Astronomy researcher challenges star cluster lifecycles

By Meghan Cunningham

A University of Toledo researcher is challenging the long-held belief that large clusters of stars exist for billions of years.

The existence of such large globular clusters in the Milky Way galaxy and many other nearby galaxies led to the belief that once formed, such massive clusters would be nearly impossible to destroy, but Dr. Rupali Chandar, UT assistant professor of astronomy, says that massive clusters that survive could actually be rare, with most rapidly falling apart.

Chandar received a National Science Foundation Career Award of nearly $729,000 over five years to test a new theory about the life cycle of star clusters. Most stars are believed to form in clusters within giant clouds of cold and dense molecular gas. Little, though, is known about the clusters’ subsequent survival. The research project is called “The Life Cycle of Star Clusters: New Windows Into Star Formation and Galaxy Evolution.”

By studying star clusters in a number of galaxies, Chandar and her team are finding many huge young clusters that are only millions of years old, but few such clusters that are older. So either there was an extreme ramp-up in the formation of these clusters during a time representing the last 0.1 percent of the age of the universe, or the large clusters really don’t endure.

“The conventional wisdom has been that when these monsters form, they will be nearly impossible to destroy, hanging around for billions of years. It took us awhile to wrap our minds around the fact that 80 or 90 percent of them may actually be destroyed quite quickly, after only 10 million years,” Chandar said. “We’re starting to think those old large globular clusters that we see are just the skeletal remains of a much larger population, the lucky survivors.”

If Chandar’s team continues to find mostly young clusters as they expand their studies to more galaxies, about 30 in all, the next questions to delve into are why the lucky few have lasted billions of years and what causes most to quickly disperse.

Dr. Karen Bjorkman, Distinguished University Professor and chair of the Physics and Astronomy Department, said the existence of such large globular clusters really don’t endure.

Strategic plan committee continues work

By Chris Ankney

The strategic plan committee is moving closer to a rough draft of a recalibrated strategic directions document.

At the strategic plan committee meeting on Friday, the more than 100-member group of faculty, staff, students and community members reviewed revisions to the six goals of the 2007 “Directions” document that subcommittees have been working on for the last month.

The strategic plan committee is aiming to revise the 2007 “Directions” document to account for real, supposed and probable economic, technological and social challenges, and to more closely align UT’s strategies to those of the University System of Ohio. This is the third time the entire group has met.

The six revised goals, though still considered drafts, read as follows:

I. The undergraduate academic programs at UT will be regionally distinguished and highly ranked nationally. The undergraduate experience will provide exceptional student-centeredness and a learner-driven focus, which combine to ensure a personally satisfying, professionally relevant and affordable education.

II. The graduate and professional academic programs at UT will be widely distinguished and highly ranked nationally. These programs will be known for high quality while maintaining accessibility, affordability and engagement. Science and professional programs will have high visibility.

III. We will enhance The University of Toledo’s standing as a major metropolitan research university with internationally recognized areas of research focus.

IV. We will be distinguished for our student-centeredness and for our vibrant programs and environment that enhance the sense of community on our campuses and in the surrounding areas.

V. We will be nationally recognized for our high-quality clinical enterprise and as a transformative force in the ongoing evolution of regional and national health-care delivery systems. We will continue to work toward distinction aspiring to status

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Senator seeks UT student input March 30

With the national and state economies still struggling to recover, U.S. Sen. Sherrod Brown (D-Ohio) will visit The University of Toledo Tuesday, March 30, to ask students what elected officials can do to help keep Ohio college and university graduates in the state as they start their careers.

The forum will be held from 10:30 to 11:30 a.m. in Student Union Room 2592. A panel of UT students will offer their views on promoting “brain gain,” and Brown will take questions from the audience.

The event is free and open to all members of the University community. Refreshments will be served.

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UT to dedicate new $4 million technology business incubator building April 2

By Jon Strunk

The University of Toledo will further augment its business incubation efforts with the dedication of the Nitschke Technology Commercialization Complex Friday, April 2, at 10 a.m. The new building is located just south of Nitschke Hall Auditorium on Main Campus.


The Economic Development Agency provided $2 million toward the project. The grant required a one-to-one match. The state of Ohio provided a match of $1 million. Nitschke, a longtime UT supporter, completed the match with the final $1 million to make the project a reality.

“The University of Toledo has a central role to play in the economic development of the city and the region,” said Dr. Frank Calzonetti, UT vice president for research and development. “The generosity of Norm Nitschke and the tireless work of Marcy Kaptur have been essential components of this project and the University’s broader business incubation goals. I firmly believe the EDA will be impressed by the economic return their investment will generate.”

