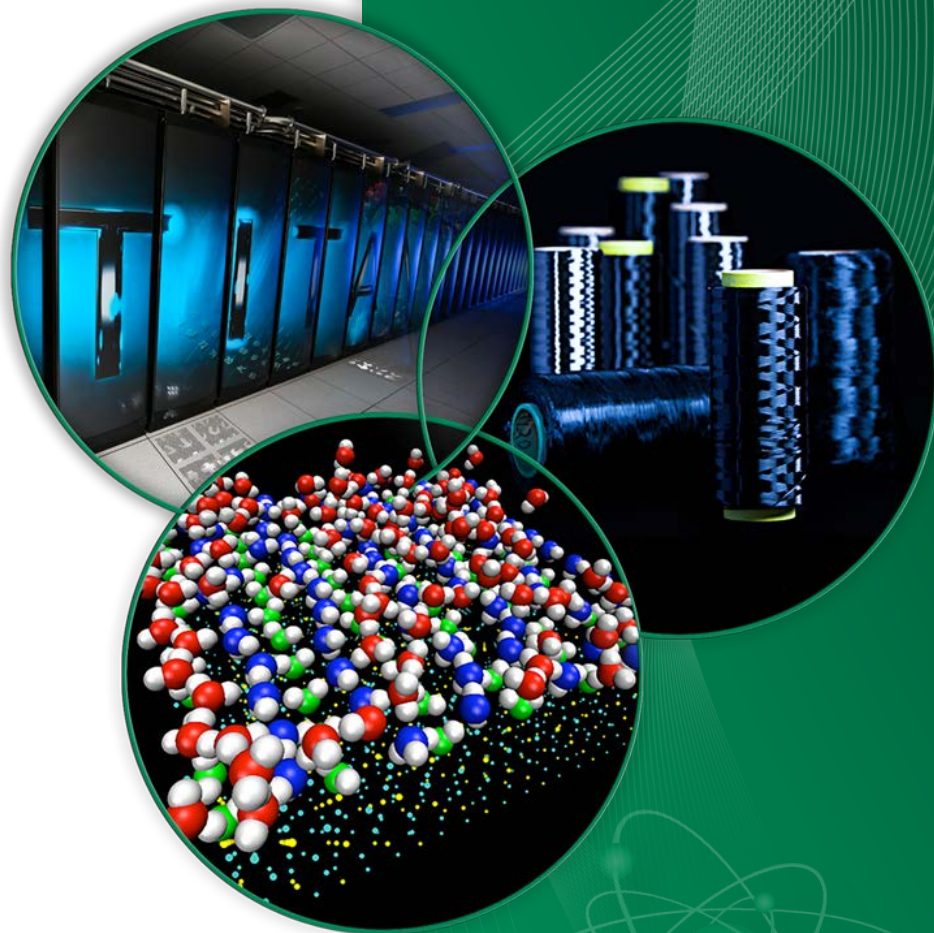


Graduate Education and University Partnerships

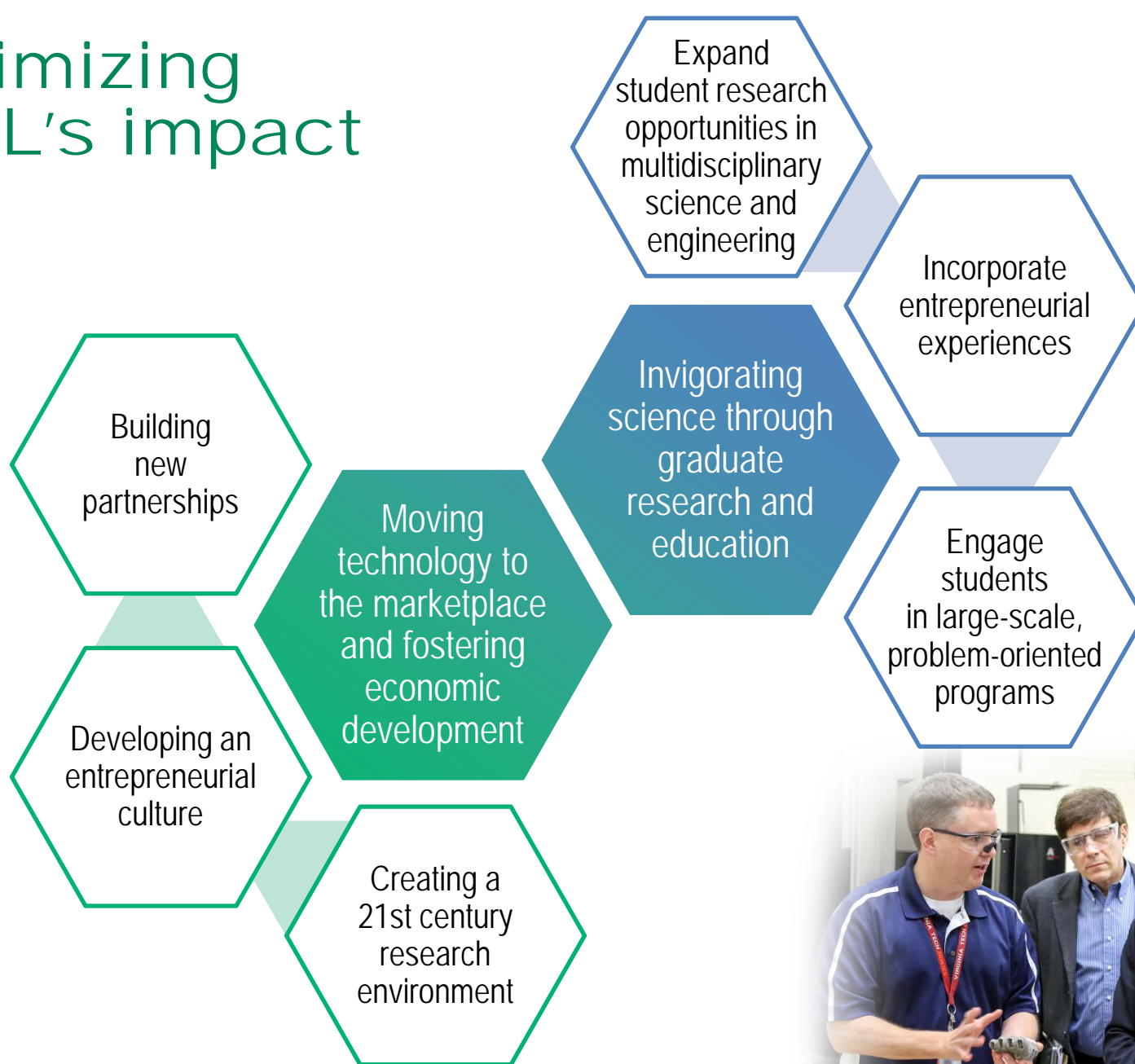
Presented to the
UT-Battelle
Core University Liaisons

Ian Anderson
Director, Graduate Education
and University Partnerships

August 8, 2013



Maximizing ORNL's impact

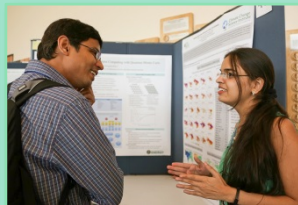


University Partnerships and Education

Delivering experiences that contribute to workforce development

Direct value to ORNL

Postdoctoral programs



Postdoctoral program

Fellowships

Graduate degree programs



Extended framework for graduate education

Bredesen Center



Undergraduate/post-master's programs

ASTRO

Undergraduate Laboratory Internship

Post-Bachelor's/Post-Master's Research

HERE

Lab Technology Program

Nuclear Engineering Science Lab Synthesis



K-12 programs

ARC and ORNL summer programs

Science City Adventure

Science Saturdays



Science Saturday

February		March		April		May	
9	Looking at Atoms Through the World's Biggest Microscope	2	Materials Genome Project and Nuclear Sciences	13	Engineering Challenges Panel	4	ORNL site tours
16	Climate Change and Climate Modeling with Supercomputers	9	Robots and Remote Handling	20	Crystals: Science, Myth, and Lore		
		16	Easter Egg Hunt And Neutron Detection and Safeguards	27	Waste to Energy: Biofuel Cells and Bioenergy Production		
		23	The Science of Rainbows				



- More than 200 students registered
 - 63 schools
 - 20 cities/towns
 - 9 counties
- Positive feedback
- High demand to expand program next year
- 10 students offered internships at ORNL



Oak Ridge: Science City

- A year-round adventure to engage participants of all ages in hands-on problem solving
- Designed to foster awareness and learning on how science and technology can address societal problems
- Capitalizes on the spectacular research and science assets of the region

Science City
ADVENTURE
Project



ORAU



Smithsonian
Institution

THE UNIVERSITY OF
TENNESSEE **UT**

Bredesen Center for Interdisciplinary Research and Graduate Education

Attracting exceptional students

- Launched in 2011 with 19 students
- Fall 2013: 29 new students entering program
 - 15 students hold summer internships at ORNL
- GRE quantitative scores on par with top schools

