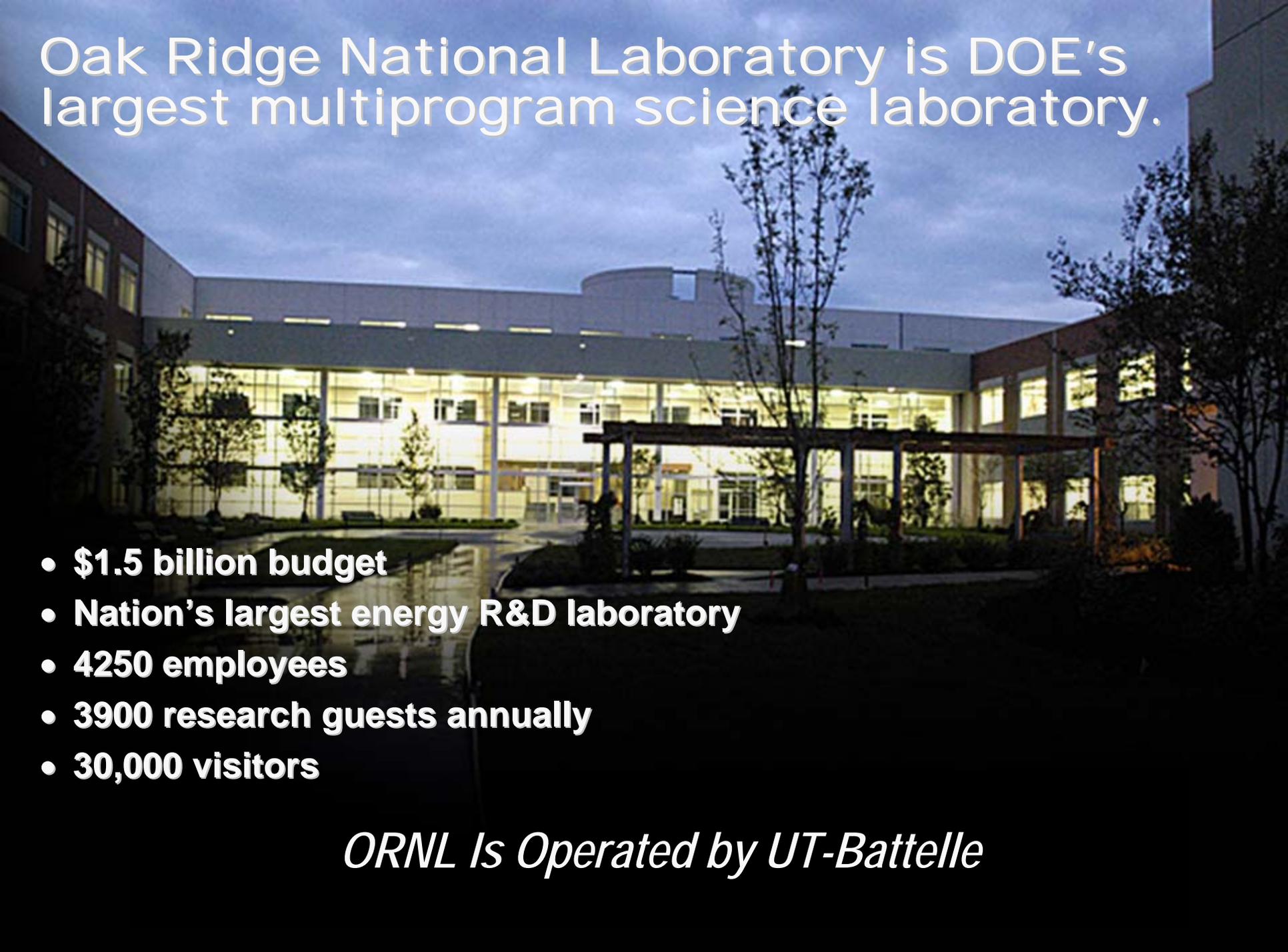


# Oak Ridge National Laboratory's Programs for Students and Faculty



**Cheryl Terry, Program Manager  
Science Education Programs  
865.576.3427  
Cheryl.Terry@ornl.gov**

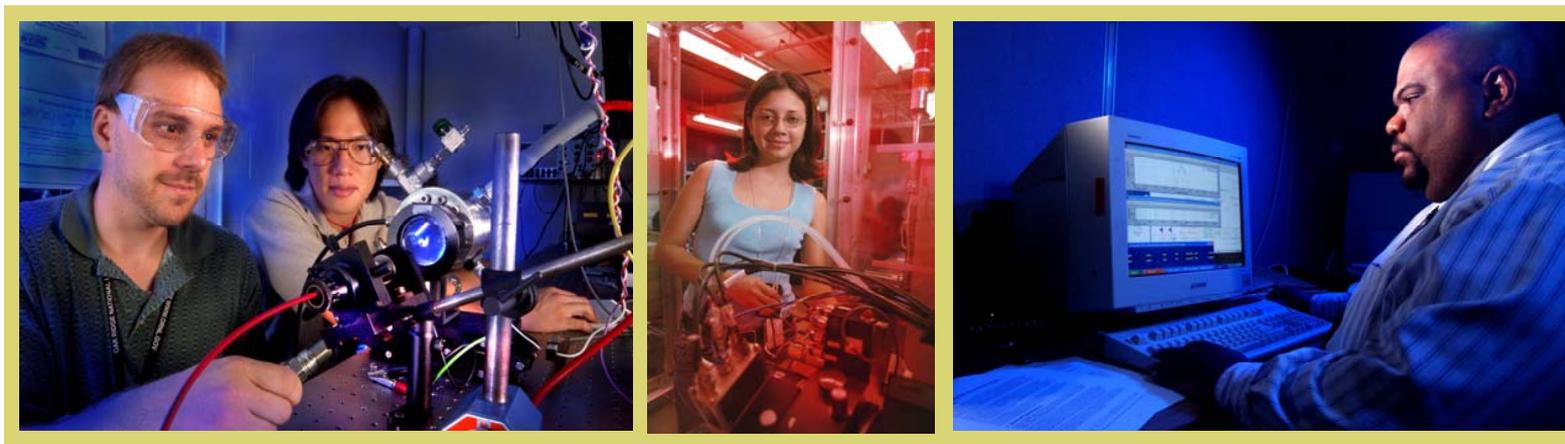


Oak Ridge National Laboratory is DOE's largest multiprogram science laboratory.

- **\$1.5 billion budget**
- **Nation's largest energy R&D laboratory**
- **4250 employees**
- **3900 research guests annually**
- **30,000 visitors**

*ORNL Is Operated by UT-Battelle*

# Oak Ridge Institute for Science and Education (ORISE) Manages ORNL's Education Programs.



- Appointment paperwork
- Planned activities
- Program requirements
- Housing
- Travel reimbursements
- Stipend payments
- Renewals and extensions
- Program policies