Nitschke said, “This facility will help commercialize countless new and developing businesses that in turn will help lead this region’s economic revitalization.”

Megan Reichert-Kral, UT director of incubation, said the new complex would focus on technology companies, whether they would be companies that outgrew the Clean and Alternative Energy Incubator next door, from University research such as advanced materials and manufacturing in the College of Engineering, or tech companies in the community.

“This new incubator, coupled with our Clean and Alternative Energy Incubator and our Innovation and Minority Business Accelerator located on our Scott Park Campus of Energy and Innovation, position UT as one of the key partners in the effort to develop high-tech jobs in this region and throughout the state,” Reichert-Kral said.

Reichert-Kral also emphasized the important role local public officials, particularly the Lucas County Commissioners, and the White Paper process from the Toledo Regional Chamber of Commerce played in strengthening the project.

VI. We will enhance our community engagement to drive the revitalization of the region’s economic, educational, health, cultural, environmental and civic quality of life with a keen awareness of global scope, national relevance and regional impact.

Each goal contains more specific sub-goals, strategies for reaching the goals, and metrics for measuring the progress being made on each goal.

Dr. Jamie Barlowe, co-convener of the strategic plan committee and professor and chair of the Department of Women’s and Gender Studies, said the group is making great progress.

“The hard work that goes into this and the way people are committed to this institution … it’s amazing,” Barlowe said. “We have a full rough draft two months into the process. That’s enormous progress.”

Barlowe said the next stage of the revision is for the work groups to make sure they have “value-added” measures in their strategies and metrics.

“We have to ask ourselves, ‘What have we done to positively impact student learning?’” Barlowe said. “We need to be certain that our measurements are more than a simple ‘Did we do it?’ statement.”

You can learn more about the strategic plan process and progress, read the full versions of each draft goal, and learn how to join the committee to share your voice at utoledo.edu/strategicplan.

Also, participate in weekly discussions on the strategic plan on Facebook at facebook.com/utstrategicplan or on Epsilen at http://www.epsilen.com/grp/103609.

The next meeting of the entire strategic plan committee will be held at 9 a.m. Friday, April 30, in the Mulford Library Café.

Astronomy

Chandar’s research has generated a lot of discussion in the astronomy community.

“Rupali has brought a lot of energy and enthusiasm to the department, and her research is creating a lot of waves and is challenging us to think differently about the formation of star clusters in galaxies,” Bjorkman said.

The Career grant also includes an outreach component, for which Chandar is developing a workshop to train middle school teachers to instruct students about the universe beyond our solar system, using lessons that students will find fun as well as educational. She also is organizing a day for middle school students to come to campus to learn about science and math with hands-on activities.

Chandar’s data comes from large telescopes on the ground, such as those located in Hawaii and Chile, and also from NASA’s Hubble Space Telescope as she works with other research teams to look into those findings.

Most recently, she was involved with the Hubble discovery of ancient galaxies coming together in the Hickson Compact Group 31. It is believed that the coming together of galaxies was common in the universe’s formative years, but this discovery shows a nearby example that is happening before researchers’ eyes at a time when the merging of multiple galaxies is much more rare.

“I’m lucky to have access to some of the best data in the world, taken both from space and ground-based telescopes, and to be working on research that has generated a lot of discussion among astronomers,” Chandar said.
Travel policy updated due to insurance change

The University of Toledo has revised its travel policy in response to changes in vehicle insurance coverage.

Employees who rent a vehicle to travel for University business now should select both the collision and liability insurance coverage from the car rental agency. If a traveler rents a car outside the United States, the employees should choose local coverage and optional coverage.

The policy was revised in response to changes in insurance coverage. UT and other public universities in Ohio receive coverage through the Inter-University Council Insurance Consortium, which recently increased its deductibles for vehicle damage from $250 to $1,000, said Tom Claire, UT administrator for risk management.

The deductible change prompted the University to revise its policy, which previously directed travelers to decline the rental coverage. Insurance is included with some rental car agencies.

To help departments pay the now larger deductible if a vehicle is damaged while in the department’s use, the UT Office of Risk Management has established a physical damage deductible fund.

Employees renting a vehicle also must comply with the University’s fleet safety policy that requires the traveler’s driving record checked through the Office of Risk Management and also successfully complete the defensive driving training course through UT’s computerized safety test bank.

For more information on vehicle rental, visit www.utoledo.edu/depts/purchasing/contracts/vehicle_rental_updated.html.

Lectures to explore opportunities, programs in chemistry

By Jeffrey Romagni

The UT Chemistry Department will hold two lectures this week that are part of its Program for Academic Excellence titled “Leaders of the Global Scientific Community.”

