (pages 0270-0274), in order to get it approved by UC.

1 42. Exhibit 624—Biology, Calvary Baptist Schools. (i) UC's stated
2 grounds for rejecting the course were these two grounds:

- 3 • "Insufficient academic/theoretical [sic] content (see section A below) ...
4 Laboratory work Not Adequate Unclear how much of the course is
5 devoted to labs"
- 6 • "Other: See comments below. Comments: ... The content of the
7 course outline submitted for approval is not consistent with the
8 knowledge generally accepted in the scientific community. As such,
9 students who take such courses may not be well prepared for suc-
10 cess if/when they enter science courses/programs at UC."

11 However, the second is not a valid ground for rejection, and is unreasonable.
12 First, the course used a secular text (Merrill), as well as the Christian text, and so
13 UC's objection was to any presentation of a minority scientific viewpoint. Yet even
14 if anything vital were missing from the Christian text, it would be supplied by the
15 secular text. Second, 87.5% of the Christian text is noncontroversial topics in biol-
16 ogy, and only 12.5% or less is being criticized (as discussed in I above). On that
17 12.5%, the Christian text does teach evolution, and the school stressed that "we
18 do cover beliefs held by the current scientific community" (page 0283). Also,
19 "higher-level thinking skills are of primary concern," and "the scientific method of
20 observation is carefully covered," so that students will "give well thought out an-
21 swers to what they believe based on the evidence presented" (page 0283). Third,
22 the objection that the added viewpoint is not consistent with majority scientific opin-
23 ion is an invalid objection (discussed in C.3).

24 The first UC objection is also not valid. The Course Description described
25 eleven labs and how they were connected, and was as sufficient as the exemplary
26 Course Description that UC put on its website (Exhibit 686) and as the Course De-
27 scriptions that UC approved in Exhibits 688-689.

28 (ii) The course teaches standard course content and critical thinking
skills adequately to prepare students for colleges the quality of UC's campuses. In
reaching that conclusion, I found the following to be true:

✓ Course Description: The Course Description was of at least the quality

- 1 of science courses approved under 'd' in Exhibits 688-689.
- 2 ✓ Course Outline: The Outline states that the course teaches evolution.
 - 3 ✓ Textbook: The text is the Beka Books text, which teaches standard content and adds a viewpoint (as described in I above), plus the secular Merrill Publishers text (page 0281).
 - 4 ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for rejecting the course was only what was quoted above, not a deficiency that UC rejects other courses for.

6 This course should have been approved as a 'd' science course, under the standard that approved courses in Exhibits 688-689; its rejection is unreasonable.

8 (iii) The UC staff in fact rejected this course because of its added viewpoint ("the content of the course outline submitted for approval is not consistent with the knowledge generally accepted"), rather than because of its failure to teach standard content. This is a rejection for viewpoint, and is unreasonable (as discussed in IV.C below).

13 The school's plea was that, since they do teach evolution (page 0283) but could not get approval using a Christian text (page 0282), "please let me know how we should proceed to have our course reconsidered without changing our core beliefs" (page 0283). UC's only answer was to say that the course would not be approved if it used the Christian texts (page 0282), even though it also used a secular text.

19 43. Exhibit 625—Biology, Calvary Chapel Christian (Moreno). (i) UC's stated ground for rejecting the course (it stamped the Course Description "no" on the basis of this faculty review) was this single ground:

- 22 • Exhibit 327, 206: "Do not approve. Comments: The syllabus is adequate in covering a college prep biology course, but there are two problems. First, the laboratory experiments are not clearly explained. A more detailed example of one or two experiments from each section would assist in evaluating how experiments will be conducted, run, and the results interpreted. The lab exercises (Key Activities/Labs) are basically observations, group discussions, or comparisons. There is no evidence of hands-on experimentation. The second problem is with the text book (Pinkston) published by Bob Jones Press. It is unsuitable for a biology course because of the polemic

1 and unscientific approach of discrediting evolutionary theory. Specifi-
 2 cally, the author states that because evolution is wrong, 'believers'
 3 need to know how to rebut it. Moreover, the textbook contains a
 4 plethora of errors to [sic] numerous too [sic] list. The most amazing is
 5 that the radioactive decay of ¹⁴C is highly variable. Really? Would
 6 this also apply to gravity? Although I have no objection to an instruc-
 7 tor mentioning that Creation Theory exists and is indeed quite popu-
 lar, it is not science, it is better served in a history or philosophy class.
 So, the question is how much time will be spent on Creative Design
 at the expense of Biology?"

8 The faculty member further explained:

- 9 • Exhibit 207: "The other one is not too bad, but that textbook, yek. I
 10 read it, and I would be obliged to condemn any course that used it."

11 However, this is not a valid ground for rejection, and is unreasonable. First, the
 12 course uses a secular text as well as the Christian text, and so the faculty mem-
 13 ber's objection was to presenting an added viewpoint at all. Second, 92.5% of the
 14 Christian textbook is noncontroversial topics in biology that are nonevolutionary,
 15 and the evolutionary topics are adequately taught (and are also adequately taught
 16 in the first text) (as discussed in I above). Third, the objection at heart is that the
 17 second textbook "discredit[s] evolutionary theory," which means that the objection
 18 is to using a second textbook that questions the scientific accuracy of a particular
 19 theory, leaving it immune from challenge. This even though the first textbook pre-
 20 sents the theory as entirely correct, and the course outline devotes three pages to
 evolution (pages 0297-0299) and only four lines to creation and intelligent design.

21 (ii) The course teaches standard course content and critical thinking
 22 skills adequately to prepare students for colleges the quality of UC's campuses. In
 23 reaching that conclusion, I found the following to be true:

- 24 ✓ Course Description: The Course Description was of at least the quality
 25 of science courses approved under 'd' in Exhibits 688-689. As the
 26 faculty reviewer said, "the syllabus is adequate in covering a college
 prep biology course" (page 0302).
- 27 ✓ Course Outline: The Outline states that the course teaches evolution.
- 28 ✓ Textbook: The text is the secular Prentice Hall text plus the BJU
 Press text (page 0288), which teaches standard content and adds a

viewpoint (as described in I above).

- ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for rejecting the course was only what was quoted above, not a deficiency that UC rejects other courses for.

This course should have been approved as a 'd' science course, under the standard that approved courses in Exhibits 688-689; its rejection is unreasonable.

(iii) The UC staff in fact rejected this course because of its added viewpoint (criticism of textbook as having a "polemic and unscientific approach of discrediting evolutionary theory" and having the viewpoint that "evolution is wrong"), rather than because of its failure to teach standard content. This is a rejection for viewpoint, and is unreasonable (as discussed in IV.C below).

44. Exhibit 626—Biology, Redwood Adventist [Redwood Christian]. (i)

UC's stated ground for rejecting the course was this single ground:

- "Other: See below. Comments: ... The content of the course outlines submitted for approval is not consistent with the viewpoints and knowledge generally accepted in the scientific community. As such, students who take these courses may not be well prepared for success if/when they enter science courses at UC."

However, this is not a valid ground for rejection, and is unreasonable. First, the course uses a secular text (Wesley Publishers) as well as a Christian text, and so UC's objection is to any mention of a minority viewpoint. Second, 92.5% of the Christian text (and all of the secular text) is "consistent with the viewpoints and knowledge generally accepted," so UC's objection is to 12.5% or less of a second text offering a minority viewpoint ("a creation viewpoint," page 0312) along with the evolutionary viewpoint. Third, the objection that the added viewpoint is not consistent with majority scientific opinion is an invalid objection (discussed in C.3).

