



Inspired by imagination

By Susan Green and Mary Reed

New center will unite disciplines, foster creativity

Design is part of life. We make design decisions every day when we choose what to wear, what color to paint the rooms in our houses, what to plant in our gardens, or what car to buy. Do we think about the consequences of our choices — which can be functional, beautiful, bleak or dreadful? Not really. We simply choose what we like. But a group of forward-thinking people at

Ohio University understands that design can make a difference, and the new Academic and Research Center will be a testament to this.



MEGAN NUBOLSKI

“I think the more we know about medicine, the more we want to know. Research is the path we want to pursue in this quest to greater knowledge. As a primary care proponent, I think it’s really exciting to be involved in discovering health, and that’s something this building represents. It provides even more opportunities to pursue osteopathic medicine at its best and latest.”

— **Lauren Gutheil**, a third-year OU-COM student and family practice fellow for 2009–10. Her father, Paul Gutheil, was instrumental in the founding of OU-COM, and the Gutheil family dedicated a room in ARC in his honor.

Evidence-based design — design linked to positive outcomes — has evolved and become increasingly popular since Roger Ulrich's groundbreaking 1984 study revealed that the environment in health-care facilities affected medical outcomes.

Much has been said about the environment in ARC, conceived by the Russ College of Engineering and Technology and the College of Osteopathic Medicine and for which ground was broken in September: It's a learning community that will advance research. Classrooms will be more like studios. Some workspaces will be called hangars, corridors called pathways, and common spaces will include a large living room, café and fireplace nook. And all of these elements will work together to encourage collaboration and generate new research.

What do these things really mean, and why are they necessary in a classroom

and research facility? To find out, it's important to go back to the genesis of the project.

It all starts with an idea

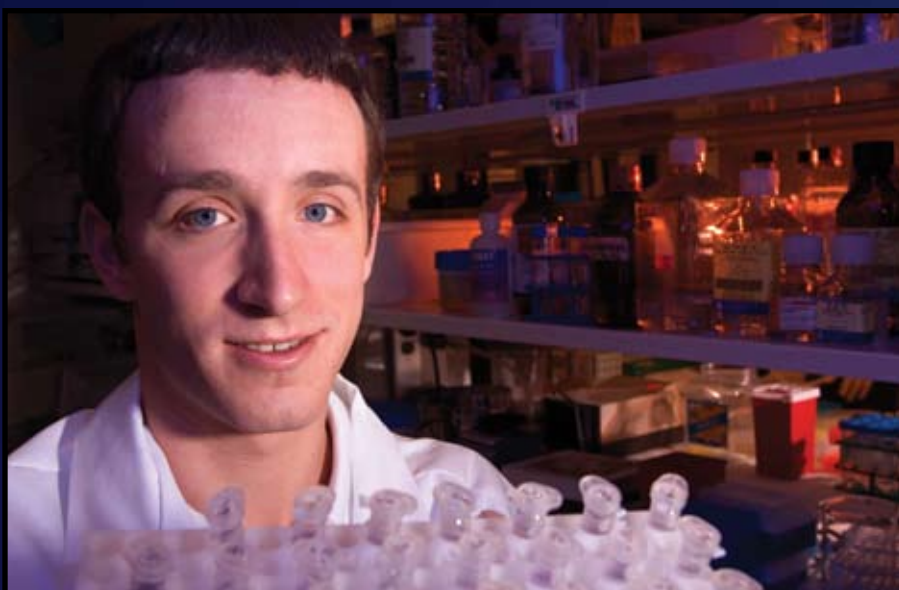
"Students have different methods of learning and working," says Dean Dennis Irwin of the Russ College. "They look for collaborative learning opportunities, and they flourish when academic and extracurricular activities blend."

Thinking creatively, Irwin honed a vision for a new facility that would transform the classroom experience for engineering students. At the same time, research in cardiovascular disease, diabetes and musculoskeletal medicine continued to outgrow existing space at OU-COM. Creating more lab space became a priority for Dean Jack Brose.

"As the college increasingly becomes a nationally recognized research center, space for new research activities is

"It will be great to have students from the clinical side, the engineering side and all the molecular biologists coming together to work. The research will be a lot better with three different perspectives, and students will have a broader range of opportunities."

— **Anthony Schwartz, BSEE '07**, who is enrolled in a new master's program in biomedical engineering offered by the Russ College of Engineering and Technology in conjunction with the colleges of Osteopathic Medicine, Health and Human Services, and Arts and Sciences



Rick Farica



Rick Fatica

ABOVE: Chuck Stuckey, BSME '66, and his wife, Marilyn, see in the Academic and Research Center the opportunity to prepare engineering students for a professional world that will demand they work in teams to solve problems. **BELOW:** Osteopathic Heritage Foundations President Richard Vincent, pictured with university President Roderick McDavis, says ARC will advance the College of Osteopathic Medicine's research endeavors, thus benefitting the entire field.

critical," Brose says. "It was clear to me the college needed a new building in order to further its research mission."

Brose presented the need for a research facility to the OU-COM advisory board, which includes Richard Vincent of the Osteopathic Heritage Foundations and Ohio University President Roderick J. McDavis. Inspired by the potential to significantly advance research, board members began discussing plans for a new research facility.

Similarly inspired, McDavis brought the university's deans together to discuss the possibilities.

"Dennis Irwin mentioned that his college had already raised some money toward a new classroom building and it might make sense for us to combine our efforts," Brose explains.

The meeting of those minds was essential — and quite logical.

