

Abraham, Alexander break CNMS ground

ORNL's nanophase materials center first of five for DOE's 'revolution in science'

Energy Secretary Spencer Abraham and Office of Science Director Ray Orbach visited Oak Ridge on July 18 for tours, briefings and a groundbreaking.

In an afternoon ceremony adjacent to the Central Laboratory and Office Building at the Spallation Neutron Source site, Energy Secretary Spencer Abraham, Sen. Lamar Alexander, Orbach and ORNL Director Bill Madia turned the ceremonial first shovel of dirt for construction of the Center for Nanophase Materials Sciences.

The \$65 million center is scheduled for completion in 2006.

"This facility will assist scientists in reaching new frontiers in the study of nanoscale research and its practical application," Secretary Abraham said, presiding over the groundbreaking for the new center. "It represents a beginning of a revolution in science, opening up a broad array of innovation in materials science, biology, medicine, technologies for environmental research and national security."

"Nanoscale research will, in many respects, represent the new building blocks

for new technologies and applications across the science and industry spectrum. Understanding the properties of materials on the tiniest scale will have an impact on everything from medicine to manufacturing," Abraham said. "Oak Ridge is blessed with tremendous research resources from the computational science center to the CNMS and the Spallation Neutron Source. I'm confident that this lab and its facilities will continue to lead the way in scientific research."

Addressing a breakfast meeting of the East Tennessee Economic Council in Oak Ridge, Orbach said, "The significance of the presence of the two research facilities side-by-side is that the study of the structure of



From left, getting a description of the Spallation Neutron Source from SNS Deputy Project Director Carl Strawbridge are Energy Secretary Spencer Abraham, Sen. Lamar Alexander, ORO Manager Gerald Boyd and ORNL Director Bill Madia.

Photos: Jim Richmond and Curtis Boles

particles (SNS) can be studied at the same time as the function (CNMS). No one else in the world has this capability. In Oak Ridge we will be able to study the complete

(See ORBACH, page 2)

Jeff Wadsworth: ORNL 'looks like the future'

Jeff Wadsworth sits in an office suite he hasn't quite "bonded" with—at least not yet. At the time of this interview he's a few weeks away from officially moving in, on August 1. Outside a thunderstorm rumbles by, but he doesn't appear to notice.

He arrives at a changing ORNL, with the Laboratory well along the way to looking less like a gray relic of the Cold War, as some might describe it, and more like a facility ready for a century of science to come. He seems very comfortable with that idea.

"When you drive up Bethel Valley Road now, you see a 21st century lab morphing," Jeff says. "It's gone from a fifties black and white image to a 21st century prototype."

"Why do I like it? It looks like the future!" As he's said several times since he arrived in town: "Who wouldn't want this job?"

The job, of course, is directing ORNL. He succeeds Bill Madia, who has left for



ORNL's new director, Jeff Wadsworth, values stability in R&D resources and the flexibility to do long-term research.

Curtis Boles

Battelle's Columbus headquarters to oversee the company's DOE business. During the search for a successor, Jeff Wadsworth quickly emerged as the choice to take over from Bill at UT-Battelle, the university-industry partnership that runs the Laboratory.

The Lab's new director comes from a year at Battelle and from more than a decade at

Lawrence Livermore National Laboratory, where he established reputations as both a scientist and manager, which attracted the interest of Battelle. Jeff's first impression of his ORNL predecessor, however, was more that of a nemesis.

"In 1993 there was a competition for new materials science programs and we put in a proposal on something I knew a lot about. To our chagrin, it was given to PNNL. We largely blamed Bill for it," Jeff recalls.

"About four years ago he contacted me, asking if I'd be interested in opportunities at

Battelle. He's a very good recruiter. I always looked forward to his phone calls . . . always a blast to talk to."

By his own account, Jeff didn't always appear destined for success. His father was in the British army, and Jeff spent a childhood living all over the globe. His father died when

(See JEFF, page 6)

ORNL wins four coveted R&D 100 awards

Researchers at ORNL have won four R&D awards from *R&D Magazine*, which since 1963 has given the awards for the 100 most significant innovations of the year. ORNL's total of 116 awards is second only to General Electric.

"All of us at ORNL are extremely proud of our staff for winning these awards," said ORNL Director Bill Madia. "The award is among the most coveted in the world of scientific research, and winning it brings prestige to both the researcher and the Laboratory."

The following inventions received honors:

RAMiTS: Raman Integrated Tunable Sensor, developed and submitted by Tuan Vo-Dinh, Joel Mobley, Brian Cullum and David Stokes of the Life Sciences Division, and Alan Wintenberg and Steven Frank of the Engineering Science and Technology Division. Robert Maples of RIS of Knoxville is a co-developer.

