

Theme: Where Science and Religion Meet

“Brave New World – Why Science Needs Religion”

Based upon a sermon series by the Rev. Adam Hamilton
February 10th, 2008 at First United Methodist Church – Durango

Micah 6:8

8 No, O people, the Lord has told you what is good, and this is what he requires of you: to do what is right, to love mercy, and to walk humbly with your God.

Luke 10:25-29

25 One day an expert in religious law stood up to test Jesus by asking him this question: “Teacher, what should I do to inherit eternal life?” 26 Jesus replied, “What does the law of Moses say? How do you read it?” 27 The man answered, “‘You must love the Lord your God with all your heart, all your soul, all your strength, and all your mind.’ And, ‘Love your neighbor as yourself.’” 28 “Right!” Jesus told him. “Do this and you will live!” 29 The man wanted to justify his actions, so he asked Jesus, “And who is my neighbor?”

SLIDE Where Science and Religion Meet: Brave New World

As you are seated, please take out of your bulletin your sermon notes and your study guide. The sermon notes are an outline of today's message and I would encourage you to follow along and write down the things you would like to remember from today's time together. On the backside is our study guide and it is an opportunity for you to read the Bible on your own.

This week we began the season of Lent. We are challenging every one of you to join us in reading the book of Isaiah during the season of Lent. It is the greatest of prophets in the Hebrew Bible and every day you have an opportunity to read a chapter or two.

Today we bring to a conclusion our series of sermons on, "Where Science and Religion Meet." During these last few weeks we have been looking over the various fields of science, understanding the latest ideas and theories related to the origins of the universe, the origins of human life, how our bodies work and how it is that our mind, body and spirit connect.

We have been looking at all of these things through the lens of our faith. What does our Christian faith have to say that informs our

understanding of science? How does science help us understand our faith more clearly?

Our aim has been to demonstrate that it is not a question of either science or religion, but the truth is found by exploring both science and religion. Science teaches us how things operate. My understanding of God and my faith is not diminished by how science is unfolding the mysteries of the universe. Instead, science pushes me to even greater heights of wonder and awe as I think about what God has done and the way that God works in the laws that God has set in motion. It is not, "either or," but rather, "both and."

Science offers us the truth about how things operate. Christian faith offers us the truth about why we are here, the nature of ultimate reality, what our purpose is here on earth—and through this we find life. How much poorer we are if all we have is what we can see, feel and touch. We miss out on the deepest longings of the human soul which are all satisfied by things that you cannot touch. So science and religion are meant to go hand-in-hand as we seek to understand truth.

SLIDE What the next fifty years holds in scientific discovery.

Today we come to the end of the series of sermons by focusing on the future. What does the future look like in the light of science and technology? There are wonderful advances that the future holds and we look ahead of us see amazing possibilities.

This week I was looking at some of the future trends and what the future might hold with all of our advances. We have just come through a century of the greatest technological advances in the history of humankind.

Some have said that human knowledge, information and technology grew more the last hundred years than the entirety of human history before that time. We stand at the edge of another century with even greater potential and advances that may take place.

Recently I heard about an interview with the former president of the Eli Lilly Company. He suggested that the day will come where you will no longer have surgery for virtually anything that is a disorder in your body. Surgery will be reserved for only the most dramatic of medical conditions. For most procedures, doctors will be able to type into their computer your genetic information and then the information for what they want to do and they can fabricate a pill which will send information to that specific part of

your body to fabricate proteins which will manufacture additional cells that will bring healing to the damaged part of your body.

No more lung surgery. Instead there will be a custom medication for you to take that will give genetic information so you can fabricate new lung cells, or liver cells, or pancreas cells or just about any cell in your body. How amazing is that?

At the beginning of the last century, human beings had a life expectancy of 47 years. That was in 1900 and today life expectancy is around 77 years, and if you make it past 60 it is likely you will make it into your 90s. Some scientists believe that it may be possible in the next century for human beings to live to be 120 on a regular basis. That is staggering and astounding.

There are many new technologies being discovered. I read this week about one that I was really interested in. I learned that they are working on information that will awaken your hair follicles.

SLIDE Bald head.

I thought your hair follicles were dead when you're balding. But I discovered they are not dead but merely asleep and there is medication that in the future they think will be able to awaken those hair follicles and you will have new hair! This is particularly interesting to me because one of the choir members recently talked to me after worship at the 11 o'clock service and said that over the last five years they had noticed more and more glow coming off the back of your head.

