Louise Chow elected to National Academy of Sciences

Louise Chow, Ph.D., professor of biochemistry and molecular genetics and a senior scientist in the UAB Comprehensive Cancer Center, has been elected a foreign associate of the National Academy of Sciences for her excellence in original scientific research. It is one of the highest honors given to a scientist or engineer in the United States.

Chow’s efforts as a pioneering scientist have drawn talented graduate students and junior faculty from across the nation and around the world to UAB to work and study with her. “Our lab is excited, and I’m very pleased to be recognized by my colleagues and fellow scientists for my contributions to science to which I have dedicated my life,” Chow says.

Chow, elected along with 84 new members and 20 other foreign associates, is the only member located in the state of Alabama this year and only the second elected from UAB.

Chow, who was born in China and came to the United States from Taiwan in 1965, obtained her graduate degree from the California Institute of Technology in Pasadena, Calif. As a post-doctoral fellow at the University of California-San Francisco, she investigated the presence of defective DNA of the monkey tumor virus SV40, beginning her career focusing on DNA tumor viruses.

Chow’s efforts as a pioneering scientist have drawn talented graduate students and junior faculty from across the United States. “Our lab is excited, and I’m very pleased to be recognized by my colleagues and fellow scientists for my contributions to science to which I have dedicated my life,” Chow says.

At one of today’s pre-eminent leaders in the study of the human papillomaviruses, the virus responsible for cervical cancer, Chow has been working on bacterial, animal and human viruses for more than 43 years.

In 1975, she and her husband, UAB Professor Thomas Broker, joined the Cold Spring Harbor Laboratory in Long Island. Initially her work focused on the genetic organization, RNA transcription and DNA replication of human adenoviruses, which cause rather common respiratory and GI tract infections. While using an electron microscope to examine the structures of viral molecules, Chow discovered the presence of defective DNA of the monkey tumor virus SV40, beginning her career focusing on DNA tumor viruses.

Louise Chow, professor of biochemistry and molecular genetics and a senior scientist in the UAB Comprehensive Cancer Center, was one of 21 foreign associates elected to the National Academy of Sciences. Chow is the only member elected from the state of Alabama this year and only the second elected from UAB.

Lucas named UAB provost

Linda Lucas, Ph.D., who had served as UAB’s interim provost since May 2011, has been named to the permanent post after a national search.

UAB President Carol Garrison announced the appointment effective immediately, saying Lucas “has built sustainable momentum this past year in some key areas, particularly in implementing additional tools and resources to enhance student success, and spearheading the opening of our new Center for Teaching and Learning for our faculty. She is light-energy, innovative and devoted to UAB and will continue to push to improve the academic experience of our students and faculty.”

Richard Marchase, Ph.D., vice president for research and economic development, who led the search committee, said it reviewed a large number of outstanding candidates.

Marchase noted that Lucas “has a long track record as a dean who successfully encouraged interdisciplinary research, particularly in biomedical and materials engineering, and she brings that strength to the provost’s office.”

Lucas joined the UAB faculty in 1982 as an assistant professor. She was named department chair of biomedical engineering in 1995. She holds joint appointments in the schools of Engineering and Dentistry and also several universitywide centers.

She earned her Bachelor of Science degree in mathematics and chemistry from the University of Alabama and a Bachelor of Science degree in engineering from UAB. She has master’s degrees in mathematics, education and materials engineering from UAB.

She earned her doctorate from UAB in biomedical engineering with an emphasis in biomaterials.

UAB expands EL efforts

Three grants totaling more than $5 million for effective instruction of English learners (ELs) will enable UAB’s School of Education to continue its decade-long tradition of training Alabama teachers to instruct children who speak English as a second language.

Investigators Julia Austin, Ph.D., director of Educational Services in The Graduate School, and Susan Spezzini, Ph.D., associate professor of curriculum and instruction, received three of the more than 70 grants awarded nationwide by the U. S. Department of Education Office of English Language Acquisition.

The granting period is May 2012 to April 2017 and will enable an average of 48 students per year to begin a graduate degree program almost fully funded.
Rec Center reopens with two-week pass

The Campus Recreation Center is closed May 12-15 for improvements. From May 21 to June 3, all employees have an opportunity to use the rec center for free.

“This is a great chance to check out the new enhancements and perhaps begin a fitness routine,” says Lauren Whitt, Ph.D., coordinator of UAB Wellness and adjunct professor in the Department of Human Studies. Follow the Rec Center on Twitter @UABCamusRec for updates.

