

Oklahoma Innovations Radio Show

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Guests: **Jim Jaffe**, president & CEO, National Association of Seed and Venture Funds (NASVF); **Rich Bendis**, president & CEO, Innovation America; **Rick Brenner**, assistant administrator, Office of Technology Transfer, United States Department of Agriculture - Agricultural Research Service (USDA-ARS); **Steve Mercil**, president & CEO RAIN Source Capital

[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 whose sole focus is technology, its development, transfer, and commercialization. OCAST mission is to identify and fund promising research in 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 are your hosts, Gary Owen and Steve Paris.

>> **Gary:** Gary Owen and Steve Paris coming to you this week from well this is kind of a different conference, Steve, it's the Sixteenth Annual National Association Of Seed and Venture Funds Conference and we are delighted to have the president and the CEO of . . . Now this is a tongue twister when you say their initials NASVF.

>> **Steve:** NASVF Gary stands for the National Association of Seed and Venture Funds and we're very fortunate to have Jim Jaffe in here with us today. And he is going to talk about what this program is all about. What's happening here and let's set the stage here. Where are we? We're in Oklahoma City.

>> **Gary:** That's right and one of the things for our listeners that we want to pass along is have you ever wondered how a corporation functions, how new business start ups happen, it's because of seed funding and venture capital.

>> **Steve:** Yes. It's a very important part.

>> **Gary:** Very important part of it and so this is a collaboration of venture capitals from all over the country.

>> **Steve:** Yeah, and this is the annual conference.

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

>> **Steve:** And there are people from all over United States here, for a 3-day event and we're so fortunate to have Jim in the studio with us, or actually onsite with us today.

>> **Gary:** Jim Jaffe.

>> **Steve:** Jim Jaffe. Jim welcome to *Oklahoma Innovations*.

>> **Jim:** Thank you. Delighted to be here.

>> **Steve:** Tell you what, we need to know a little bit about you and I've got your read right here, but I'll tell you I'm going to let you talk about who you are because who better else to tell it.

>> **Jim:** Sure. I have a long background as a CEO and President of public and private companies doing all the fancy things that when you're young you think is going to be wonderful to be head of something large and of course you get there and it's never quite what you think it's going to be. About a dozen years ago, I became very interested in what was going on in Central and Eastern Europe and moved overseas where my wife and I spent nine years . . .

>> **Steve:** Wow.

>> **Jim:** In Macedonia, Ukraine, Croatia, and a side trip to the Philippines.

>> **Gary:** Wow.

>> **Jim:** All involved with investing in businesses in emerging economies and so very unusual set of circumstances unlike the kids who do this when they are 23 and go to the Peace Corp. We turned it all around and had a wonderful time doing it.

>> **Steve:** Outstanding. So you have some experiences to draw from it. The average person in the United States just doesn't have as most people don't get to do that.

>> That's for sure and what ends up happening of course is that when you begin to see how these unusual economies work, you I think even appreciate it more what goes on in the United States.

>> **Gary:** Sure, there you go.

>> **Steve:** As everyone knows, we're in bit of a downturn here now and it seems to be improving somewhat from a year ago, but the challenge of a lot of the people who are at this meeting at this conference is to find investment capital, venture capital, angel investors, the different forms of and seed capital, is that any easier today than it was say five or six years ago? It is harder?

>> **Jim:** It's probably much harder than it was five or six years ago, there may be a few glimmers of hope over the last few months, but it is very, very difficult to raise seed capital and one of the things our organization is trying to do is to bring together folks who are involved in many different aspects of fund raising, technology, investment, and so on.

>> **Steve:** Right.

>> **Jim:** So that if nothing else, they can learn from each other and try to help each other.

>> **Steve:** Exactly. Well, we all know that it may be something we take for granted, but without venture capital, without the different levels of investors into the new technologies the different businesses that are started or trying to start up the benefit would not be there for the average American.

>> **Jim:** Absolutely and one of the things that an expression that some of your listeners may have heard is called the Valley of Death. And what that means is that when people start small businesses, they usually have no difficulty getting the first trench of money from their friends and family maybe up to a hundred thousand dollars.

>> **Steve:** Right.

>> **Jim:** Seed capital is what is selling in the Valley of Death which is the amount of money that is usually around two to three hundred thousand to a million and a half dollars. Beyond that, larger venture capital firms come in. They are established businesses, we focus just in this area

which is where does the money come from to take technologies, start businesses, and figure out how to grow them.

>> **Steve:** Exactly. All the benefits that we appreciate such as – electronics, digital equipment, or just driving your car down the road that all came about at some point in time as someone investing in the ideas that were brought forth and those were just the ones that would have been followed had it not been for someone investing in it . . .

>> **Jim:** Absolutely.

>> **Steve:** At various points along the way.

>> **Gary:** You know, I want to make a comment here Steve, earlier this morning I was moderator for this conference and we did do a little survey and what was . . . what I thought was ironic is that even though the people who are here felt like that the . . . that it was harder to get obviously capital, but they felt like the country's economy was turning around. I thought that was . . . that was interesting.

