

Madam Chair and Members of the Education Committee :

My name is Dr. Jack Kirkley and I teach biology at UM-Western.

House Bill 183 *seems* to be aimed at addressing some type of public concern about what one might call *truth in advertising* in regard to science teaching in our public schools. Oddly, the bill lists such concepts as "*DNA*", "*fossils*", and "*random mutation*" as some examples of scientific ideas that can cause "*controversy*" and "*confusion*" among students and their teachers. The bill also expresses a particular concern about concepts related to evolution, the origin of life and the origin of the universe.

Now, apparently, the bill that we see before us today seems to have *evolved* somewhat from the bill request that I originally heard about. Or has it? In this bill, you will not find the words *intelligent design*, a term that equates to the concept of *creationism* as ruled by Judge John Jones in the recent, now famous, Dover, Pennsylvania court case. That case, and a series of other modern court cases, have held that the insertion into public school science classes of religiously-based concepts, variously called creationism, creation science, intelligent design, etc. were found to be unconstitutional, violating the Establishment Clause of the 1st Amendment, commonly known as the separation of church and state.

So..... In recognition of this *little problem* while drafting HB 183, the legislative bill drafter *intelligently designed* the language of this bill to carefully avoid saying what this bill is really intended to do. This clever wording makes the bill sound as if it merely directs our schools to make their science classes more open to differing points of view, ostensibly to promote "*critical thinking*", "*academic freedom*", and to "*respond appropriately and respectfully to differences of opinion about controversial issues.*"

But clearly, the intent of this bill..... what this bill aims to do..... remains nearly the same as the bill originally requested. That is, to, in effect, provide legal cover for any politically or religiously-minded teacher to interject his/her personal agenda into the lessons of his science classroom. As long as that teacher carefully avoids mentioning religion or the Bible, and claims that his alternative view is purely "scientific", then virtually any religiously-based model could be presented as though it is a perfectly legitimate rebuttal to conventional scientific explanations.

So what? Well..... One can see how the negative repercussions of this kind of religious speech has played out in one well documented, multi-year, multi-million dollar legal battle that involves John Freshwater, an Ohio science teacher who insisted on promoting his religious beliefs in his "science" classroom, and who even branded crosses on the skin of some of his students by using a high voltage electrical device. He was eventually fired, but he is still trying to use the legal system to fight back against the local school system.

This bill before you (HB 183) would open wide the gates of our schools to individuals like Mr. Freshwater, giving them a huge legal loophole, plenty wide enough for them to drive their political or religious agendas through.

Science is not about providing "equal time" to any and all ideas that happen to be out there..... some of them "way out there". Fossils are controversial? On the contrary, one need only follow the fascinating "dinosaur trail" provided by the series of community museums along Montana's highline. Or better yet, go visit Bozeman's world famous Museum of the Rockies, to get a very clear picture from the fossil record that life on this landscape, the place we now call Montana, has undoubtedly evolved.... Bigtime!

Science is a constant and never-ending contest among the best ideas, ideas based on testable evidence, empirical evidence, to provide our citizens the best grasp that we can give them on what is true, what is correct and what is real, by explaining our natural world on its own terms, scientific terms. Any attempt to insert ideas which involve the supernatural or miracles or other concepts that violate natural laws, are, by definition, disqualified from being regarded as scientific. They have no business being taught in a science classroom.

However.... Teachers can go ahead and discuss various oral traditions, legends, myths, sacred stories, holy scriptures, and world views within their proper context, as part of classes in social studies, sociology, anthropology or comparative religions. But, please do not ask Montanans to permit or to promote the shoehorning of these kinds of "alternative opinions" into our science classrooms. The integrity of science demands that we should not grant legitimacy to any pseudoscientific ideas masquerading as science, which are actually intended to undermine true science and to replace it with religious or political agendas.

The goal of this bill appears to me to be aimed at facilitating the introduction of concepts that are politically or religiously-based, not necessarily science-based, into our classrooms. I believe that the bill is also misguided in its insinuation that well-established scientific principles such as genetics and evolution are "**controversial**" ideas that need to be seriously questioned and challenged as being mere suppositions or speculations..... just a theory. "Hey, let's just give our kids a smorgasbord of various ideas and let them choose for themselves what they want to believe." Although this bill has that kind of sugar-coated flavor of merely encouraging the "free exchange of ideas", it resembles many similar bills in statehouses all across this nation. The goal of such bills seems to be to create an atmosphere of doubt about basic scientific principles and theories and to cultivate a public attitude of mistrust of scientists and a denial of science.

Please recognize this bill for what it is, a wolf in sheep's clothing. A Trojan horse intended to allow politically or religiously motivated discussions to be introduced in our science classrooms. Academic freedom does not give teachers the right to impose their personal

religious beliefs upon their students. What our society really needs is the major ramping up of science and math literacy. And to do that we need to teach real science in our public schools. We certainly do not need a law that would undermine science.

This bill needs to die a quiet death.

Thank you for considering my concerns about this bill..... HB 183.



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Photos from the 1925 Scopes "Monkey Trial" in Dayton, Tennessee, in which John Scopes was convicted of violating a Tennessee law that prohibited the teaching of evolution.



John Scopes circa. 1925



Lawyers Clarence Darrow and William Jennings Bryan

(from: http://en.wikipedia.org/wiki/Scopes_Trial)