WBHM technology upgrades notice

Thanks to the generosity of its members, public radio WBHM 90.3 FM is undergoing major technology and infrastructure upgrades. During this time, the station may experience technical difficulties. The staff’s goal is to ensure there are no disruptions in service; however, unanticipated issues still may occur. WBHM would like to offer an advance thank-you for listeners’ patience and understanding as work takes place to improve the station, a listener-supported service of UAB. Listen at www.wbhm.org.

IT launches new customer website

The new IT business office site at www.uab.edu/itbilling provides customers user-friendly tools to better manage their bills and an updated FAQs page with common questions, answers and tips. Customers can access past billing, assign access to other users, update records and delegate viewing privileges.

Course on Statistical Genetics & Genomics returns July 9-13

This five-day course will offer an interactive program to enhance researchers’ ability to understand and use statistical genetic methods and implement and interpret sophisticated genetic analyses. Register online by May 18 at www.soph.uab.edu.

Equal opportunity/ harassment policy now is online

Periodically, UAB re-publishes existing policies so new employees are kept informed of the policies and guidelines governing UAB. All UAB policies are in the Policies and Procedures Library at www.uab.edu/policies.

Creating the essential herb garden May 17

UAB Training & Development and UAB Wellness are partnering to present the Lunch & Learn Series event “Creating the Essential Herb Garden” from noon to 1 p.m. Thursday, May 17, in room 419A in Medical Towers. Ellen Riley of A New Leaf Farm Stand will show attendees the five essential herbs anyone can grow — from what they require to grow to how to harvest and cooking ideas. Go to www.uab.edu/learningsystem and click Access Learning System to register, or contact Matt Copeland at mcopela@uab.edu for more information.

Second BFA exhibit open through May 18

Works created by students using a wide range of artistic disciplines will be featured in a new bachelor of fine arts exhibit in UAB’s Visual Arts Gallery through May 18.

UAB Archives to close temporarily

The UAB Archives will be closed through June 29 for relocation to Lister Hill Library.

Total Compensation Statements online

Total Compensation Statements for all full-time and part-time employees are available online through May 30 by accessing www.myuabstatement.com. These statements show the value of your total compensation including salary and benefits. Statements will not be mailed.

Mission: The UAB Reporter is published biweekly by the University of Alabama at Birmingham Office of Public Affairs & Marketing to highlight and explore the interests, objectives and achievements of UAB and its faculty and staff.

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**DEPARTMENT NEWS**

**Assimos named inaugural chair of new urology department**

Seth Landefeld, M.D., an internationally known clinician and researcher in geriatrics, epidemiology and biostatistics, has been named chair of the Department of Medicine, effective May 14, 2012.

Landefeld, from the University of California at San Francisco, where he was chief of the Division of Geriatrics and associate chair for strategic planning and implementation at the UCSF Department of Medicine, said: “We are excited to bring a physician-scientist of the caliber of Seth Landefeld to UAB to lead the Department of Medicine,” said Ray Watts, M.D., senior vice president and dean of the UAB School of Medicine. “Dr. Landefeld has the vision and expertise to help us chart the future of medicine and prepare for the challenges in the decades ahead.”

The Department of Medicine is the largest department within the UAB School of Medicine, with 11 divisions and 403 faculty members. The department has external research funding of more than $110 million. Landefeld will join UAB full time in September but will take a leadership role immediately, Watts said. “The UAB Department of Medicine is a well-established national leader in patient care, research and education,” said Landefeld. “I see the department as the go-to destination for faculty, learners and staff with the ambition, ability and drive to make UAB the most exciting academic medical center in the country.”

Landefeld’s work has aimed to transform and personalize health care to meet the needs of older Americans and their families at a time that will be dominated by the medical and social issues of the aging global population. His research has improved outcomes of older persons with serious illness. In landmark studies of acute illness, he has been leader. He trained at Northwestern University in 1983. He was a fellow in renal and basic research programs with a goal of understanding the interventional environment. On the research front, we will establish clinical, translational and basic research programs with a goal of bringing in the upper tier of federal funding.”

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“Dr. Assimos’ vision for the department and his plans to enhance the clinical, educational and research programs at UAB provide the impetus to make this transition from division to department,” said Ray Watts, M.D., senior vice president and dean of the UAB School of Medicine. “That’s kind of a federal priority, too, not just from the funding agency providing these grants.”