What an amazing thought, that we can take a pill that would help sprout new hair. There are all kinds of amazing things that the future holds.

So we look ahead and see this fantastic and exciting new future.

But at the same time, while that future holds the potential for amazing good, that future also holds the possibility for dreadful things. Perhaps you remember reading in high school or college Aldous Huxley's book, Brave New World.

SLIDE Brave New World.

Huxley painted a picture of the world that was grim indeed. He supposed that in the future there would come a time where children were fabricated in manufacturing facilities. Eugenics would form specific human beings to do the labor. Certain human beings will be born with a little

higher IQ so they can be managers or leaders able to do the higher functioning tasks. Human beings were kept feeling happy by taking a certain pill every day. There was no freedom at all anymore, simply machines that would be working here on earth. It was a very cold and lifeless existence that he painted.

Of course if you watch science fiction there are all kinds of pictures of the future that are painted. Films in particular are not always very positive and uplifting. I love science fiction but I think of, "Mad Max," and the "Road Warrior," or "Waterworld," or the more recent, "I Am Legend." I will never forget the series of movies I saw as a kid, "The Planet of the Apes," and that image of the statue of liberty on the beach as Charlton Heston rides by on his horse.

SLIDE Planet of the Apes.

These are grim pictures indeed of what the future might look like. The truth is that either of those are possibilities.

We have amazing technology and put in the right hands, and used for the right purposes, with the right spirit and the right heart, it can do amazing and wonderful and positive things. But that same technology, put in the hands of people who are only seeking to live for themselves, only concerned with their own power and wealth, has the possibility of destroying life as we know it.

Which will it be?

I believe the difference between the outcome that has great potential, and the outcome that has devastating consequences will be a result of our spiritual lives as human beings in the future. It will be the result of understanding what it means to be human and why we are here. That is why I think religion in the future will be as important, if not more important, than it has been in the past.

SLIDE Ethical Dilemmas in Biotechnology Today.

Today I want to spend a few minutes thinking about some of the amazing technologies that are available and how we as thinking Christians think about these things. As Christians, we bring a certain set of ethics to the table in these discussions about future technology. We are certainly not the only ones doing ethics, but certainly Christians thinking about and reflecting upon what it means to be human, and what we should and should

not do, is an important part of the equation in determining what the future looks like.

You know that science can develop all kinds of technologies, but just because we can do something doesn't mean we SHOULD do something. We even come to a point where we say, "We could do this but we choose not to do it because it is not right and dehumanizing."

Let's talk about some of those amazing discoveries and some of those questions that even now are being raised by science and technology. Why don't we begin by talking about the issue of cloning?

SLIDE The debate about cloning.

In 1997, Dolly the sheep was cloned. Other animals had been cloned before but nothing quite like a sheep. We stopped that week as we heard the evening news, and we looked at that sheep and said, "**What does that mean for us as human beings? Will we be cloning human beings next? What are the ethics of cloning and in particular, cloning human beings?**"

Over the next few years theologians, ethicists as well as scientists struggled with these questions. We have sort of resolved this issue for now in this way.

Theologians asked this question. "What did it take to clone Dolly?" It took 279 failed attempts before Dolly was finally cloned. In some of those failed attempts, the embryo simply did not attach to the lining of the uterus inside the host sheep. Some of the embryos did attach but the fetus died somewhere in the developmental process. Some were stillborn.

We then asked: If this is what happened with sheep would this not likely happen with human beings? If it happened with human beings and we would have fetuses dying in the womb or children dying in childbirth at an alarming rate, then what does that mean for us? Is this really a technology we should pursue?

SLIDE Dolly.

Dolly, fairly early in her life began to exhibit signs that she was aging at a much more rapid rate than other sheep. She died a premature death and scientists and ethicists and theologians looked at that and said, "If this is what happens when we clone sheep is it possible this would happen if we cloned human being?" What would that mean? Is this just or right?

Finally, there was a series of questions that would go something like this: **why? Why would clone another human being? Why would we clone ourselves?** Is it really pride or hubris that would drive us to do this? Do we need to make a mini "me" because I love myself so much I want someone just like me and then to be able to raise them (me) in my home? That would be the epitome of pride.

Maybe there is another reason? Maybe you have a child that you love very much and that child has a terrible disease. Before they die you want to clone that child so you can have that child again. You would have an opportunity to have another child exactly like the one you lost.

