

## Oklahoma Innovations Radio Show

Air Date: May 10, 2009

Guests: **Karen Carney**, communications director, Science Museum Oklahoma

[ Music ]

>> From the OCAST radio network, this is Oklahoma Innovations, a weekly science and technology radio magazine brought to you as a service of OCAST, the Oklahoma Center for the Advancement of Science and Technology. OCAST is the state's only agency who's so focused, it's technology, it's development, transfer and commercialization. OCAST mission is to identify and fund promising research and technologies that allow Oklahoma to compete in a global market economy from our own backyard. This program features some of the state's most gifted and talented scientists, inventors, entrepreneurs, manufacturers and business leaders who all have one common goal, developing technology based economic growth for all Oklahomans. Now here your host Gary Owen and Steve Paris.

>> **Gary:** Thank you very much. Thank you all; applaud for Steve, Steve applaud for Gary. Okay there we are. Wow, wet, wet, wet, rain, rain, rain, rain, rain. You know we complain we don't get enough, you know always a rain we get too much... you say when is it going to stop and... anyway. Hi Steve.

>> **Steve:** Gary we starting out great.

>> **Gary:** Oh we are, you know flowers.

>> **Steve:** [inaudible]

>> **Gary:** That's right. Flowers are looking wonderful, the grass is nice and rich and green, temperatures, I mean whoever heard of 50 degree weather you know, I know, I know it's happened; it's okay, but I mean it's kind of unusual.

>> **Steve:** It's happened on July 4th.

>> **Gary:** That's true. That's right. We are excited today yeah you got to want a stay tuned, we have a very dear friend of mine, a colleague in broadcast, a long time Karen Carney, who is communication director for the science museum, Oklahoma. We're going to find out about some of the programs and some of the displays and exhibits going on at science museum, Oklahoma. So great stuff going on.

>> **Steve:** I'm excited you know, obviously we get to meet with Karen and that's fun in and of itself.

>> **Gary:** That's fun you bet. She's a fun lady.

>> **Steve:** Oh yeah, but she's going to tell us about what as you, as you mentioned what's going on at the science museum Oklahoma and I know if you haven't been there lately then you need to go because you do new things that have happened and are happening and you need to know about those.

>> **Gary:** Well, this is a wonderful facility no matter where you live in the state, a lot of people come to Oklahoma City for a lot of activities and others, of course several venues you can attend,

but this is one of those used to called Omniplex and now it's called Science Museum Oklahoma and lot of great activities going out there for the entire family.

>> **Steve:** And some of us who are very familiar with the history of this museum still call it the Omniplex.

>> **Gary:** That's true...

>> **Steve:** And then we have to correct ourselves because it has changed.

>> **Gary:** What you guy going on at OCAST this week?

>> **Steve:** Well Gary our board's meeting right now. We're going to be looking at some health research awards that will be approved this week and we'll talk to you about them in the next show and I think there's going to be about part figure roughly 22, 23 new health research projects that we're funding.

>> **Gary:** Wonderful.

>> **Steve:** And so you know give you kind of a perspective of how that works in the entire 22 year history of OCAST we've spent about a, I'd rather use term administered \$165 million worth of the taxpayers' money, but we've been able to attract over \$3 billion, I think it's really about \$3.1-\$3.2 billion dollars worth of funding for health research and applied research and all the small business innovation research and many others that have come from other sources outside the State of Oklahoma or at least from the private sector within and without Oklahoma. For some of that money comes from federal agencies and you know some people might kind of frown at this, but let me just say it and then and then think about it if you will. The more money we can attract to Oklahoma for R&D that money comes here instead of going somewhere else, where it's going to be spend by somebody and it might as well be spent by some of our outstanding researchers in the state of Oklahoma, so that's our approach to it, bring as many dollars to Oklahoma as we can for R&D and we're already in just decades we're seeing so many benefits from new companies that would not be here [inaudible] investment made by the people of Oklahoma.

>> **Gary:** And not only that but some of the research that has been done here put the national and international spotlight on Oklahoma.

>> **Steve:** Oh yeah, research on Alzheimer's, research to macular degeneration and we can go on and on and on. Heart disease and cancer and so forth and so on. There's just about everything has been touched by an Oklahoma researcher and some of them are known throughout the world for the quality of research that they've done.

>> **Gary:** In some national and international news this week, the US Forrest Service is closing thousands of caves and former mines, in national forests in 33 states in an effort to control of fungus that's already killed an estimated 500,000 bats. Bats have been dying at alarming rates from what scientists call white nose syndrome, so name because it appears as a white powder on the face and wings of hibernating bats. The problem was first spotted in New York and within two years has spread to caves in West Virginia and Virginia, there's no evidence the fungus is harmful to people, that's good news. Remember the movie Jurassic Park and the lesson in how resurrecting extinct organisms can go awry, well a new project plans to take a safer route. Resurrect a single gene from an instinct species of bacteria. Tiny snippet of DNA will be implanted in modern day bacteria with the goal of seeing whether evolution can be replayed in

the lab and it's a part of NASA's astrobiology, exobiology, and evolutionary biology program I'll get that up and it's going to be interesting. If this genetic anachronism evolves forward along with the branches that researchers have computed that supervise some verification of molecular genealogy techniques and give support to the notion that evolution is repeatable and now simply a matter of chance.