"If Ohio University was going to lift its research profile, it was going to be because of its leadership in the College of Osteopathic Medicine and the Russ College of Engineering and Technology," McDavis says. "Much of our research comes from the two colleges. It seemed only natural."

Soon, a new integrated learning and research facility began to take shape.

Design with a purpose

Nationally known for designing innovative spaces that facilitate learning and encourage creativity, Burgess & Niple engineering and architectural firm worked closely with Irwin, Brose and other university administrators to design the building and its academic and lab spaces. ARC will primarily host space for engineering and medicine, but in the spirit of interdisciplinary research, some space will be allotted for the colleges of

Health and Human Services and Arts and Sciences.

"Space does affect learning," Jim Edwards, BSCE '70, states flatly. He's an engineer who designed the academic space. From an engineering point of view, the building will feature exposed beams and structures so that students can examine and understand how and why it was put together the way it was.

And classrooms, Edwards notes, will encourage students to be flexible, to explore topics and then create something, much the same way dance, theater or art studios function, thereby affecting the way classes are taught. The classrooms will have adjoining breakout rooms, complete with white boards, tables, projectors and Internet connections. Groups can work together on projects in a breakout room and then return to the main classroom to share their results.

The 12 medical research and six integrated labs are the soul of the building. As another way to move research out of its traditionally solitary space and into a more open environment, the labs' large windows will allow students, or anyone who walks by, to see what researchers are working on. That, in turn, may stimulate interest in research and create additional collaborations.

"It will be exciting when you walk through the door," Edwards says. "For example, you have a main classroom that has a glass wall that is electrically polarized. If you want people to look in, you turn a control; if you want it to be opaque, you turn a control. There's a thin film in the glass, and it's changing the charge. If that ain't engineering, I don't know what is."

"My grand dream is there's a serendipitous experience that occurs between medical students and engineers," Edwards adds. "If we can achieve that in this space, we can have something no other university can offer."

A partnership between engineering and medicine makes sense — blood flow and fluid mechanics operate on the same principle. Working in close proximity, engineers and medical researchers will be able to meet and talk about their individual projects, which may inspire new ventures. This may be particularly true in the field of bioengineering, a popular area of



Rick Fatica



A vision for learning and research

Born of the Fritz J. and Dolores H. Russ College of Engineering and Technology's vision for a learning community and the College of Osteopathic Medicine's desire to advance research and improve public health, the Academic and Research Center will unite students, faculty, staff, alumni and collaborators for learning and discovery. It will change the way faculty teach and students learn. And it will expand interdisciplinary research and lead to new technologies, diagnostics, therapeutics and treatment paradigms.

To learn how you can be involved in this exciting venture — the first Athens campus building to be constructed primarily with private dollars since Cutler Hall in 1819 — visit www.ohio.edu/development/arc. There, you can meet donors, view a project slide show, take a virtual tour, see floor plans and learn about a variety of naming opportunities.

research that has changed radically in the past few years, and for which the two colleges have created a joint faculty position.

"It's been my experience that great collaborations don't come about from formal meetings. They're impromptu," Brose says. "They come from people standing in a hallway and talking, going together to a conference, or just bumping into each other. More ideas will come from meeting someone in the café than from formal meeting rooms."

Sound structure for the future

Expectations for graduates are greater than ever. Twenty-first century jobs require independent, creative thinkers who also can work in teams and display competence in a variety of disciplines. So it isn't surprising that Ohio University is interested in creating an environment that encourages medical students and engineering students to work in more collaborative, social settings.

Chuck Stuckey, BSME '66, understands the importance of an educational experience that more closely mirrors the professional world's teamwork approach to problem solving. The former chair and CEO of RSA Securities spent 13 years hiring and promoting professionals coming out of engineering schools. "These were bright people, engineers, problem solvers," he says. "But they were very individual. They liked to go off on a problem and work on their own. I often had difficulty finding people with the right skill set — people skills — to promote into managers."

As Stuckey discussed these concerns with Irwin, it soon became clear to him that he wanted to contribute to an effort that would support the whole-student education of engineering and medical researchers. "How do you bring people together in areas where they can actually collaborate and professors can

get out rather than being in their office all the time?" Stuckey asks somewhat rhetorically. ARC's design provides answers.

Stuckey and his wife, Marilyn, committed \$5 million early on in the project. That, plus a \$10 million pledge from the Osteopathic Heritage Foundations, based in Columbus, helped jumpstart a process that culminated in September's groundbreaking.

"We are particularly excited to fund an integrated, collaborative project at Ohio University," says Vincent, speaking for the OHF board of directors. "We can remember our own colleges and universities as they related to research. Particular colleges conducted research in silos. There was limited integration or cooperation. Our intent is to help advance the university's vision and support OU-COM in becoming a health science and research center."

Integrated research facilities like this are still rare, and when all is said and done, this facility will be one of just a few in the country where this kind of collaboration is taking place on a daily basis. Edwards, speaking as both an alum and an engineer, calls ARC a dream come true for Ohio University.

He compares the building's design to that of the flagship buildings at engineering schools such as MIT, Michigan and the Olin College of Engineering. He's logged extra hours of work on the project, interacting with deans, faculty, staff, students and fellow alumni who share his dream for what the space can become. But he doesn't mind the workload. "It's a labor of love, there's no question about that."

A version of this story first appeared in Today's DO magazine, produced by the Ohio University College of Osteopathic Medicine. Susan Green is a writer for OU-COM; Mary Reed, BSJ '90 and MA '93, is a writer for University Communications and Marketing. Mariel Betancourt and Breanne Smith also contributed to this story.