RAMiTS is a compact, "point-and-shoot," fully integrated, battery-operated Raman monitor and is based on solid-state acoustooptic tunable filter technology. Outside the laboratory, this device can perform qualitative analysis of chemical and biological samples in seconds. RAMiTS can identify hundreds of substances, including toxic chemicals, by-products from explosives, biomedical markers, pharmaceuticals and illicit drugs. RAMiTS also could help revolutionize sensing applications such as environmental monitoring, medical diagnostics and homeland security, researchers said.

MicroTrapMS, developed and submitted jointly by Michael Ramsey, William Whitten and Peter Reilly of the Chemical Sciences Division; Oleg Kornienko, postdoctoral

ORNL fellow; and Protasis Corp. of Marlboro, Mass.

MicroTrapMS is a highly miniaturized ion trap mass spectrometer that is based on ORNL-patented technology. The product can be used for applications from on-line screening for toxins in municipal watersheds to detecting hazardous substances at airport checkpoints. MicroTrapMS will enhance real-time capabilities of field engineers to sweep many local areas for pesticides, drugs, explosives and more. MicroTrapMS has the power of a conventional mass spectrometer at a lower cost.

CF8C-Plus: New Cast Stainless Steel for High-Temperature Performance, developed and submitted jointly by Philip Maziasz and Robert Swindeman of the Metals and Ceramics Division and Caterpillar of Peoria, Ill. Joint developers are Timothy McGreevy, Bradley University; Paul Browning, Solar Turbines - DeSoto Overhaul Facility of DeSoto, Texas; and Arun Bhattacharya of Solar Turbines - Materials and Processes Engineering of San Diego.

CF8C-Plus is designed to drastically improve high-temperature durability, performance and reliability based on ORNL's unique engineered microstructure alloy development methodology. The engineered microstructure method dramatically changes CF8C-Plus from steel that cannot be used above 600-650 degrees Celsius to steel that can be used up to 850 degrees Celsius and resists failure during creep, mechanical fatigue and thermal fatigue. Developers said that end users like Caterpillar or commercial foundries like MetalTek will benefit from CF8C-Plus because it is a cost-effective product with higher performance and immense reliability.

Uncooled Micromechanical Infrared Camera (UMIR-Cam), developed and submitted by Panos Datskos, Slobodan Rajic, Lawrence Senesac and Nickolay Lavrik of the Engineering Science and Technology Division and James Corbeil, an ORNL research associate.

UMIR-Cam is a sensitive, miniature imaging and infrared photo-detection device. It runs at room temperature and can be used in a number of endeavors, including night vision, industrial process monitoring and medical imaging. It also can help firefighters see through smoke and has particularly important uses in the commercial and military sectors, because infrared radiation is the second-most intense source of radiation in our environment.—*Erin DeMuth ornl*

Orbach

Continued from page 1



From left: Office of Science Director Ray Orbach holds the shovel while Bill Madia signs it. Also breaking ground for the CNMS were Sen. Lamar Alexander and Energy Secretary Spencer Abraham.

process not only in physics, but also in medicine, chemistry, materials and genomics. This is such a new field," he said. "Frankly, we don't know what we will find."

Senator Alexander reminded the audience of the regional presence of two secret weapons in the form of ORNL and the University of Tennessee. The need to double science funding within the next five to six years, he said, is key to our standard of living and creating new jobs for the future.

In briefings during the Secretary's visit, Charles Shank, director of Lawrence Berkeley National Laboratory, showed the Secretary the accelerator built by his laboratory as the front-end system to produce pulsed beams of negative hydrogen ions for the SNS. Recent R&D 100 winner Phil Maziasz also briefed the Secretary on his newly developed stainless steel.—*Marty Goolsby ornl*



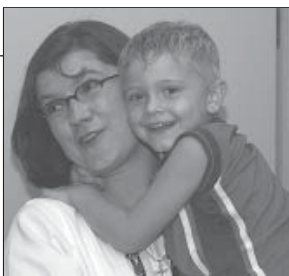
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Curtis Boles

Susie Kuliasha, Human Resources and Diversity Programs, gets a hug from Jared during a United Way agency visit. The 2003 campaign is under way. For the story and more photos, see the back page.

Lab Notes

To those who came up the hill

More than 400 spectators greeted Energy Secretary Spencer Abraham and Sen. Lamar Alexander when they arrived on Chestnut Ridge July 18 to break ground for the Center for Nanophase Materials Sciences (story, page 1). Since no building has been built yet and the Spallation Neutron Source facilities are in mid-construction, the ceremony was held in a large tent.

Such VIP visits require careful planning and preparations for countless contingencies. In this case, the most pronounced contingency was a humid, near-90-degree day.