>> **Steve:** Wow, fascinating.

>> **Gary:** Here's an interesting story came across this week. Africans according to scientists Africans have more genetic variation than anyone else on earth. This was according to a new study that helps narrow the location where humans first evolved, probably near the South Africa then Namibia border. And they're saying the larger stud of African genetics have ever undertaken, also found that nearly three-fourths of African Americans can trace their ancestry to West Africa. The new analysis published this past week and the online edition of the journal of Science. The southern hemisphere has been mostly spared in the swine flu epidemic that could change when winter starts however in coming weeks with no vaccine in place leaving half the planet out in the cold. So far the most affected nations have been in North America and Europe which are heading into summer of course, but flu is spread more easily in the winter and it's already fall down south. Experts fear public health systems could be overwhelmed, especially if the flu and regular flu collide in major urban populations, we hope that doesn't happen. Researchers in two US laboratories are preparing for the arrival of blood samples from Mexican flu victims to make a serum that might offer some protection from this dangerous new virus everyone is concerned about. They're, they're calling it an emergency science at the University of Chicago and Dr. Patrick Wilson said in a recent interview that the vaccine will hopefully be developed in a very quick way and they said it could be done in like just a matter of a month.

>> **Steve:** Really?

>> **Gary:** Yeah. By oh using only tablespoons of blood and then they can make the serum from that interesting? Okay ladies, listen to this now. Women live longer than men on average, we know that, but it's no secret that age takes its toll. A new study finds that largely owing to obesity and arthritis which take root during early and middle age, old age can be miserable for many women and even when comparing men and women of the same age, the 2005 study found that women suffer more pain than men in part because of perceptions of pain related to different hormone levels, but the new study flat out finds that a higher percentage of women suffer painful conditions. Among 5888 people over 65, women suffered up to two and a half times more disabilities than men of the same age.

>> **Steve:** Ouch.

>> **Gary:** Yeah. Steve has our innovations in history this week.

>> **Steve:** I do Gary. That was on May 6, 1928 that Chrysler introduced the DeSoto automobile. George Seldon Rochester, New York filed the first US patent for an automobile on May 8, 1879, it wasn't granted until 1895. The first Coca Cola went on sale on May 8, 1886 at Jacobs Pharmacy in Atlanta, Georgia, formerly called globe of flower cough syrup, the newly named carbonated soft drink was an instant hit. May 9 marked the 224th anniversary of the beer keg pump handle patented by British inventor Joseph Brama. I don't know why we would want to know that, but okay.

>> **Gary:** I don't either.

>> **Steve:** Richard Bird and Floyd Bennett made the first airplane fly over the north pole on May 9th, that was 83 years ago and the birth control pill was approved for use in United States on May 9th 1960. The world got its first plastic clothing on May 10, 58 years ago when a Dacron polyester men suite was introduced. I think I still have mine in the closet. May 11 mark the 62nd anniversary of the ABF Goodrich Company of Akron, Ohio, announced the development of the tubeless tire. May 12th mark the 101st anniversary of the first US patent for radio. It was issued to a man named Nathan Stubblefield who in 1902 had demonstrated his invention by transmitting a voice via radio waves across Fairmont Park in Philadelphia and that's our innovations in history, but I got one more thing I'd like to talk about just very quick.

>> **Gary:** No we've got time.

>> **Steve:** Our friends, our inventors across the state of Oklahoma Inventors Congress are having a meeting on May 12 on Tuesday that's just this, next week, it's going to be in the Tulsa chapter at the Golden Corral 71st and Domingo in Tulsa, and they're going to be talking about intellectual property development protections and marketing and you can get more information by contacting Leo Byford at 918-902-5730 and put this on your calendar. The Oklahoma City chapter will be holding its first, its next meeting on Tuesday May 26th at the OK Station Barbeque in Oklahoma City...

>> **Gary:** Wow!

>> **Steve:** That's what our inventors are doing right now.

>> **Gary:** You're mentioning, you're mentioning and your innovations in history the first Coca Cola went on sale on May 8, 1886, did you see the story this past week about the guy who thinks he found the original recipe for Dr Pepper.

>> **Steve:** Oh, no I hadn't heard that.

>> **Gary:** Yeah it was in the news. I can't remember now, something to do with collection of things I think the guy just happened to buy and he found this book and it had, it was a, it was I guess recipe for I don't know some concoction and anyway turns out that they believe it was the first, it was original recipe for the first Dr Pepper.

>> **Steve:** What many people think is in Dr Pepper don't you? Prune juice.

>> **Gary:** Yeah.

