

**REGIONAL BRIEFS**

**KETTERING 'Spotlite Kidz' accepting applications**

"Spotlite Kidz," an established performance group, is accepting applications for new members for its "Center Stage Performing Group." Boys and girls, ages 12-18, are encouraged to apply. The auditions will be held Thursday, Oct. 12, from 5:30 to 7:30 p.m. at the Oak Creek United Church of Christ Auditorium, 5280 Bigger Road, Kettering (between Rahn and Whipp). Use rear parking lot entrance.

A short introductory performance will be given followed by auditions. Be prepared to sing and do dance movements. Bring a tape, CD or sheet music; a pianist will be available.

For more information, call (937) 848-5899.

**DAYTON**

**Lupus Awareness Program sponsors health fair**

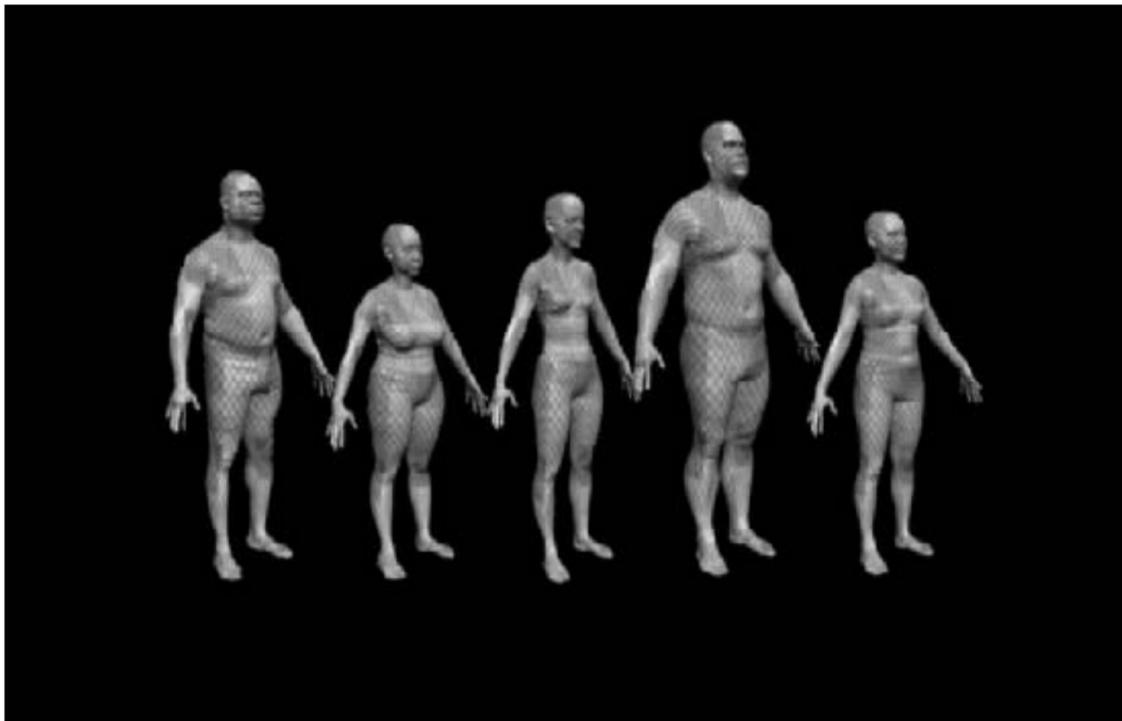
The Combined Health District of Montgomery County's Lupus Awareness Program is sponsoring a Holistic Seminar and Health Fair on Thursday, Oct. 19, from 4 to 8 p.m. at Dr. Charles R. Drew Health Center, 1323 W. Third St. Patty McCormick, R.N., Ph.D., founder and president of the Institute of Holistic Leadership, will facilitate two seminars, "Holistic Medicine for Pain Relief" and "Imagery for Health and Wellness." Participants of the workshops will learn a variety of useful techniques to reduce pain and increase feelings of comfort.

Practitioners of reflexology and other forms of complementary health will be available to attendees. The health fair vendors will include Rick Poole and Fred Middleton from Natural Food Plus, and others. There is no charge for this event.

Lupus is a chronic autoimmune disease where the immune system that normally protects a person from colds, flu and virus turns on the body attacking healthy cells. Between 1,400,000 and 2,000,000 Americans have been diagnosed with lupus, many living in the Montgomery County area. Persons with lupus, their family and friends are encouraged to attend. CEUs are available to nurses and other healthcare professionals. Register in advance by calling 937-225-5045.

This program is a collaborative effort of the Combined Health District of Montgomery County, the Institute of Holistic Leadership and funded by the Ohio Commission on Minority Health.

For more information, call 937-225-5045 or contact the 24-hour lupus information line at 937-225-6300.



Graphic courtesy AFRL/HEPA

This image shows corresponding patches on people of different sizes and shapes, used to mathematically translate (or morph) one person's size and shape to another. Studying the changes in these patches helps researchers understand and characterize a variety of shapes to make clothing or equipment fit better. This science, formally known as morphology, is the study of form and structure. These images are from a University of Washington study that created an automated morphing technique. This technology is used to fit different bodies to animation structures; so an individual could, for example, create a video game character of himself by changing the size and shape of the character's patches to match his own. Since the structural and physical properties of the character remain, the individual could interact with the game.

**Air Force fosters worldwide anthropometry resources**

By JOHN SCHUTTE

Air Force Research Laboratory, Human Effectiveness Directorate WPAFB

— One researcher's vision of a three-dimensional (3D) anthropometric database has generated into a nascent worldwide organization, uniting ten countries on six continents in a quest to better fit the human body with its clothing, technology and environment.