(ii) The course teaches standard course content and critical thinking skills adequately to prepare students for colleges the quality of UC's campuses. In reaching that conclusion, I found the following to be true:

- ✓ Course Description: The Course Description was of at least the quality of science courses approved under 'd' in Exhibits 688-689.
- ✓ Course Outline: The Outline states that the course teaches evolution.

- 1 ✓ Textbook: The text is a secular text from Scott Foresman Addison
2 Wesley (page 0318) plus the BJU Press text, which teaches standard
3 content and adds a viewpoint (as described in I above).
4 ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for
5 rejecting the course was only what was quoted above, not a deficiency
6 that UC rejects other courses for.

7 This course should have been approved as a 'd' science course, under the stan-
8 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

9 (iii) The UC staff in fact rejected this course because of its added viewpoint
10 ("the content of the course outlines submitted for approval is not consistent with
11 the viewpoints and knowledge generally accepted"), rather than because of its fail-
12 ure to teach standard content. This is a rejection for viewpoint, and is unreason-
13 able (as discussed in IV.C below).

14 45. Exhibit 627—Zoology, Frederick K.C. Price III School. (i) UC's stated
15 ground for rejecting the course was this single ground:

- 16 • "Other: The Bible is not a recognized science text. See comments
17 below. Comments: ... The content of the course outline submitted
18 for approval is not consistent with the knowledge generally accepted
19 in the scientific community. As such, students who take such courses
20 may not be well prepared for success if/when they enter science
21 courses/programs at UC."

22 However, this is not a valid ground for rejection, and is unreasonable. First, UC's
23 objection is not to the text, because only a secular text is used (McGraw Hill) with-
24 out any religious text; thus, UC's objection is to any mention of a minority viewpoint
25 at all (along with teaching evolution). Second, UC's objection is to a mere mention
26 in the course outline that an alternative viewpoint will be described, in a course
27 whose text and supplement only teach the majority viewpoint, and whose course
28 outline does not in any way indicate that the minority viewpoint is taught as the cor-
29 rect viewpoint. The only mentions in the course outline of presenting a minority
30 viewpoint are two: "D. Introduction to evolutionary theories and creationism," and
31 "D. Evolution and creation" (pages 0323-0324). Creation is countered by the sup-
32 plement (the National Academy of Sciences booklet), which is a polemical booklet

1 designed to refute creation. Third, the objection that the added viewpoint is not
2 consistent with majority scientific opinion is invalid (discussed in C.3).

3 (ii) The course teaches standard course content and critical thinking
4 skills adequately to prepare students for colleges the quality of UC's campuses. In
5 reaching that conclusion, I found the following to be true:

- 6 ✓ Course Description: The Course Description was of at least the quality
of science courses approved under 'd' in Exhibits 688-689.
- 7 ✓ Course Outline: The Outline states that the course teaches evolution.
- 8 ✓ Textbook: The text is a secular text from Harley McGraw Hill (p.0325)
9 and a booklet published by National Academy of Sciences (no BJU
Press or Beka Books text).
- 10 ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for
11 rejecting the course was only what was quoted above, not a deficiency
that UC rejects other courses for.

12 This course should have been approved as a 'd' science course, under the stan-
13 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

14 (iii) The UC staff in fact rejected this course because of its added viewpoint
15 ("the content of the course outline submitted for approval is not consistent with the
16 knowledge generally accepted"), rather than because of its failure to teach stan-
17 dard content. This is a rejection for viewpoint, and is unreasonable (as discussed
18 in IV.C below).

19 **2. Group 2: Biology Courses that Teach Evolution and Add a Viewpoint**
20 **(Criticism of Evolution, Theistic Evolution, Creation, or Intelligent De-**
sign)

21 46. This second group is rejected courses (Exhibits 628-637) that teach
22 evolution and the rest of standard biology content, but also add an alternate view-
23 point. UC finds it sufficient ground for rejection that the courses use one of the
24 Christian texts, and that they add a viewpoint not held by the majority of biologists.
25 However, UC does not reject science courses that teach other minority viewpoints.
26 UC does not state that the courses fail to teach evolution adequately, or that they
27 fail to teach the rest of biology adequately (and they teach both adequately, as dis-
28 cussed in I above).

1 47. Exhibit 628—Biology, Origins, Bethel Baptist [Bethel Christian]. (i)

2 UC's stated ground for rejecting the course was this single ground:

- 3 • "From a review of the texts, the faculty found that the material in the
 4 text is not consistent with the knowledge generally accepted in the
 5 scientific community. This is due in part to the premise of the texts –
 6 that science is a valuable academic discipline to a point, until it con-
 7 flicts with Christian belief. An example from one of the biology texts
 8 is the presentation of evolution as a 'philosophy' that is inconsistent
 9 with Christian belief, and thus false."

10 However, this is not a valid ground for rejection, and is unreasonable. First, the
 11 87.5%-92% of the texts that teach nonevolutionary topics in biology are not subject
 12 to the UC criticism, and the remaining portions of the texts do in fact teach evolu-
 13 tion (discussed in I above) and the scientific method (Exhibits 476-477). Standard
 14 content is adequately taught in the Christian texts to prepare students for colleges
 15 like UC's campuses, and to teach critical thinking. Second, the addition of a view-
 16 point is a positive educational device, to increase student interest and to encour-
 17 age critical thinking about the majority viewpoint and the minority viewpoint. It is
 18 not a negative educationally, and does not diminish the teaching of majority view-
 19 points. The addition of viewpoints is the primary reason religious schools exist,
 20 and parents pay tuition out of pocket. Third, the objection that the added viewpoint
 21 is not consistent with majority scientific opinion is an invalid objection (discussed in
 22 IV.C.3 below). All majority scientific opinions were once minority viewpoints, and
 23 most majority scientific opinions of the past are now in the ashheap of history.

24 (ii) The course teaches standard course content and critical thinking
 25 skills adequately to prepare students for colleges the quality of UC's campuses. In
 26 reaching that conclusion, I found the following to be true:

- 27 ✓ Textbook: The text is the BJU Press text, which teaches standard con-
 28 tent and adds a viewpoint (as described in I above).
 29 ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for
 30 rejecting the course was only what was quoted above, not a deficiency
 31 that UC rejects other courses for.

32 This course should have been approved as a 'd' science course, under the stan-

1 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

2 (iii) The UC staff in fact rejected this course because of its added viewpoint
3 (because of the viewpoint that evolution "is inconsistent with Christian belief, and
4 thus false," "the material in the text is not consistent with the knowledge generally
5 accepted"), rather than because of its failure to teach standard content. This is a
6 rejection for viewpoint, and is unreasonable (as discussed in IV.C below).

7 48. Exhibit 629—Biology, Big Valley Christian High School. (i) UC's stated
8 grounds for rejecting the course the first time were these two grounds:

- 9
- 10 • "Insufficient academic/theoretical [sic] content (see section A below) ...
Laboratory work Not Adequate ... Math pre/co-requisites Not Ade-
11 quate"
 - 12 • "Other: See comments below. Comments: Following UC faculty
13 guidelines, the content of the course outline submitted for approval is
14 not consistent with the viewpoints and knowledge generally ac-
cepted in the scientific community. As such, students who take these
courses may not be well prepared for success if/when they enter sci-
ence courses/programs at UC."

