John Boccacino:

Hello and welcome back to the 'Cuse Conversations Podcast. I'm John Boccacino, senior internal communications specialist at Syracuse University.

Lisa Manning:

It's at the intersection of materials and living systems, which seems a little weird, right? Because you think about materials as something that's on a car, and then you have a living system, which is an organism like us. And the idea is that there's types of materials called biomaterials that interact with living systems. There's types of materials that are bio-inspired, which means that they have features or functions or can execute tasks like intelligent new types of materials that act like living systems. And finally, there's this idea that, well, organisms are actually secretly a material. Our bodies are a physical material that does things and has specific properties, and by thinking about living systems as materials or having mechanical interactions, we can come up with new hypothesis that might even someday drive treatments for a disease.

Jay Henderson:

We're trying to figure out ways to solve really big problems, right? We're trying to figure out how we can combat things like antimicrobial resistance to antibiotics. That's a big problem that could affect many of our lives. How can we better treat injuries when they occur? Whether it's a traumatic injury where you're trying to stop bleeding, or maybe it's an injury or disease that's developed over time and there currently are just not good treatments available. How can we use materials to try to do those things? So some of the biggest challenges facing our society might have solutions rooted in the materials we could use to address them, whether it's treating an injury or a disease, or capturing energy in some way that it can't currently be captured to address things like global warming or combating COVID, these problems that are going to continue to face us into the future.

John Boccacino:

Our guest today on the 'Cuse Conversations Podcast, we are going to dive into the heart of research here at Syracuse University. It's BioInspired Syracuse. It really is a phenomenal resource here on campus. The tagline is addressing global challenges through innovative research, and the two faculty members we're going to welcome on today have a lot to do with both the past success of BioInspired and where this is going as a framework for our talented faculty and student researchers here at Syracuse University.

John Boccacino:

Our first guest is Jay Henderson, a professor of biomedical and chemical engineering in The College of Engineering and Computer Sciences. He recently was appointed the director of BioInspired Institute. Jay, thanks for taking the time to join us.

Jay Henderson:

Thanks, John. It's a pleasure to be here. Thanks for having us.

John Boccacino:

And our second faculty member, she served as the inaugural director of BioInspired Institute. She's Lisa Manning, the William R. Kenan Jr. Professor of Physics in the College of Arts and Sciences, and Lisa was

instrumental again in really laying the groundwork for the research work at BioInspired. Lisa, thank you for joining us as well.

Lisa Manning:

Thanks so much, and thanks for the kind introduction too. I'm delighted to be here.

John Boccacino:

It's really fascinating. When I was a student at Syracuse, I don't think I had a clue about just the amount of accomplished and accredited research being done on our campus, but we have become a leader, an R1 institute for research here at Syracuse University, and a lot of that is due to the talented faculty that we have who are setting up our students for great success. Lisa, I want to start with you with our question. The first one off the bat, BioInspired Institute. You were involved, you were the first director. You got BioInspired off the ground and running. How would you describe what exactly BioInspired Institute is all about and what service it provides on campus?

Lisa Manning:

I think the big idea behind the institute is that we had some fantastic scientists already here, and we had the opportunity to hire a bunch of new scientists and engineers to do a new type of interdisciplinary research. That was what was really exciting. It's at the intersection of materials and living systems, which seems a little weird, right? Because you think about materials as something that's on a car, and then you have a living system which is like an organism like us. And the idea is that there's types of materials called biomaterials that interact with living systems. There's types of materials that are bio-inspired, which means that they have features or functions or can execute tasks like intelligent new types of materials that act like living systems. And finally, there's this idea that, well, organisms are actually secretly a material. Our bodies are a physical material that does things and has specific properties, and by thinking about living systems as materials or having mechanical interactions, we can come up with new hypothesis that might even someday drive treatments for disease.

John Boccacino:

How did you, Lisa, get involved and interested in research as a passion? And Jay, I'll ask you the same question too, but we'll have Lisa go first.