ORISE and ORNL Work Together to Help You Have a Safe, Productive, and Fun Stay

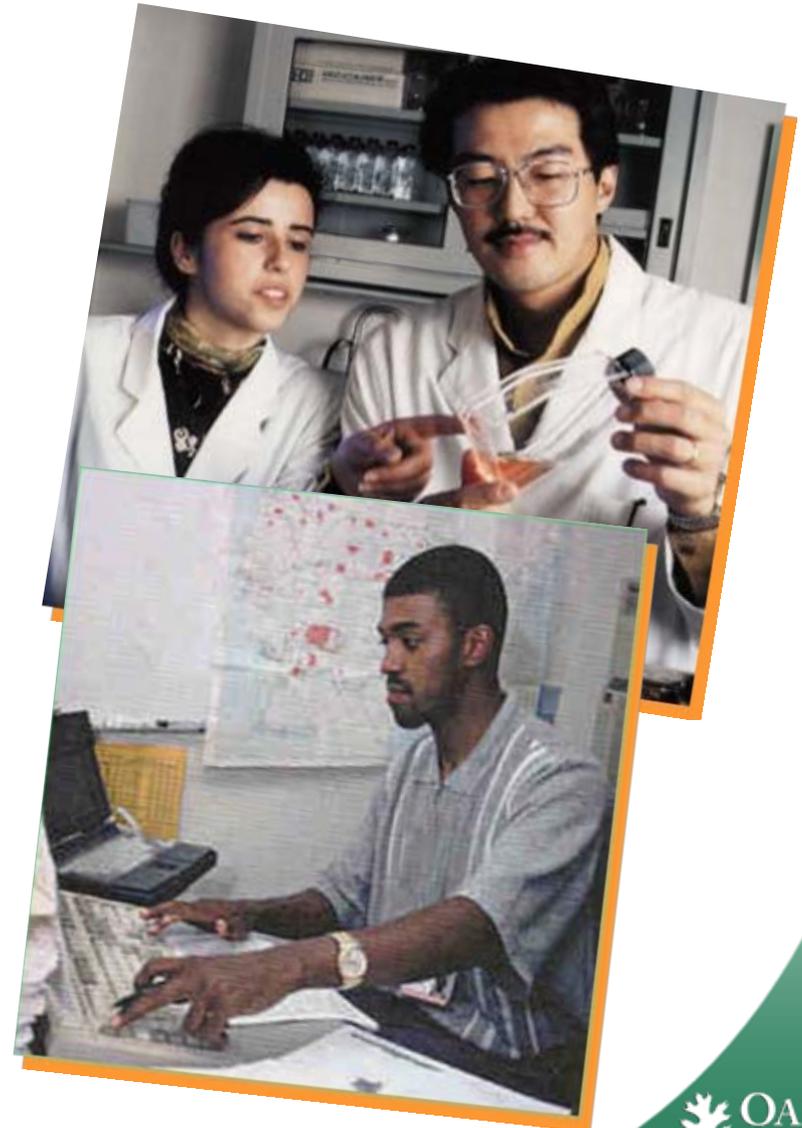
# ORNL is committed to education.

- **ORNL has hosted undergraduates, graduate students, postgraduates, and faculty since 1946.**
- **In 2008, ORNL hosted nearly 850 participants at the laboratory for summer, academic year, and longer term assignments. 270 of these were undergraduates.**
- **Participants came from all over the United States plus the District of Columbia.**



# What can you do at ORNL?

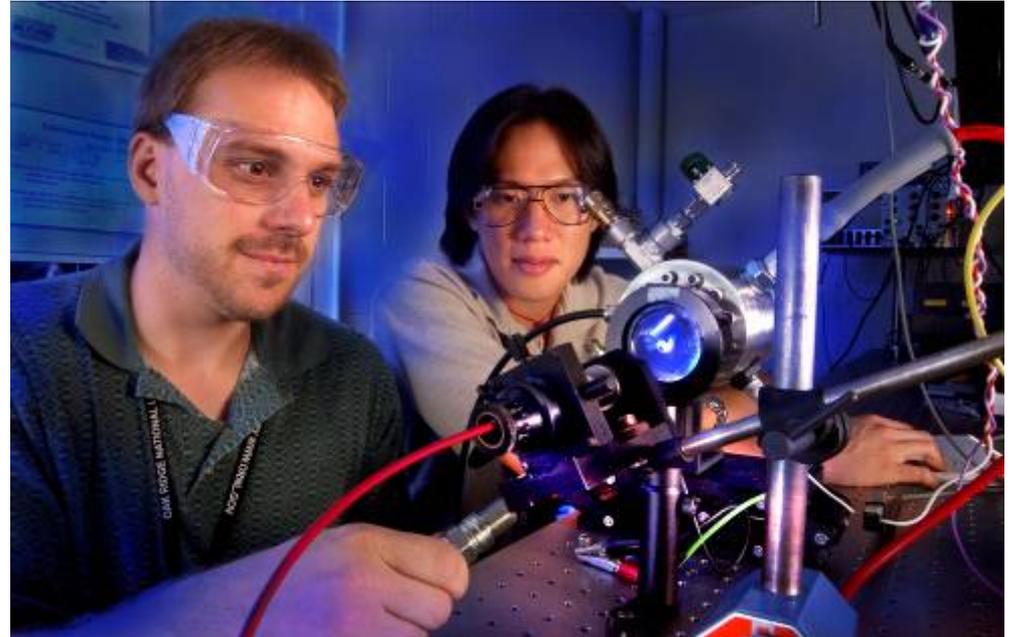
- **Conduct hands on research or hold internships in support areas**
- **Use state-of-the-art equipment**
- **Interact with staff scientists and others**
- **Look for answers to pressing scientific questions**
- **Gain valuable real-world experience**
- **Add to your resume**