Kathleen Robinette, Ph.D., principal research anthropologist for the Air Force Research Laboratory's Human Effectiveness Directorate (AFRL/HE), had the vision and persistence to lead a series of groundbreaking anthropometric advances, including formation of the World Engineering Anthropometry Resource (WEAR). Sponsored by the Air Force Office for Scientific Research, WEAR bills itself as "an international collaboration between researchers and users of anthropometric databases for practical application."

Through WEAR, a not-for-profit organization headquartered in France, Dr. Robinette nurtures a worldwide user consortium and is building a database of engineering, anthropometry and fit data.

Through multiple Cooperative Research and Development Agreements (CRADAs) and Small Business Innovative Research (SBIR) contracts, Dr. Robinette has advised companies on applications ranging from better fitting clothing, protective equipment and military body armor, to more comfortable and ergonomically correct car interiors and office chairs.

WEAR's vanguard was a precedent-setting collection of three-dimensional (3D) human body surface scans known as CAESAR — the Civilian American and European Surface Anthropometry Resource — which cataloged 3D scans of 2,375 North Americans and 2,056 Europeans of various weights, shapes and sizes, ages 18 to 65, plus 40 hands-on measurements of each subject.

CAESAR unfolded via a



Photo: Daisy Veitch, SHARP Dummies, Pty. Ltd.

Daisy Veitch, founder and operating manager of SHARP Dummies Pty. Ltd., Australia, demonstrates how life-like mannequins are used for fitting jeans and other clothing. Ms. Veitch designed the mannequins using CAESAR data and her proprietary design process.

CRADA between AFRL/HE and the Society of Automotive Engineers (SAE), with 35 commercial companies in the original partnership including apparel makers Gap, Inc. and Levi Strauss & Company, defense contractor The Boeing Company, farm equipment manufacturer John Deere and the Ford Motor Company.

General Dynamics Advanced Information Systems (GDAIS) now has a CRADA to operate AFRL's Computerized Anthropometric Research & Design (CARD) lab and serve as liaison for commercial companies to gain access to AFRL's anthropometric research facilities.

Dr. Robinette's early goals were to harmonize the diverse group and convince them that using 3D human body "cases" lead to better ergonomic designs than statistical per-

centiles.

"Case methods are reality based rather than statistics-based mathematical constructs," says Dr. Robinette. "Using cases, you select a whole person based on their particular combination of body dimensions and what's important for your design."

A CRADA with the University of Washington seeks to develop a next-generation dynamic design tool for full exploitation of 3D data; ten Small Business Innovative Research (SBIR) contractors are contributing biomechanics engineering expertise.

Manufacturers around the world now use CAESAR data to gain a competitive edge. Through a CRADA with AFRL, GDAIS is currently responsible for fabricating fit-model mannequins for Gap, Inc.'s Forth & Towne women's

wear. Daisy Veitch, managing director of SHARP Dummies, Pty. Ltd. in Australia, combines CAESAR data with her proprietary process to design the life-like mannequins.

The Ford Motor Company is using CAESAR-derived virtual mannequins to design automotive interiors that better accommodate its customers, including physically larger Americans, based on reports from the American Medical Association that nearly one-third of Americans are classified as obese.

Direct private-industry involvement "was extremely valuable," says Dr. Robinette. "It helped me understand the knowledge level of ergonomics and anthropometry in the different industries, which is really helpful in determining how to solve the unique problems facing each industry."

**STATE BRIEFS**

**Couple charged in grandson's overdose death**

HAMILTON (AP) — A couple accused of helping their grandson get high on powerful prescription narcotics have been charged with involuntary manslaughter in the teenager's death from a drug overdose, a prosecutor said Friday.

An indictment issued Thursday alleged that Kenneth Gibson, 56, gave his step-grandson, David Van Cleve, 16, painkillers that had been prescribed for Gibson's throat cancer. The boy's grandmother Deborah Gibson, 50, also is charged with permitting drug abuse.

"He didn't have any illnesses," Assistant Butler County Prosecutor Craig Hedric said of Van Cleve. "It's a shame that grandparents would even consider giving a grandchild narcotic drugs for recreational use."

"From my grandmother, I'd get cookies, and I'd get pie, and I'd get money to go buy ice cream. But I didn't get drugs."

The Gibsons, who live in Liberty Township northwest of Cincinnati, pleaded not guilty on Thursday. Involuntary manslaughter carries a sentence of up to 10 years in prison. Kenneth Gibson also was charged with two counts of corrupting another with drugs.

The couple hadn't posted bond and were jailed Friday, Hedric said. Van Cleve lived part time with his mother, and part time with the Gibsons, Hedric said. The youth died Aug. 2 at the Gibsons' home, where paramedics had been called because of a reported allergic reaction to medication, a sheriff's report said.

**Patrol: Cruiser spun into truck in crash that killed 3**

COLUMBUS (AP) — A fiery crash that killed two State Highway Patrol officers and another person happened when the cruiser, moving at high speeds, spun into an oncoming truck, the patrol said Thursday.

Investigators released the new details but were still conducting tests and analyzing a reconstruction of the crash to determine what led up to the Sept. 28 accident.

Killed was 32-year-old Lori Smith of Vinton, the truck's driver, along with Sgt. Dale Holcomb, 45, and trooper Joshua Risner, 29, who both worked at the patrol post in Gallipolis, about 105 miles southeast of Columbus.

Investigators have not determined how fast the cruiser was going or why its emergency lights and sirens were on, patrol spokesman Lt. Shawn Davis said. Radio traffic did not record any communication showing the officers had been dispatched to an emergency call.

Firefighters who responded to the crash on a rural county road found both cars on fire with the victims inside. People in the area reported hearing an explosion after the initial crash, and the patrol believes the fire began in the cruiser and spread to the truck, Davis said.

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