Lisa Manning:

Well, so I did science fair. I was the giant nerd in high school and I did science fair, and originally, I just did it because I was nerdy and I thought it seemed like something I might be okay at. But what really hooked me is this thrill of discovery. So it turns out that when you're doing original research, and that's one of the things the institute really wants to bring to undergraduate students who are enrolled here at Syracuse and graduate students and postdocs, is this idea that when you're working on a research problem, for one moment in time, you're the only person that understands this new feature of the universe. And I feel like that thrill is kind of addictive to those of us who really enjoy this type of work, and also, we like to make an impact.

Lisa Manning:

So sometimes, those impacts are a little further down the road with basic research, and with more applied research, they can be very direct, and somehow, both the thrill of discovering something, which

is what I did in science fair and first got hooked on, and then realizing I worked on a biochemical fuel cell when I was like 15. And so I was trying to build something to make electricity and it was really fun, and I felt like someday, I could make an impact.

John Boccacino:

We'll get a little bit more into your story as well, but I want to bring Jay on to ask him the same question. Jay, were you a science fair nerd like Lisa as far as getting your hands dirty and really digging into research?

Jay Henderson:

I had my share of volcanoes along the way, but I'd fast-forward a little bit past that. I think my first years on campus when I was an undergrad maybe were somewhat like yours, John, in that I wasn't really aware of the research that professors were doing. I think like most undergrads, I saw them in class and then I assume they went back to their office and quietly waited to come back to class and teach me. Once again, I just really wasn't aware of what else was going on until I was a few years in, and luckily, I found out about a summer program that's available all across the country at different universities called Research Experience for Undergrads. We have several of them at SU, and I applied to one and I ended up doing research that summer. I think this was maybe after my sophomore year of college.

Jay Henderson:

And so for me, that was my first real exposure to research. And even then, I didn't really realize, I could be doing the same thing during the academic year back at my home institution. So I still, like most undergrads I think, was learning what's out there and what the opportunities are. But once I got into that, like Lisa, I was really excited by working on an open-ended problem that didn't yet have a solution. It's really satisfying when you're not just doing a problem set that countless students have done before you, but you're actually contributing to knowledge. And that was really exciting to me and that got me started, and then I got hooked on working on those kinds of problems, working with the kinds of people that are attracted to working on those problems. Because when you're working on research, you get to work with really fantastic people, with other faculty members, with students, and it's just really exciting.

John Boccacino:

I appreciate you both opening up and sharing a little bit about your passions and how you got started with research. From my layman's perspective, it seems like research can be very siloed in nature where you might work just with your faculty member and your school or college. But you mentioned earlier, Lisa, this collaboration, this interdisciplinary aspect of BioInspired and the BioInspired Institute. What was the thought process that led to BioInspired getting established, and how have we tried to embrace those tenets of working collaboratively?

Lisa Manning:

Well, that's a really great question. So I would say maybe to start off, we had, I don't know if I want to use the word siloed but maybe siloed is okay, sort of niche areas of excellence already at Syracuse. We had some people that were really good in a field called soft matter physics. We had some folks that were really good in biomaterials, and what occurred is that there was this idea that we could do cluster hiring for new faculty who would really drive forward this R1 status of our institution, build the space for undergraduates, do this type of research, and so there's actually a competition for proposals for new faculty hires.

Lisa Manning:

And so basically, Jay and I actually have a long history of collaborating. He was actually the person who brought me onto the very first grant proposal I ever got at Syracuse. He was the lead and he let me hang out, and we collaborated to help conceive of an idea of how these different groups in different departments in different colleges could work together and hire in between those areas of excellence to really build something cohesive together, and it's kind of new and outside any department. It was the type of research that you couldn't do unless you had these different pieces together. And so that was really the start.

Lisa Manning:

And we worked also, I can talk more about it later perhaps, but other really important components for us were things like a professional development program and workforce development in addition to that interdisciplinary piece to give a holistic skillset to the folks working on these problems.

John Boccacino:

How can you describe BioInspired's mission and what we try to do when it comes to connecting our students with access to faculty, and not only students, but the undergraduates getting introduced to graduate level and post-doc students that they might not have access to normally.

