Fighting A Deadly Disease At SU

Dr. Miguel Mitchell, SU chemistry professor, hopes his research will one day eradicate harmful effects of tuberculosis.

He believes a new compound he developed last fall will be the next step in that process, shutting down the ability of tuberculosis to use oxygen. Recently approved for animal testing, the compound, if successful, could be less expensive and debilitating than current tuberculosis medicines, he said.

Mitchell made several compounds to prevent tuberculosis’ ability to thrive after he read an article that said oxygen was the key to kill the disease: “I decided as a chemist that if I made a variety of these compounds, I could find the most effective one.”

The antibiotics used to fight off tuberculosis today require about four drugs in a six- to 12-month period. The status quo presents several problems, not the least of which are expensive treatments and the potential for the tuberculosis to become drug resistant.

One of the easiest ways for tuberculosis to develop drug resistance is for patients to stop taking the medicine, even for one day, when they start feeling better. The disease can rebound quickly during that lapse in medication, and the results can be fatal. Mitchell, whose grandfather survived tuberculosis, hopes his compound will require less time to work and lower the chance of patients ending their treatments prematurely.

Though it’s not prevalent in Western countries, Mitchell said there have been instances where tuberculosis has been resistant to everything. Once it gets into the lungs it begins to replicate and can lie dormant. When it suddenly becomes active, it forms fluid and causes the lungs to look like those of a smoker, he said.

He and his research team of SU students published their work in the March 1 issue of Bioorganic and Medicinal Chemistry Letters.

Beyond tuberculosis, Mitchell is also seeking cures for other diseases. This semester, as part of a $50,000 U.S. Department of Defense grant—a first for SU—he lead a Salisbury team in partnership with Harvard and Northeastern universities to research potential medicines for advanced prostate cancer.

Recent tests by Scott Franzblau, director of the Institute for Tuberculosis Research at the University of Illinois, showed that, in the test tube, one compound matched the potency of Rifampin, the most powerful tuberculosis drug currently available.

“It’s like a skyrocket,” said Mitchell. “We expected decent results, but we never expected anything like this.”

He credits the advances to facilities in the Henson School of Science and Technology as well as financial backing from the Guerrieri family, a long-time campus supporter.

The next series of tests will help determine whether his compound, the result of six years’ work, is effective against an extreme drug-resistant—and globally fatal—strain of the disease prominent in South Africa. Up to three million people die of tuberculosis every year.

“It’s the most devastating infectious disease in the world,” he said, especially in third-world nations.

Fulbright Honors

Two professors have been awarded Fulbright Scholar grants, one of higher education’s highest honors, from the U.S. Department of State’s Bureau of Educational and Cultural Affairs and the J. William Fulbright Foreign Scholarship Board.

Dr. Andrew Sharma, associate professor in the Communication and Theatre Arts Department, lectured on media research, advertising communication and television program production at Guru Jambheshwar University in Hisar, India last fall. Dr. Michael Waters, English Department professor, lectured on American studies at Alexandru Ioan Cuza University in Iasi, Romania this spring.

Sharma, who is originally from India where he attended the University of Bombay, earned his Ph.D. in mass communications from Syracuse University, NY. Waters, an award winning poet, is the author of Darling Vulgarity—which was nominated for The Los Angeles Times Book Award—and seven other books of poetry.

The professors are among some 800 U.S. faculty and professionals traveling abroad this year through the Fulbright Scholar Program, America’s flagship international educational exchange program.
15 Years Of Ending Conflict

This year marks the 15th anniversary of the Center for Conflict Resolution. Over those years, the Center has grown from a local service agency and a single course in nonviolence to an internationally recognized non-profit managing a bachelor’s program and practicing conflict intervention all over the world.

The center was created in the early 1990s, when the area superintendent of schools was searching for a way to prevent violence among students and SU students in the Sociology of War and Peace course were hoping to become more practically involved in the field. With the combined efforts of Dr. Phil Bosserman and SU’s newly created peace studies minor, the Center for Teaching Peace was founded on January 20, 1992. In the first year, conflict resolution skills were taught to over 4,500 elementary/middle school students and teachers.

The center adopted its current name in 1993 and in fall 1994 began offering mediation services to students and community residents. In 2000, Dr. Brian Polkinghorn took over the helm of the center and designed the new major in conflict analysis and dispute resolution that launched in fall 2001. With new faculty, increased student involvement and a graduate program on the horizon, the center continues to thrive, expanding its focus from providing mediation and education services locally, to providing all avenues of conflict intervention both locally and around the world. Since 2001, students and faculty have conducted conflict intervention training and research in at least 33 different countries.

An important aspect of the center is its “One Person Can Make a Difference” lecture series that welcomes notable dignitaries and world leaders to the Salisbury campus. Topics have ranged from promoting nonviolence, justice and democracy, to hostage negotiation, humanitarian crisis intervention and nuclear threat. Of the 10 speakers thus far in the series, eight have either personally or through their organizations won or been nominated for the Nobel Peace Prize. This impressive roster includes:

- President F.W. De Klerk of South Africa
- Under-Secretary-General of the United Nations for Political Affairs Ambassador Ibrahim Agboula Gambari of Nigeria
- The Honorable Chief Judge Robert M. Bell, Maryland Court of Appeals
- President Lech Walesa of Poland
- Dr. Helen Caldicott, Co-founder of Physicians for Social Responsibility
- Executive Director Michael Hovey, Hague Appeal for Peace
- Dr. Fariyal Ross-Sherriff, Director of Howard University’s Doctoral Program in Social Work
- Dr. Arun Gandhi, Grandson of Mahatma Gandhi and Executive Director of the MK Gandhi Institute for Non-Violence
- Under Secretary-General of the United Nations for Political Affairs Giandomenico Picco
- Ambassador John McDonald, Director of Institute for Multi-Track Diplomacy

Some 1,600 heard F.W. de Klerk lecture. He received an honorary Doctor of Laws, his first from a U.S. university

Music for All Ages

Expanding its audience beyond the typical “serious adult” concert-goer, the Salisbury Symphony Orchestra at Salisbury University presented a special concert for children last fall. Performing children’s classics Peter and the Wolf and The Toy Symphony, the SSO welcomed area children to experience the beauty—and fun—of classical music.

Conductor Jeffrey Schoyen—donning a giant, polka dot bow tie—explained the musical conceit of Peter and the Wolf where the instruments each play a character in the telling of the tale. These include the string section, representing the boyish enthusiasm of Peter; the French horn section, giving ominous voice to the wolf; the clarinet representing a cat; the low, noble bassoon as the grandfather; an oboe as the duck; and the lilting notes of a flute for the fluttering bird. Dr. Timothy O’Rourke, past dean of the Fulton School of Liberal Arts, narrated the performance.

Then bringing play into performance, the symphony presented The Toy Symphony. Using toy instruments along with their real instruments, the musicians made creating music accessible to even the youngest aspiring performer.

With over 400 children enchanted by the SSO performance, orchestra organizers plan to make children’s concerts a regular part of their repertoire. To find out about upcoming symphony performances visit www.salisbury.edu/sso.