The grants also will enable Austin and Spezzini to continue working with other higher education faculty in other schools of education, which is a key. The state of Alabama set forth guidelines in fall 2007 that all teachers certified in Alabama must complete the program in the past 11 years who had finished UAB’s ESL certification program. More than 350 teachers have completed the program in all 67 counties — an average of more than 30 per year — and about two-thirds have received grant support.

Austin and Spezzini have been asked by the Office of English Language Acquisition to present at their workshops on several occasions and provide guidelines, tips and suggestions to their colleagues at other universities who have ESL grants. The program has had five publications in the past five years, and preliminary data is beginning to come in from a 10-year longitudinal grant study in Baldwin County, which was funded in 2001. The early data, they say, looks promising.

“This is a high-academic program, and teachers are prepared when they complete it,” Austin says. “There is this myth that ESL teachers have to know the languages of the students they’re teaching,” Spezzini says. “Well, no, they don’t, and they don’t need to know. They need to be trained to teach ESL. That’s what they do. We train teachers, and we have a track record of success.”

**Landeufeld chosen to lead UAB’s Department of Medicine**

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“We’re here to help them,” Austin says. “We provide structured support for faculty, and they know they can contact us if they want additional help.”

UAB’s Master’s Program for Teaching ESL has become one of the most effective in the nation. When the two-year program first began in 1999, there were four teachers who had finished UAB’s ESL certification program. More than 350 teachers have completed the program in all 67 counties — an average of more than 30 per year — and about two-thirds have received grant support.

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Visit www.uab.edu/efl for more information on the program.
Diabetes Research Day is a time to learn, build partnerships

Ask any UAB researcher to name the three biggest research challenges they face and the most frequent answer is “funding, funding, funding.”

Researchers have to find ways to overcome the fact that National Institutes of Health funding, and in many cases foundation funding, is down to less than 10 percent of applications — not in the upper 30 percent of years past.

“The funding situation spans across all funding agencies, unfortunately,” says Anath Shalev, M.D., director of the UAB Comprehensive Diabetes Center.

Obviously researchers must have outstanding applications for funding consideration, but they also have to find other ways to compete. One aspect is working together through collaborations.

The UAB Comprehensive Diabetes Center recently hosted its third annual Diabetes Research Day at the Doubttree Hotel. It featured three invited plenary talks by distinguished scientists from Harvard, Wayne State University and UAB School of Public Health covering various diabetes topics. Close to 200 attendees from UAB and Auburn University were on hand to hear these guest speakers and view the 62 posters and oral presentations highlighting this past year’s research successes and interact with one another — which hopefully will lead to new collaborations.

“One way to increase funding potential is by working together through collaborations, and we’ve had several come from this meeting this past year,” Shalev says. “It’s not uncommon for people to find out there are others doing something that may help them with their work. This is a big campus with a lot of different types of research taking place, much of which can be beneficial to somebody else’s work. This is a great way to find potential collaborators across different disciplines.”

The Comprehensive Diabetes Center has 200 total members, including clinicians and basic science researchers. The members represent 10 schools including the schools of Medicine, Public Health, Health Professions, Nursing and Dentistry and the College of Arts and Sciences.

The center provides a full spectrum of diabetes research programs in an effort to treat and cure the serious and growing national health crisis of diabetes. In addition, expert UAB physicians provide cutting-edge diabetes care in the Multidisciplinary Diabetes Clinic and help transition children and adolescents with diabetes to adult medical care through the Transition Clinic.

“Of our goal is to increase our visibility and become a leader nationally and internationally,” Shalev says. “We’re making good progress. We have some very unique attributes here for two different reasons. One, we are at the center of the diabetes epidemic, so it makes sense that we champion these efforts. And two, we have a big medical research community that’s addressing a lot of different aspects of diabetes, which is important for such a complex disease.”

The center also was able to provide internal funding for junior researchers and established investigators embarking on particularly innovative diabetes projects this past year for the first time, a development that was significant.

“It will enable investigators to generate the necessary preliminary data in order to be more competitive when going after larger national grants,” Shalev says. “We got very good response to that, and we plan on continuing that program as long as funding permits.”

One recent research breakthrough in the center came from Shalev’s lab where her team discovered a long-known blood-pressure medication that was able to reverse and prevent diabetes.

“This is just one example of many successes we believe are on the way in the Comprehensive Diabetes Center,” Shalev says. “There are going to be more discoveries down the road if we can keep the momentum going and accelerate the ongoing work.”

The center continues to have strong support from School of Medicine Dean Ray Watts, M.D., and the community, but in order to be at the forefront in the development of new methods to treat, prevent and ultimately cure diabetes and its complications, it remains very dependent on philanthropic support.