Jay Henderson:

We're trying to figure out ways to solve really big problems, right? We're trying to figure out how we can combat things like antimicrobial resistance to antibiotics. That's a big problem that could affect many of our lives. How can we better treat injuries when they occur? Whether it's a traumatic injury where you're trying to stop bleeding, or maybe it's an injury or disease that's developed over time and there currently are just not good treatments available. How can we use materials to try to do those things? So some of the biggest challenges facing our society might have solutions rooted in the materials we could use to address them. Whether it's treating an injury or disease or capturing energy in some way that can't currently be captured to address things like global warming or combating covid, these problems that are going to continue to face us into the future.

Jay Henderson:

So that's, in my mind, those are the kinds of challenges that BioInspired is well positioned to tackle. Because it will take that kind of interdisciplinary, transdisciplinary approach to do that. Like you were referring to a few minutes ago, one professor working in a lab with a small team of students is not going to be able to meaningfully address those kinds of challenges. So that's why I think it's so exciting to bring together these kinds of teams. And as far as your question or your comment about getting undergrads involved in research and the educational mission, even though I was a late bloomer, when it came to realizing research was an option and an opportunity, I think research is such a fantastic way to help students figure out what they want to do and how they want to impact the world, that that's why I'm so passionate about. Making sure they're aware of the opportunities that are available early on.

Jay Henderson:

And SU has a lot of resources to make that possible. We're lucky as an institute to be able to team with units on campus like the Source office, whose mission is to provide ways to support undergraduate researchers as they get started on their own research careers. So I think that's the exciting part about research in undergrads. Is getting them outside the classroom and giving them opportunities to really learn about what they might want to do or maybe what they don't want to do. It's about trying things out and figuring out what direction you might want to go in the future.

Lisa Manning:

Yes, and I think too, the great thing about the generation of students that's coming in is they're really galvanized by these big problems. They know we have to address climate change. They want to help find treatments for congenital disease. These things are on their mind and it is really important to them to make an impact. So I think the fact that BioInspired can address these really forward-thinking big problems is one of the ways that we get new populations of students who maybe were thinking about broadcast journalism or something else previously to doing these things. I mean, we need all hands on deck. All of these ways of addressing these problems are important.

John Boccacino:

When it comes to the pipeline of getting students into research early, what are some of the most successful ways that we as an institution and that BioInspired specifically can help with the funnel to get them in, to get them acclimated and feeling like they can contribute?

Jay Henderson:

So this is something John, we've thought about a lot over the last few years, and we've been thinking about how can we get students in early, as you said, how can we make sure we're reaching a diversity of students from a diversity of backgrounds and interests so that we're really starting with the biggest possible pool, so that we can try to fill that pipeline with folks who can contribute to all these big challenges that society faces. So we've done some programming that starts as early as before Syracuse University students arrive on campus. So we have a pre-college program that's meant to get students coming in, oriented to what research is and how they could get involved as early as their first semester on campus. And to try to help them hit the ground running and have some of the context for what's going on and how a university works in the way that I might not have when I was a student.

Jay Henderson:

So it may have taken me a few years to realize that research was an opportunity, but we talked to them about that early. We try to make sure they understand what doors research could open, what experiences it could give them, and also just the nuts and bolts of how they can go about getting their foot in that door, how they can start that experience. So we help them understand how to reach out to their professors and ask about research opportunities. We help them prepare a resume so that they're ready to present themselves well. And this is something that any student could do, not just students who are involved in our program.

Jay Henderson:

And part of it is just getting the word out that these opportunities are there. And then throughout the four years, we have additional programming to try to help students continue to up their game so that

they'll have more and more opportunities, whether it's at SU or maybe they're going somewhere else during the summer, to continue to get these formative experiences, to continue to strengthen their toolkit and build their resume so that once they finish their undergraduate years, they're able to go out and compete for whatever it is they want to do. Whether it's a job or they want to go to grad school or med school or some other opportunity.