But what does that mean for the child who is a clone, who has to walk in steps of the first child? What does it mean psychologically to them or to you and to our humanity?

Maybe we would clone a child because our child has a blood disorder or is in need of an organ transplant. That was the premise of the movie that came out last year called, "The Island." The idea is that you would clone yourself and then use your clone for a blood or organ transplant. What does that mean that we are fabricating children in order to take their organs and give them to another child? What does it mean psychologically and emotionally for that child who would receive the transplant?

When we were in Ukraine to adopt our children, one of the rumors spreading among the people of Ukraine is that Americans were coming to adopt children because their child needed an organ transplant and we were adopting children for their body parts. We can't fathom doing that but clearly people can begin to think in those ways.

Finally, theologians, ethicists and scientists looked at all these things and the general consensus has been that there is no real good reason to clone human beings, and there are a lot of good reasons why not to clone. Most scientists in most nations on this planet have said that cloning is really off limits. There is no good reason to pursue this and while there are some renegade scientists who continue, generally we have decided as human beings using ethical and religious thinking brought to bear on science, that this is not something we want to do.

SLIDE: What about designer children?

This is the topic of a book by Gregory Stock, **Redesigning Humans: Our Inevitable Genetic Future**. In the future, you could theoretically

design what your children are like. We could conceivably get to a place where all conceptions (no pun intended) happen using in vitro fertilization. It would not be as much fun, but it could be that we can take an egg and sperm and manipulate the genetic information in the laboratory.

Maybe you would go to your OB/GYN in the future and your doctor would ask you, "Would you rather have a boy or a girl?" If you have two girls than maybe you take a boy this time.

The doctor then might ask you, "Is there anything I should know about your family history in terms of medical conditions that we should be concerned about?" That's a great question. We might find there is some genetic tendency towards a disease that might be detrimental to our child. The doctor might say, "We can identify that in the gene strands and we can make sure we turn that gene off so your child will not be born with that disease. I've met with many families who were concerned because there was something wrong in the womb with their child and so we would pray and pray that God would keep their child healthy. Now it might be able to be fixed with genetic engineering and suddenly this technology sounds more interesting to us.

When I get to thinking about how the doctor can change some of those health-related issues, I then start thinking, "Doctor, when I was a kid I had really bad buck teeth and they called me "Bucky beaver" at school. I used to wish I didn't have such big front teeth that stuck way out. So do you think that my child could have nice straight teeth? While you're at it, can you give him blonde hair and blue eyes?" The doctor assures me that he can take care of that.

"One more thing doctor – I always wanted to play basketball and football as a kid but I wasn't big enough or tall enough. Do you think you could give my kid an extra 6 inches of height and some more muscle?" The doctor then tells me that we know the genes that control height and body mass and so they can take care of that too.

"If it is not too much trouble, the SATs will come up when my son is around 17, and I was thinking, could you make him a little bit smarter? If he could do really well on that SAT he would get a leg up in life." The doctor also assures me that this is not a problem. She asks me how high of an IQ I want him to have and I say that 150 to 160 would be great.

"But what I really hope is that my son will become a pastor.

Sometimes it is helpful if you are a pastor if you have an extroverted personality. Do you know how to do that doctor?" Of course the doctor can find those genes as well and tweak them accordingly.

So now my child is born and I have perhaps saved him from some childhood diseases. I have the perfect child who is smart and tall. I forgot to tell you that I also asked for him to have the gene with high metabolism so he could eat a lot and not get fat! He has perfect teeth with blonde hair and blue eyes and a great physique!

But what happens when we all decide to have perfect children? Does anybody want to try having a child with Aspergers Syndrome? We could write that out of the code except for some of the smartest people that ever lived had Asperger's.

Or let's say we all decide to have extroverted children, and then we have no more poetry, or theology, or reflective people to ask serious questions. What does it mean when we all decide to have the perfect child? Maybe there is some reason that God allows the genetic information to come from two sources. Maybe God really loves variety and knows that is what makes life so amazing.

Those are the kind of ethical questions we will have to wrestle with in the future. What does it really mean to be human?

One technology today that we already have to wrestle with has to do with stem cells.

SLIDE: The debate about embryonic stem cells.

You have been hearing about this a lot but I'm guessing that many of you have not taken the time to really study this issue and all the pieces that surround it. Here's the cover of Time magazine from last August.