>> **Jim:** I thought that was interesting. We're going to try to put a press release out on this survey, because I think it surprised a number of us that things are looking a little better in the eyes of some of her members than we had anticipated.

>> **Steve:** I was looking through the door when that process was going on and of course you were collecting the information digitally . . .

>> **Jim:** Yes.

>> **Steve:** Electronically, and I anticipated what the answers to questions would be. I was so wrong, pleasantly wrong on that.

>> **Jim:** We were delightfully surprised with the answers.

>> **Steve:** So I guess the message we want to tell our listeners is that there's hope out there, things are improving, yes they're not perfect yet, may not be for some time, but there's, there's . . . it's better than it was just six months ago.

>> **Gary:** And what I thought was interesting is that it was positive thinking for those who are investors.

>> **Jim:** Yes.

>> **Gary:** I thought that was real powerful.

>> **Jim:** Well, I think the other thing too is that many of the people here are, well a lot of them are investors, just to give you a little sense of what our organization looks like. About a third of our members are seed venture funds, which are very similar to equity funds.

>> Right.

>> **Jim:** Another third are seed funds, but the money comes from public sources like states regional economic development agencies, but the last third are technology organizations business incubators, federal laboratories, university research parks, and they all have slightly different agendas but the fundamental bottom line is that you cannot do anything with technology unless you can figure out how to fund it.

>> Right.

>> **Jim:** And so it all comes down to where's the money and how do you get it and what are your chances of success once you do all the things.

>> **Steve:** And describe if you will the various phases that you go through, say for instance, here somebody comes up with a concept or an idea, not necessarily a venture but I'm talking about a technology, and you say well, I would like to take this to market and make a business out of it. Give us an idea of some of the steps the investment steps you have to go through.

>> **Jim:** Well, first of all, unfortunately, many people are convinced that if they have the world's fanciest technology everything is going to fall into place, and unfortunately that never happens. It doesn't work like that at all. There are, just to give you an example, many technologies come out of universities and many technologies come out of federal laboratories and lots of people say, 'Gee! That's a great idea!' There are US government programs that are called SBIR grants which are in effect are first rounds of money to prove a concept so that if you have an idea . . .

>> **Steve:** That stands by the way for Small Business Innovation Research.

>> **Gary:** We talk a lot about that on this show.

>> **Jim:** If you have a concept, you can probably get money and they are in different tranches. I think it's a hundred thousand and maybe the next round is five hundred thousand.

>> **Steve:** Exactly.

>> **Jim:** However, the dilemma is that after you get that where do you go next. Let's assume that the idea is a good one, and one of the things that we're finding more and more is that it used to be that the key issue was proof of concept, today that's changed and it's now proof of relevance.

>> **Steve:** Oh my!

>> **Jim:** And the relevance of course is, is there a market, who's going to buy it, how do you know and that's what's requiring different perspectives . . .

>> **Steve:** Right.

>> **Jim:** On the parts of investors and of course for the folks who have the technology themselves.

>> **Steve:** And you have to provide those answers to those potential investors before you can get them to turn loose in the first place.

>> **Jim:** Absolutely. And the key problem of course is that there is a lot more folks who have ideas and technologies than there are with money. And so you've got to be able to distinguish yourself.

>> **Steve:** It's competitive and you know, as you've indicated, if you have a great idea the world's not going to come to your door necessarily because they don't really know that there's probably a lot of really good ideas that probably have some marketing relevance that are sitting on shelves.

>> **Jim:** Absolutely.

>> **Steve:** If somebody, if they could just get the light of day, just get the proper investment capital, so that's in essence why you have an NASVF.

>> **Jim:** Absolutely. We are bringing that to light. Our goal is to try to bring together these different constituents each of whom have a slightly different slice and a way of looking at all of this and have them understand what's going on in this environment.

>> **Steve:** Jim, we're so glad to have you here, before we end this segment, we need to talk about this conference and some of your keynote speakers. Give us an idea who's presenting here.

>> **Jim:** Well, we have some very interesting speakers, today we're having a woman named Wendy Kennedy, whose job, full time job is talking about commercialization of technology. How do you do it, what are the practical steps involved and she is a well known speaker who has done this for many years. Our keynote speaker tomorrow at lunch is Tom Hillsack, who is the secretary . . .

>> **Steve:** Secretary of agriculture.

>> **Jim:** Of course, and it was very interesting, my board said agriculture, what does that have to do with things, that's technology and when I began to explain to them that agriculture, the department of agriculture is in the forefront of technology innovation and pumping out ideas into the community and the wonderful example I'd like to use is the one with apples, when you go to a McDonald's and you get these sliced apple desserts and they don't turn brown like they do at your house when you cut an apple in half that's a USDA invention, it's licensed and all that. Agriculture is a very, very important organization but they are one of many, many federal laboratories as are . . . my understanding is that they have one percent of . . . they spend a billion dollars a year on research and development in agriculture that's one percent of the federal R&D budget.

>> **Steve:** Exactly.