John Boccacino:

How pivotal is our relationship with the NSF, the National Science Foundation, in setting up our student researchers for success and then also allowing the grant money, the seed funding to come in so that our students can pursue their research passions without worrying about how am I going to pay for this?

Jay Henderson:

Yeah, it's a really good question. And unfortunately, like so many things, money is often a prerequisite to achieving some of the goals you might be setting out to do. And research is expensive. So being able to compete for the funds that are necessary to keep the lights on and do the research is a big part of having a successful research program like SU. So luckily, the institute, as Lisa pointed out, we're able to bring together some really strong building blocks on campus informing BioInspired, and she and other leadership were able to identify areas where we could invest further to make sure that we had the kind of teams that could go out and compete for funding. And BioInspired members have a really strong research funding portfolio, and not just from the National Science Foundation, but also from other federal agencies like the National Institutes of Health, which funds broadly medical and healthcare related research and other agencies like the Department of Defense, which doesn't just do research related to war fighters and things like that.

Jay Henderson:

But also many different technologies that have great spillover into societal benefits outside of the military sector. So I think one of BioInspired's big successes has been recruiting and retaining and cultivating faculty who can compete for the research dollars that are required. And we've had a really successful seed funding program that Lisa started during her directorship, that has allowed us to use some of our own institute funds to get these seed projects going, as you were referring to. And a seed project that's successful and may involve some undergrads and a small team to get things going often then leads to landing that NSF grant or the NIH grant or the funding that'll allow us to continue that research and take it to the next level.

John Boccacino:

And Lisa, what is it about the seed funding program, the initiative that you helped to cultivate here on campus? What was it? What did you want to accomplish and how has it been able to set up our student researchers for that success?

Lisa Manning:

Yeah, so to answer that, I might just... Because I'm not sure, all of the people who are listening to the podcast know about the process of peer review that's used to review scientific grant proposals. And so basically a scientist or a team of scientists puts together a 15 page or 20 page set of very dense texts that is then sort of peer reviewed by totally volunteer other scientists with program officers at these national foundations. And so all of us donate our time, we believe so deeply in the idea that we want the best possible science to go forward, that we volunteer our time in order to review those proposals.

And so what we're trying to do with seed funding is basically get some preliminary data to demonstrate that an idea is feasible, so that when other scientists and engineers peer review it, they can say with a little more certainty, does this seem like it's going to work?

Lisa Manning:

When you have a great team and you have great preliminary data, you're in a really good position to make a case to your fellow folks who understand the details that this is something worth putting our resources towards. And so within the institute, we thought, "Oh, it's an important thing for us to peer review within the institute our peers." So we have a very kind of formal rubric that ensures fairness, and we have criteria including contributing to diversity and inclusion on our campus, because we know that the most successful teams are diverse teams. And we also know that part of what we're doing here is training students in these research projects too. So all of that goes into our internal review process, which we try to model on the review process that'll happen when it gets sent out later, so that we're getting ready for that second tier.

John Boccacino:

We mentioned it's not a silo, it's not a singular property when it comes to the research. There's partnerships on campus, but there's also really strong partnerships with research organizations outside of academia. What role have those research organizations and are partnerships with them played in BioInspired success?

Lisa Manning:

So there's a few clear local startup companies and also incubators for startups that have been key collaborators of the BioInspired Institute. So just to name a few names, there's iCo Therapeutics, which is just about a half hour south of Syracuse University that does some work to try to bring therapeutics or treatments for diseases to market. We collaborate with MedTech, which is a local organization... Actually it's across the state of New York for basically biotech companies, but it's based in Syracuse. And so the CEO of that is on the board for BioInspired.

Lisa Manning:

And then we also have collaborations that are a little further afield. For example, we were interested in a proposal to bring a new device to market that was along the lines of what Jay mentioned, a material that can actually help chronic wounds. So it's a biomaterial actually developed by our fantastic faculty member, Mary Beth Monroe. And in the process of thinking, oh, how do we do a market analysis? How do we think about possible places that this can go? We worked with another Bridgewater Innovations startup incubator to think about how to get that product out there. So that's just a sampling of the types of industry connections that we have. Jay, do you have other things?