15 UC rejected the course a second time for the same two grounds
(3/29/2004):

- 16
- 17 • "Focus too narrow/too specialized"
 - 18 • "Other: See comments below regarding UC faculty assessment of
19 the texts/approach used in this course. Comments: ... The content of
20 the course outline submitted is not consistent with the viewpoints
and knowledge generally accepted in the scientific community, and
would not prepare students for success if/when the [sic] enter science
courses/programs at UC."

21 However, the viewpoint ground is not a valid ground for rejection, and is unrea-
22 sonable, for the same reasons as given for Exhibit 628. The other ground was ad-
23 dressed and fixed, so that viewpoint was the only ground for the second rejection
24 (page 0337). "Focus too narrow" meant a narrow viewpoint was added.

25 (ii) The course teaches standard course content and critical thinking
26 skills adequately to prepare students for colleges the quality of UC's campuses. In
27 reaching that conclusion, I found the following to be true:

- 28 ✓ Course Description: The Course Description was of at least the quality

of science courses approved under 'd' in Exhibits 688-689.

- ✓ Course Outline: The Outline states that the course teaches evolution.
- ✓ Textbook: The text is the BJU Press text (page 0343), which teaches standard content and adds a viewpoint (as described in I above).
- ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for rejecting the course was only what was quoted above, not a deficiency that UC rejects other courses for.

This course should have been approved as a 'd' science course, under the standard that approved courses in Exhibits 688-689; its rejection is unreasonable.

(iii) The UC staff in fact rejected this course because of its added viewpoint ("the content of the course outline submitted for approval is not consistent with the viewpoints and knowledge generally accepted"), rather than because of its failure to teach standard content. This is a rejection for viewpoint, and is unreasonable (as discussed in IV.C below).

49. Exhibit 630—Biology, First Lutheran Jr/Sr High School. (i) UC's stated ground for rejecting the course was this single ground:

- "Other: See comments. Comments: Following UC faculty guidelines, the content of the course outline submitted for approval is not consistent with the viewpoints and knowledge generally accepted in the scientific community. As such, students who take this course may not be well prepared for success if/when they enter science courses/programs at UC."

However, this is not a valid ground for rejection, and is unreasonable, for the same reasons as given for Exhibit 628.

(ii) The course teaches standard course content and critical thinking skills adequately to prepare students for colleges the quality of UC's campuses. In reaching that conclusion, I found the following to be true:

- ✓ Course Description: The Course Description was of at least the quality of science courses approved under 'd' in Exhibits 688-689.
- ✓ Textbook: The text is the BJU Press text (page 0350), which teaches standard content and adds a viewpoint (as described in I above).
- ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for rejecting the course was only what was quoted above, not a deficiency that UC rejects other courses for.

1 This course should have been approved as a 'd' science course, under the stan-
2 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

3 (iii) The UC staff in fact rejected this course because of its added viewpoint
4 ("the content of the course outline submitted for approval is not consistent with the
5 viewpoints and knowledge generally accepted"), rather than because of its failure
6 to teach standard content. The Course Description was clear: "This course is
7 taught from the Christian perspective" (page 0349), though it teaches evolution.
8 This is a rejection for viewpoint, and is unreasonable (as discussed in IV.C below).

9 50. Exhibit 631—Biology, Hillcrest Christian. (i) UC's stated ground for re-
10 jecting the course was a single ground, as stated by the UC staff reviewer and
11 then by the faculty reviewer:

- 12 • Exhibit 306 (and 16): "Its [sic] a Biology (and Biology Honors) at Hill-
13 crest Christian School which doesn't sound bad until we get to the
14 History of Life which has the Theories of Evolution, Biblical Creation-
15 ism (first red light) and Theories of Biological Evolution as the topics.
16 The texts are Biology for Christian Schools, Second Edition, Bob
17 Jones University Press, 1991 and other variations on that theme.
18 (second red light) Should we be concerned? Would you like us to
19 fax you a copy of the outline? Would a small amount of time on crea-
20 tionism prevent us from taking the course? ..."
- 21 • "You are right about warning bells!"
- 22 • Exhibit 20: "Do not approve. Comments: No prereq of math? The
23 viewpoint of science is mixed with religion. 'Control of the Mind,'
24 'Human Relationships' are but 2 examples of inappropriate material.
25 Textbook list includes the Bible. It's not just the creationist view of
26 origin of life that concerns me. It pervades all topics, not just evolu-
27 tion, and organism taxonomy is used to reinforce."

28 However, this is not a valid ground for rejection, and is unreasonable, for the same
29 reasons as given for Exhibit 628.

30 (ii) The course teaches standard course content and critical thinking
31 skills adequately to prepare students for colleges the quality of UC's campuses. In
32 reaching that conclusion, I found the following to be true:

- 33 ✓ Course Description: The Course Description was of at least the quality
34 of science courses approved under 'd' in Exhibits 688-689. The UC

1 reviewer said the Course Description "doesn't sound bad until we get
2 to the History of Life," which had creation along with evolution.

- 3 ✓ Textbook: The text is the BJU Press text (page 0359), which teaches
4 standard content and adds a viewpoint (as described in I above).
- 5 ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for
6 rejecting the course was only what was quoted above, not a deficiency
7 that UC rejects other courses for.

8 This course should have been approved as a 'd' science course, under the stan-
9 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

10 (iii) The UC staff in fact rejected this course because of its added viewpoint
11 (the faculty reviewer (BOARS chair) objected that "the viewpoint of science is
12 mixed with religion," and the UC staff reviewer objected to "Biblical Creationism
13 (first red light) and Theories of Biological Evolution as the topics"), rather than be-
14 cause of its failure to teach standard content. This is a rejection for viewpoint, and
15 is unreasonable (as discussed in IV.C below).

16 51. Exhibit 632—Biology Honors, Hillcrest Christian. (i) UC's stated
17 ground for rejecting the course was this single ground, plus the need to list algebra
18 as a prerequisite:

- 19 • Faculty Review (Exhibit 308): "No. Not evolution 'does not conform to
20 scientific community philosophy of science facts' commonly accepted
21 scientific viewpoints"
- 22 • Faculty Review (Exhibit 20): "Biology Honors ... Do not approve. No
23 math or other science pre-reqs. See other comments on College
24 Prep Biology course."

25 However, this is not a valid ground for rejection, and is unreasonable, for the same
26 reasons as given for Exhibit 628.

27 (ii) The course teaches standard course content and critical thinking
28 skills adequately to prepare students for colleges the quality of UC's campuses. In
reaching that conclusion, I found the following to be true:

- ✓ Course Description: The Course Description was of at least the quality
of science courses approved under 'd' in Exhibits 688-689.
- ✓ Course Outline: The Outline states that the course teaches evolution.
- ✓ Textbook: The text is the BJU Press text (page 0378), which teaches
standard content and adds a viewpoint (as described in I above).

- 1 ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for
2 rejecting the course was only what was quoted above, not a deficiency
3 that UC rejects other courses for.

4 This course should have been approved as a 'd' science course, under the stan-
5 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

6 (iii) The UC staff in fact rejected this course because of its added viewpoint
7 (the faculty reviewer (BOARS chair) objected to the course teaching "not evolu-
8 tion," and the UC coordinator of reviewers (Hargrove) underlined every added re-
9 ligious viewpoint in the Course Description, including "the Scriptural principle of
10 sanctity of human life" and "describe abortion and discuss the reasons it is
11 wrong")), rather than because of its failure to teach standard content. This is a re-
12 jection for viewpoint, and is unreasonable (as discussed in IV.C below).