>> **Jim:** Which is a hundred billion dollars and all the people who are in federal labs are required to have commercialization officers whose job it is to get products into the marketplace. And lots of people don't know about this. So one of the things our organization can do is inform folks about where some of these opportunities are.

>> **Steve:** And you know, I don't know if that's going to be discussed here, but just to give you an idea of the versatility of agriculture they're involved in homeland security, protecting our food supply.

>> **Jim:** Of course.

>> **Steve:** From potential, you know, people who would want to harm us, and so there's a lot of research that goes into that, we fund some of that type of research, you know, right here in Oklahoma and I'm sure you know I have just not even touched the surface barely of all the things that happen in the department.

>> **Jim:** We just want to whet the appetite of your listeners.

>> Of course, you bet. You're going to be here for three days . . .

>> **Jim:** Yes.

>> **Steve:** And you've got people as indicated from all over the country . . .

>> **Jim:** Yes, and some international also.

>> **Steve:** Some international, that's right I saw some folks come by our booth, from San Pablo, Brazil.

>> **Jim:** Yes.

>> **Steve:** And I'm sure there are others too from Europe and, but this is quite, quite a, well not coup may not be the right word but an outstanding effort by several groups in an organization including NASVF to bring this convention to Oklahoma City.

>> **Jim:** Well, it wouldn't have happened without the Oklahoma Chamber, who took a lead in doing this and I particularly want to cite Joshua O'Brien who is our key contact at the Chamber who is marvelous to work for and make sure everything happens and we're thrilled to be here.

>> **Gary:** We thank you for being here. I enjoyed moderating today. It was a lot of fun. We're going to take a little break, we'll come back from the Sixteenth Annual National Association of Seed and Venture Funds Conference on *Oklahoma Innovations*.

[Music]

>> The waving wheat can sure smell sweet when the wind comes right behind the rain, but what happens when the rain doesn't come? Wheat growers across Oklahoma, know too well the impact that a poor growing season can have on crops and markets. Drought, disease, and poor soil are just a few of the things to keep the farmers up at night, but what if those issues were a thing of the past? In labs funded by the Oklahoma Center for the Advancement of Science and Technology, researchers are finding new ways for producing better plants that can withstand unfavorable conditions, creating opportunities and improving the economy, that's what OCAST is all about. OCAST is looking for small business owners serious about investigating new products, services, and processes. For more information, call OCAST Toll free at 866-265-2215 or visit their website at ocast.ok.gov in a state deeply rooted in agriculture, plant science helps Oklahoma farmers grow their business.

>> It's all about Oklahoma technologies, research, science, and commercialization. This is *Oklahoma Innovations* on the OCAST Radio Network.

>> **Gary:** If you've just joined us, we're coming to you from the Sixteenth Annual National Association of Seed and Venture Funds Conference and that's being held at the Skirvin Hotel in downtown Oklahoma city and Steve this next guy, his voice is almost as good as mine . . .

>> **Steve:** I'd put him up against just about anybody. We're talking about of course Richard Bendis. That's right. Rich, let me just say this, he at one time not too many years ago was head of K-Tech which was we'd always talk about at OCAST here in Oklahoma. It was the Kansas counterpart to OCAST and did a tremendous job up there and you all had a different way to fund your program, were funded by a lottery if I remember correctly, and at one time had 50 of 60 million dollars to invest, I believe maybe even more than that. Its been a while . . . But tell us a little bit about your involvement with a state operated, you know, program that is involved with economic development with technology or TBED as we call it Technology Based Economic Development.

>> **Rich:** Good, and I've actually modified that, now I'm calling it IBED.

>> **Steve:** IBED.

>> **Rich:** It's Innovations Based Economic Development, so I think this gives a new paradigm shift and we're not just talking about technologies, we're talking about processes, services, and systems as well as technologies. And I think that with the kind of companies you are servicing with OCAST and what KTEC does it's a much broader portfolio of the types of things that we have to support these days, but in KTEC I got involved with as the first chairman of the board in 1986 when it was created, and it was created because all three legs of the economic store in Kansas were broken oil and gas and agriculture and manufacturing and so a lot of times good things come out of depressed economies and to be honest with you OCAST and KTEC I look at as two of the best practices in the country and why is you've been around 22 years KTEC's been around 23 years, we've both gone from many different governors and administrations.

>> **Steve:** Right.

>> **Rich:** And the funding has been relatively stable and has grown for both of the programs. So when I talk around the United States and around in the world, I'm happy to be on this OCAST station today because you are one of the best practices that I refer to and sometimes it's good to hear that from an outsider rather than telling everybody in the state yourself about how good you are.

>> **Steve:** Absolutely. We appreciate those kind comments and we've always looked at KTEC as an outstanding partner and we always looked at you to say alright what are they doing that we could do better, you know, that we could do here and make our program better is what I meant to say. Rich you're on the program here at the NASVF annual conference, you've got a role play you're going to be moderating, you've been involved in a lot of things that are just very impressive over the years, tell us a little about you and some of the things you've done.