>> **Steve:** I mean I don't know if that's true or not for that...

>> **Gary:** But I thought that was really interesting and they were putting this book on auction, starting bid was \$25000.

>> **Steve:** Wow!

>> **Gary:** Yeah, so I don't know and I, I, just caught the tail end of the story so I can't give you everything. I know folks I should research it before I came on the air, but you know it's one of the stories that I've just saw on, on the news and I thought it was interesting. We got about a minute left I want before we go to the break, I want to tell you that our guest Karen Carney, who's communications director for science museum Oklahoma first of all a delightful lady, very dear friend and colleague of mine for many, many years and she's going to have a, a lot of interesting things to talk about when it relates to science museum Oklahoma. Now this is one of those places that you know coming up this summer, the kids are going to be out of school no

matter where you live in the state you're going to make a plan to come to Oklahoma city, this would be a great place to bring the kids. Its right out by the Oklahoma City zoo and this is an interactive place where you can go and, and see all kinds of things, indoors too. It's one of those if you get here and all of a sudden pours down rain. Guess what, this is a great indoor place to go have fun. The lots of interactive things to do. Okay, now lets throw this at you, once in a while. We have some people say yeah I tried that and it worked, I got one for you. I don't know whether this is true or not, you got an old candle to try it out first. Candles will last a lot longer if placed in the freezer for at least three hours prior to burning. Now you get an old candle, try that out, I don't know. We got more to come at Oklahoma innovations.

[ Music ]

>> Science and technology affects nearly every aspect of our daily lives. Everything we use had to be developed or invented. What would our lives be like without science, research and development? We'll most likely still be living in the dark ages. OCAST, the Oklahoma Center for the Advancement of Science and Technology provides competitive funding for cutting edge Oklahoma Research and Development. In fact, OCAST is Oklahoma's only agency who's so focused its technology, its development, transfer and commercialization. Our goal is to diversify and improve Oklahoma business while helping build a solid technology based economy. The technology developed by world class Oklahoma researchers is a major component of the message to the rest of the world that Oklahoma is open for business. To learn more about how OCAST investments help our state compete and profit Oklahoma innovations is that our website, just type o-c-a-s-t in the search window of your browser. You'll be linked to a world of fascinating discoveries being developed in your own backyard. OCAST, an investment in Oklahoma's future.

>> You are listening to Oklahoma innovations with Gary Owen and Steve Paris on the OCAST radio network.

[ Music ]

>> **Gary:** Having a good time here on Oklahoma innovations with my co-host Steve Paris.

>> **Steve:** And speaking of music.

>> **Gary:** Yes.

>> **Steve:** I went to see Fleetwood Mac Saturday night or Sunday night.

>> **Gary:** Last weekend.

>> **Steve:** At the BOK.

>> **Gary:** Did you, really?

>> **Steve:** Yeah.

>> **Gary:** How was that?

>> **Steve:** There were about 13000 people there, it was fantastic.

>> **Gary:** Did it make you feel young again?

>> **Steve:** Yeah did. Yeah, yeah, Stevie Nicks sang a song directly to me and about 3000 other people, I mean.

>> **Gary:** Aah, memories.

>> **Steve:** Anyway, enough that now.

>> **Gary:** Speaking, speaking of memories I'm going to take you back a while and she'll hit me for this after the show. There was a television show in and in fact it was a show that was done nationwide, but had a local twist to it in major markets around that country PM magazine.

>> **Steve:** I remember that show.

>> **Gary:** It was kind of a news magazine show and they did a variety of things. Well, one of the original co-host of that program and I did, I think it aired on Channel 4 and at that time was KTVY.

>> KTVY at the time oh, my gosh.

>> **Gary:** And Bill Thrash was there.

>> **Karen:** Bill Thrash, yes.

>> **Gary:** And Bill.

>> **Karen:** Bill

>> **Gary:** Bill Thrash is my old buddy now as most of you listeners know I'm the voice of OETA and so Bill and I have a new working relationship and I enjoy that doing work for them but anyway Karen Carney was one of the co-hosts of that show and you were on that...

>> **Karen:** And I was only 10 years old, I did that show, I just want to make that clear right now.

>> **Gary:** So you had a good time with that show.

>> **Karen:** That was an amazing opportunity for me because I just moved to Oklahoma and the show as you mentioned Gary had an incredible concept, which was to kind of have a national, it was a syndicated shows, but at each city had their local host and we shared stories, did stories statewide and I probably saw more of Oklahoma in the four years that I did that show than some of the Oklahomans that live in the state have an opportunity to see, so it was a great, great time, that was a good opportunity for me.

>> **Gary:** And then of course got married, had a family and you stayed in broadcast for a while.

>> **Karen:** Stayed here.

>> **Gary:** But you kind of went into communications more after that show.

>> **Karen:** Well I actually started to work for Ackerman McQueen advertising, lot of people are familiar with that agency and that time there was another company in Oklahoma that people are very familiar with called Anthony's.