Deputy Directors Lee Riedinger and Jeff Smith came away expressing their gratitude to the ORNL employees and visitors who stood in line to catch buses and patiently waited for the dignitaries to arrive, providing a “tremendous” welcome for the guests from Washington, who also included Office of Science Director Ray Orbach and Basic Energy Sciences Associate Director Pat Dehmer. Other notables included Battelle President Carl Kohrt and former Lab Director Al Trivelpiece.

The attendees, for their part, were grateful for the 600 bottles of cold water that were provided. Not a drop went undrunk.

Holding off the invaders

This summer First Creek, the stream that runs through the ORNL campus’s west side, is the site of an epic battle of natives vs invaders. The natives in this case are native plants that are being pushed out by invaders—the honeysuckle, privet, crown vetch and winter creeper, well known to anyone with a backyard.

The work is an attempt to restore native plants as part of an experimental stream enhancement project. Invasive plants were sprayed in June along the creek north of the Oak Ridge National Laboratory

“big willow” to Bethel Valley Road to help reclaim territory where native plants were planted a few years ago in an environmental management project, says the Environmental Sciences Division’s Mike Ryon.

“With invasive plants, we were losing the remediated wetland area. It’s a demonstration site, proving what can be done to restore the health of streams, including fish,” Mike says. “One of our Biological Monitoring and Abatement Program fish community sites is in that location.”

Fish do better where stream banks have a more natural setting.

Mike says the majority of plants that are



July 18th’s audience included many Lab staff and Office of Science Director Ray Orbach (front row, second from right), ORNL Director Jeff Wadsworth (third) and Berkeley Lab Director Chuck Shank (fourth). Speaking is Bill Madia; on the podium are (from the flag to right) ORO Manager Gerald Boyd, Energy Secretary Spencer Abraham and Sen. Lamar Alexander.

problems, such as Japanese honeysuckle and privet, are nonnative, though familiar. Plugs of native grasses (big bluestem, hairy broomsedge and river oats) and cardinal flower were planted by researchers in June to replace the dead invaders.

Revitalization Project Coordinator Tim Myrick, lauding the work, says that much of the Lab’s landscaping to come will focus on native species of plants.

Watching the healthy river flow

ESD’s Marshall Adams was also near water this summer, along the bucolic banks of Little River in Blount County. Adams and some colleagues took part in a project with the Tennessee Valley Authority, Tennessee Wildlife Resources Agency and Tennessee Department of Environment and Conservation to check the health of fish populations in the river.

“We’re using the Little River as a reference site for our environmental studies on streams in the Oak Ridge area,” Marshall says. “With its headwaters in the Smokies, it’s considered an unimpacted river and one of the few fairly pristine systems left in the area—the main potential impact to the river is the development of Townsend, upstream.”

Like most resort areas, Townsend is

developing rapidly, and researchers want to keep tabs on the health of the river downstream. As crews in the river used shocking devices, the ORNL team checked the well-being of momentarily stunned fish.

“We look at more sensitive parameters of ecosystem health for early-warning bioindicators of ecosystem stress,” says Marshall, who just published a book on the subject. “There are early-warning indicators of potential ecosystem effects. We want to capture those effects so environmental management and regulatory policies can be implemented to prevent long-term damage to the river.”

Sensing success

SensorNet, the Lab’s proposed technology to establish early-warning systems against chemical and biological weapons, radiation and other threats, has received a clear signal from Congress to move forward. Lawmakers have provided nearly \$3 million in funding to “put pen to paper and actually set up the system,” says co-developer Dick Reid.

Those who have had roles in the project gathered on July 24 to note the funding and recognize participants, who come from several organizations inside and outside the Lab.

SensorNet had its beginnings as a proposed battlefield system to protect forces from chem-bio weapons. The September 11 attacks and ensuing anthrax and dirty-bomb scares gave the idea

much broader appeal as a bulwark against terrorism—mount sensors on existing cell phone towers and other infrastructures that reflect population density to provide an early-warning system to the public.

The Defense Department funding comes in the wake of significant program development support.

“After September 11 we thought a chem-bio attack was imminent,” says Harvey Gray of the National Security Directorate, one of the organizations that have supported the emerging project. “It could still happen. Let’s keep up the momentum.”



Computational Sciences and Engineering Division Director Brian Worley (left) and SensorNet’s Jim Kulesz display some of the project’s good press.

Reported by Bill Cabage

New 'mouse house' replaces WWII facility

Brick-red paint peels from the cement walls of Building 9210. Inside these walls the laboratories are being disassembled and offices are being packed up. The old "Mouse House," located at Y-12, once home to one of the world's most innovative sites for radiation-related genetics research, is being abandoned for a more modern and more efficient facility. "Mouse House" history, however, is something to preserve.