>> **Rich:** Originally, I'm from large business Quaker Oats, Polaroid, Texas Instruments, Marion Laboratories . . .

>> **Steve:** Okay.

>> **Rich:** I actually took a software company public on NASDAQ in 83 sold it in 86, created by own investment fund and that's how I got involved with KTEC. The Governor asked me to serve in that risk capital role on the board and basically, ended up being the CEO of KTEC for six years, moved to Philadelphia to create Innovation Philadelphia which was really like OCAST or KTEC on a regional basis that really wasn't as government funded. It was more of a private-public partnership.

>> **Steve:** Right.

>> **Rich:** One of the anchors for everything that I've always done related to these innovation based economic development programs is having investment capital available and I think that's one of the things that's extremely important that's made KTEC, OCAST and Innovation Philadelphia successful and things that I enjoy doing is getting involved at the early stage with angel seed capital, nurturing these businesses, and then trying to help them accelerate into the marketplace.

>> **Steve:** Right. Without that everything would almost stop wouldn't it?

>> **Rich:** Everything would stop and you know one of the things that I've recognized that I'm talking about a lot now and that's a challenge for everybody including you and I and that is

basically it's gone from proof of concept and technological feasibility that something works to where you have to prove that your company, your technology is relevant, it's relevant . . .

>> **Steve:** Yeah, Jim just mentioned that on the earlier segment, yea . . .

>> **Rich:** Yea and basically.

>> **Steve:** It's marketable.

>> **Rich:** The key is it has to have a market, someone's going to be willing to pay for it and it's okay that Jim stole my lines, it is interchangeable because . . .

>> **Steve:** He learned it from you.

>> **Rich:** Well we all, we learn from each other in this world.

>> **Steve:** Yes we do, yes we do. Well that's wonderful. Your role here you mentioned earlier as that you're going to be moderating some panels.

>> **Rich:** Right.

>> **Steve:** We've got this, this happens every year, this annual conference obviously and people from all over the country are here in Oklahoma City, what do you expect to see come out of this, will deals actually be made here, you think?

>> **Rich:** You know this is really not as much about deal making as best practice sharing.

>> **Steve:** Very good.

>> **Rich:** And to be honest with you, I've been one of the founding board members of NASVF when it used to be the National Association of State Venture Funds, which is now Seed Venture Funds.

>> **Steve:** Right.

>> **Rich:** And this is the sixteenth annual conference, and I think why people keep coming back is the content is excellent, the speakers really provide what's working and what's not working, and when you talk about doing deals, there may be deals that occur between some of the vendors and some of the people who are here, but this isn't about matching entrepreneurs to money, this is basically talking about peers who are all doing similar things whether it be technology based, innovation based economic development, tech transfer, commercialization, investing, and how do we improve the process and make it work more effectively. And rather than having to start all over again with a clean sheet of paper, how do we adapt what's already working somewhere else in the country . . .

>> **Steve:** Right.

>> **Rich:** That you're doing in Oklahoma that they can implement some place in Iowa.

>> **Steve:** It's a sharing of ideas.

>> **Rich:** It's a sharing of ideas.

>> **Steve:** You bet. Well, let's talk just a minute about, about where we've been and where we're going. Obviously, we've seen better times in the area of raising investment capital, you know, we're suffering from something of an economic downturn, but from all indications, we're kind of

coming out of that at least to some extent. How does the future look to you for investment capital in the various forms and venture capital?

>> **Rich:** Well, my glass is always half full.

>> **Steve:** Okay.

>> **Rich:** So at the end of the day, no matter how dire it is, those people who have to take control of their own destiny are going to be much better when we come out of this recession.

>> **Steve:** Right.

>> **Rich:** So the key is that states that have programs like an OCAST or a KTEC or other Ben Franklins in the country are much better prepared to weather this storm than the have-nots. So the key is it's a lot more challenging as I've talked the valley of death is wider and deeper than it has ever been.

>> **Steve:** Right.

>> **Rich:** In the last 30 years that I've seen early stage capital. So it is your role, our role is extremely important and I believe there's also a role for the federal government they haven't been playing, which I'm trying to work on in Washington DC to get this administration engaged in the creation of some new early stage and seed capital programs at the national level.

>> **Gary:** Very good. Richard Bendis our guest this segment, he is the President and CEO of Innovation America, we're coming to you from the Sixteenth Annual National Association of Seed and Venture Funds Conference at the Skirvin in Downtown Oklahoma City. More to come on your science radio magazine *Oklahoma Innovations*.

[Music]

>> Now in its fourteenth year, this is *Oklahoma Innovations* on the OCAST Radio Network.

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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:** Thank you for joining us on this week's edition of *Oklahoma Innovations*, the radio show that brings you interesting discussions related to science and technology. Steve we're going to talk now with a gentleman Dr. Rick Brenner and he's tied to the ag department.

>> **Steve:** He certainly is.

>> **Gary:** US Ag Department.