# Mark Bennett and Carl Eng received real-world challenges!

**“When you are in the real-world scientific environment, things don’t always work. There are no books to go find the answers. But that’s valuable. What doesn’t work gives you just as much information as what does work.”**

**Mark Bennett**



**“I have had the opportunity to see the types of challenges that an engineer actually faces.”**

**Carl Eng**

Denard Cox received hands on experience in electromagnetics and set his career direction.

**“I want to teach, but I’ve always dreamed of being a scientist at a national lab first. You get to study with people of various backgrounds and expertise.”**

**Denard Cox**



# ORNL provides a unique experience!



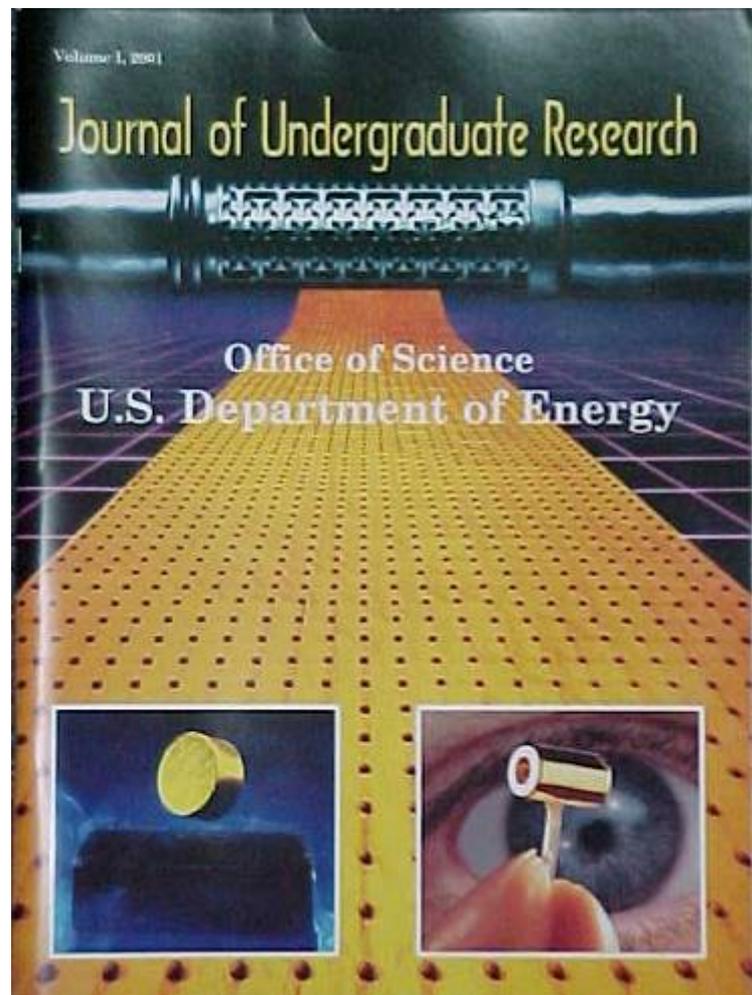
## A Chance to Learn –

- Attend seminars and workshops
- Participate in brown bag lunches on topics of interest
- Present at a poster session