13 52. Exhibit 633—Biology & Biology 2, North Hills Christian School. (i)

14 UC's stated ground for rejecting the course was this single ground:

- 15 • "Other: see comments. Comments: UC faculty has determined that
16 the texts used for these courses do not adequately cover the curricu-
17 lum required for the lab science requirement."
- 18 • "Core concepts from biology, chemistry, or physics Not adequate"

19 The UC staff member said what that meant, and what was necessary to get the
20 course approved (Exhibit 311 or 253):

- 21 • "we are concerned that the information in the Bob Jones University
22 Press science texts (and the associated course outlines from North
23 Hills Christian School) is not consistent with the viewpoints and
24 knowledge generally accepted in the scientific community. As such,
25 we believe that students who take these courses would not be well
26 prepared for success when/if they enter science courses/programs at
27 UC. ..."
- 28 • "[Y]ou indicated to me that the school is establishing a 'secular sci-
 ence' department. They were pleased to hear this, as it is much
 more likely that courses established through this new department
 would be acceptable to the University, leading to UC/CSU eligibility
 for your students."

However, this is not a valid ground for rejection, and is unreasonable, for the same
reasons as given for Exhibit 628.

1 (ii) The course teaches standard course content and critical thinking
2 skills adequately to prepare students for colleges the quality of UC's campuses. In
3 reaching that conclusion, I found the following to be true:

- 4 ✓ Course Description: The Course Description was of at least the quality
of science courses approved under 'd' in Exhibits 688-689.
- 5 ✓ Course Outline: The Outline states that the course teaches evolution.
- 6 ✓ Textbook: The text was the BJU Press text (pages 0393, 0398), which
7 teaches standard content and adds a viewpoint (as described in I
above).
- 8 ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for
9 rejecting the course was only what was quoted above, not a deficiency
that UC rejects other courses for.

10 This course should have been approved as a 'd' science course, under the stan-
11 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

12 (iii) The UC staff in fact rejected this course because of its added viewpoint
13 ("information in the Bob Jones University Press science texts . . . is not consistent
14 with the viewpoints and knowledge generally accepted," but said approval is much
15 more likely if the school establishes "a 'secular science' department"), rather than
16 because of its failure to teach standard content. This is a rejection for viewpoint,
17 and is unreasonable (as discussed in IV.C below).

18 The school ultimately had to change to a secular text (page 0410), and to
19 remove its added viewpoints from its course outline (pages 0405-0409), to get
20 enough science courses approved to make students eligible for UC. It was having
21 the problem that students were ineligible for UC under regular admission methods,
22 because the school did not have two approved a-g science courses (page 0389A).
23 This has happen in other "a-g" subjects as well, such as when UC's rejection of an
24 English course at Kings Christian High School resulted in non-qualified students
25 because it did not have four approved English courses. (Ex. 213)

26 53. Exhibit 634—Biology, Saddleback Valley Christian School. (i) UC's
27 stated ground for rejecting the course was this single ground:

- 28 • "Other: See below. Comments: New faculty policy requires reas-

1 assessment of all science texts, and has determined that the text that
 2 you indicate that you use (from your 2001 review) is not consistent
 3 with the viewpoints and knowledge generally accepted in the scien-
 4 tific community. As such, students who take these courses are not
 well prepared for success when/if they enter science
 courses/programs at UC.”

5 However, this is not a valid ground for rejection, and is unreasonable, for the same
 6 reasons as given for Exhibit 628.

7 (ii) The course teaches standard course content and critical thinking
 8 skills adequately to prepare students for colleges the quality of UC’s campuses. In
 9 reaching that conclusion, I found the following to be true:

- 10 ✓ Course Description: The Course Description was of at least the quality
 of science courses approved under ‘d’ in Exhibits 688-689.
- 11 ✓ Course Outline: The Outline states that the course teaches evolution.
- 12 ✓ Textbook: The text was the BJU Press text (page 0423), which
 13 teaches standard content and adds a viewpoint (as described in I
 above).
- 14 ✓ No Ground for Rejection Other Than Viewpoint: UC’s stated reason for
 15 rejecting the course was only what was quoted above, not a deficiency
 that UC rejects other courses for.

16 This course should have been approved as a ‘d’ science course, under the stan-
 17 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

18 (iii) The UC staff in fact rejected this course because of its added viewpoint
 19 (“the text . . . is not consistent with the viewpoints and knowledge generally ac-
 20 cepted”), rather than because of its failure to teach standard content. This is a re-
 21 jection for viewpoint, and is unreasonable (as discussed in IV.C below).

22 The school ultimately had to give up on its choice of a textbook, and to
 23 change to a secular text, to get the course approved by UC (pages 0427, 0433,
 24 0438). Even then, UC rejected the course again (page 0424), until the school
 25 removed from its Course Description all references to the added viewpoint of
 26 creation (compare pages 0428-0429 with pages 0438-0439).

27 54. Exhibit 635—Biology Honors, Saddleback Valley Christian School. (i)

28 UC’s stated ground for rejecting the course was this single ground:

- 1 • “Other: See comments below. Comments: New faculty policy re-
- 2 quires reassessment of all science texts, and has determined that the
- 3 text that you indicate that you use (from your 2001 review) is not con-
- 4 sistent with the viewpoints and knowledge generally accepted in the
- 5 scientific community. As such, students who take these courses are
- 6 not well prepared for success when/if they enter science
- 7 courses/programs at UC.”

8 However, this is not a valid ground for rejection, and is unreasonable, for the same

9 reasons as given for Exhibit 628.

10 (ii) The course teaches standard course content and critical thinking

11 skills adequately to prepare students for colleges the quality of UC’s campuses. In

12 reaching that conclusion, I found the following to be true:

- 13 ✓ Course Description: The Course Description was of at least the quality
- 14 of science courses approved under ‘d’ in Exhibits 688-689.
- 15 ✓ Course Outline: The Outline states that the course teaches evolution.
- 16 ✓ Textbook: The text was the BJU Press text (page 0423), which
- 17 teaches standard content and adds a viewpoint (as described in I
- 18 above).
- 19 ✓ No Ground for Rejection Other Than Viewpoint: UC’s stated reason for
- 20 rejecting the course was only what was quoted above, not a deficiency
- 21 that UC rejects other courses for.

22 This course should have been approved as a ‘d’ science course, under the stan-

23 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

24 (iii) The UC staff in fact rejected this course because of its added viewpoint

25 (“the text . . . is not consistent with the viewpoints and knowledge generally ac-

26 cepted”), rather than because of its failure to teach standard content. This is a re-

27 jection for viewpoint, and is unreasonable (as discussed in IV.C below).

28 The school ultimately had to abandon its choice of a textbook, and to adopt

a secular text, to gain approval (page 0455). Even then, UC rejected the course

again (page 0447), until the school removed all references to an added viewpoint

of creation (pages 0455-0456).

55. Exhibit 636—Biology, Sierra Christian Academy. (i) UC’s stated

grounds for rejecting the course were these two grounds:

- 1 • "Insufficient academic/theoretical [sic] content (see section A below) ...
Laboratory work Not Adequate ... Math pre/co-requisites Not Ade-
2 quate"
- 3 • "Comments: ... The content of the course outline submitted for ap-
4 proval is not consistent with the viewpoints and knowledge generally
5 accepted in the scientific community. As such, students who take this
6 course may not be well prepared for success if/when they enter sci-
7 ence courses/programs at UC."