>> **Steve:** That's exactly right. He is a USDA ARS office of Tech Transfer you're the director, I believe is the title? Out of Belsu [phonetic], Maryland. And you've got a lot to tell. So I'm going to let you talk Rich, because you have so much to tell us about what's happening in agriculture, Department of Agriculture and how its going to be impacting every one of us and it has not only to do with food it has to do with energy and homeland security. Many areas that Department of Ag is involved in and before we do that, tell us a little bit about who you are.

>> **Rick:** Well I, actually I'm a Midwesterner, native of Illinois. Ph.D. in Medical Entomology. Couple of degrees from Champagne Urbana, but then Ph.D. in Ithaca, New York. Medical Entomology is insects affecting human health and after about 20 years of research much of which was all public good related, I made the transition to Tech Transfer and in part because I had two of the first private sector corporate research and development agreements in USDA, two of the first 20 that we had . . .

>> **Steve:** Wow!

>> **Rick:** And licenses and some patents. So in this role now I actually represent sector of agriculture on all the issues related to intellectual property that and my role is to find the ways to transfer those technologies. Our research outcomes being adopted by I think private sector for public good.

>> **Steve:** Right.

>> **Rick:** So that's what I would identify as technology transfer and my role is to oversee that for the USDA and specifically with the agriculture research.

>> **Steve:** Very good. Now you just mentioned the sector of agriculture. Tom Welchak, he's here in Oklahoma this last week and you're going to be meeting with him and among others here in Oklahoma. Tell us little bit about that.

>> **Rick:** Well, this week the sector of agriculture is rolling out a new initiative, its called Know Your Farmer, Know Your Food.

>> **Steve:** Right.

>> **Rick:** And the idea here is how do we begin looking at local production of food and local consumption.

>> **Steve:** Uh, huh.

>> **Rick:** There's food safety issues in here.

>> **Steve:** Uh, huh.

>> **Rick:** Because you're not dealing with a hundred thousand acres of something that might get contaminated or blighted with a disease. So how can we then develop for example, the technologies to feed the I-95 corridor? What can we do with the lands that we've got, some of which may need some remediation?

>> **Steve:** Sure.

>> **Rick:** They can grow bio fuels or we can use the distributed energy systems to operate greenhouses to produce fresh fruits and vegetables that can be used in the school systems, can be used by the community. And all of this has to be ultimately delivered by private sector. So here's the partnerships because we're seeing a landmark change in how we're going to be looking at agriculture. How do we feed the community? How do we insure their safety? How do we do so creating jobs and value to the community? So the Secretary is in Oklahoma this week first of all speaking at the National Association City Venture funds.

>> **Steve:** Right.

>> **Rick:** But even more so having a forum of talking to some of the leaders to get some of these ideas out and to see what we can do.

>> **Steve:** His forum I believe is in El Reno?

>> **Rick:** El Reno.

>> **Steve:** Which is 30 miles west of Oklahoma City and you're meeting him over there?

>> **Rick:** Yes. Yes Wednesday morning.

>> **Steve:** You're going to be part of that process? And you have met with him I guess, is what we should say. But at any rate, one of the things that always comes out of a discussion, you're talking about technology transfer, a lot of people say what is technology transfer? Can you give us kind of a brief explanation?

>> **Rick:** Yeah. Because it is a confusing term. I get so much email on IT. And what we do is not IT. Its not information technology, its research outcomes that are adopted and its that technology and know how that can produce the goods and services for the private sector to deliver based on solving the problems that we have the researchable issues for the nation.

>> **Steve:** Very good. One of the things that I believe that you've discussed, or you discussed during this NASVF conference was stimulus dollars. That question seems to always come up as, you know here we are in kind of the second phase possibly, and what people are wondering about you know where the stimulus dollars went first. But future stimulus dollars - where should they go? And how come they been talked so little about is what the folks are hearing about.

>> **Rick:** Well we're certainly seeing that the first roll of the stimulus dollars was an immediate infusion . . .

>> **Steve:** Right.

>> **Rick:** . . .and to either preserve jobs or add some jobs through an existing infrastructure.

>> **Steve:** Yeah. In a very big hurry.

>> **Rick:** In a very big hurry.

>> **Steve:** It had to be in a hurry because things were in dire shape.

>> **Rick:** But at the same time we hear about the role or the diminishing role of innovation that drives entrepreneurship and the economic discoveries. The economic sustainability. So, is it possible that there may be a second round of stimulus dollars that might go toward economic development? Local, to support cities, to support the tax base, to create jobs that are sustainable jobs. And we know that innovation is what has typically fueled that in this nation.

>> **Steve:** Exactly.

>> **Rick:** So, the example that I gave and the secretary rolling out on “Know Your Farmer, Know Your Food”. Are there ways in which we could working with the private sector solve some of the problems on how do we convert some of these lands to being productive. Can we do this in the school system? Providing the food for the schools. The energy from composting to drive sterling engines. High efficiency engines. Convert to electricity. Heat the greenhouses. Is there a way to do this off the grid? And so now we’re looking at ways in which we may be able to have that local production and sustainability and stewardship of the land. And that’s a lot that USDA . . .