About 1947 the Mouse House was established in order to learn more about the effects radiation had on the offspring of parent-animals that were exposed. The end goal was to understand how people exposed to radiation via the work place, a bomb or some other means, would be affected. Because of the similarities between mice and human beings, these furry little rodents were the subjects of every experiment.

According to Dabney Johnson of the Life Sciences Division, it is here that William and Liane Russell, along with a number of their esteemed colleagues, made historical discoveries that have forever changed and advanced the world of genetics.

"The chemical that is used by everybody who tries to make new mutations on purpose was found here. It is abbreviated ENU and Bill Russell discovered that it is the most mutagenic chemical known," Dabney says. "Liane Russell discovered that in mammals it's the Y chromosome that is male-determining and that female mammals have only one active X chromosome in their cells."

Following these mammoth scientific insights, successful research has continued for five decades despite many obstacles.

"Everybody that works here feels a little bit of nostalgia, not so much for the building itself but for the program that has existed here for all these years."

The old Mouse House, Dabney says, was not even built to be an animal facility, and researchers there have been struggling to maintain the building for years, which has cut into their funding for experiments. They have also been using the very same caging system for their mice since Bill Russell designed in it the early 1950s.

Most important, however, is that the old building is a conventional open caging animal facility in which the open ventilation system prevents mice from being isolated from each other and from the human researchers. This means all animals have the exact same health status, which increases the risk of spreading diseases, interferes with experimental results and compromises the potential to share mice with other researchers.

All this, and much more, will change when the new William L. and Liane B. Russell



Last one to leave, please turn out the lights: Researcher Dabney Johnson stands in a rapidly emptying Mouse House at the old Y-12 location.

Curtis Boles

Laboratory for Comparative and Functional Genomics (a.k.a. the Russell Lab) is finished in mid August.

"The new Russell Lab will be a specific-pathogen-free facility, as well as a barrier facility," says Barbara Beatty, chairperson of ORNL's Animal Care and Use Committee.

"Specific pathogen free" does not mean that the mice are completely free of all pathogens, but it does mean researchers can be sure of the pathogens the mice do not have. The barriers, of which there are several levels, prevent the entrance of pathogens into each mice colony.

According to Barbara the first barrier is the ventilated rack system where each

mouse cage will have its own individual air supply, which is completely isolated from the air supplies of all the other cages. This closed ventilation system eliminates many of the pathogen-exposure problems the old facility had and enables researchers to confidently share their mice with other scientists.

The second and third barriers involve the structural set up of the building itself.

"Each room is a barrier from every other room and probably 80 percent of the entire facility exists behind a wall where the in- and out-flow of air is controlled and access is limited to trained personnel," Barbara says. "This means things from outside cannot get in the building."

The new building will also not have any elevators that can break down, preventing equipment from getting from one floor to another. There will be no more public tours.

The temperature of the rooms and watering the mice will no longer be controlled manually, but by computer. Researchers also will no longer be able to wear their street clothes inside the facility: They will wear scrubs and have to shower in and shower out, says Dabney.

Big changes of this nature are welcomed by the researchers, who are now studying genes very directly. The new state-of-the-art technological improvements will allow them to more efficiently learn the function of genes by modifying them (mutations).

Still, a hint of reminiscence accompanies the long-awaited move to the Russell Lab.

"I think everybody that works here feels a little bit of nostalgia," Dabney says. "Not so much for the building itself, but for the program that has existed here for all these years."

Even people who are not employees but members of the general community understand the historical and scientific significance of the "Mouse House." Though most projects funded by public tax dollars receive a similar response, there is something much greater than mere comprehension involved here.

"I think the hearts of this community have always gone out to this mouse program," Dabney says. "Somehow it seems like there has been a special feeling for this program, everybody has sort of adopted it. They're interested in it."—Erin DeMuth [ornl](#)

Erin DeMuth is this summer's Office of Communications and Community Outreach intern from the University of Tennessee's science writing program.

Moving 60,000 mice

Transferring ORNL's mutant mouse colony is a scientific achievement in itself

What happens when a decades-old home for 60,000 very special research mice is scheduled to close? Especially when the mice are not allowed to move to the new pathogen-free home?

"What happens is lots of very detailed planning and a lot of hard work," says Life Sciences Director of Operations Barry Berven. "The planning began even before we got funding for the new William L. and Liane B. Russell Laboratory for Functional and Comparative Genomics (to be known as the Russell Lab), which opens August 18. We had to have a plan for preserving the colony, which dates back to the 1940s. We have strains of mice whose pedigrees date

back to experiments in the early years of the atomic age. Those mice are as significant in the field of radiation genetics as our newer mutant strains are to genomics."