Jay Henderson:

I would just point to other universities on the Hill who are invaluable partners for the institute and for the university. So our members, many of them, the majority come from Syracuse University, but we also have members from SUNY Upstate, the med school across the street, and SUNY ESF, the SUNY College of Environmental Science and Forestry, which has a campus contiguous with ours. And this broadens the intellectual environment in which we and our members work. So we have some great academic partners in addition to the kinds of industrial and corporate partners that Lisa mentioned.

John Boccacino:

Being the person who helped get BioInspired off the ground, take us through your thought process and how did it come to fruition because now, three plus years later, Jay's taken over a well-oiled machine that has us positioned as a worldwide leader in research. How do we get to this point with BioInspired?

Lisa Manning:

Yeah. Well, thank you for framing it that way. I would say that basically, it's the other people in the institute. And I also actually think our university deserves a ton of credit because this is one of those things where we had a fluctuation that led to this amazing group of scientists and engineers who were excited to work together and we really needed...

Lisa Manning:

So once you have a group of people like that, you need staff support, you need space, you need resources in order to get all of this stuff off the ground. And especially if you want to bring workforce development piece like where we're training graduate students in soft skills, and we're creating a cohort of postdoctoral associates who can work together. Science is a social endeavor. And so when you like the other people on your team and you see them socially, you might go out for dinner or drinks or something, that makes it actually more fun, but it also makes it more effective because you start talking about some offhand crazy idea you have and then you scribble something on a napkin and then three days later, there's a working prototype in somebody's lab because you got excited about the idea.

Lisa Manning:

So I think maybe what I would say is there was a lot of support from the university to get us to the point where we could make sure that those types of interactions were happening regularly. And I saw my job as director as basically trying to allocate the resources that we had in order to facilitate those type of interactions, that resource development, that seed funding. And also, I think one of the things that is really great about the culture of our institute is we have a ton of leadership positions to bring people up through the pipeline to become the new leaders in the future. And so we have different focus groups. We have 13 sub leadership positions, and that's intentional because there's lots of great people with great ideas who can bring forward things. And so we thought very intentionally about the structure and the processes that would give everyone a voice, and that would really allow us to collaboratively filter the best ideas and focus on collaborative ideas that would allow us to be excellent.

Lisa Manning:

And I have to say, now I go to conferences and people know that we're from the BioInspired Institute, and they talk about the new hires we've made. And in science community, it's almost like being a rock star a little bit. It's a great feeling. It's like, "Oh." No one else knows outside the scientific community, but within the scientific and engineering community, we're known as really a place that's up and coming. And in addition to all the health and medical stuff, the other thing that we're starting to be

known for is this BioInspired stuff. So in addition to the medical devices, there's all this challenges in sustainability and food safety and monitoring the ocean environment and these smart materials that are inspired by biology are really something that is cutting edge and new, and we're right at the front of it because of the choices we've made. So that's why it's exciting.

John Boccacino:

I know you, Lisa and Jay can't walk into varsity without getting mobbed by adoring fans who want to buy you slices of pizza, right?

Jay Henderson:

It's a real problem.

Lisa Manning:

Yeah.

John Boccacino:

And Lisa, you set that up perfectly for my question for Jay here, because I also love organizations that promote from within. And Jay was the associate director before taking over July 1st as the new director. Jay, take us into your mindset. Why did you want to get involved with BioInspired in the first place?

Jay Henderson:

I've been at SU since '2008, and when I was recruited here, it was in the biomaterial-sey area. And so, one of the areas that Lisa referred to that merged together a few years ago to provide what is now BioInspired, the starting material. And the university obviously has invested substantially, additionally to round that out and to really make it cohesive and strong.

Jay Henderson:

So my interest in these related areas goes back to when I started at Syracuse University and having had the opportunity to work as the associate director with Lisa, I was really excited that she had the vision to build BioInspired into what it is now. And she did a lot of that critical formative work that needed to be done to bring together the members who were already faculty here, but also to get the university to invest in the cluster hiring that took place, that really helped round out that team so that we could strategically fill gaps or we could compliment existing areas. And so I was really excited to see all that happen. And the reason I'm excited to continue to be involved is now that all of that critical work has been done, I think we have this amazing foundation to do even more. The sky's the limit here.