# ORNL provides a unique experience!

## A Chance to Excel –

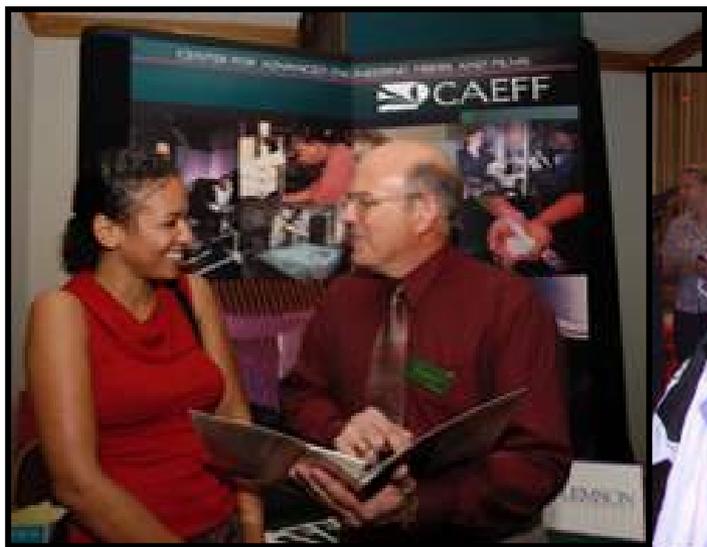
- Write and publish a scientific abstract
- Write and possibly publish a research paper in a journal



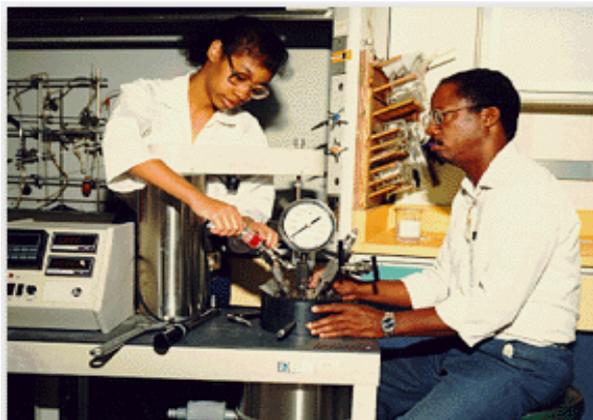
# ORNL provides a unique experience!

## A Chance to Define Your Future –

- Learn about careers
- Attend a graduate school fair



# ORNL provides a unique experience!



## A Chance to Have Fun –

- In the Laboratory
- Outside the Laboratory



# You are assigned a mentor to help guide you through your project.

**Your mentor becomes your :**

- **Advisor**
- **Teacher**
- **Role Model**
- **Friend**



# You receive a stipend and MORE!

- **Stipend paid monthly or bi-weekly**
- **Reimbursement for inbound and outbound transportation**
- **Housing allowance or contract housing (for some programs)**