The new Russell Lab was years in the planning, which allowed time to consider all the ramifications of moving and preserving the colony. The actual process of the move of the mice began more than two years ago. Since only mouse embryos, sperm and ovaries in a frozen state are pathogenically clean enough to move to the new facility, the research team became a production team to prepare for the move.

A process of harvesting mouse embryos, sperm and ovaries for the move—resulting in a total colony preservation, albeit in a frozen state—has continued full time since 2001 and required the purchase of 50 new freezers that keep a constant -200 degrees Centigrade.

"In the past, only small mouse stocks have been transferred to pathogen-free facilities," says Barry. "Now not only is our research a source of academic papers, but our move is also a source of discussion!"

"When the new facility is finished by the contractor, we will move staff and many freezers from the old facility at the Y-12 Security Complex to our new facility," Barry says. "For a couple of months we will test out

the facility and equipment. Then, in early November we will begin to repopulate our mouse colony."

"The frozen embryos will be transplanted into clean female mice from certified suppliers. Our plan is to grow the colony to about 10,000 during the first year. Embryos, sperm and ovum not used initially will be kept frozen for future use.

"Our facility, with its large and significant mouse strains, continues to be a significant national resource and may even play a role in producing anthrax-resistant, mutant mice for homeland security studies," Barry says.—*Marty Goolsby ornl*



Mice in the old Mouse House won't make the trip to the new Russell Lab, which will be a pathogen-free, "clean" facility.



Bill Russell in 2001, at the groundbreaking for the William L. and Liane B. Russell Laboratory for Comparative and Functional Genomics.

ORNL people

Takeshi Egami, UT/ORNL Distinguished Scientist working in the Metals and Ceramics Division, has been awarded the 2003 Bertram E. Warren Diffraction Physics Award by the American Crystallographic Association, "for his pioneering use of pair distribution functions from diffraction data to study disorder and defects in imperfect crystals, leading to new understanding of the physics of complex materials."

The National Academy of Engineering has selected M&C Division's **Craig Blue** to attend the 2003 Frontiers of Engineering symposium, which is being held in Irvine, Calif., Sept. 18-20. The three-day event is billed as "...an opportunity for engineers who are performing leading-edge engineering research and technical work to increase cross-disciplinary innovation and to nurture professional collaboration."

Condensed Matter Sciences Division's **Pengcheng Dai** has been selected a co-winner of the 2003 Outstanding Young Researcher Award of the Overseas Chinese Physics Association). Dai is also a member of the UT Physics Department.

M&C Division's **Steven J. Zinkle** has been elected a 2003 Fellow of ASM International.

The Council of The Welding Institute has awarded the M&C Division's **Suresh S. Babu** the Lidstone Medal for 2002. The medal is awarded to a young researcher who is deemed to have made the most significant contribution to the advancement of welding technology during the five-year period preceding the award year.

Bronson Messer, a postdoc in the Physics Division, recently won some \$32,000 as a contestant on the TV game show "Jeopardy." "The experience was kind of scary," Bronson says. "Everything moves very fast. The show is taped to time. But the fact that you have to wait for Alex [Trebek] to completely finish the question before buzzing in proved to be more of a handicap than I expected." Currently a postdoctoral UT research associate collaborating with Anthony Mezzacappa of the Physics Division on large-scale core-collapse supernovae simulations, Bronson won three contests, which aired in May.

Genetics pioneer Bill Russell dies

William L. Russell, pioneer mammalian geneticist, died Wednesday, July 23, at his home in Oak Ridge. Bill Russell came to ORNL in 1947 with his future wife, Liane, from Jackson Laboratories in Maine to study the genetic effects of radiation on mice. Their work led to important human radiation exposure limits and further discoveries to determine the genetic effects on mice of chemicals from drugs, fuels and wastes.

In the ensuing decades, Russell received numerous accolades including election to the National Academy of Sciences in 1973 and the Enrico Fermi Award in 1975. He was ORNL's first senior corporate fellow. Liane is also a Fermi Award winner.

The Russells' research with mice led to the establishment of ORNL's famed Mouse House. Later this summer, the new Mouse House—the William L. and Liane B. Russell Laboratory for Comparative and Functional Genomics—will open, dedicated to them.

The Russells championed peaceful uses of atomic energy and the protection of wilderness areas and nature preserves in Tennessee. Bill Russell was 92. *ornl*

Wadsworth

Continued from page 1

he was 16 and, even though Jeff is the first person in his family to stay in school past that age, he struggled with his studies.

"A high-school teacher thought that I was 'at sea' and suggested I either go into metallurgy or pharmacology. About halfway through my junior year at Sheffield University I became intensely interested, probably because of my professor's being very patient and explaining things. After that it was more like a hobby than a job. I did quite well."