Jay Henderson:

And Lisa's referred to areas in which we've already been doing a lot, both basic fundamental science, meaning understanding how the world works without necessarily having immediate applications and applied science where we do have critical needs we're trying to address right away. And Lisa also mentioned workforce development and trying to make sure that we are contributing to the university's mission to educate and to put people out into the workforce who can help have meaningful impact, whatever the economy looks like. So there's a lot that we've been doing, but I think there are a lot of exciting directions we'll be able to go using that as a amazing foundation.

John Boccacino:

You mentioned Jay, the cluster hires and BioInspired is so closely associated with cluster hires when it comes to bringing on board new researchers. Can you explain for our audience what exactly a cluster hire means and how that practice helps advance our research goals?

Jay Henderson:

The way I think about cluster hires is, imagine a university where you've got different departments, biology, physics, chemistry, biomedical and chemical engineering, and they need to hire new faculty. And if they only do it within their department, if they only look at who's in the department and who they might need to teach a given course or areas of research within the department, they could try to strengthen or compliment, it's a very limited perspective. And they'll probably hire from a certain pool and they'll probably try to achieve certain goals, but it ignores everything else that's going on within the university. Maybe not all of which is relevant, but a lot of it could be. So that's traditional disciplinary hiring. You hire for a department or you hire for a given program. And the lens you look at this whole process through is the lens of that department. What do we need in this little part of the university?

Jay Henderson:

With cluster hiring, you take a little bit broader look or a lot broader look. And our perspective was across all the departments that are affiliated with the institute. So I mentioned some of them already, biology, physics, chemistry, biomedical and chemical engineering, mechanical and aerospace engineering and others, as well as our partners at Upstate and ESF. And you think about across that institute level, university level strength, where do we have needs? Where do we have gaps and where could we hire folks who would compliment existing strengths? It's a bigger perspective that I think, allows a university to compete for the kinds of folks who are going to really contribute to the kinds of collaborative science we're talking about. Because if you only hire for each given department, it may work great within the department, but the chances of it clicking across multiple departments is obviously going to be diminished.

Lisa Manning:

Yeah. And just to add onto that, I think the other really great thing about cluster hiring is the type of person who wants to be a cluster hire is someone you really want to hire. They want to be collaborative. And often, this is maybe something which your listener base doesn't know, but universities are often competing for new faculty members. We're trying to hire someone and six other places are trying to hire that same person. So the fact that we can talk about number one, that we're doing the cutting edge stuff and we're great, and two, that there's this opportunity to build in a new area and an interdisciplinary way attracts a really exciting type of person to the campus. And that also in general, I think these type of interdisciplinary folks love interacting with other people, love being collaborative. And although it's a little bit of a generalization, tend to be really good at mentoring undergraduate researchers and graduate researchers and doing this training component in a new and cutting edge way.

John Boccacino:

Syracuse University prides itself on being a welcoming institution where all students can come in and pursue the challenges that they want to pursue with their academics. One area in particular has been STEM, trying to get more women and more underrepresented populations into the STEM fields. What programming is in place to help broaden that pipeline and what is Syracuse University and BioInspired doing to facilitate getting more people of those populations into STEM fields?

Lisa Manning:

That's really important question. So one of the things that I'll say is that the program that Jay discussed a little earlier, which is that we call it by the acronym CAREER within BioInspired, which is some long acronym I won't say. But the idea is we're basically trying to make sure that we provide a welcoming environment to a diverse population of students. So that program is actually in partnership with some of our HBCU, so historically black colleges and university partners, that includes Hampton University and North Carolina A&T University. So actually Jay and I have a longstanding collaboration where we've run bootcamps with faculty members and bringing in students from those two universities. Actually since I arrived here in 2011 and we've run a series of programming and once I became director of BioInspired and actually quite frankly spearheaded by Jay, we decided to expand that program into support that because the programs that we had done were one-off and were for students for four weeks at a time and one time point in their career.