>> **Gary:** C R Anthony stories.

>> **Karen:** CR Anthony's and I had the opportunity and privilege to be their spokesperson for several years. It's part of the bargain.

>> **Gary:** Yes it is.

>> **Karen:** So at the, while I was working at Ackerman I was doing broadcast projection and some copyrighting and kind of doing Anthony's on the side, so that was a great, great time for me to.

>> **Gary:** And then where did you go from there.

>> **Karen:** Went to the City of Oklahoma City Department of Airports. I was their marketing and communications director there and...

>> **Gary:** And whenever there was something going on at the airport, guess whose face was there?

>>**Karen:** Yes and..

>> **Steve:** Everybody in this are would be familiar with Karen in her reports of things that were happening at the airport, whether it be weather or whatever.

>> **Karen:** There was always something going on there. It was a and still has a very exciting place to work and you know when you've got people traveling, coming and going, that certainly in the last 10 years there have been a lot of serious issues related to aviation, and air travel and just like that.

>> **Gary:** But when you look at the renovations that have been made at Will Rogers World Airport. It is a beautiful airport now. Yeah.

>> **Karen:** And awesome. It's a beautiful place.

>> **Gary:** And they're still working on it, aren't they?

>> **Karen:** Yeah I think they I think the next stage and I'm not sure where the plans are because it kind of things that are happening in the aviation industry right now, but is to build another concourse to the east, similar to the one that they've built to the west, although I found working there that most people walk in and have no idea which direction they're facing, I have had people look south and swear its north, and so it's like anytime you're going to a building, you kind of lose your bearing, but yeah, it's doing great out there.

>> **Gary:** So now you're at science museum Oklahoma. When did you join them?

>> **Karen:** Yeah. Joined them about seven months ago.

>> **Gary:** Oh wow.

>> **Karen:** So fairly new kid on the block and I thought this was a tremendous opportunity for me over the last several years obviously with the name Science Museum Oklahoma from Omniplex and yes a lot of us with always remember the Omniplex. But that was a kind of reflection of their change in direction and focusing more of their mission and their role as a museum is focused on science and promoting science education, science literacy in the state and to do that in a fun, hands on way. It seems like a great thing. We want to encourage kids to stay in Oklahoma like you were talking about little bit earlier to see if that you know we want people to grow up to be engineers and scientists and astronauts and we want them to stay in Oklahoma.

>> **Steve:** Right here. Gary and I for years have been talking about all the wonderful things that are happening, right here in own backyard.

>> **Karen:** Absolutely.

>> **Steve:** And I think probably the people who know least about that, at least at some point in the past have been us, I mean we Oklahomans and that often times we find that we're surprised and all the great things that are going on right here in state, that's changing and that's a good thing.

>> **Karen:** That is a good thing. I think people that's one of the things that I think has been really awesome for me being here for you know moving as a transplant to kind of see the image within the state and within the community just change over the years and a real sense of pride of what we have and what we have to offer to people that come into our city and state and, I think that's one of the things already that's been really rewarding about working at the museum is that I've had people from all over the country, go this is one of the best science museums that I've ever been in. I mean we're talking about some other major cities that they were comparing us to, so to hear that you just don't yes. So glad.

>> **Steve:** And we find out that when we attract scientist to the state of Oklahoma often times they'll follow a specific research project, but we, it's really gratifying for them to tell us you know I had no idea what Oklahoma was all about so I can't get my family to leave now. They love it here and so we are finding out this is the place where people most they find out what Oklahoma is all about, they want to be here.

>> **Karen:** That's right.

>> **Steve:** And I think that's just going to do nothing, but get better in the future. Very quickly we got a minute and I'm going to ask Karen, she's touched on this a little bit, but your communication's director real quickly. What does that mean?

>> **Karen:** We've let's see. I think we always try to figure that out, but obviously my, it means....

>> **Steve:** It's one of the boxes to do right. I am one of those too.

>> **Karen:** Yes, it means to get the word about out, about the museum, its mission, what we want to do with the programs that we have, whether it's doing public relations, kinds of things like this, advertising, putting on events.

>> **Gary:** Letting the world know.

>> **Karen:** Getting the world know about Science Museum Oklahoma.

>> **Gary:** By the way I'd a quick question for you you're a transplant. Where did you transplant from?

>> **Karen:** Des Moines, Iowa.

>> **Gary:** Des Moines, okay.

>> **Karen:** Yeah yeah. So I went to Iowa State and so I never have any football stories because we never were in the running.

>> **Steve:** Yeah, let the record show you brought that up, we didn't.

>> **Karen:** I know, I just, I guess I'm punished.

>> **Gary:** That's okay.

>> **Steve:** Well we have a lot of talk about and one of the things I've been really fascinated with that facility is the evolution of change over the years, and today's it's got all kinds of fascinating

new toys to play with and new exhibits to see. We're going to talk about all of that and one called Deadly Medicine, you'll find out what that's about when we return on Oklahoma Innovations.