- **A GREAT ADDITION TO YOUR RESUME**



# What are the criteria for selection?

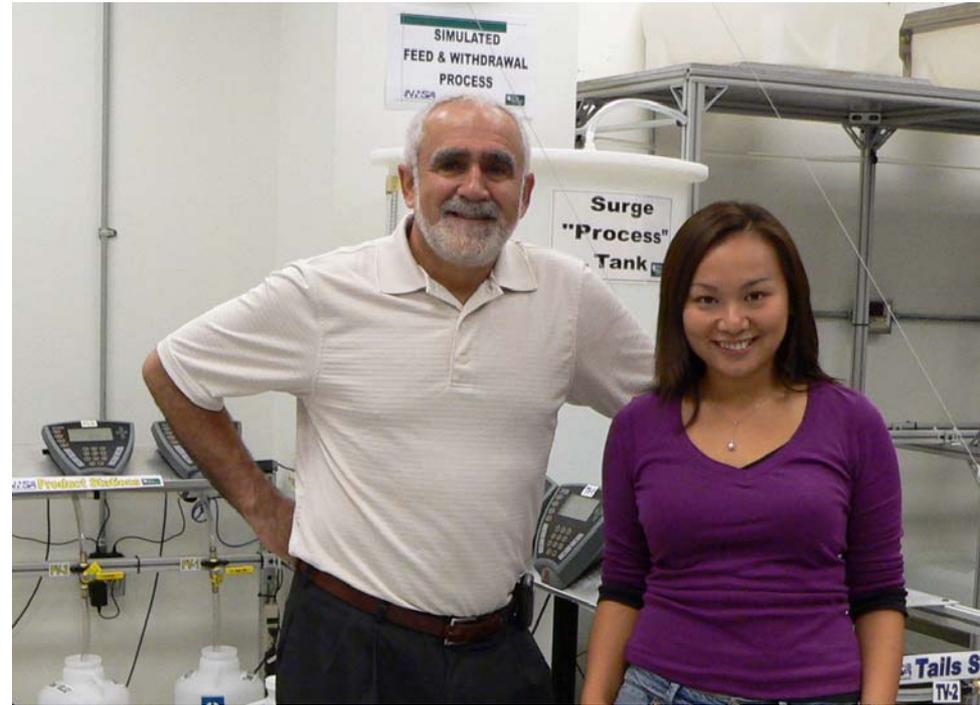
- **Academic background**
- **Interests**
- **Grades**



- **Career goals**
- **Your enthusiasm**

# Fascination with Chemistry

- **Sinsze Koo is a participant in the Nuclear Engineering Science Laboratory Synthesis (NESLS) program and is being mentored by Alan Krichinsky of the Safeguards group.**
- **She attends the University of South Florida in Tampa, Florida, majoring in Chemical Engineering.**
- **Sinsze expects to graduate with a bachelor degree in December, 2008.**
- **“I always wanted to become an engineer because of my interest in new technology and science. Besides that, jobs and careers in the engineering field seem stable and secure. Chemistry is one of the sciences that always fascinated me.”**



# Undergraduate Programs

Program	Summer Application Deadline	Process	Program Website
Undergraduate			
DOE Community College Institute	1-Feb	Application review	<a href="http://www.scied.science.doe.gov">http://www.scied.science.doe.gov</a>
DOE Pre-Service Teacher	1-Feb	Application review	<a href="http://www.scied.science.doe.gov">http://www.scied.science.doe.gov</a>
DOE Science Undergraduate Laboratory Internship	1-Feb	Application review	<a href="http://www.scied.science.doe.gov">http://www.scied.science.doe.gov</a>
Higher Education Research Experiences	Open (soft deadlines on website)	Application review	<a href="http://www.ornl.gov/hereatornl">http://www.ornl.gov/hereatornl</a>
Laboratory Technology Program	Open	Application review	<a href="http://see.ornl.gov/ProgramDescription.aspx?Program=10045">http://see.ornl.gov/ProgramDescription.aspx?Program=10045</a>
Nuclear Engineering Science Laboratory Synthesis	1-March	Application review	<a href="http://www.ornl.gov/sci/nuclear_science_technology/nstip/nesls.htm">http://www.ornl.gov/sci/nuclear_science_technology/nstip/nesls.htm</a>
Undergraduate Cooperative Program	Open	Research Postings	<a href="http://www.ornl.gov/partform/ORNL/CoopApplInstruct.htm">http://www.ornl.gov/partform/ORNL/CoopApplInstruct.htm</a>