8 However, the viewpoint ground is not a valid ground for rejection, and is unrea-
9 sonable, for the same reasons as given for Exhibit 628. While the laboratory work
10 was in fact adequate (page 0468) and was comparable to that in many UC ap-
11 proved courses (Exhibit 688-689), that was not the deciding ground for rejection.
12 When the laboratory work description was revised (page 0479) and UC no longer
13 listed it as a problem, UC again rejected the course on the viewpoint ground alone
14 (Exhibit 637 and page 0469A).

15 (ii) The course teaches standard course content and critical thinking
16 skills adequately to prepare students for colleges the quality of UC's campuses. In
17 reaching that conclusion, I found the following to be true:

- 18 ✓ Course Description: The Course Description was of at least the quality
19 of science courses approved under 'd' in Exhibits 688-689.
- 20 ✓ Course Outline: The Outline states that the course teaches evolution.
- 21 ✓ Textbook: The text is the Beka Book text (page 0467), which teaches
22 standard content and adds a viewpoint (as described in I above).
- 23 ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for
24 rejecting the course was only what was quoted above, not a deficiency
25 that UC rejects other courses for.

26 This course should have been approved as a 'd' science course, under the stan-
27 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

28 (iii) The UC staff in fact rejected this course because of its added viewpoint
("the content of the course outline submitted for approval is not consistent with the
viewpoints and knowledge generally accepted," but "should the school choose to
adopt a text that is secular in nature" UC would be delighted to review it), rather
than because of its failure to teach standard content. The school was told,

- 1 • “Should the school choose to adopt a text that is secular in nature
 2 and teach a biology course that is consistent with the **viewpoints** and
 3 knowledge generally accepted in the scientific community, UC would
 4 be delighted to review the new course for a-g approval.” (Exhibit 260)

5 This is a rejection for viewpoint, and is unreasonable (as discussed in IV.C below).

6 UC informed the school that the way to get the course approved was “to
 7 adopt a text that is secular in nature and teach a biology course that is consistent
 8 with the viewpoints and knowledge generally accepted” (page 0469A). That elimi-
 9 nates the reason for existence of a religious school or of many other private
 10 schools.

11 56. Exhibit 637—Biology: God’s Living Creation, Sierra Christian Acad-
 12 emy. (i) After the school fixed the non-viewpoint features criticized by UC in Ex-
 13 hibit 636, UC’s stated ground for further rejecting the course was this single
 14 ground:

- 15 • “Other: ... The content of the course outlines submitted for approval
 16 and the text books used are not consistent with the **viewpoints** and
 17 knowledge generally accepted in the scientific community. As such,
 18 students who take these courses may not be well prepared for suc-
 19 cess if/when they enter science courses/programs at UC.”

20 However, this is not a valid ground for rejection, and is unreasonable, for the same
 21 reasons as given for Exhibit 628.

22 (ii) The course teaches standard course content and critical thinking
 23 skills adequately to prepare students for colleges the quality of UC’s campuses. In
 24 reaching that conclusion, I found the following to be true:

- 25 ✓ Course Description: The Course Description was of at least the quality
 26 of science courses approved under ‘d’ in Exhibits 688-689.
 27 ✓ Course Outline: The Outline states that the course teaches evolution.
 28 ✓ Textbook: The text is the Beka Book text (page 0478), which teaches
 standard content and adds a viewpoint (as described in I above).
 ✓ No Ground for Rejection Other Than Viewpoint: UC’s stated reason for
 rejecting the course was only what was quoted above, not a deficiency
 that UC rejects other courses for.

This course should have been approved as a ‘d’ science course, under the stan-

1 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

2 (iii) The UC staff in fact rejected this course because of its added viewpoint
3 ("the content of the course outlines submitted for approval and the text books used
4 are not consistent with the viewpoints and knowledge generally accepted," but
5 "should the school choose to adopt a text that is secular in nature" UC would be
6 delighted to review it), rather than because of its failure to teach standard content.

7 This is a rejection for viewpoint, and is unreasonable (as discussed in IV.C below).

8 **3. Group 3: Other Science Courses that Teach Evolution and Add a**
9 **Viewpoint (Criticism of Evolution, Theistic Evolution, Creation, or In-**
10 **telligent Design)**

11 57. UC has rejected a number of chemistry and physics courses (and
12 never approved them), based solely on the sin of using a textbook from a Christian
13 publisher (not consistent with "the viewpoints and knowledge generally accepted"),
14 even though UC admits that the chemistry textbook from the Christian publishers
15 qualifies, and even though UC admitted in July 2007 that the physics textbook
16 from the Christian publisher also qualifies (Exhibit 595). That includes the follow-
17 ing courses:

18 Exhibit 638—Chemistry, North Hills Christian School

19 --General Science, North Hills Christian School

20 Exhibit 639—Chemistry, Saddleback Valley Christian School

21 Exhibit 640—Physical Sciences, Calvary Chapel High School

22 Exhibit 690—Physics, North Hills Christian School

23 Exhibit 691—Chemistry, Redding Christian School

24 Chemistry, First Lutheran Jr/Sr High School (UC00020291-20292,

UCPROD0016237-16241)

25 Chemistry, Redding Christian School (UC00013499-13500,

UCPROD0031933-31940)

26 58. Exhibit 638—Chemistry, and General Science, North Hills Christian

27 School. (i) UC's stated ground for rejecting the course was this single ground:
28

- 1 • “Other: see comments. Comments: UC faculty has determined that
2 the texts used for these courses do not adequately cover the curricu-
3 lum required for the lab science requirement.”

4 However, this is not a valid ground for rejection, and is unreasonable, as UC im-
5 plicitly acknowledged by later changing its position and approving other schools’
6 chemistry courses with this text.

7 (ii) The course teaches standard course content and critical thinking
8 skills adequately to prepare students for colleges the quality of UC’s campuses. In
9 reaching that conclusion, I found the following to be true:

- 10 ✓ Course Description: The Course Description was of at least the quality
11 of science courses approved under ‘d’ in Exhibits 688-689.
12 ✓ Textbook: The texts are the BJU Press text (page 0486), which UC ef-
13 fectively admitted teaches standard content and adds a viewpoint.
14 ✓ No Ground for Rejection Other Than Viewpoint: UC’s stated reason for
15 rejecting the course was only what was quoted above, not a deficiency
16 that UC rejects other courses for.

17 This course should have been approved as a ‘d’ science course, under the stan-
18 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

19 (iii) The UC staff in fact rejected this course because of its added viewpoint
20 (for all science courses using BJU Press texts, “the texts used for these courses
21 do not adequately cover the curriculum required”), rather than because of its failure
22 to teach standard content. This is a rejection for viewpoint, and is unreasonable
23 (as discussed in IV.C below).

24 59. Exhibit 639—Chemistry, Saddleback Valley Christian School. (i)

25 UC’s stated ground for rejecting the course was this single ground:

- 26 • “Other: See comments for Biology [below]. Text reviewed as inappro-
27 priate in line with viewpoints and knowledge generally accepted in
28 the scientific community.”
29 • “Other: See below. Comments: New faculty policy requires reas-
30 sessment of all science texts, and has determined that the text that
31 you indicate that you use (from your 2001 review) is not consistent
32 with the viewpoints and knowledge generally accepted in the scien-
33 tific community. As such, students who take these courses are not
34 well prepared for success when/if they enter science

1 courses/programs at UC."