As he studied his chosen field—metallurgy—he came across publications from the Sandia, Los Alamos, Livermore and Oak Ridge national labs.

"Even then Oak Ridge was known for its high-temperature materials," he recalls. "This is the greatest country with the greatest

considers the Metals and Ceramics Division's C.T. Liu a particularly good friend.

Earlier, in 1980 he had joined Lockheed Martin's R&D group, a 1,000-employee division set in a 30,000-employee company. Those were good times for Lockheed, and he enjoyed the flexibility and resources.

"It paved the way for me to do basic research work—very exciting but also inspired by the longer term. Years later, work I did became very important in solving some of their missile problems."

He joined Livermore in 1992 mainly to do tech transfer. He did a number of jobs throughout that lab's organization, even running the physics division on an acting basis, giving him a broad exposure "... not just in science and technology but on the operations and safety sides," he says. For example, "The operations director—their version of Jeff Smith—and I worked very closely together.

At the end of the day we had a seamless vision of how the lab needed to be operated.

"It was a terrific experience for me. So now I understand human resources, financial and other matters and issues such as space charges and

cutting costs. I don't have a magic wand, but I know what the issues often are."

During the director-search process, a series of interviews with ORNL employees brought up some of those issues.

"I asked them what they liked, what would they change," Jeff says. "They like the sense of excitement, the vibrant pace, the sense of the future. Negatives—they worry about costs of all the building and whether our pricing is too high. Those are legitimate concerns, but we have to move forward.

"There is also regret that things aren't what they used to be, when there was more research emphasis, more money for research. I empathize with that, but the world has changed. There is a lot more focus on things that take up our time."

In the face of inevitable change, Jeff values stability. In private industry, he says, R&D labs are usually first to be cut in lean times, recalling an IBM executive who persuaded his superiors not to cut that company's R&D staff during a downturn. But when times got fatter, that same executive was also refused an

"I understand human resources, financial and other matters and issues such as space charges and cutting costs. I don't have a magic wand, but I know what the issues often are."

increase for the R&D budget. Jeff understands that company's logic.

"Constancy is important. If you cut something in research, you have all these ties to students, postdocs, universities and partnerships, and it's so damaging when you pull out of them. But when you increase it the next year, it's inefficient—you may not hire the best people, and you may not be able to sustain that level.

"My major contribution at Livermore was maintaining a flexible R&D budget at about 8 to 10 percent," he says. "It used to be more like 18 to 20 percent, but the (equivalent of) LDRD has always been under attack. At Livermore you see those same issues we mention here—our cost is too high, not enough flexibility to do long-term research.

"I would rather have a definite LDRD level that I can bet on."

Science has to be flexible, he says. No one knows what's around the corner. Indeed, Wadsworth was acting director at Livermore on Sept. 11, 2001. This naturalized U.S. citizen may not have been as shocked as most Americans at 9/11. As a teenager he was at a soccer stadium in Aden, a troubled British protectorate that is now Yemen, when someone set off a bomb in an adjacent field. Further acts—including bus bombings and a grenade thrown into a Christmas party that killed two teenagers—caused the British army to evacuate British families from the country.

"That's what terrorists do; they make you decide you don't want to be there," he says.

Jeff also recalls traveling through East Germany to his father's post in West Berlin, encountering that grim highway's checkpoints where arriving too late, or even too early, was asking for trouble.

Checkpoint Charlie is gone, but terrorism is with us apparently for the long term and homeland security has become a DOE mission.

"We live in a dynamic world. The national labs have really good people, and Oak Ridge is right up there. We can be the number one science lab.

"I'm excited about our Lab agenda; it's just what a vital lab should be. We'll execute the current program and fulfill those promises," says the new Lab director.

"Then we'll set the next five-year agenda."—Bill Cabage [ornl](#)



Curtis Boles

Jeff Wadsworth did a five-stop tour of the Lab on July 1, the day after he was announced as its new director. He and members of the Leadership Team capped the day with a stop at an Oak Ridge landmark—Big Ed's Pizza.

science and technology in the world, and I wanted to be in that country. So when I finished my Ph.D., I came to Stanford University as a postdoc."

That toe in the door exposed him to a "universe" of national labs.

Jeff Wadsworth first visited ORNL in 1986 to give an invited talk just as the Lab's showpiece user facility, the High Temperature Materials Laboratory, was being built. "The HTML was quite a big deal at Stanford, where quite a bit of materials research was being done," he says. As a researcher in high-temperature materials he made several ORNL acquaintances and

"There is regret that things aren't what they used to be. I empathize with that, but the world has changed."