SLIDE The Truth about Stem Cells: The Hope, They Hype and What it means for you.

There are television shows and newspaper articles and documentaries and editorials that all focus on this issue of stem cells in today's world. So let's talk about stem cells for just a few minutes. Can I take the next seven minutes and give you a quick science lesson? Just pinch yourself to stay awake.

What are stem cells? Stem cells are undifferentiated cells in your body. Your body is made up of somewhere between 10 trillion and 100

trillion cells. No one has been able to count them all. There are 200 different cell types. There are skin cells and different types of blood cells. There are brain cells and many other kinds in your body.

Also in your body are free-flowing stem cells. Stem cells are undifferentiated which means they have not decided what to be when they grow up yet. You probably know that every cell in your body has all of the genetic information for every other cell in your body. Your entire genetic code is found in every cell in your body.

However, certain proteins and genes are turned on in some cells and they are turned off in others. When the right switches are turned on the stem cell becomes a skin cell or a brain cell. Since these stem cells have not decided what to be when they grow up they are still able to be given information that triggers certain genes to come on and certain genes to turn off, so they can become almost anything.

The fact that we have identified these cells is powerful. Adult stem cells are what we call the ones that are in your body. We have been using adult stem cells in research and in treatment for the last 40 years. There are people in our congregation who are receiving adult stem cell treatment right now. There are not ethical questions about this and the debate you are reading about has nothing to do with adult stem cells. Everyone agrees that these are wonderful and accessible in your body to some degree and you are able to use them for certain kinds of healing.

The belief is that one day we will be able to use stem cells to cure certain diseases in our body. Let's take diabetes for a minute. The idea is that one day we will be able to take a stem cell and place it in a faulty pancreas that no longer produces insulin and trigger it so that it can become a pancreatic cell that produces insulin. How amazing is that? You may be able to heal the pancreas and cure diabetes by the use of stem cells. There are many other possible applications as well.

The scientists have noticed, however, that there are limitations to what you're adult stem cells can do. They have discovered another kind of stem cell which is embryonic. These are cells that begin to form before the embryo begins to differentiate itself and at the very beginning of the life process.

You remember that after the sperm fertilizes an egg then it begins to divide very quickly. By the fourth day it forms a blastocyst. Here is a

picture of a human blastocyst.

SLIDE: Human blastocyst.

This comes from about the fourth day. It is a ball of cells and then inside those cells there is a clump of cells. You can see it on the lower right hand side of the screen that is marked, "inner cell mass."

That clump of cells is embryonic stem cells. These embryonic stem cells don't know what they are going to become when they grow up yet. When the blastocyst falls down the fallopian tube towards the uterus, two thirds of the time it never attaches to the lining of the uterus. One third of the time it does attach and a pregnancy results.

Once this blastocyst has attached to the lining of the uterus then the cells in the uterus tell the stem cells in the blastocyst what they are to become. Now that they have been told what they are going to become they begin forming into the various cells that make up our body. Over a period of nine months, the stem cells begin forming into a fetus until finally a child is born from that group of stem cells. This is the natural process of embryonic stem cells.

SLIDE The debate about stem cell research.

Scientists believe that these embryonic stem cells have a great deal of power and that it is possible to extract the stem cells from a blastocyst. In this case the blastocyst would die and cease to exist, but if you put those stem cells in a petri dish in a culture and they would continue to multiply without becoming anything. You make enough of them and you develop them in research to the point where you find out how to trigger them. You then might be able to place them in a spinal cord that has been injured and trigger them to produce new tissue in a spinal cord that would allow someone potentially to walk again who could not walk before.

If the brain is damaged then stem cells might be able to someday develop new brain cells in someone who has had brain damage. If there is heart damage than stem cells might be used to produce new heart tissue. You can see the power of this and why there is such keen interest in this research.

Ethicists and theologians however begin to ask an important question. If this is a fertilized egg by the process of sperm and egg coming together and if that clump of cells would become a human being, then have

we not created life in order to destroy life so we can give life to something else. What does that mean if we create life in order to destroy it in order to give life to something else?

Scientists who recognized the challenge of this began to look at another option for stem cell research. They looked at all the embryos that had been frozen now because of in vitro fertilization techniques. When couples go in for in vitro fertilization there are excess embryos that form. There are currently about 500,000 excess embryos frozen in the United States.