Lisa Manning:

And we thought, hey, we really need to provide a longitudinal support, a support over the whole lifespan of college because the word that people use in our circles is a leaky pipeline. Folks that are from underrepresented groups, maybe they don't see an environment that's welcoming to them and then they drift out of the pipeline over time at every stage. So our goal is to provide support at every stage. So there's more on-ramps to being in STEM education.

Lisa Manning:

So the program, so Jay already talked a little bit about it. It has components that are high school students, so pre-college right before they're going to come in. We have some early interventions when students are freshmen or first years or second years, and we bring students in there and then we have additional programming even later stages, and we're working to get that funding that we talked about earlier for even a post-baccalaureate thing where once they graduate students who may need an extra year before going to graduate school so they can continue doing even more advanced science, we want to be able to support them there. Jay has spearheaded the submission of several grants to do this difficult but really important work in BioInspired. So right now we're supporting it directly from the institute because it's a key value for our institute and we hope to get more money from the federal government to continue it and broaden it.

John Boccacino:

Before we close off our conversation, it's hard to believe how fast the time has flown by here, but there's a really cool innovative symposium coming up. It's the second year of the BioInspired Institute symposium taking place October 19th and October 20th. What can people expect from the symposium?

Jay Henderson:

Yeah. I'm glad you brought it up because I think it is a fantastic opportunity for those who may be a little outside the institute or way outside the institute to come and learn more about us. So those who come will have an opportunity to see our faculty members and their trainees, postdoc fellows, grad students and undergrads presenting the cutting edge, bleeding edge research that they're working on. So this will be what they're doing now. And in addition, I think those who come will see ways in which the institute is having impact outside the lab. So one thing that we're focusing on this year trying to make sure it's apparent to those who attend is all the different types of outreach activities and other activities that our members participate in.

Jay Henderson:

Because in addition to being very diligently active in the lab, many of them are getting out into the community. They're getting out across the country and the world leading projects and programs that may be helping bring science to the public that may be introducing the public to opportunities to get involved in research. And it ties back to my interest and passion in making sure that folks know the opportunities that are out there. I hope that people will come away with a better understanding of how science is having a positive impact day-to-day coming out of the labs of the BioInspired Institute.

Jay Henderson:

And we're going to make sure to emphasize this year some of the other transdisciplinary things that we've been doing, and these are things that have been going on for a while. They're not necessarily new. We're just trying to make sure that we are showing them off sufficiently that people know about all the excited work. So for example, Heidi Henley, who's the new associate director of the institute, has for some time been working with artists and others from the social science and humanities at Syracuse to look at what can happen at the interface of science and art. So she's run a bioart group and mixer that brings together people from the sciences and from art to explore that really interesting interface, which can do amazing things toward helping the public understand science, but also creating new types of art. And it's an interesting area that we're going to have on display there this year.

John Boccacino:

Just how surreal is it for you when you walk into the symposium and you see all these poster presenters, all these researchers, the campus community coming together. I mean, this has got to do such wonders for you, seeing the picture come all the way to fruition.

Lisa Manning:

It's amazing. Seeing these things that we collaboratively as a team knew were possible five years ago when we started conceiving this idea, if you would've told me we would be here now, you're right. I would not have believed you. It required some serendipity and a ton of buy-in, faculty and staff and student buy-in to believing in that what we were doing was worth the time. And it's really exciting to see all the impact that that belief and hard work can have.

John Boccacino:

For more information, go to bioinspired.sy.edu. A huge bit of gratitude from myself to our guests today, Jay Henderson and Lisa Manning. I want to thank you both for coming on, for enlightening our audience. Please keep up the great work and thank you for all you do for research and for Syracuse University.

Lisa Manning:

Thank you.

Jay Henderson:

Thanks, John.

John Boccacino:
Thanks for checking out the latest installment of the 'Cuse Conversations Podcast. My name is John Boccacino, signing off for the 'Cuse Conversations Podcast.