[ Music ]

>> There's more to learn on the Oklahoma Innovations with Gary Owen and Steve Paris on the OCAST radio network.

>> It's a scientific fact plants have a positive effect on our world creating oxygen, beauty and a healthier environment. Plants make all kinds of chemical compounds that affect human health. Scientists like those at the Noble Foundation, a biology research center in Ardmore, Oklahoma are examining how genetically enhanced plants can produce their own chemicals for greater potency requiring fewer man-made chemicals, the end result will provide for more effective medicines and vaccines. This genetic study holds promise for plants and crops that will be naturally resistant to bugs and disease. The Oklahoma Center for the Advancement of Science and Technology or OCAST invests in projects like these at the novel foundation to help Oklahoma scientists continue their quest for new discoveries and development of innovative technologies. Investing, partnering and promoting Oklahoma science and technology, that's what OCAST is all about. For more information call 866-265-2215, toll free. OCAST, planting seeds that blossom into technology based economic development for Oklahoma.

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>> Research and development, technology transfer and commercialization, creating high paying jobs in Oklahoma is what OCAST is all about. This is Oklahoma innovations on the OCAST radio network.

[ Music ]

>> **Gary:** Grab a pen and a piece of paper. We're going to give you the science museum Oklahoma website here shortly where you can go online and keep track of the activities going out at there wonderful facility in Oklahoma city where the entire family can tour and interact and lots of great exhibits and displays there and we have a lot of information we want to pass along to you. Karen I want to talk to you real quick about some of the summer activities. I know you got a summer camp for kids.

>> **Karen:** Well, we know that there are a lot of parents out there wondering what can we do with the kids in the summer? We've got some great ideas. We offer six week long camps where your child can come to the museum from 9 am to 4 pm and we take care of them all day long and

do science activities, so they're actually having a great time and learning something at the same time so we think that's very beneficial. You can get to make slime and eat liquid nitrogen ice cream and you know learn about catapulting and aerodynamics, so there is always every week there's something that's really fun. So parents can do that. You can sign up for one week or you can sign up for all six weeks, its a great opportunity to have fun in.

>> **Gary:** Now what is Bright Nights?

>> **Karen:** Bright Nights, we have that you get to spend the night in the museum.

>> **Gary:** Ooh, that's cool.

>> **Karen:** It really, really is cool, you bring your sleeping bag and again we do four public ones every year. If any of your boy scout or girl scout leadership probably have done them on private night or we bring the whole troops, but we've decided that this is such a fun, fun event that we wanted to open it up to the public, so we do four and sometimes five a year. You basically come at 6 o'clock at night, we shut the museum and you have the museum to yourself. We do live science, we have a life science show that we do for the kids. We have a planetarium show, we have an Imax film. We do all kinds of science activity tables, activity tables and then, you know once you wear out, you can lie down on your sleeping bag and get up in the morning and have breakfast, but it's really awesome because you know just to see the museum closed and...

>> **Steve:** Typically what age group are we targeting here?

>> **Karen:** We usually typically you know 6 through may be you know 11-12 age group.

>> **Steve:** Much older than that, they're just too sophisticated to do something like that.

>> **Karen:** Yes.

>> **Steve:** Those teenagers.

>> **Karen:** We have some garden areas that we have to shut off...

>> **Gary:** But you know what I, as an observer out there, I mean I've been out there for some other business issues and I've been out there just as I wandered through the facility and I noticed the adults are captivated as much as the kids about some of the exhibits.

>> **Karen:** I think that's one of the things that I hope as, as in my new position there is you know I think adults need to take advantage of what's going on out there.

>> **Gary:** No kidding, yeah.

>> **Karen:** We're never too old to learn anything. We're never too old to be engaged and we're never too old to have fun, and you know that, just what you said Gary, when you go walk through and you see particularly when there is parent and child engaged in an activity or to get a little competition going or trying to understand, I just think it's really awesome and I think that's one of the other things by changing our name to Science Museum Oklahoma. We're trying to kind of, we're not just a kids museum, we're not just a children's museum, which I think a lot of people had that image before.

>> **Gary:** And I want to say this about pardon Steve he is getting a little riveting...

>> **Steve:** Its allergy season...

>> **Gary:** So if you hear him kind of doing that kind of off mic, pardon him... Real quick two, one of the things if you have not been to what you might have known years ago at the Omniplex now Science Museum Oklahoma, lot of new exhibits out there, let's talk about that a moment.

>> **Karen:** Well, probably the most recent ones are Destination Space, which is actually phase I of a multi-phased project. The museum has thousands of aviation aerospace artifacts and again that kind of goes back to our rich aerospace history and so Destination Space actually kind of begins with the theories that that were developed centuries ago by Newton and so I all those others.

>> **Steve:** All those people with foreign names, right.

>> **Gary:** Still new, she's learning it okay.