Scientists recognize that many of these will be destroyed, either by staying in a frozen state too long or simply by being discarded. Rather than seeing them simply discarded wouldn't it bring more dignity if the stem cells were donated like we do organ donations? There's been a great deal of debate about this and some have said, "No, it's still destroying life to try and give life." Some have argued that this is a way of giving dignity to the cells. It raises a lot of questions about in vitro fertilization that we really have not even addressed yet.

So scientists have begun to look at this one more way. This is really where the debate is coming in today. This other technique is one that deals with the formation of embryos through what is called, "therapeutic cloning."

SLIDE The debate about therapeutic somatic cell nuclear transfer (SCNT)

In this particular debate we find a technique called SCNT which stands for, "somatic cell nuclear transfer." I have an interview with Dr. Bill Nieves who is the head of the Stowers Institute which is very interested in this kind of research and is an advocate for this kind of technology. Dr. Nieves is a graduate of Harvard College, Harvard Medical School and he also has a Ph.D. from Harvard University. It would take me more than an hour to read all of his accomplishments which fill 14 pages.

Bill also happens to be a United Methodist and his wife happens to be a United Methodist pastor. Let's listen to Bill as he explains briefly how SCNT works—how it creates embryonic stem cells without the traditional fertilization of sperm and egg.

VIDEO Bill Nieves 1.

SLIDE The debate about therapeutic somatic cell nuclear transfer

(SCNT)

If this form of research continues, it is possible that 30 years from now we might be able to heal those with spinal chord trauma. Let's say your granddaughter has been involved in an automobile accident and her spinal cord has been severed. An egg could be taken from your granddaughter and the nucleus removed. A nucleus from any skin cell could then be taken and placed within the cytoplasm of the egg. The chemical reaction could be triggered so the cell begins to divide and it begins to multiply. Over the course of four or five days, that skin cell nucleus with the cytoplasm of the egg becomes a blastocyst.

At four or five days it would look the same as the blastocyst formed by sperm and egg coming together. However, this all came from your granddaughter's body. The stem cells could be removed from this blastocyst and cultured or cultivated, then placed within her spinal cord. It would be her exact genetic information and could potentially reconnect the tissues in her spinal cord and she could walk again.

This is the potential that we are talking about in this technique.

The question is: Is this egg that has had the nucleus placed in it from a skin cell and then caused it to replicate—a human life or the beginning of a human life? It could not survive if you placed it within the womb and would most likely be sloughed off.

In the future the technology might exist to turn that into a cloned human being which is why this is called, "therapeutic cloning." So, is this a human being? Is it the creation of a human life to destroy the life and then bring healing?

Or is this simply using cells from within our own body to bring about healing? These are the questions that are being asked. Let's listen as Dr. Nieves describes the crux of the issue in this debate.

VIDEO Bill Nieves 2.

Do those cells we have created from within that patient have the same moral value as the life of the patient from which the cell was taken?

SLIDE Science, Religion and Moral Decisions.

These are the kinds of questions that are being raised and others might form those questions in different ways. Just this last year the **State of Colorado passed a bill S. 5 (Stem Cell Research Enhancement Act**

of 2007) which amended the Public Health Service Act to provide for human embryonic stem cell research in a limited capacity. They are still debating whether to criminalize some forms of this research that would not allow this technology to go forward.

Somewhere along the way you will have to make a decision on this. What do you think? Is it something that we should pursue or shouldn't pursue?

Part of the way you will make a decision on this is by bringing your faith to bear on this question. I'm not going to answer this for you this morning because in fact to really answer it we would have to spend a lot more time together. We would want to bring in some experts and listen to them and study the Scriptures and talk about it much more than we have. I can't solve this in a 30 minute sermon and I myself am wrestling with exactly what to make of this and what the limits should be.

The key thing today was not to solve this problem but to say, "Your faith plays a role in making these moral and ethical decisions about what it means to be human and where we go with technology and science in the future."

SLIDE Doing Christian Ethics.

How does your Christian faith come to bear on these ethical issues? That's really where I would like to focus on as we conclude this sermon. Dr. Richard Randolph is Professor of Religion and Ethics at St. Paul's School of Theology which is our United Methodist seminary in Kansas City. Dr. Randolph was the head of the Center of Science and Religion at the University of California in Berkeley. He is not only a United Methodist and a fine Christian man but he is someone who has a heart for the gospel and a heart for life and a heart for the Scriptures.

Let's listen to Dr. Randolph as he talks about how he brings his faith to bear in the field of ethics.