2 However, this is not a valid ground for rejection, and is unreasonable, as UC im-
3 plicitly acknowledged by later changing its position and approving other schools'
4 chemistry courses with this text.

5 (ii) The course teaches standard course content and critical thinking
6 skills adequately to prepare students for colleges the quality of UC's campuses. In
7 reaching that conclusion, I found the following to be true:

- 8 ✓ Course Description: The Course Description was of at least the quality
of science courses approved under 'd' in Exhibits 688-689.
- 9 ✓ Textbook: The text was the BJU Press text (page 0496), which UC ef-
fectively admitted teaches standard content and adds a viewpoint.
- 10 ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for
11 rejecting the course was only what was quoted above, not a deficiency
that UC rejects other courses for.

12 This course should have been approved as a 'd' science course, under the stan-
13 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

14 (iii) The UC staff in fact rejected this course because of its added viewpoint
15 (text is "not consistent with the viewpoints and knowledge generally accepted"),
16 rather than because of its failure to teach standard content. This is a rejection for
17 viewpoint, and is unreasonable (as discussed in IV.C below).

18 The school had to abandon the text it chose in order to get UC approval
19 (page 0499).

20 60. Exhibit 640—Physical Sciences, Calvary Chapel High School. (i)

21 UC's stated ground for rejecting the course was this single ground:

- 22 • "Other: ... The course outline content and texts used submitted for
23 approval are not consistent with the viewpoints and knowledge gen-
24 erally accepted in the scientific community. As such, students who
25 take these courses may not be well prepared for success when/if they
enter science courses/programs at UC."

26 However, this is not a valid ground for rejection, and is unreasonable, because it is
27 based squarely on the "viewpoints" of the text and not on its standard content. In
28 fact, the course taught "from both a secular and Christian perspective" (page

1 0507), and still was objectionable to UC.

2 (ii) The course teaches standard course content and critical thinking
3 skills adequately to prepare students for colleges the quality of UC's campuses. In
4 reaching that conclusion, I found the following to be true:

- 5 ✓ Course Description: The Course Description was of at least the quality
of science courses approved under 'd' in Exhibits 688-689.
- 6 ✓ Textbook: The text is the BJU Press text, which teaches standard con-
7 tent and adds a viewpoint, with an additional and secular text from
Houghton-Mifflin (page 0511).
- 8 ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for
9 rejecting the course was only what was quoted above, not a deficiency
that UC rejects other courses for.

10 This course should have been approved as a 'd' science course, under the stan-
11 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

12 (iii) The UC staff in fact rejected this course because of its added viewpoint
13 ("the course outline content and texts used submitted for approval are not consis-
14 tent with the viewpoints and knowledge generally accepted"), rather than because
15 of its failure to teach standard content. This is a rejection for viewpoint, and is un-
16 reasonable (as discussed in IV.C below).

17 61. Exhibit 690—Physics, North Hills Christian School. (i) UC's ground
18 for rejecting the course was not stated in a checklist that I have seen, but since it
19 was on the same date as its rejection of all other science courses in the school (bi-
20 ology, chemistry, general science), and they all used BJU texts, the ground for re-
21 jection was simply that the course used the BJU text. That is not a valid ground for
22 rejection, and is unreasonable, as UC implicitly acknowledged by announcing four
23 years later that it would no longer reject physics courses using the BJU text.

24 (ii) The course teaches standard course content and critical thinking
25 skills adequately to prepare students for colleges the quality of UC's campuses. In
26 reaching that conclusion, I found the following to be true:

- 27 ✓ Course Description: The Course Description was of at least the quality
28 of science courses approved under 'd' in Exhibits 688-689.

- 1 ✓ Textbook: The text is the BJU Press text (page 1622), which UC effectively admitted teaches standard content and adds a viewpoint.
- 2 ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for
- 3 rejecting the course was only what was quoted above, not a deficiency that UC rejects other courses for.

4 This course should have been approved as a 'd' science course, under the stan-
5 dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

6 (iii) The UC staff in fact rejected this course because of its added viewpoint
7 (objection to BJU texts in all science courses), rather than because of its failure to
8 teach standard content. This is a rejection for viewpoint, and is unreasonable (as
9 discussed in IV.C below).

10 62. Exhibit 691—Chemistry, Redding Christian School. (i) UC's stated
11 grounds for rejecting the course were these two:

- 12 • "Lack of pre-requisites"
- 13 • "Other: See comments below. Comments: ... The content of the
14 course outlines submitted for approval is not consistent with the
15 knowledge generally accepted in the scientific community. As such,
16 students who take these courses may not be well prepared for suc-
17 cess when/if they enter science courses/programs at UC."

18 However, the viewpoint ground is not a valid ground for rejection, and is unrea-
19 sonable, as UC implicitly acknowledged by later changing its position and approv-
20 ing other schools' chemistry courses with this text.

21 (ii) The course teaches standard course content and critical thinking
22 skills adequately to prepare students for colleges the quality of UC's campuses. In
23 reaching that conclusion, I found the following to be true:

- 24 ✓ Course Description: The Course Description was of at least the quality
25 of science courses approved under 'd' in Exhibits 688-689.
- 26 ✓ Textbook: The text was the Beka Book text (page 1630), which UC ef-
27 fectively admitted teaches standard content and adds a viewpoint.
- 28 ✓ No Ground for Rejection Other Than Viewpoint: UC's stated reason for
rejecting the course was only what was quoted above, not a deficiency
that UC rejects other courses for.

This course should have been approved as a 'd' science course, under the stan-
dard that approved courses in Exhibits 688-689; its rejection is unreasonable.

1 (iii) The UC staff in fact rejected this course because of its added viewpoint
2 ("the content of the course outline submitted for approval is not consistent with the
3 knowledge generally accepted"), rather than because of its failure to teach stan-
4 dard content. This is a rejection for viewpoint, and is unreasonable (as discussed
5 in IV.C below).

6 The school had to cast off the text it chose, and adopt a secular text, to
7 get UC approval (page 1638).

8
9 **B. The Effect Of Adding A Viewpoint On Whether Courses Prepare Stu-**
10 **dents For Colleges Like UC**

11 **1. Adding a Single Viewpoint and Adding a Religious Viewpoint**

12 **a. Educational Enrichment from Adding Viewpoints to Standard Con-**
13 **tent**

14 63. A course that teaches standard content is enriched, not poisoned, by
15 adding one or more viewpoints.

16 64. It is equally enriched, not poisoned, by adding a *single* viewpoint or
17 *multiple* viewpoints. A single viewpoint, whether secular or religious, is frequently
18 added in secondary school courses, whether public or private, and in college
19 courses. To reject a course that teaches standard content because it adds a sin-
20 gular viewpoint is to discriminate against that viewpoint. There is no valid educa-
21 tional reason for prohibiting or penalizing the addition of a single viewpoint to a
22 course in a nonpublic school, and to do so is unreasonable educationally and sci-
23 entifically.

24 65. A course that teaches standard content is equally enriched, not poi-
25 soned, by adding a *secular* viewpoint or a *religious* viewpoint. A secular or relig-
26 ious viewpoint is frequently added in secondary school courses and in college
27 courses. To allow courses to add a *secular* viewpoint, but to reject courses that
28 add a *religious* viewpoint, in nonpublic schools, is to discriminate against religious
viewpoints. There is no valid educational reason for prohibiting or penalizing the

1 addition of a *religious* viewpoint to a course in a nonpublic school, and to do so is
2 unreasonable educationally and scientifically.