>> **Karen:** Yeah I forgot some science, but you know, it kind of goes and evaluates in a fun way, all those theories and how they related to space travel and so we'll kind of continue developing that exhibit, so that's very fun. We have a mascot called Otto and Otto is kind of your guide through there, but he started out in Destination Space, but he's kind of becoming the mascot for the museum.

>> **Gary:** That's great.

>> **Karen:** He's such a, everybody loves Otto, so the other one is gadgetries, which is to me is a really kind of interesting exhibit. We see mostly younger kids there but it's definitely for all ages. We had a tree trunk that was donated to the museum, it was like the oldest tree trunk, west of the Mississippi and we're kind of like what are we going to do with this. So we developed a, developed an exhibit that is a tree house, but the highlight of the tree house is to show the seven simple machines, pulleys, levers, spirals. We have like the slide in the middle as a longest spiral slide in the US. So it's a really fun activity. Kids get to catapult stuff, oh man they love that.

>> **Gary:** I'll bet.

>> **Karen:** And of course everybody loves going down the slide, so that's really need.

>> **Steve:** We've not talked about this, so I'm going to add throw you a little curve here and if you don't know the answer, it's okay.

>> **Karen:** Okay.

>> **Steve:** Where did the tree come from, do we know? The reason I...

>> **Karen:** I don't know the answer, but I'll find out.

>> **Steve:** Reason I asked is because one of the oldest trees in United States is located in Curtin county and I just wanted to, might have been part of that one because I think my memory serves me well, it was kind of struck by lightening a few years ago.

>> **Karen:** I'm going to find out for you, I don't know. But I should know that.

>> **Steve:** But I, just... its kind of interesting... well, that probably...

>> **Karen:** If I'm going to tell the story, I should know that.

>> **Steve:** No, no, no, no, no, no, if there's anything that I have discovered in the last 14 years of doing this show as you can't know everything, no one can, so that's okay. you, then you touched

on NASA, actually touched on space travel and did that involve the most recently completed project I think or the topic that you NASA Driven to Explore.

>> **Karen:** Well NASA has several traveling exhibits that they take across the country and just this last week we had an exhibit called NASA driven to explore and the centerpiece of the exhibit was the ability to touch three billion year old moon rock that actually the astronauts from the Apollo 17 mission brought back to earth, it's just a piece of, it was just a piece of the moon, but it was certainly exciting and it kind of led into what the rest of the exhibit was about which is their next space program exploit, we know that the shuttle program will be retiring in 2010 and so this is their next program to take man back to the moon and the exhibit explained that and, so NASA we have a really good relationship with NASA. We obviously we have a lot of artifacts that we house in the museum, but then when they have opportunities like this exhibit to come through Oklahoma. They usually make the museum a stop along the way.

>> **Steve:** Well, we have a natural connection there. I don't know if this is still true, but at one time Oklahoma have produced more astronauts than any other single state. Now that might have changed because we've had a lot of them over the last 15 years or so. But we had a lot of from Oklahoma originally.

>> **Karen:** Well we do and they keep their connections at Oklahoma and that's really the awesome part.

>> **Gary:** I think we need to extend the property out there and just put one of the retired shuttles out there, don't you.

>> **Steve:** I think that's a great idea. Gary you just may have started something.

>> **Karen:** Now we just need to get that runaway built so that can land and in it

>> **Steve:** We could do that. Let's get real quickly. I don't know how much time we have in the segment Gary, but Science Museum Oklahoma is located 2100 northeast 52nd Street, Oklahoma City by the Oklahoma City Zoo and it's the exhibits were the one, we're getting ready to talk about its own display through July 5th of this year. Hours are 9 to 5 on Monday through Friday, Saturday 9 to 6, Sunday 11 to 6 and admission, for adults is \$9.95, for senior 65 and over \$8.75 and for children age 3 to 12 \$8.75, so that's it's well worth it. I guarantee you it's a day spent and a lot of people go out there thinking they're going to spend a day and then wind up going back the next day, so it's well worth of time. Let's talk about the subject at hand and... we have time?

>> **Gary:** About a minute.

>> **Steve:** About a minute. So Karen we're going to let you take us into this. The subject is Deadly Medicine and this deals with a particular dark time in human history back during what we refer to as World War II and a little bit before that, but this is talking about deadly medicine and how a very dark regime at that point in time used medicine to, that dealt with eugenics. We're going to learn what eugenics is all about, kind of give us just a very brief explanation. We'll talk more about it in the next segment.

>> **Karen:** Well, certainly did the type with this exhibit in science relevancy is one of the reasons that we're intrigued by bringing the exhibit. It's actually from the United States Holocaust Memorial Museum in Washington DC. So and obviously you can tell by that that it's going to be of serious nature, but certainly has a lot of foundation in science and how it could be

misused when not addressed and monitored properly, so that's what the exhibit is and we'll talk a little bit more about it in a minute.

>> **Steve:** Very good

>> **Gary:** And this is going to be here, when, through what?

>> **Karen:** Through July 5th.