VIDEO Richard Randolph 1.

SLIDE Doing Christian Ethics.

It would be nice if we could go to the index of our Bible and find out what the Bible says about stem cells or any other complex moral issue. The Bible does not address these directly because these technologies were not even fathomed at the time the Scriptures were written. Instead the

Bible gives us overarching themes and gives us moral imperatives and then we have to figure out how to apply those.

For example, the Bible tells us that God created everything that is and all the world belongs to God. This world is a gift from God. That idea has all kinds of implications for how we look at the world around us.

The Bible tells us that we are created in God's image and that we should be fruitful, multiply and have dominion over the earth. That gives us permission in some ways to control our environment and manipulate what happens in nature because God gave us that permission.

But how should we do that? Micah 6:8 gives us direction on this when the prophet says:

SLIDE **“What does the Lord require of you, but to do justice and to love kindness and to walk humbly with God.”**

We come to the New Testament and Jesus speaks all kinds of ethical imperatives to us in the Sermon on the Mount. Finally, he gives us the great commandments. You remember that on several occasions people came to Jesus and said, "Could you please summarize what God really wants from us?"

One time a young man came to Jesus and Jesus said, "Well, what do you think?" The young man said that we are to love God with all our heart, soul, mind and strength—and we should love our neighbor as we love ourselves.

Jesus said, "You are exactly right—bingo! Now, go and do that."

The man said, "Who is my neighbor?"

This young man was trying to find out how you apply this principle to actual life circumstances. In some ways, what he was really asking is, "Who don't I have to love?"

Jesus does not answer his question directly but instead he tells a story that almost every single one of us have heard at some point in our lives. Let me remind you of it.

SLIDE **The Good Samaritan**

"There was a certain man who was going from Jerusalem to Jericho when on the way he was accosted by thugs. They beat him, stripped him naked, took everything he had and left him for dead on the side of the road.

"A priest came along. Priests were holy people and as this particular priest came along he saw what appeared to be a dead body on the side of the road. The law in the Bible tells us not to touch a dead body or we become unclean. The priest was very interested in cleanliness and staying ritually pure war. So, obeying the law of God, he walked across the street and then continued on to Jericho, leaving the man for dead.

"Soon after that a Levite came along. Levi is the tribe of Israel from which all the priests come. He remembered God's commandment also that if he were to touch a dead body he would become unclean. So obeying the commandment of God to not touch a dead body, he walked across the side of the road and went on down to Jericho.

"Finally, along comes a non-religious or non-church person. We call him a Samaritan. He is the unexpected hero in the story. He sees the man who appears to be dead and decides to see if the man is okay. He wonders what could've happened to this poor fellow.

"He runs to the man and takes his pulse and finds out he is still alive. He touches the dead body not worrying about whether he is violating the cleanliness law because there is something more important at stake here. He takes oil which is very valuable and pours it on the man's wounds. He bandages up the man and places him on his donkey. He takes him down to Jericho and continues to care for the man.

"The next day when he has to leave, he leaves his credit card and tells the innkeeper to provide whatever care he needs."

Jesus turns to the lawyer and says, "Now you tell me, which of these was a neighbor to that man?"

The lawyer of course says it is the one who showed mercy and Jesus said, "Then go and do likewise."

What does this have to do with stem cell research? I think it does have something to do with it. Our task is to figure that out.

As I read through the articles that had to do with stem cell research I found persons who argued against stem cell research even though they have a loved one with a dreaded disease that might be cured by this technology. They basically said, "I believe that blastocyst which is four or five days old is my neighbor. I don't want to take that life just to give myself or my loved one life. So I would rather suffer with Parkinson's than to

destroy the blastocyst."

For these people, I read their stories and I stand in awe of that and I think, "They understand the blastocyst to be their neighbor. I think that can be a legitimate application of this passage of Scripture."

At the same time, I listen to the others who say, "I realize that this treatment is 30 years into the future and I probably will be dead by that time. But I think that there are millions of people in my children's and grandchildren's generations who, if we do this kind of research, might be healed of Alzheimer's or might walk again after a terrible tragedy or might be cured of diabetes and not have to take insulin their whole lives."

These persons are saying, "Please continue with this research, because our children and our children's children are our neighbors too."

Both of those groups take the same passage of Scripture and they can find in it reasons for pursuing the course of actions that they support. I came across this artist's depiction which highlighted the struggle.