>> **Steve:** So many areas talk about land management, you’re talking about homeland securities. Weaning us off foreign oil so to speak. And you brought in the food system. All of these are important for our health and welfare?

>> **Rick:** It is. The issues of food safety, fresh food and production. We have six human nutrition centers in agriculture research center. And where we’ve seen for the most part somewhat tongue in cheek but NIH’s job is to get people that are sick to make them healthy.

>> **Steve:** Sure.

>> **Rick:** We see the role of agriculture and food production and nutrition as preventative medicine.

>> **Steve:** Preventative medicine. Outstanding.

>> **Rick:** And again who’s going to provide that? It’s the local producers.

>> **Steve:** Uh. Huh.

>> **Rick:** It’s the private sector.

>> **Steve:** Right.

>> **Rick:** Another couple of areas where we, where we think there’s opportunities to be able to develop some solutions and to test them. There’s not a city in this world, there’s not a landfill in the United States that isn’t feeling the pressure. Is there a way to better utilize some of these materials so that we are in fact reusing them and creating the energy. A city’s got this issue. The farm has this issue. The Department of Defense has this issue. Only difference between a DOD installation and a city is that they don’t elect a mayor.

>> **Steve:** Right.

>> **Rick:** But you've got the all the same issues. Even down to education, food production, waste management . . .

>> **Steve:** Right.

>> **Rick:** We have these golden opportunities now to form these partnerships as alliance. With the entrepreneurs, with the venture fund groups, with the researchers and let me say this, we're in a hundred locations across the US. Agriculture Research Services. Most of those are in association with our land grant universities. We're extraordinary partners with the universities. We work together to solve problems. But its ultimately that education system and the local economy that's got to benefit from what we can do together.

>> **Steve:** Wow. The whole package is what you just described. And one of the things that interest me, we bring it down to just a very minute level, what you're talking about is, take for instance, biomass or any kind of bio materials, be it grass clippings or be it you know refuse off a farm, that can be used for energy production as opposed to just taking up space somewhere, right?

>> **Rick:** Well that's right. We can't fill the landfills with them. But give you a couple of examples on that. We're already working with some new entrepreneurs and this has been done through Maryland Technology Development Corporation, we're taking poultry feathers and ultimately making plastics with those.

>> **Steve:** Oh really?

>> **Rick:** First areas is to take what has been a liability for industry. What do you do with the feathers?

>> **Steve:** Right.

>> **Rick:** And turn those into pots, flower pots that you can get at Lowe's, and Home Depot. I mean this where this is heading. And at the same time its biodegradable.

>> **Steve:** Yeah.

>> **Rick:** And since we can . . . and its keratin. You know is the same material as your fingernails, that's what chicken feathers are.

>> **Steve:** Right, exactly.

>> **Rick:** So, and we can even formulate that and again its part of the researchable issues to include fertilizer and how long you want the pot to last? Okay, lets go ahead and develop it for that. So that you put the pot in the ground, its got the fertilizer, and it backs out a barrel of petroleum doesn't it.

>> **Steve:** There you go . . .

>> **Rick:** Yeah. So there is an example of a liability that we're looking for the solutions to benefit the rancher, the farmer . . .

>> **Steve:** There's a time sequence here. When listeners listen . . . this all sounds well and good but how long is it going to take to get this machine start, I mean . . .

>> **Rick:** Well, here's where we've got some advantages. The fact that we are federal researchers and 2100 scientists in agriculture research in 100 locations. The Office of Tech Transfer is less. Single point, it's a portal, develop research capabilities and often we're looking

for what is it that, what are the researchable issues that a small business may have? Come to us with it. Tell us what the problems are. I'll bet you that we've got the expertise. Somewhere across this agency. So where we've got the opportunity as a put together complex teams requiring different specialization and we can do this quickly. And that involves university partners as well . . .

>> **Steve:** Oh yeah. Great. Outstanding. Now one of the things Gary, we're down to our last few seconds, but we talked about distribution of energy, you know, its one thing to produce energy but you have to have a way to get it out. Take it to different parts of the country. You are working on that too, are you not?

>> **Rick:** Well, we're not working so much toward, toward that particular aspect. There are some other areas there, the solar, the wind. What we're thinking here is how can we take this, the distributed production and the distributed use and local use where you can. Even if its relatively small quantities, it takes energy to produce foods. It takes energy to cook food, to process it. So how can we tie all that together so we don't have to ship it somewhere.

>> **Gary:** Dr. Rick Brenner is our guest this segment. We've got a lot more to come on *Oklahoma Innovations*.

>> This is *Oklahoma Innovations* on the OCAST Radio Network.

>> As you drive across Oklahoma, you can see thousands of gas wells sprinkled throughout the countryside. Many of these wells don't produce enough natural gas to justify pipelines, but without this access thousands of well sides are abandoned. With the support of the Oklahoma Center for the Advancement of Science and Technology, one company is creating a portable device transported on a flatbed truck to process natural gas at well sides. This technology optimizes the amount of gas that can be captured and releases no byproducts into the atmosphere. This idea provides new opportunities for small oil and gas producers while bringing us one step closer to energy independence. Supporting innovations. That's what OCAST is all about. OCAST is looking for small business owners serious about investigating new product, services and processes. For more information call OCAST toll free at 866-265-2215 or visit their website at ocast.ok.gov. Investing in research and development. It pumps new life into Oklahoma's economy.