>> **Gary:** July 5th, okay so it's going to be here a while so it'll be a nice summer exhibit to check out if you'd like to do that and it has some historical significance there as well so, we'll take a little break. We're talking with Karen Carney who is the communications director for Science Museum Oklahoma, formerly Omniplex. More to come on Oklahoma innovations.

[ Music ]

>> Now in its 13th year, this is Oklahoma innovations on the OCAST radio network.

>> It began more than 100 years ago making buggy whips in the small little community of Hobart, Oklahoma. Today, that same company is still in business turning out nearly 40 million wheel and axle seals a year, that's a lot of change in 100 years. The Oklahoma Center for the Advancement of Science and Technology or OCAST in association with organizations like the Oklahoma Alliance for Manufacturing Excellence helps manufacturers across the state compete in a global economy while at the same time developing a technology driven economy for Oklahoma communities armed with information, education, resources and partnerships that improve manufacture, productively and profitability with cutting edge technologies, OCAST and its affiliates work hard for Oklahoma's technology based economic development investing, partnering, and promoting the development of science and technology, that's what OCAST is all about. For more information call, 866-265-2215. OCAST, we bring technology into shape, so Oklahoma manufacturers can seal up business.

[ Music ]

>> **Gary:** Everybody snap your fingers to the beat of science and technology because we're making it happen in Oklahoma. We're delighted to have Karen Carney, communications director for Science Museum Oklahoma and then we got a couple of other things we want to talk about, but I want to mention here the Jewish Federation of Greater Oklahoma City contacted Science Museum Oklahoma recently about partnering to bring an exhibit from the United States Holocaust Memorial Museum to the city chosen as one of only three international sites for this 2009 tour and so you know we talked earlier in the program about some of the comments that travelers who come through Oklahoma City from out of state who come to this facility Science Museum Oklahoma and how impressed they are this gives you another idea of the recognition that this wonderful facility in Oklahoma is getting and to have like last year we had what was it, Bodies? Was that the...

>> **Karen:** Our Bodies.

>> **Gary:** Our Bodies, that was a great exhibit, national tour.

>> **Karen:** National tour and was hosted at Science Museum Oklahoma.

>> **Gary:** And now you got one out there which we'll talk about here in a minute, Shipwreck. We want to talk about that one before you off here.

>> **Karen:** Yeah, Shipwreck, Pirates and Treasure.

>> **Gary:** But now you got a traveling exhibit from the National Holocaust Memorial Museum.

>> **Karen:** Yes, the, the exhibit is entitled Deadly Medicine creating the master race and as you mentioned, it really focuses on how the Nazi regime really embraced the concept of eugenics, which is how to... kind of in a nutshell, there're probably several definitions, but modifying, trying to modify the human race to create a what they've considered a perfect race and some of the methods and some of the things that they did that led ultimately to genocide and the mass murder of thousands, of hundreds of thousands of people.

>> **Steve:** And this again as we said earlier deals with kind of a dark part of mankind's history, but that's not our focus. Our focus is to learn and hopefully make certain things like this don't happen again, but develop an understanding of what they were talking about and so that we don't go through life being totally unaware which brings up a question, you know what kind of age groups are we talking about here? What is... what range is this appropriate to?

>> **Karen:** Well, obviously the content is very, very serious and very powerful and you know we generally think of kids of junior high age or above. Most junior high kids are actually studying the Holocaust at this time of year and so it's appropriate for them to come and visit that. But we recommend that parents actually make the decision because they're familiar with their children and their maturity levels and what they can understand or what they can take in, but you know obviously the part of the eugenics program involved children and so there are a lot of photographs of children, not necessarily bad, but you know they could be disturbing.

>> **Steve:** Disturbing. Yes.

>> **Karen:** Yeah, be disturbing to small children. So we encourage their parents to make that decision.

>> **Steve:** Yeah, and just kind of give an explanation, further explanation, Deadly Medicine creating the master race examines how the Nazi leadership in collaboration with individuals and professions traditionally charge with healing and public good, use science and medicine to help legitimize persecution, murder, and ultimately genocide. So it's a very deep subject and it's very intense.

>> **Karen:** Well, I think one of the thing, you know this exhibit obviously focuses on the Nazi regime, but it's also important to know in history that you know this was not a new idea to the Nazis at that time, this was actually an idea that was kind of running around the world as far and scientific and medical circles. Unfortunately, the Nazis were the ones who actually acted upon the concept.

>> **Steve:** They put it into play.

>> **Karen:** And put it into play.

>> **Steve:** And I'm going to level with you. I feel a little uncomfortable talking about it. However, we have an obligation to learn and this is part of what the museum, the job of the Science Museum of Oklahoma. Well most of your displays have to do with things that are little more lighthearted never and there will be more those down the line. This is a point of history that we have to learn or otherwise, as we said earlier then we may be bound to repeat it at some point in time. We don't want, never let that happen again. What type of images will be on the exhibit and how graphic are they? I guess some will be fairly graphic, is that true?