SLIDE Stem Cell Cartoon.

SLIDE Science, Christianity and the Future.

Each one of us has to wrestle with these kinds of questions and with what the Scripture tells us about how we might respond. We have to wrestle with what it means to be human, not only now but in the future.

So let me wrap this up with a few words about science and religion in the future. We began this sermon series talking about being a church that was, in the words of that great science fiction television show, "going where few churches had gone before."

SLIDE Star Trek.

I used to watch Star Trek as a kid. I had seen all the TV episodes and several of the new series and I even have seen most of the movies. I loved watching Captain Kirk and Scotty and Sulu and Dr. Spock and Lieutenant Uhura and Dr. McCoy, and then later Captain Picard and Lieutenant Wharf and Jordy and Captain Janeway and Lieutenant Data.

One thing which intrigued me is that as far as I can tell there were no Christians on the Starship Enterprise. There are episodes that seemed to reflect people having a spiritual experience and there was one episode where they referred to Christianity as a historic relic, back when people

used to worship the Son of God.

It was as though in the future people didn't really need faith, and I wonder, "Is that really true?"

300 years from now when people live to be 120, do they not need to know there is hope for a resurrection because they live so long? 300 years from now will we have conquered all of our evils inside of us and our propensity to do wrong and hurt each other, and we will simply love each other on our own? Will we have solved the problem of the human condition? Is that really how it's going to work?

300 years from now will people find that science is their salvation or will they still be looking for something else that can save them and deliver them? Will they have hope in science or will there be some other source of hope that they are yearning for?

Will their hearts really not long for a Heavenly Father, a loving God who will care for them 300 years in the future?

SLIDE Looking up at the Stars – What do you see?

When they look out at the stars will it be enough to understand that those are just gaseous balls and not wonder where they came from or how the first spark of life started?

I don't think so.

I think 300 years from now, if the human race still exists, it will be because there were people of faith who understood what it meant to be human—who lived out the sacrificial love of Jesus Christ—who said there are certain things that are right and there are certain things that are wrong and we have to do this and we can't do that.

I think it will be because there are people who prayed and invited God to be a part of all that is happening on this planet.

I know that even if the worse things happen in the future, there is always hope for us. Whether it is the brave new world or the exciting new world which comes to pass, there is always hope for us because the Bible promises that one day this earth will cease to exist the way we know it, and there will be a new heaven and a new earth—and God's kingdom shall reign eternal.

SLIDE Why we need both science and religion...

But I ask you this question today: Do you think science can save you ultimately? Do you think science can tell you everything you need to be human, or is there something more?

As we close today I want us to hear one more time from Dr. Richard Randolph. He talks about people who don't have faith as people who live in a three dimensional world, but they think there are only two dimensions. My hope for you is that you would be people who would live in all three dimensions and you would be fully human.

I hope that you would understand that what we see and feel and touch—all that science explores and shows us—helps us see more clearly the glory of God. I hope you would also understand that there is a loving God who cares for you.

So let's hear from Dr. Randolph about what he sees as the connection between science and religion and what he experiences as he looks up at the stars at night.

VIDEO Richard Randolph 2.

SLIDE Twinkling Stars.

Are you living in only two dimensions? When you look up at the stars at night in your backyard, what do you see? Do you see just gaseous balls or do you see the hand of a Creator who made it all?

Oh God, as we gather here today in this place, leaving to go back into our daily lives, we recognize that you are a loving God who does exist. You created all that is and it is all a reflection of your glory—and you call forth from us love and praise.

You long to bless us and help us experience all that you have in store for humanity, if only we would turn our hearts towards you. Help us when we look up at the stars to see your hand. Help us when we study the smallest cell to see your Majesty and your glory. Help us as we live our lives to live in ways that honor you—help us oh God that we might enter into an exciting new world, faithfully following you and your son Jesus Christ, this day and always. Amen.

Theme: Where Science and Religion Meet

“Brave New World – Why Science Needs Religion”

Micah 6:8

8 No, O people, the Lord has told you what is good, and this is what he requires of you: to do what is right, to love mercy, and to walk humbly with your God.

Luke 10:25-29

25 One day an expert in religious law stood up to test Jesus by asking him this question: “Teacher, what should I do to inherit eternal life?” 26 Jesus replied, “What does the law of Moses say? How do you read it?” 27 The man answered, “‘You must love the Lord your God with all your heart, all your soul, all your strength, and all your mind.’ And, ‘Love your neighbor as yourself.’” 28 “Right!” Jesus told him. “Do this and you will live!” 29 The man wanted to justify his actions, so he asked Jesus, “And who is my neighbor?”