For more information on the center and how to make a contribution, visit diabetes.dom/uab.edu/index.html.
A new initiative to educate area residents about managing diabetes is especially important in Alabama, where the American Diabetes Association says one in three citizens born after 2000 are likely to develop the disease. Cities for Life is an innovative pilot project that will work with community groups to create an environment that encourages healthy lifestyles and disease management by linking residents living with or at risk for diabetes with available resources.

UAB’s Department of Family & Community Medicine, Diabetes Research and Training Center’s and UAB HealthSmart are working with the City of Birmingham, YMCA of Greater Birmingham and the American Academy of Family Physicians (AAFP) Foundation for this unique clinic-community pilot project.

“We’re an academic center with many resources and expertise that fit well with this project,” says Mona Fouad, M.D., director of the Minority Health & Health Disparities Research Center.

“Through the DRTC and HealthSmart we’re going to be able to find the partners, raise awareness and bring the communities to the solutions,” Fouad says. “We always say if the problem is in the community, the solution is in the community.”

Cities for Life is a grassroots program that will leverage the collective strength of Birmingham’s medical neighborhood, including health-care and educational opportunities through UAB family medicine practices and many community resources to support a healthy lifestyle.

UAB’s Department of Family & Community will identify clinics in the communities of Southside, Southwest, Homewood, Titusville and West End that can help.

Only city selected

Birmingham was selected for Cities for Life from among more than 50 contenders because Alabama has one of the nation’s highest rates of diabetes and the city has a demonstrated commitment to improving the lives of its citizens.

A key component of Cities for Life is the use of a patient navigator to work directly with family medicine practices to help build links between community resources and people living with or at risk for diabetes. The AAFP National Research Network, the country’s largest practice-based research network, will work closely with key community partners to help develop the patient-navigation system and guide patients to appropriate, accessible resources.

“Our goal is to improve the health of patients and to look at certain scientific and research opportunities and educational opportunities,” says Mary Jo Welker, M.D., president of the AAFP Foundation. “This program fits that need perfectly. We’ll be working with UAB’s Department of Family and Community Medicine and the community to improve the health of the population. We’ll do some studies to try and determine what works and what doesn’t, what kind of incentives might encourage people to change their lives. Then we want to take those educational opportunities and best practices to other communities to help them do the same kinds of things.”

The key partners, representing both the community and the clinical perspectives, will make project decisions on implementation and sustainability through a Cities for Life steering committee. The group says designing a patient-centered link is the first step.

Next steps include increasing awareness through social marketing and linking to diabetes resources through civic and community groups that are focused on peer support and self-management. Finally, the program will attempt to incorporate principles of behavioral economics — personal and financial incentives for behavioral change — by connecting to local businesses that value the health of their employees and customers.

Fouad says the obstacles for many of these people are the barriers they face once they are diagnosed and given their medications and guidelines for disease management.

“There are no safe places to walk, no access to good food and in many instances there are hardships in transportation to access places to get their medicines,” Fouad says. “There is no education on managing diabetes and its side-effects if not managed. And there is hopelessness among some that they can’t do anything about it.”

“Now patients will have a more comprehensive approach to manage their diabetes,” Fouad says.

Monica Fouad and the Minority Health & Health Disparities Research Center are part of a new innovative pilot project called Cities for Life. The program teams UAB with the City of Birmingham, the YMCA of Greater Birmingham and the American Academy of Family Physicians Foundation to educate area citizens on diabetes management and prevention.

May 14, 2012 UAB Reporter
Getting the names right at graduation takes more than luck

At each semester end, proud graduates stride across the stage at UAB’s Alys Stephens Center to receive their doctoral honors. After much hard work and with families and friends in attendance, they’ve reached the crowning moment of their educational journey. And the last thing they want to hear is their name mispronounced.

Lee Shackleford is responsible for making sure that never happens. The assistant professor in the UAB Department of Theatre is responsible for properly announcing each name and often obscure words and symbols in dissertation titles during each doctoral hooding ceremony.

Shackleford always earns a hearty round of applause for his oratorical accomplishments, but he is quick to acknowledge that he doesn’t do the job alone. “Every semester, the folks at the UAB Graduate School, especially communications and events specialist Kellie Carter, work very hard to get phonetic pronunciations for the names of all candidates from all over the world and the terms in their dissertation titles,” Shackleford says. He then spends at least two weeks saying the names and titles aloud to practice for the big day.