Integrated Disability Management: A brief guide

On Sept. 1, 2003, CORE, Inc., will begin administering the Integrated Disability Management, or IDM, program, which encompasses all family medical leave (FML), short-term disability (STD) and long-term disability (LTD) claims for ORNL employees. CORE was selected because it provides single contact, coordinated management for all these claims.

So just what is IDM, and why has ORNL chosen this option? There are several types of IDM: The model UT-Battelle selected integrates the FML program and the non-occupational disability programs (STD & LTD). This approach has the following goals:

- Streamlined management, resulting in increasing employee satisfaction.
- Only one contact with CORE is needed to initiate a claim for FML or STD/LTD.

New Staff Members

Mohammed Mahfouz, Computational Sciences & Engineering
Janet Smith, Health Services
Jason Stigal, Bruce Hannan, Peter Peterson, Charles Roberts, Michael Dobiell, and James Taylor, Spallation Neutron Source
Kevin Phillips, John Rockwell, David Christopher and Larry Fraker, Craft Resources
Adrienne Trammell, Contracts
Shirley Woods, Networking & Computing Technologies
Rongying Jin, Condensed Matter Sciences
Gerald Palau, Facilities Revitalization
Boyd Hallman and Thomas McGoig, Nuclear Science & Technology
Jeffery Thurman, Non-Reactor Nuclear Facilities
Jennifer Ryan and Bryan Hathorn, Computer Science & Mathematics
Shahabaddine Sokhansanj, Environmental Sciences
Yutai Kotoh, Metals and Ceramics
Robert Shroyer, Operational Safety Services

ORICL sets fall term

The Oak Ridge Center for Continued Learning's fall term begins September 22, with early registration ending August 27. This term ORICL, a nonprofit program affiliated with Elderhostel, offers 48 courses over a number of topics and five trips: the Culinary Arts and Historic Sevier County tour; the Arnold Engineering Development Center; the Black Bear Jamboree; Backstage Tour, Dinner and Show; the Fall Colors Train Ride; and the Native American Tour.

For more information and a free catalog, contact the ORICL office at (865)481-8222.


- CORE will be prepared to answer questions about your claims administration.
- Reduction in administrative costs, resulting in overall program savings.
- With one administrator, ORNL can reduce costs and provide better service both to you and ORNL.
- Early initiation of claims and case management, enabling employees to recover more quickly and avoid lost work-time.

An IDM program achieves these goals in the following ways:

- Integrated intake: Employees will report their illness, injury or FML request through a single 800-number.
- Integrated intervention: Appropriate intervention is initiated immediately. Standardized eligibility guidelines and treatment protocols ensure consistent quality.
- Early notification: Supervisors and other appropriate parties are immediately notified

of an absence by CORE and receive status updates.

- Standardized communication: While employees are still responsible for informing their supervisors of their absence, they have one source for all administration-related communication about their case, thus helping preserve confidentiality.
- Integrated data management and reporting: Using a single system to manage all claims simplifies recordkeeping activities. It eliminates duplicated effort during the transition from short-term to long-term disability. Reports are comprehensive and encompass the total disability picture. They provide meaningful information that is useful in evaluating the IDM program and the vendor.

Before September 1, you will receive more detailed information about CORE and how to use the new IDM program. ORNL Employee Benefits will also host a web-site dedicated to IDM where information, FAQs and training materials will be available.—*Kathryn Cogar* 

Service Anniversaries

July

40 years: Fred R. Gibson, Engineering Science & Technology

35 years: Jim Jansen, Engineering Science & Technology; Larry Lane, Facilities Management; James B. Richmond, Communications & Community Outreach Dir.

30 years: Gary J. Cable, Craft Resources; Earl F Schubert, Facilities Management; Betty J. Waddell, Condensed Matter Sciences

25 years: Peggy Brown, Communications & Community Outreach Dir; Johnny L Bryant and Wesley W. Weaver, Craft Resources; Donnie M. Ferren, Thomas M. McCoig and Steven E. Smith Nuclear, Science & Technology Division; Carol A. Holtzclaw and Kim J. Kitts, Business & Information Services Dir; John S. Long, Networking & Computing Technologies; David Milan, Laboratory Protection; Gerald D. Mills, Physics; Julie J. Simpson, Energy & Engineering Sciences Dir; Bruce A. Tomkins, Chemical Sciences; Mark C. Vance, Quality Services

20 years: Tina C. Curry, Communications & Community Outreach Dir; Ursula F. Henderson, Business & Information Services Dir, Clara L. Phillips, Craft Resources; Curtis E. Porter, Nuclear Science & Technology; Paul R. Smith, Operational Safety Services