>> **Karen:** Well, there are a lot of images of people who had mental disabilities, obviously children, they would measure to make sure that things were perfect or not the right size, just different, some of the images and stories. There are actually video interviews with Holocaust survivors talking about what they actually experienced in an orphanage for example and how this person just basically survived by sheer chance because none of the other children in the orphanage were spared. It talks about twins, measuring their heads, measuring their noses, measuring their ears to see if they're the proper size. A lot of images of people in mental institutions and disabled people and if any of us have any... people in our families or friends that are either physically disabled or mentally disturbed you know how that's a really touching part because oh my gosh.

>> **Steve:** That could have been us.

>> **Karen:** That could have been us and they would not be with us today or whatever. So those are some of the images that you see in the exhibit.

>> **Gary:** So just be aware it's sensitive in material and the exhibit is, by the way the exhibit is 5800 square feet, is that right?

>> **Karen:** It's a very large exhibit. It's takes up quite a bit of space and you know it's done very well.

>> **Gary:** High standards and stringent guidelines to house this exhibit?

>> **Karen:** Yeah I think it's also important that as a community and things as we grow and get better that you know the museum is an accredited museum by the AMA and that's a really important thing only about 4% of the museums in the country are accredited and that means a very stringent guidelines I mean to go all the way down to your accounting practices. So it's very important to abide by those I mean so when we were being looked at, that was obviously not only do we have the space which a lot of museums don't have the space to house an exhibit of that level, but also that we had the ability to take care of the exhibit properly.

>> **Steve:** You know Karen, as we study this and look at what's going to be made available to us at the museum you know you have to wonder how is Deadly Medicine, this topic has a relevant to discussion today about medical issues. You know talk about medical ethics and you know we deal with that everyday and they should use stem cell research and not use stem cell research, things of that nature, very controversial and it's been you know top of discussion on many occasions as we like to have. How does this relate to those kinds of issues?

>> **Karen:** Well, I think the exhibit itself focuses on physicians, psychiatrists, anthropologists, even down to media, political people that really bought into this and acted on it and ultimately implemented the programs that killed thousands of people. So as you mentioned as we deal with issues today dealing, yeah designer babies, test tube babies, determining when life begins or when life ends, it becomes very relevant because we always have to keep in mind as a community whichever field you are working in, how is that going to impact the patient or how is that going to impact the person and we always have to evaluate those outcomes. There are many programs that have positive outcomes, and that's not to say that we wouldn't want to promote those, but it's just a way to keep us you know, keep our ethical.

>> **Steve:** Standards.

>> **Karen:** On standards in place at all times whatever we're dealing with, so very powerful.

>> **Steve:** So folks have until July 5th to get to see this display.

>> **Karen:** July 5th, I think it's really important, so far the response has been very, very good. Obviously people are interested in this and obviously people are interested in not repeating, but also interested in just the whole scientific basis of what this was you know produced in and so I think the Oklahoma City Community has responded very well to that exhibit.

>> **Steve:** Well, and how did this happen? Well, the Jewish federation of Greater Oklahoma City contacted the museum.

>> **Karen:** Yes, a lot of the credit for bringing this exhibit to the museum goes to the Jewish Federation of Greater Oklahoma City because they came to us actually and said, Hey, we'd like to bring this museum or bring this exhibit to Oklahoma City and so...

>> **Steve:** This is a part of the holocaust museum in Washington DC, right?

>> **Karen:** Exactly.

>> **Steve:** Which has been seen by tens of millions of people and is very emotional, but it's also very informative and that's an important part of all you're trying to do is inform.

>> **Karen:** Inform and you know bring awareness and so the Jewish federation, they help raise the funding to bring the exhibit to the museum and have played a really big role in helping to promote it.

>> **Gary:** Real quick, we've got about a minute left. I'd like to know about the ship wreck...

>> **Karen:** Aah, that's our other traveling exhibit, I...

>> **Gary:** Yeah you've only got a short time so when is the...

>> **Karen:** Yes, it's going to be leaving port soon. I can't do a pirate, but I'm a terrible pirate.

>> **Steve:** Pretty good...

>> **Gary:** When does it, when does it end?

>> **Karen:** May 31st, so time's running out.

>> **Gary:** May 31st so we've got till the end of the month.

>> **Karen:** And again this is another outstanding traveling exhibit. It's the company that brought the exhibit is called Odyssey Marine Exploration. They were just featured on the discovery channel.

>> **Gary:** Oh cool!

>> **Karen:** On a special feature about shipwreck hunting.

>> **Gary:** Alright. Here's the website, [sciencemuseumok.org](http://sciencemuseumok.org), [sciencemuseumok.org](http://sciencemuseumok.org). Karen Carney, thank you very much.

>> **Karen:** Thank you.

>> **Gary:** Look forward to have you back and Steve see you next week.

>> **Steve:** See you Gary.

>> **Gary:** On Oklahoma Innovations. Have a good week.

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