Dr. Luis Echegoyen, director of the Division of Chemistry at the National Science Foundation (NSF), will talk about “NSF Chemistry Division: Programs and Opportunities” Wednesday, March 31, at 4 p.m. in Bowman-Oddy Laboratories Room 1059 on Main Campus.

“The Chemistry Department faculty have in recent years received six prestigious NSF Career Awards and three major instrumentation grants,” said Dr. Jon Kirchhoff, UT professor and associate chair of chemistry. “Dr. Echegoyen’s visit is a great opportunity to show him firsthand the excellent research being conducted in our laboratories and the positive impact that NSF support has had on our undergraduate and graduate programs.”

The National Science Foundation, an independent federal agency created by Congress in 1950, is the funding source for approximately 20 percent of all government-supported basic research conducted by America’s colleges and universities.

Dr. Bradley Miller, director of the Office of International Activities at the American Chemical Society, will discuss “U.S. Efforts to Celebrate the 2011 International Year of Chemistry” Thursday, April 1, at 4 p.m. in Bowman-Oddy Laboratories Room 1059.

His presentation will outline the origins, purposes and planned domestic and global activities of the 2011 International Year of Chemistry and the opportunities it creates to excite and capture the public’s imagination as to chemistry’s role in everyday life and its potential solutions to addressing global challenges.

For more information on the free, public lectures, contact Kirchhoff at 419.530.1515.
A team of three University of Toledo students placed second at the 12th annual National Collegiate Sales Competition hosted by Kennesaw State University March 5-8.

Matt Shipley, Jeff Tippy and Heidi Schollmeier competed against some 130 students from 62 universities across the country at the event in Kennesaw, Ga.

Bowling Green State University took first place at the event, and UT tied for second place with Florida State University and the University of Washington.

Other top 10 university teams were Kennesaw State, Bradley, Baylor, Houston, Michigan State and Georgia.

In addition to the second-place team finish, Schollmeier, a marketing and sales major, was a finalist, finishing third overall, and Shipley, also a marketing and sales major, was a semifinalist, finishing in the top 16.

“We are immensely proud of the performance of our students at this prestigious national sales competition as well as the preparation provided by Professor Mike Mallin and the other faculty coaches,” said Dr. Thomas G. Gutteridge, dean of the College of Business Administration. “Their success reflects their talent and hard work, as well as the top tier status of the Edward H. Schmidt School of Professional Sales, one of the college’s premier programs. Our heartiest congratulations to all involved.”

“Our students’ performance at the competition is, of course, a reflection of their pride in representing UT and motivation to demonstrate the sales skills that they are learning in school, but it is also indicative of the passion that our entire sales faculty demonstrates by putting in the extra time and effort required to coach and prepare our students for success,” said Dr. Michael Mal-lin, UT assistant professor of marketing, who coordinated the trip and coached the team at the competition.

“This year, we are very fortunate to be able to utilize the new Huntington Sales Lab, which is part of the college’s new $15.4 million expansion, the Savage & Associates Complex for Business Learning and Engagement,” Mallin added.

The team trained with and was coached by the faculty from the Edward H. Schmidt School of Professional Sales in the UT College of Business Administration beginning in January.

The students prepared for a series of 20-minute sales role-play scenarios where they were required to sell an online tool to fictitious companies to help manage sales force and customer information. Success in each round of the competition allowed students to advance in a double elimination-style tournament.

To reach the finals, Schollmeier completed five rounds, while Shipley completed three as a semifinalist.

Nearly 30 companies, including Liberty Mutual, ADP, Tom James, Owens Corning, AT&T, Hewlett Packard, Dow Jones, NCR, and Reynolds and Reynolds sponsored this year’s competition for an opportunity to recruit top sales students. The competition sponsors provide funding to defray the expenses of competing students and participating faculty.

“Many of the best and brightest sales students would be unable to attend without the help of corporate sponsors,” Mallin said. “Sponsoring the competition also provides participating companies with the opportunity to network with and preview elite up-and-coming sales talent.”

Inaugurated in 1999, the National Collegiate Sales Competition is the largest and oldest sales role-play competition in existence. Its mission is to enhance the practice and professionalism of the sales profession. Each year, the competition hosts the top collegiate sales talent and sales faculty from the most elite university sales programs in North America. Sales students are provided a venue for sharpening their sales skills in a highly competitive environment and a chance to network with their peers and sales faculty from across the United States.

For more information, visit www.ncsc-ksu.org or contact Mallin at michael.mallin@utoledo.edu.