[Music]

>> **Gary:** If you've joined us late, you'll hear all in the noise in the background. Steve and I are coming to you this week from the Skirvin Hotel in downtown Oklahoma City, big conference going on here called the National Association of Seed and Venture Funds Conference and they came to Oklahoma City for the sixteenth annual conference. Earlier in the day, I was moderating a panel of, which I had a lot of fun doing that, and now we're doing our radio show and Steve our next guest is Steve Mercil.

>> **Steve:** That's exactly right Gary. Steve is the president and chief executive officer of RAIN Source Capital and he also is Chairman of the Board of the National Association of Seed and Venture Funds in addition to a lot of other things. So Steve, we want to hear a little bit about who you are, you came here from Saint Paul, Minnesota where your base of operation your home is. Tell us a little bit about you and how you got to be in the investment capital business.

>> **Steve Mercil:** Well before I get to that, let me just say on behalf of the board of directors and we're just very pleased to be here in Oklahoma City and in Oklahoma. Of course the mission of

our organization as the National Association of Seed and Venture Funds is to secure generation of capital every where in the country.

>> **Gary:** Absolutely.

>> **Steve Mercil:** We like to visit what's so-called the faraway states and Minnesota is one of those and Oklahoma is one of those.

>> **Steve:** Yeah, everybody wants to go to the coasts . . .

>> **Steve Mercil:** Everybody wants to go to the coasts, but there's a lot of things happening right here in Oklahoma in Oklahoma City and throughout the Midwest and lots of real nooks and crannies of this country and so we're very pleased to be here and we've gotten a great reception so I want to start up by just thanking the good folks here in Oklahoma City and Oklahoma for hosting his annual conference.

>> **Gary:** And you found out we got hospitable people here.

>> **Steve Mercil:** Absolutely. RAIN Source Capital specializes in organizing investors into groups we call them RAIN funds and putting that capital into basically startup companies. We have 26 angel groups which as I said we call them RAIN Funds in six states. We also run a couple of different venture funds, we have a venture fund that investments alongside our angels and early stage deals and then we have another venture fund and partnership with another group at Iowa that does later stage investing in companies that have profitability and are growing and might be doing an ownership transition.

>> **Steve:** Right.

>> **Steve Mercil:** So we're in a sort of all phases of venture capital investment.

>> **Steve:** You've talked about angel investors and you've talked about those who invest in venture capital funds and then there's several different types, different levels, most people I don't think have a good understanding of just what an angel investor is, give us, if you will, an explanation of the angel investor.

>> **Steve Mercil:** That's a great question. Angel investors are people, the way we define them, are people who have a net worth of about a million dollars. That's an SEC requirement, they're called the accredited investors. That's actually a regulatory requirement those are people who have sufficient network that they are assumed to have knowledge and understanding enough net worth that they can risk their money in high risk deals and so for the entrepreneur raising money, if they take money from the accredited investor, the way they can do that under the fund raising mechanism in this country are far favorable to that entrepreneur.

>> **Steve:** Sure.

>> **Steve Mercil:** So we work with accredited investors, again people with a million dollar's net worth that they want to put their money to work a certain amount of money to work helping entrepreneurs and they actually want to help entrepreneurs. So we call it we kind of invest may be 3 to 5% of their net worth in this kind of investing and they have kind of a double motivation. They want to make money, they want to help entrepreneurs.

>> **Steve:** Absolutely. It's basically without the angel investors America would have a difficult time bringing things to market because it is one of the very important stages that you have to go through before you get to the end which would be the commercialization stage right?

>> **Steve Mercil:** It's very true and in fact I think there's a bit of a mythology out there, the venture capital in this country is very important, but they do very few early stage deals, maybe 2 to 500 deals a year the whole venture capital industry angel investors which is a segment of the investment community just ten times that easily.

>> **Steve:** Yeah.

>> **Steve Mercil:** And so often what happens is it's your company getting out and you need capital you kind of go to your friends and families and a few fools and get a little bit started, and then something starts to happen and you know you've got a real business and maybe a tiger by the tail and then you decide geez, that, I've got to get some serious money in here and I've got to get some advice and maybe I've got to put the at least a board of advisors together or board of directors and often you will go to that business person that maybe someone introduces you to that accredited investor, an angel or in many states, in many communities you would be able to go to a formal group an angel investing group which is the kind of thing we specialize in.

>> **Steve:** And the point being is it's a rare individual who can do all of this by him or herself.

>> **Steve Mercil:** Very rare.

>> **Steve:** Almost impossible to find an individual.

>> **Steve Mercil:** Its getting harder all the time.

>> **Steve:** You bet. You need help along the way, you need investors, you need people who are going to help take that risk with you and help move you on to the next level.