3 66. Yet UC has rejected numerous courses, including Exhibits 623-640,
4 for adding a single viewpoint or a religious viewpoint to standard course content.

5 67. My conclusion is that, where a course adequately teaches standard
6 course content in a way that adequately prepares students for colleges such as
7 UC's campuses (as do the courses in Exhibits 623-640), the course should be ap-
8 proved regardless of whether a single viewpoint or a religious viewpoint is added,
9 and regardless of whether that viewpoint is a minority viewpoint or majority view-
10 point.

11 **b. Adding the Viewpoints of Evolutionary Weaknesses as Well as**
12 **Strengths, Theistic Evolution, Creation, or Intelligent Design**

13 68. In my opinion it is pedagogically quite appropriate for a nonpublic
14 high school biology class to present the strengths and weaknesses of Darwin's
15 theory of evolution, some of which have been discussed in my book *Darwin's*
16 *Black Box: The Biochemical Challenge to Evolution* (10th anniversary edition,
17 2006) (Exhibit 517), as well as in *Icons of Evolution* by Jonathan Wells (Exhibit
18 757), both of which are incorporated into this report by reference, and for the
19 nonpublic class to discuss alternatives such as intelligent design or creation.
20 The reason is that, if the topic of a class is the question of how life originated or
21 developed, then it is pedagogically sound to discuss a range of possible an-
22 swers to that question, as well as to point out the strong points and weak points
23 of each idea.

24 69. Jonathan Wells, the author of *Icons of Evolution*, earned a Ph.D.
25 degree in molecular and cell biology at University of California Berkeley. His
26 book accurately identifies information about a dozen leading arguments and
27 proofs of Darwinian evolution, one of which is discussed in my attached article,
28 "Scientific Orthodoxies."

1 70. The reason why reasonable scientists differ, and reasonable people
2 can hold different scientific viewpoints on evolution, theistic evolution, creation, and
3 intelligent design, is that the scientific evidence is far from complete and any view-
4 point depends heavily on inference. As UC's expert witness, Professor Kennedy
5 said a year ago (Exhibit 504),

6 The difficulty is that the theory of evolution depends largely on inference:
7 We know that many species have changed over time, but in only a few in-
8 stances do we have a complete record of all the intermediate steps in the
9 history of a present-day species. . . .

10 The effect of UC rejecting a school's biology course because of an added view-
11 point is that students cannot get UC a-g credit when they take the course, and must
12 take another science course to get two years of a-g science credit, or else are in-
13 eligible for UC under regular admission methods. If UC has rejected the biology
14 course, the student is ineligible for California State University under regular admis-
15 sion methods, because it requires an approved high school biology course. If the
16 school only offers one other upper high school science course, or if UC rejects all
17 but one other upper high school science course, the student is ineligible for UC
18 under regular admission methods. An example is North Hills Christian school,
19 which reported to UC that "several of my students are coming to me to meet the
20 Nov. 30th deadline for acceptance to a UC system school. (They are not being
21 approved because of the science classes.) Any help would be appreciated."
(Exhibit 633.)

22 **2. Adding a Single Nonreligious Viewpoint**

23 71. Most science courses that UC approves teach a single viewpoint: evo-
24 lution. That is true of the science courses that UC places on its website as exem-
25 plary science courses (such as Exhibits 686-687).

26 72. Non-science exhibits in this case show that UC regularly approves
27 courses in other areas that teach a single viewpoint, unless that is a religious
28 viewpoint. If there is no educational harm from adding a single secular viewpoint,

1 and I think there is none, then there is no educational harm from adding a single
2 religious viewpoint. In either case, there is educational benefit.

3 73. UC has argued that it is a highly selective university, and that conse-
4 quently it is allowed to reject private high school courses because of their view-
5 point. The first does not support the second. However, the premise is mistaken,
6 because UC seems to claim that its campuses are more highly rated than they ac-
7 tually are. One basis of comparison is college rankings, and while all rankings in-
8 volve assumptions, the most widely known and most widely used ranking of col-
9 leges and universities is the U.S. News and World Report ranking (Exhibit 666).
10 UC campuses are generally not in the top 25 colleges (only two of ten are), and
11 UC-Merced and one other campus are not in the top 125 colleges.

- 12 21. University of California—Berkeley
- 13 25. University of California—Los Angeles
- 14 38. University of California—San Diego
- 15 42. University of California—Davis
- 16 44. University of California—Santa Barbara
- 17 44. University of California—Irvine
- 18 79. University of California—Santa Cruz
- 19 96. University of California—Riverside

20 My own institution, Lehigh University, is number 31 in this list, and New York Uni-
21 versity is number 34.

22 74. Another basis of comparison is average SAT I's and SATII's of admit-
23 ted or enrolled students. UC's standing by that measure is similar to the above.

24 **C. Having a Viewpoint Not Consistent with Knowledge Generally Ac-** 25 **cepted**

26 **1. The Importance of Minority Viewpoints**

27 75. The scientific and educational benefit of adding a viewpoint to stan-
28 dard course content does not depend on whether the viewpoint is a majority or a
minority viewpoint. In fact, majority viewpoints tend to be well represented in sci-
ence courses, and an added viewpoint is generally going to be a minority view-

1 point. The importance of minority viewpoints to science, and to the teaching of
 2 science, is recognized by no less than the *Standards for Success* of the Associa-
 3 tion of American Universities. In the section on science courses, they say:

- 4 A. Successful students understand the scientific enterprise. They:
 5 A.1. understand that science and the theories of science are not absolute
 6 and should be questioned and challenged. This includes the ideas
 7 that
 8 . new theories will continue to replace current or older ones.
 9 . scientific theories must stand up to the scrutiny of the entire scien-
 10 tific community. . . .
 11 A.4. know that scientists throughout history have had many difficulties
 12 convincing their contemporaries to acknowledge what are now gener-
 13 ally accepted scientific ideas.

14 That is precisely what religious schools are doing in teaching standard course con-
 15 tent and adding minority viewpoints, whether religious or scientific.

16 76. Most of the course rejections discussed above (Exhibits 623-640)
 17 are because courses are "not consistent with viewpoints and knowledge gener-
 18 ally accepted in the scientific community." Similarly, in his email of 1/12/04 Ro-
 19 man Stearns quotes "standard language" that is sent to schools concerning the
 20 Christian texts discussed above. Part of that language asserts that courses
 21 which use those texts are not consistent with "knowledge generally accepted in
 22 the scientific community." (F0003) I find that to be incorrect. He also asserts that
 23 the courses are not consistent with "viewpoints . . . generally accepted in the
 24 scientific community." The California State Board of Education standards reflect
 25 the knowledge generally accepted by the scientific community.

26 **2. The Christian Texts and Knowledge Generally Accepted**

27 77. As Tables 1-4 of my first declaration show, the Christian texts meet
 28 about the same number of standards as do the approved texts. Thus by that
 measure they are as consistent with the "knowledge generally accepted by the
 scientific community" as the approved texts. Furthermore, as discussed in that
 first declaration, the Christian texts can also be used to meet the general criteria

1 of the University of California for Certification Criteria for Laboratory Science, in-
2 cluding a good understanding of the scientific method. The Christian texts dis-
3 cuss nonscientific topics which impinge on the study of science; so do the ap-
4 proved texts.