# Graduate

Program	Summer Application Deadline	Process	Program Website
Graduate			
Higher Education Research Experiences	Open (soft deadlines on website)	Application review	<a href="http://www.ornl.gov/hereatornl">http://www.ornl.gov/hereatornl</a>
Higher Education Research Experiences – Thesis Research	Open (soft deadlines on website)	Application review	<a href="http://www.ornl.gov/hereatornl">http://www.ornl.gov/hereatornl</a>
Nuclear Engineering Student Laboratory Synthesis	1-Feb	Application review	<a href="http://www.ornl.gov/sci/nuclear_science_technology/nstip/nesls.htm">http://www.ornl.gov/sci/nuclear_science_technology/nstip/nesls.htm</a>

# Post Graduate

Program	Summer Application Deadline	Process	Program Website
Post Graduate			
DOE Science Undergraduate Laboratory Internships	1-Feb	Application review	<a href="http://www.scied.science.doe.gov">http://www.scied.science.doe.gov</a>
Advanced Short-Term Research Opportunity	Open	Application review	<a href="http://www.ornl.gov/orise/edu/ornl/ASTRO/astrohome.htm">http://www.ornl.gov/orise/edu/ornl/ASTRO/astrohome.htm</a>
Higher Education Research Experiences	Open (soft deadlines on website)	Application review	<a href="http://www.ornl.gov/hereatornl">http://www.ornl.gov/hereatornl</a>
Postmaster's Research Participation	Open	Research Posting	<a href="http://www.ornl.gov/orise/edu/ornl-pdpm/about.htm">http://www.ornl.gov/orise/edu/ornl-pdpm/about.htm</a>
Postdoctoral Research Associates	Open	Research Posting	<a href="http://www.ornl.gov/orise/edu/ornl-pdpm/about.htm">http://www.ornl.gov/orise/edu/ornl-pdpm/about.htm</a>
Nuclear Engineering Student Laboratory Synthesis	1-Feb	Application review	<a href="http://www.ornl.gov/sci/nuclear_science_technology/nstip/nesls.htm">http://www.ornl.gov/sci/nuclear_science_technology/nstip/nesls.htm</a>

# Jorge Gabitto, Texas A&M University, participated in the FaST program under Costas Tsouris, NSTD

Dr. Jorge Gabitto is an Associate Professor at Prairie View A&M University, Chemical Engineering Department. He has interned at ORNL several times and returns each summer with a new FaST group of students.



Yousri Elkassabgi of Texas A&M came back for the second time.

“I am in contact with my mentor at ORNL... we have several projects of interest to him and I have graduate students who are working on those projects.”



A useful collaboration has developed.

# Dhananjay Kumar of NC A&T epitomizes the synergy between ORNL and academia.

As a direct result of his interaction with ORNL, Kumar:

- Won a \$1.4 million NSF grant to study nanomagnetic materials, in which ORNL played a key role.
  - Received a joint appointment at ORNL.
  - Has published in major journals and has made presentations related to Lab research.
  - Is applying for two more grants totaling \$2.2 million.
  - Uses ORNL-prepared materials with students.
- 
- A portrait of Dhananjay Kumar, a man with glasses, wearing a plaid shirt and a red tie. He is looking directly at the camera with a neutral expression.
- Will fund a postdoctoral appointment at ORNL.