Introduction: An Exciting New World

What the next fifty years holds in scientific discovery

I. Ethical Dilemmas in Biotechnology Today

- A. The debate about cloning
- B. The debate about embryonic stem cells
- C. The debate about therapeutic somatic cell nuclear transfer

II. Science, Religion and Moral Decisions

- A. Science’s role in emerging technologies
- B. Doing Christian Ethics

III. Science, Christianity and the Future

Conclusion: Looking up at the Stars – What do you see?

Why we need both science and religion...

Study Guide

As we continue our study of Isaiah this week, we will discover the eloquence of this prophet. He attributes personal qualities to natural elements and uses them to describe the events of his day. He also raises issues concerning our identities as people of God, and what it feels like to be powerless. This week, we see three major themes: Isaiah's call from God to be a prophet; the coming disaster that awaits Judah and Israel (at first warring with each other) at the hands of Assyria and Babylon; and "a remnant", always giving hope that no matter how deeply God's people have been hurt by their sins and the sins of others, God will still make a way to redeem them. This redemption is understood later by the New Testament writers as not only for the people of Isaiah's day, but also as a foreshadowing of the coming Messiah, Jesus of Nazareth, who offers all people in all ages redemption through the giving of his own life.

Monday, February 11 - Read Isaiah 6. How would you feel if you suddenly found yourself in the court of the One, Perfect, Holy God? Can you identify with Isaiah's fear of being ruined? When God asks "whom shall I send" why would Isaiah be reluctant? Why does the live stone give Isaiah confidence to speak? What would it take to get you to deliver God's message to others, even if it feels uncomfortable?

Tuesday, February 12 - Read Isaiah 7-8. It was a fearful time for Judah and Israel—war was imminent from without and within. What are the things that cause you fear in your day to day life? Are some of these things, like the two kingdoms, things of your own doing that need to be addressed and changed? When confronted by the threat of war, God had one answer for the people; "the Lord himself will give you a sign", and that sign was a child who was to be "God with us". How can you allow God to be more a part of your daily life and calm your fears? (Matthew, regarding the birth of Jesus quotes 7:14.)

Wednesday, February 13 - Read Isaiah 9-10. Isaiah's prophecies bounce between harsh judgments from God to uplifting promises of mercy and grace. Both are seen in these two chapters. Chapter 9 once again gives us a look ahead to the coming Messiah. It speaks of light shining in a land of darkness, and a child being born who would be the way to peace. Again, though Isaiah is speaking in contemporary terms, he is also speaking of One who would later come and completely fulfill his promises. Where are the areas of darkness you need God's light to shine to show you the way? Which of the terms used for the coming child/son speaks to you the most: Wonderful Counselor? Mighty God? Everlasting Father? Prince of Peace? Can you see how the New Testament writers would see this as a description of Jesus? Chapter 10 turns to God's call for justice for the poor and oppressed. What do these words inspire you to do in order to be a person who practices promoting justice/social issues in this world? How might this be tied to the redemption of the people spoken of in the last part of the chapter?

Thursday February 14 - Read Isaiah 11-12. Chapter 11 begins again with picture words describing how God still has great plans to redeem his people, no matter how far they have wandered from him. It looks to a time of complete peace for the world, not just Judah and Israel. According to Matthew 1:1, who is the "shoot from the stump of Jesse (David's father)? What will be his attributes? Which of these do you feel you need the most in your daily life? How can these words be comforting for us in times when we are feeling the guilt and burden of sin in our lives? During Lent, how can these words encourage us to not only give up some tangible thing, but give ourselves up to God's plan for our

lives? Chapter 12 is a great song of praise. What song of praise would you sing to God today? You may want to write it out and give it as a gift to God.

Friday, February 15 - Read Isaiah 13-14. Again, we see God's judgment against those who oppose him, and his desire to find redemption for those very people. Continuing into the season of Lent, ask yourself some tough questions; Where is my life opposed to God's plan? How can I be more like Christ? What are those things (not "fasting") that God would have me surrender to him and be willing to walk away from? Knowing I am powerless against God, and often powerless to even control my own life/destiny, how can I have any hope of being all God created me to be? Spend some time in prayer asking God to change the things you are unable to change in your life.