5 78. The Christian texts also discuss some biological topics skeptically,
6 and discuss limits on the scientific method; for example, they point out, cor-
7 rectly, that there have been many times in the past that scientific consensus has
8 been wrong, and that some questions are not amenable to scientific inquiry. In
9 my opinion this is quite consistent with the California State Board of Education's
10 judicious view that, "Ultimately, students should be made aware of the differ-
11 ence between *understanding*, which is the goal of education, and *subscribing to*
12 *ideas*." (F0094)

13 79. In fact, in my opinion it is personally abusive and pedagogically
14 damaging for the State to de facto require students to subscribe to an idea, no
15 matter how well supported the bulk of the scientific community judges it to be. (It
16 is another thing for nonpublic schools, which parents choose, to teach ideas that
17 they believe, as discussed in paragraph 60 of my first declaration.) A decision
18 about what is ultimately true of the world involves not only scientific factors, but
19 nonscientific ones as well, and the decision about how to weigh those factors is
20 not the concern of the State.

21 80. The decision of a private school to employ textbooks which explain
22 concepts, but which also contain material that questions the validity of those
23 concepts, is in my opinion simply the practical exercise of the student's right that
24 the California State Board recognized—of understanding but not necessarily
25 subscribing to a concept—and the right is exercised on behalf of the students by
26 their parents who place them in the private schools.

27 **3. The Dangers of Requiring Consistency with Knowledge Generally**
28 **Accepted**

1 81. While the Christian texts do address the great majority of the stan-
2 dards for Biology/Life Science of the California Department of Education, and
3 therefore by that measure they are as consistent with the "knowledge generally
4 accepted by the scientific community" as the approved texts, it is also important
5 to keep in mind that being generally accepted by the scientific community is no
6 guarantee that a concept or purported fact is correct, and that while general fea-
7 tures or concepts might be widely accepted, critical details of those concepts
8 may be severely controverted. For example, in the 19th century the physics
9 community widely believed that outer space was filled with "ether", a medium
10 that was then thought necessary to conduct light waves. Modern physics dis-
11 counts the ether. Some modern physicists think the universe contains "dark en-
12 ergy" which drives an accelerating expansion; others dispute this. In biology, it
13 had been thought that the demise of dinosaurs in the distant past coincided with
14 the diversification of mammalian species; a recent paper, however, disputes
15 that. And while most biologists think that Darwin's basic theory can account for
16 the most important features of life, others dispute that. Thus the very concept of
17 "knowledge generally accepted by the scientific community" is problematic, re-
18 quiring a person to ignore the history and philosophy of science.

19 **4. UC's Claim That The Alternative Texts Are Religious**

20 82. In the "University of California Position Statement: 'A-G' Course Ap-
21 proval for High School Science Courses Taught From Textbooks from Selected
22 Christian Publishers" the underlying objection to texts from Bob Jones Univer-
23 sity Press and A Beka Books is that "The texts in question are primarily religious
24 texts; science is secondary." (F0005) I find that to be incorrect. Although the
25 texts do comment on some science topics from a certain Christian viewpoint,
26 there is no systematic treatment of religion in the texts. Therefore they are not
27 primarily religious texts. The texts do treat science topics systematically, and
28 cover the great majority of the Standards listed by the California State Board of

1 Education, as the reviewed approved texts do. Therefore they are primarily sci-
2 ence texts.

3 83. A second objection from the University of California Position State-
4 ment is that "Courses that utilize these texts teach students that their conclu-
5 sions must conform to the Bible, and that scientific material and methods are
6 secondary." (F0005) I find that to be misleading for several reasons:

7 84. First, the texts do not tell the students that their conclusions must
8 conform to the Bible. Rather, the texts state (roughly) that people who hold the
9 certain Christian viewpoint will hold the Bible to be the most reliable source of
10 knowledge concerning topics it discusses. That, of course, is a tautology, since
11 the viewpoint itself is that the Bible is the most reliable source of knowledge
12 concerning topics it discusses. However, there is no statement in the texts that
13 says students "must conform" to that viewpoint. Furthermore, at least one other
14 science textbook approved by the University of California discusses the nonsci-
15 entific topic of the proper relationship between religion and science. As dis-
16 cussed in my first declaration, the approved *Conceptual Physics* 3rd edition
17 (Scott Foresman Addison Wesley, 1999) textbook (referred to as "PFAW" or
18 "SFAW" in my first declaration) tells students that those who view the relation-
19 ship of science to religion in the same way that it does will have fewer difficul-
20 ties: "[P]eople who are either uninformed or misinformed about the deeper na-
21 ture of both science and religion often feel they must choose between them. But
22 if we have an understanding of science and religion, we can embrace both with-
23 out contradiction." (page 7)

24 85. Second, the texts do not assert that science is "secondary" in its
25 proper domain. As discussed previously in this report, the texts explicitly affirm
26 the value of science and the scientific method (Exhibits 476-477).

27 86. Finally, a decision about whether "scientific material and methods
28 are secondary" or primary, or whether they should be accorded some other de-

1 gree of importance, is not itself a scientific decision. There is no experiment that
2 can tell a person whether the scientific method should have priority over nonsci-
3 entific views in his own life. That is a personal decision, which in my opinion is
4 wisely accommodated by the California State Board of Education's view that,
5 "Ultimately, students should be made aware of the difference between *under-*
6 *standing*, which is the goal of education, and *subscribing to ideas*." (F0094)

7 **5. Other Grounds**

8 87. Though UC should be held to its stated grounds for rejection, other
9 grounds are insufficient. While UC did not reject the courses for not teaching evo-
10 lution, UC could not reasonably reject the courses on that basis, because it does
11 not reject other courses that do not teach evolution (such as those in Exhibits 688-
12 689). In fact, the rejected courses do teach evolution. However, the approved
13 courses in Exhibits 688-689 (with a couple of exceptions) are biology courses that
14 do not teach evolution.

15 88. While UC did not reject the courses for adding material other than bi-
16 ology, UC could not reasonably reject the courses on that basis because it does
17 not reject other courses that add material other than biology (such as those adding
18 agricultural material in Exhibit 688).

19 20 **V. THE APPROPRIATENESS OF DISCUSSING WEAKNESSES AS WELL** 21 **AS STRENGTHS, AND ALTERNATIVES TO, DARWIN'S THEORY OF** 22 **EVOLUTION IN NONPUBLIC HIGH SCHOOL BIOLOGY CLASSES**

23 89. In my opinion it is pedagogically quite appropriate for a nonpublic
24 high school biology class to present the strengths and weaknesses of Darwin's
25 theory of evolution, some of which have been discussed in my book *Darwin's*
26 *Black Box: The Biochemical Challenge to Evolution* (10th anniversary edition,
27 2006), as well as in *Icons of Evolution* by Jonathan Wells, both of which are in-
28 corporated into this report by reference, and for the nonpublic class to discuss
alternatives such as intelligent design or creation. The reason is that, if the topic

1 of a class is the question of how life originated or developed, then it is peda-
2 gogically sound to discuss a range of possible answers to that question, as well
3 as to point out the strong points and weak points of each idea.

4 Michael Behe
5 DR. MICHAEL BEHE

6 STATE OF PENNSYLVANIA
7 County of Northampton

8 This Affidavit was sworn to and
9 subscribed before me this
10 07th day of June, 2008 by Michael Behe.

11 [Signature]
Notary Public

My Commission Expires

12 [SEAL]

13 COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Heather B. Getz, Notary Public
City of Allentown, Lehigh County
My Commission Expires Aug. 28, 2008
14 Member, Pennsylvania Association of Notaries