>> **Steve:** That's exactly right. Okay, let's talk about this annual meeting. I mean you've been a part of a panel already and maybe a couple of panels for all I know, but some of the things, which you see coming out of this meeting that's going to be beneficial to the investment community and to these, I mean deals aren't necessarily made here. This is a place where people come together and share their expertise, right?

>> **Steve Mercil:** That's right, actually I think one of the biggest benefits to the people that attend these conferences is the connections you make.

>> **Steve:** Right.

>> **Steve Mercil:** So it's really the relationships you make with other people that help you when you have a deal down the road or maybe when you're raising capital for your fund or maybe when you're raising capital for your business which you'll learn about different expertise around the country. I think from a regional and local perspective, if you come here you get a, you get the advantage of understanding that. Quite frankly, Oklahoma is a little different but not all that much different than any place else, you don't feel so lonely . . .

>> **Gary:** Yes that is right.

>> **Steve Mercil:** That people from all over the country are wrestling with some of the problems, you're going to make your own connections and one of the reasons we like to move our conference around to different parts of the country is we hope that the aftermath of the conferences it gets some dialog going between people in this region that maybe wouldn't have happened without having the conference and they start to maybe take a new look at things, partnering together in maybe different ways and moving in their own mission and their own

objectives forward in a little bit different way through the use of our organization and the contacts they've made here.

>> **Steve Mercil:** Very good.

>> **Gary:** As far as your travels, how does Oklahoma compare to some of the other states that you've had this conference?

>> **Steve Mercil:** Well Oklahoma . . .

>> **Gary:** And of course now we're in a different economic time too than about a year ago.

>> **Steve Mercil:** Right yeah Oklahoma right now is of course known around the country as doing very well. I think for a number of different reasons a lot of hard work here. It's not just that they have oil and it's not just that they have good ag economy, it's a lot of other things that Oklahoma is doing right. I think people would say that Oklahoma has been less aggressive about focusing on venture capital maybe individuals have been less aggressive about backing entrepreneurs but that's a phenomenon not unlike what I've experienced in rural Minnesota and our organization actually started to focus on putting groups of investors together in rural Minnesota first and that grew over a mile so when I think of the discussions that we had with people in rural Minnesota and kind of the dialog I get with people in Oklahoma is similar.

>> **Steve Mercil:** Very similar. That's true. And what I find is what people are really looking for to get into this business is an organized way to be associated with a group of like minded investors where they can work as a team and leverage their expertise and leverage their capital in a disciplined way in a way that doesn't take all their time up and that's actually the RAIN Source Capital model of creating angel funds is a formal type fund where the members make their decisions but they get help from us and other local resources to that it's a little bit easier to get into this activity.

>> **Steve:** Exactly. Part of what you're talking about is mitigating risk because this is a risk business.

>> **Steve Mercil:** That's right, that's very right.

>> **Steve:** And we don't want to focus on risk but deny it but that's you know, that's not a part of the process that's why there is a reward for it. It's as if you did it without the risk, there probably would not be the reward.

>> **Steve Mercil:** And if it was easy we wouldn't need to be here.

>> **Steve:** That's exactly right. You know, Steve, you've been on the board of the NASVF the National Association of Seed Venture Funds since it's inception 16 years ago.

>> **Steve Mercil:** Well not quite on the board but I've been a member that way.

>> **Steve:** You've been a member.

>> **Steve Mercil:** I've been on the board now for, I think about five years or so.

>> **Steve:** Five years, okay. I misstated that, well let's talk just a minute about since you've been involved with it since day one, let's talk about what changes have you seen as far as the focus goes both, you know, the things have been improved and the things that are still challenges.

>> **Steve Mercil:** That's a good question. When we started the organization, there were about 14 to 15 people I met in Utah.

>> **Steve:** Okay.

>> **Steve Mercil:** And all of us had some kind of, we were running programs that were somehow associated with state government typically through some public sector, you know, money or influence or need.

>> **Steve:** Sure.

>> **Steve Mercil:** And I think we were meeting mostly for group therapy. And . . .

>> **Gary:** It's kind of like we do this radio show for therapy, yeah.

>> **Steve Mercil:** And actually one of the leaders in getting the organization in fact the key leader in getting the organization formed was Robert Herd here, from Oklahoma.

>> **Steve:** All right, we know Robert very well.

>> **Steve Mercil:** BCN . . .

>> **Steve:** Been on this program before about him.

>> **Steve Mercil:** Yes and Robert worked as a leader in convincing all of us that we should make this a formal commitment to create an organization and from that we started out with 15 people it's grown to a significant organization that has a national focus.

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

>> **Steve:** Outstanding Steve.

>> **Gary:** Well you have been a great guest. All of our guests have been great and we've had a great time at the sixteenth annual National Association of Seed and Venture Funds conference and we bring you this information folks so you get a better idea of what it takes to be in science and technology business. We've got to run, we're out of time. Steve.

>> **Gary:** See you next week on another edition of our science radio magazine *Oklahoma Innovations*. Have a good week.

[Music]

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