

science & TECHNOLOGY

THE BATTALION

Recruiters present opportunities in biotechnology for science students

By NONI SRIDHARA

The Battalion

Biotechnology is the means or way of manipulating life forms to provide desirable products for the benefit of humankind. The word "biotechnology" was first used in 1919 by scientist Karl Ereky to refer to the interaction of biology with human technology.

Jacki Jaskula, quality assurance manager for Stratagene in Austin, said a vast majority of life science students think they have two choices after they graduate. They are to either attend graduate school or medical school.

"Almost all students think they will go to graduate school or medical school," she said. "The problem with this assumption is that 30 percent of those who apply do not get in, and of those 70 percent that do, not everyone stays in, whether it be for university reasons or personal reasons."

Jaskula said the science world is moving away from the "easy sciences" and encompassing the fast-

paced world of biotechnology.

Jaskula and Bill Lemons, Gulf Coast district manager for Kelly Scientific Resources in Houston, were Wednesday at Texas A&M Wednesday to encourage life sciences students to enter the field of biotechnology.

Lemons said that as the baby boomer generation enters the retirement age, there will be a high demand for skilled workers in biotechnology to enter the pharmaceutical industry to develop prescription drugs at lower costs for senior citizens.

Jaskula said that the pharmaceutical industry, like almost all other areas of the biotechnology industry, is moving toward gene technologies.

"One of the main focuses of the biotechnology companies nowadays is gene therapy," she said.

Jaskula added that gene therapy is a concern not only from a human perspective, but also from an agricultural viewpoint.

"We also want to find ways to grow drought-resistant and strain-re-

sistant crops (crops that are resistant to harsh weather such as freezes and snow)," she said.

Jaskula said there are three main

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senior, biomedical science

buzzwords that have started exploding within the biotechnology industry. The first is bioinformatics.

"Bioinformatics opens up the field to people with expertise in computer applications who may or may not have background in biotechnology for the purposes of analyzing data," she said.

Another topic is a technique called DNA microarrays.

"This is where you take a glass slide which enables you to print 4,000 genes at one time," she said. "You can probe with two different color probes and then you end up with 8,000 data points with one experiment."

"This is where the bioinformatics people will come in and analyze all the datapoints."

Jaskula said the third and final word was genomics, which is taking information from the genes of humans or other organisms and understanding how the genes function within the bodies of the organisms.

Jaskula said another key area of biotechnology is quality control.

"This is a very fast-paced industry, which takes a lot of technical skills," she said. "We sometimes call this the 'short-attention-span theatre' of biotechnology."

Tips Jaskula offered to students were taking as many life sciences lab courses as possible, do undergraduate research to help translate classroom applications, taking a statistics

class and learning how statistics applies to biological experimentation.

Nivin Aziz, a senior biomedical science major who is planning to go to medical school, said she would consider entering biotechnology as a backup plan.

"I feel this is a very good opportunity for science majors who do not want to spend time in a lab all day," Aziz said. "This will also be a good opportunity as a step toward owning my own lab or my own company."

Lemons said it is critical that students network and keep up with trends in the industry.

"I know a lot of professors want their students to go receive their Ph.D's, but even fields such as chemistry are becoming more and more biologically tuned," he said. "Everything is now moving toward genomics, so there are a lot of opportunities in biotechnology."

Lemons added that technical and bench experience will also be an added plus when companies are looking to hire.

Hot careers in Biotechnology

- Marketing
- Customer Service (sales or technical)
- Research
- Production
- Quality control
- Agriculture
- Pharmaceuticals supply
- Research and development
- Medical Diagnostics

RUBEN DELUNA / THE BATTALION

DFW airport installs devices to aid heart patients

(AP)—Putting defibrillators in airplanes, casinos and other crowded places — and teaching people like flight attendants and security guards how to use the devices — can save dramatic numbers of people in cardiac arrest, two studies show.

The new, automated heart-shocking devices saved nearly half of all victims in the two studies. That is 10 times the usual survival rate of 5 percent for people who suffer

cardiac arrest outside a hospital.

"These articles prove minimal training is enough to step in and save someone's life," said Dr. Michael A. Jaker, director of emergency medicine at the University of Medicine and Dentistry of New Jersey in Newark.

On Wednesday, 30 Automated External Defibrillators were installed in clearly marked cabinets at the Dallas-Fort Worth International Airport. Most of the defibrillators

are in baggage claim areas, where cardiac arrests occur most often.

The cabinets are equipped with an audible alarm, easy-to-read instructions and pictures to guide users through the steps.

"Each second counts in medical emergencies," said Jeffrey Fegan, the airport's chief executive officer. "The placement of AEDs throughout the airport will provide immediate care for airport passengers and employees

as quickly as possible."

About 250,000 Americans die each year of cardiac arrest, which is usually caused by a heart rhythm disturbance called ventricular fibrillation. For each minute that passes without a defibrillator shocking the heart back into a normal rhythm, the chance of surviving drops 10 percent.

The two new studies appear in Thursday's issue of the New England Journal of Medicine.

Science in Brief

Texas A&M's Distinguished Lecture Series will kick off on Oct. 30 with A&M chemistry Professor John Fackler at the George Bush Presidential Conference center. Fackler's lecture is "Gold: An Extraordinary element with Amazing Properties." The lecture starts at 7:30 p.m. Tickets are free and available at the MSC Box Office.

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