“The greatest challenge is to remember what sound a Q or an X represents in different Far East languages,” Shackleford says. “For some, an X makes a ‘kh’ sound, and for others it’s ‘ch’ or ‘cks’.”

Scientific terms often are tough, especially ones that differ according to discipline, Shackleford says. “Recently I had a word I felt sure I was pronouncing correctly because it seemed obvious phonetically, but after the ceremony, I learned that I had the emphasis wrong. But the experts who pointed out the mistake were very kind in mentioning that nobody outside of the materials-sciences world would know that.”

Shackleford has learned some tricks during his years in the job. He now brings to the ceremony an alphabetical list of the words he’s had the most trouble with as practice sessions, spelled out phonetically. “Usually when the moment comes, I can find them quickly on my list, but sometimes I have to rely on memory,” he says. “That’s why the week before the event, you’ll usually find me pacing the halls, muttering the names of chemical compounds and Chinese doctoral students.”

Shackleford takes the job seriously, because he knows how much that moment means to students and their families. Parents and graduates have thanked him profusely for getting it right.

“I feel very strongly that on this day of all days, when the student’s parents often come from the other side of the planet to witness this event, the candidate should expect to hear his or her name pronounced properly,” he says.

Check your eyes! May is Healthy Vision Month

Do you get your eyes checked regularly? You should, say UAB ophthalmologists. By age 65, one in three Americans will have a vision-impairing eye disease according to the American Academy of Ophthalmology. Common eye diseases such as glaucoma, diabetic retinopathy, uveitis and age-related macular degeneration threaten the eyesight of millions of Americans, potentially robbing them of vision, mobility and independence.

“The good news is that researchers at UAB and around the nation are making new discoveries that are yielding sight-saving treatments,” said Chris Girkin, M.D., chair of the UAB School of Medicine’s Department of Ophthalmology. “But early diagnosis, timely treatment and appropriate follow-up care are essential to preventing irreversible vision loss.”

Healthy Vision Month is a national eye health observance established by the National Eye Institute in May 2003. During Healthy Vision Month, NEI and UAB are stressing the importance of early diagnosis and treatment. Early stages of common eye diseases typically have no symptoms and can only be detected through a comprehensive dilated eye exam. Pupil dilation allows a doctor to closely examine the back of the eye for signs of eye disease.

“We have therapies to minimize the effects and slow down the progression of diseases such as glaucoma and macular degeneration, but to be effective, we need to begin those therapies early in the course of the disease,” said Girkin. Girkin recommends that young adults have a complete exam by an eye-care professional once in their 20s and twice in their 40s. However, people who wear contacts should be seen annually. Those who have diabetes or a family history of eye disease should talk to their ophthalmologist about how frequently they should be examined.

Since the early signs of many eye diseases begin in midlife, Girkin recommends a baseline comprehensive eye exam at age 40, with the frequency of follow-up exams determined by family history and the results of the baseline exam.

CHOW

CONTINUED from page 1

mRNA in a complex with the viral DNA, a relatively new method at the time, they and their colleagues determined the coordinates of all the early and late adenovirus mRNAs. In the course of this work, in 1977, she and her collaborators discovered the totally unexpected phenomenon of split genes and RNA splicing. This work became the foundation for understanding the human and the other eukaryotic genomes, the origin of most of their encoded proteins and the cause of many different genetic diseases.

“I remember being a graduate student in 1977 and reading Louise’s work. She had the cover of Cell. She was the first person to see RNA spliced,” Townes says. “A lot of her peers think she should have shared in the Nobel Prize for RNA splicing.”

Chow joined the University of Rochester in 1984 where the team concentrated on distinguishing the growing number of human papillomavirus genotypes and the spliced structures of their mRNAs. These viruses cause laryngeal papillomas, genital warts, cervical dysplasia and genital cancers as well as a significant fraction of head and neck cancers in women and men. The team developed approaches to determine the patterns of HPV RNA expression and DNA amplification in the spectrum of patient lesions, from this they invented a novel strategy for detection of HPV in patient cells and tissues that has become a global standard for molecular diagnosis.

Chow and Broker joined UAB in 1993 and continued their work in understanding the pathology of the human papillomavirus, culminating more than 25 years of research, at UAB she and her team developed a process to produce abundant infectious HPV-18, one of the dominant HPV types that causes cancers. The new method allowed researchers to reproduce the entire infection cycle of HPV-18. This discovery has further paved the way to study HPV pathobiology and to advance genetic analysis.