August

45 years: John T. Mihalcz, Nuclear Science & Technology

40 years: Norman M. Greene, Nuclear Science & Technology; J. R. Hendrix Jr., Craft Resources

35 years: Brian K. Annis, Chemical Sciences; David W. Holladay, Nuclear Science & Technology; Gary D. Inman, Facilities Management; Jasper B. Watson, Environmental Protection & Waste Services

30 years: David J. Bjornstad and Stephen G. Hildebrand, Environmental Sciences; Evelyn H. Ealy, Health Services; Clay E. Easterly, Life Sciences; Nancy A. Hatmaker, Nuclear Science & Technology

25 years: Michelle V. Buchanan and A. C. Buchanan III, Chemical Sciences; V. M. Cauley, Physics; Norman D. Farrow and Leo K. Hyder, Environmental Sciences; Gerald E. Jellison, Jr., and Gerald B. Taylor, Condensed Matter Sciences; D. B. Kendrick, Business & Information Services Dir.; Steve R. Lewis, Environmental Protection & Waste Services; David R. Pogue and Bruce A. Upton, Craft Resources; Sharon M. Rucker, Facilities Management; Carol H. Scott, Operational Safety Services; Marie M. Stooksbury, Logistical Services; Robin D. Taylor, Nuclear Science & Technology

20 years: John D. Baity, Jr., and Duane R. Williams, Laboratory Protection; Robin R. Berry and Donald T. Wilkerson, Craft Resources; Patrick S. Bishop and Michael L. Santella, Metals & Ceramics; Thomas W. Burgess, Nuclear Science & Technology; David C. Dunning, SNS Accelerator Systems; Dale K. Hensley and James R. Weir III, Condensed Matter Sciences; Gary K. Jacobs, Environmental Sciences; Stephen M. Killough, Engineering Science & Technology; Kevin C. Trent, HR & Diversity Programs Dir.

United Way campaign under way

With a record of steady growth, ORNL raises the bar

This year's ORNL United Way cabinet, led by campaign chair Greg Turner and co-chair Scott Branham, has set an ambitious goal of \$715,000 for the 2003 drive. Greg is confident that Lab staff will "raise the bar" again with their generous contributions.

"The ORNL campaign has grown tremendously throughout the last 10 to 20 years," he says. "The 2002 ORNL United Way Campaign goal of \$630,000 was exceeded with a final number of \$680,000! That number was achieved because so many of our folks feel that United Way truly is the best way to help the most people. I believe we can repeat our success this year with your help.

"We're also grateful that so many Lab employees make the effort to volunteer and

share with their co-workers the importance of giving through our United Way Campaign," Greg adds.

The 2003 drive, which got under way July 31, is featuring several special events, including a silent auction and sale of the popular ORNL 60th Anniversary cookbook.

A new event is the International Festival, organized by this year's UW cabinet and ORNL Work Force Diversity representatives to showcase the ethnic and cultural heritages of Lab staff members. The festival will feature photo displays, arts and crafts demonstrations and food preparation. It is scheduled for August 26 from 11 a.m. until 1 p.m.

A special area of emphasis in this year's campaign is the Leadership Giving program, in which annual giving varies from financial commitments of \$250 and \$500 annually (for hourly and nonexempt employees) to \$1,000 or 1.5 percent of annual salary (for exempt employees). If you are interested in becoming a Leadership Giver or in increasing your level of Leadership Giving, contact Scott at branhams@ornl.gov or 241-7614.

During the campaign, prizes will be awarded as follows: New participants will be eligible for a drawing for a \$100 Visa gift card. New Leadership Givers will be eligible for a drawing for a night's lodging for two at the Whitestone Inn. Current Leadership Givers who increase their level of contribution by 5% will be eligible for a drawing for two box seats for a University of Tennessee football game.



Curtis Boles

ORNL employees visited area United Way agencies in July including the Early Intervention at Emory Valley Center, Henry Center in Roane County (above) and East Tennessee Children's Hospital Rehabilitation Center.



George gives a thumbs up and Robby inspects visitors from ORNL during an agency visit at the Early Intervention at Emory Valley Center.

As outgoing Director Bill Madia said in a recent message to Lab staff, ORNL employees are amazingly generous. Last year, we contributed more than \$680,000 to assist those in need—the largest amount raised by any organization in East Tennessee (in a year when donations to charitable organizations were down significantly across the country.)

But it's important to continue our legacy. Last fall's tornadoes showed us how quickly disaster can strike in our own backyards, and United Way agencies were among the first on the scene to help. We can continue to make possible this sort of assistance to our neighbors in need by living up to this year's campaign slogan, "Extraordinary Giving by Extraordinary People."

For more information about the 2003 drive, go to home.ornl.gov/general/united_way/.

—Cindy Lundy [ornl](#)

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