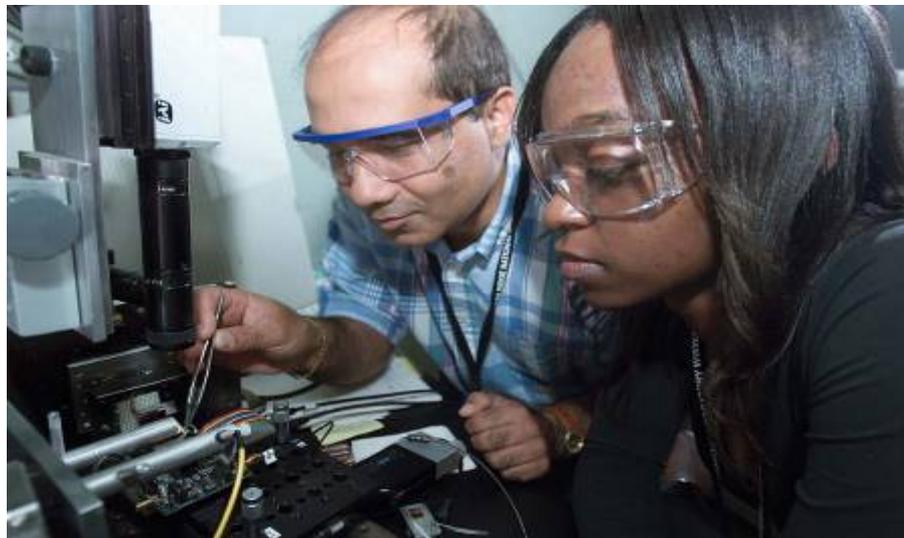
Three programs are available for faculty!

## DOE Faculty and Student Teams

[www.scienced.sciencedoe.gov](http://www.scienced.sciencedoe.gov)

## Higher Education Research Experiences

[www.ornl.gov/hereatorn](http://www.ornl.gov/hereatorn)

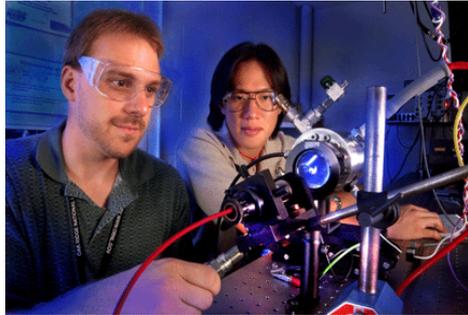


## ORNL/ORAU MEI Summer Program

[www.ornl.gov/orise/edu/ornl/mei/index.htm](http://www.ornl.gov/orise/edu/ornl/mei/index.htm)

Apply to specific projects at ORNL for both programs.

## Join in the RESEARCH community at the OAK RIDGE NATIONAL LABORATORY and GET PAID for having the experience of your life!



- Experience the thrill of conducting research at the cutting edge.
- Interact with international experts in fields you have studied.
- Contribute to the technical capabilities of the U.S.
- Publish your research in a technical journal.
- Look for answers to pressing problems of global importance.
- Enjoy the camaraderie of other students with similar interests.

Investigate the opportunities at the following websites:

[http://www.ornl.gov/sci/nuclear\\_science\\_technology/nstip/nels.htm](http://www.ornl.gov/sci/nuclear_science_technology/nstip/nels.htm) for the Nuclear Engineering Science Laboratory Synthesis (NESLS) program. **The Nuclear Engineering Science Laboratory Synthesis (NESLS)** program is a cooperative research initiative geared toward students working in physics and nuclear engineering applications. Through one- to three-year summer internships, NESLS offers engineering students and faculty on-the-job educational and research opportunities at a multidisciplinary national laboratory.

<http://www.scied.science.doe.gov> for the following DOE programs for undergraduate students and faculty Science Undergraduate Laboratory Internships, Community College Institute, Pre-Service Teacher Internships, the Faculty and Student Teams, and the Academies Creating Teacher Scientists Program.

<http://www.ornl.gov/hereatornl> for the Higher Education Research Experiences at ORNL for undergraduates, recent BS graduates, graduate students, and faculty.

<http://www.ornl.gov/orise/edu/ornl/ASTRO/astrohome.htm> for the ASTRO program for students who have received the master's or doctoral degree that will stay less than 9 months.

<http://www.ornl.gov/orise/edu/ornl-pdpm/about.htm> for Postdoctoral Research Associates Program for students that have received their doctoral degree.

<http://www.ornl.gov/orise/edu/ornl-pdpm/about.htm> for Postmaster's Research Participation Program for students that have received their master's degree.

<http://www.ornl.gov/orise/edu/ornl/mei/index.htm> for the Historically Black Colleges and Universities and Minority Education Institutions Faculty Summer Research Program