Today their lab is investigating virus-host interaction, which is crucial for identifying potential therapeutic agents to treat benign infections prior to progression to cancers. “Louise is a very valuable member of our department and a real feather in UAB’s cap,” Townes says. “She mentors faculty, teaches students and post-docs and works tirelessly.”

Ray Watts, M.D., dean of the UAB School of Medicine, says, “Dr. Chow is a preeminent scholar. Her contributions to science and medicine are vast, they touch the lives of millions of people around the world. We are indeed fortunate to have her and her husband and collaborator Dr. Tom Broker at UAB.”

“Dr. Chow has made numerous influential discoveries in the replication of HPV and its carcinogenesis, and this is a well-deserved honor recognizing her significant contributions to the knowledge and understanding of HPV,” says Edward Partridge, M.D., director of the UAB Comprehensive Cancer Center. “Having this world-class scholar in our midst is a source of tremendous pride for the entire community, and we are thrilled that Dr. Chow’s work has been recognized with this rare honor.”
Students design playground experiences for autistic children

When Steven Goodall’s service in the Marines ended recently after 10 years, he knew he wanted to go to school to study engineering — specifically biomedical engineering.

He believes wounded warriors of the military should have artificial limbs of higher quality than they are today.

“Current prosthetic designs, although adequate, are becoming archaic and are not keeping pace with the technology of today,” Goodall says. “I hope someday to provide disabled veterans with enhanced mobility, which hopefully will result in reducing mental stress, through technological improvements of the rubber hand and plastic leg currently in use.”

Engineering 200: Introduction to Engineering Design class has given Goodall the means to start on his quest. Current assigned projects will help him attain a much-needed foundation with which he can begin to bring his goal to fruition.

The EGR 200 class, taught by professor of engineering Rose Scripa, Ph.D., and research professor John Middleton, Ph.D., recently completed the sophomore design, which were multi-sensory stimulation devices for children with autism and other developmental disabilities. The projects were inspired by a collaboration between Biomedical Engineering and the Christopher Douglas Hidden Angel Foundation. Patrick McNees, Ph.D., associate dean for research in the School of Health Professions, brought the two groups together. Students were asked to create a project that could potentially be used on an outdoor playground at the Hidden Angel facility in Gadsden.

This project became a personal one for Goodall and his team; his youngest son Jacob has autism.

“It was important to me to be able to possibly build something that could go in a park and affect children who have autism,” Middleton says. “When you think of doing a project like this, it’s supposed to be fun and creative. And it was very fun, but it was also very stressful. You want to be sure you’re covering everything so that you don’t let any other child be disappointed that’s playing with this. You want to meet every need — the touch, sight and sound. You want them to leave there feeling better than they did when they got there.”

Sandra Fornes is co-founder of the Christopher Douglas Hidden Angel Foundation and a founding member and president of the American Association of Multi Sensory Environments, which strives to promote awareness, access, education, research and science for people who benefit from multi-sensory environments.

Prior to the beginning of the project, Fornes talked to the EGR 200 class about multi-sensory environment methods, and Middleton talked to them about connecting user needs, turning them into engineering specifications and relating that back to design outputs.

“For anyone who has not dealt with individuals with disabilities, it’s very hard to understand what it feels like when you’re not getting sensory input,” Fornes says. “I was very surprised that a lot of the students was very surprised that a lot of the students were not getting sensory input,” Fornes says. “I hope someday to provide disabled veterans with enhanced mobility, which hopefully will result in reducing mental stress, through technological improvements of the rubber hand and plastic leg currently in use.”

“We just turned them loose with few constraints,” Scripa says. “They came up with amazing designs, incorporating engineering ingenuity and quality art work into the final designs. Seeing different disciplines come together like this proved to be a great experience for the students.”

Scripa says the course objectives are teamwork, introduction to design and communication. Throughout the semester, students were given assignments that addressed various aspects of these objectives, all of which culminated in the final project design.

“The teams did not disappoint,” Scripa says. “They excelled in all areas.”

Fornes is hopeful that some of the students might want to carry their design and development work further. “I have to talk to the professor and see if some of these students want to evolve their projects to the real thing and build it on the property where we’re building the outdoor playground.”

Sophomore engineering students showed off their Introduction to Engineering Design projects to Rose Scripa, top center. The projects were multi-sensory stimulation devices for children with autism and other developmental disabilities. The projects were inspired by a collaboration between Biomedical Engineering and the Christopher Douglas Hidden Angel Foundation.
The Kirklin Clinic Diabetes Self-Management Education Program

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FOR ADDITIONAL INFORMATION, call (205) 801-8711