An innovation in interdisciplinary graduate education

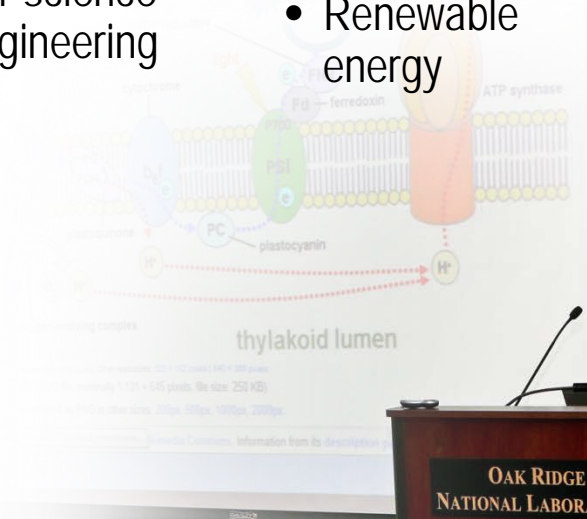
- One of the Nation's first interdisciplinary energy-related PhDs
- Coursework at UT, research at ORNL
- Faculty: UT and ORNL staff
- Entrepreneurial track

Distinguished Graduate Fellowships

- Materials science and engineering
- Computational science
- Nuclear science and engineering

Energy Science and Engineering Interdisciplinary PhD

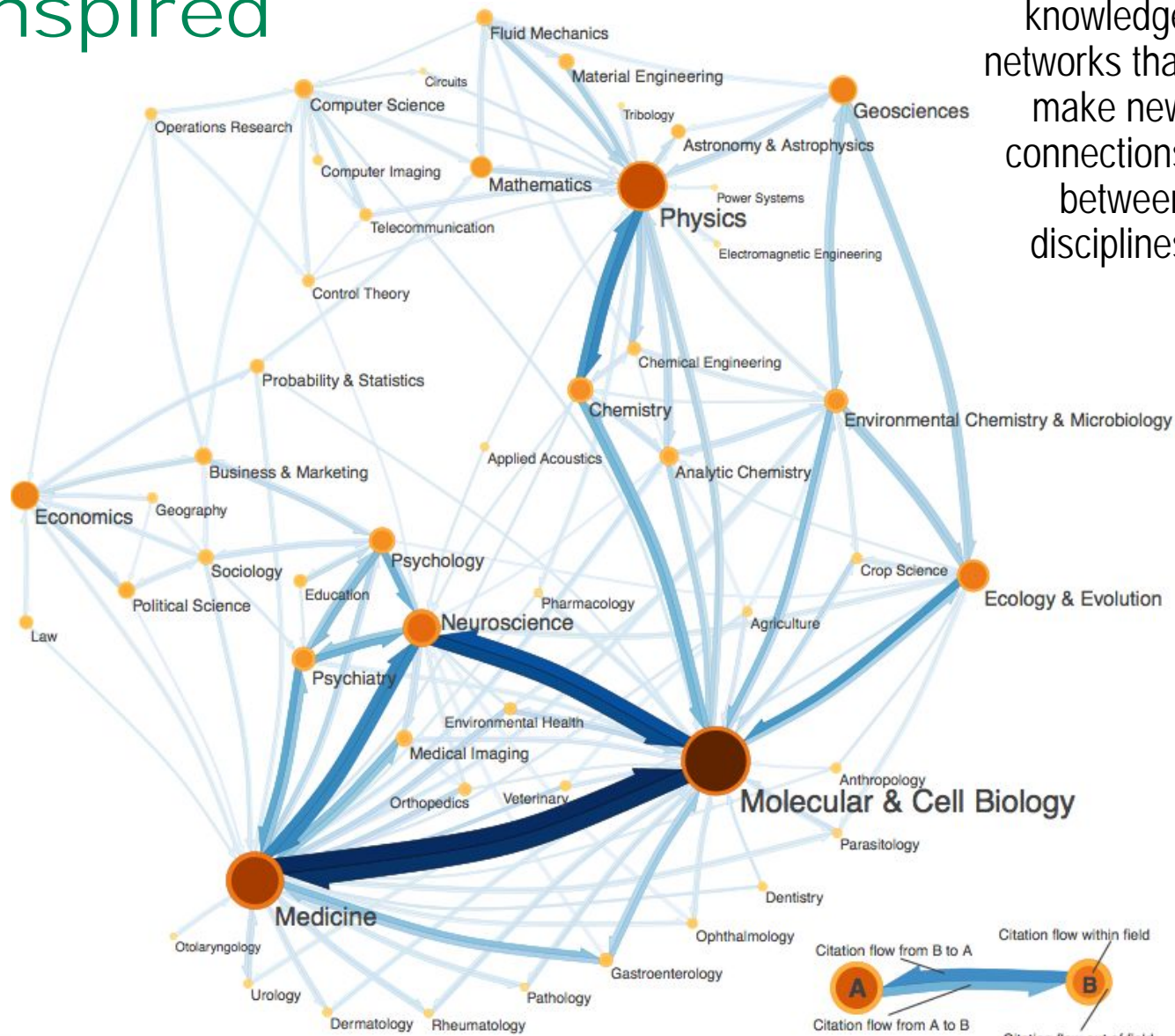
- Bioenergy
- Environmental science
- Nuclear energy
- Renewable energy



OAK RIDGE NATIONAL LABORATORY

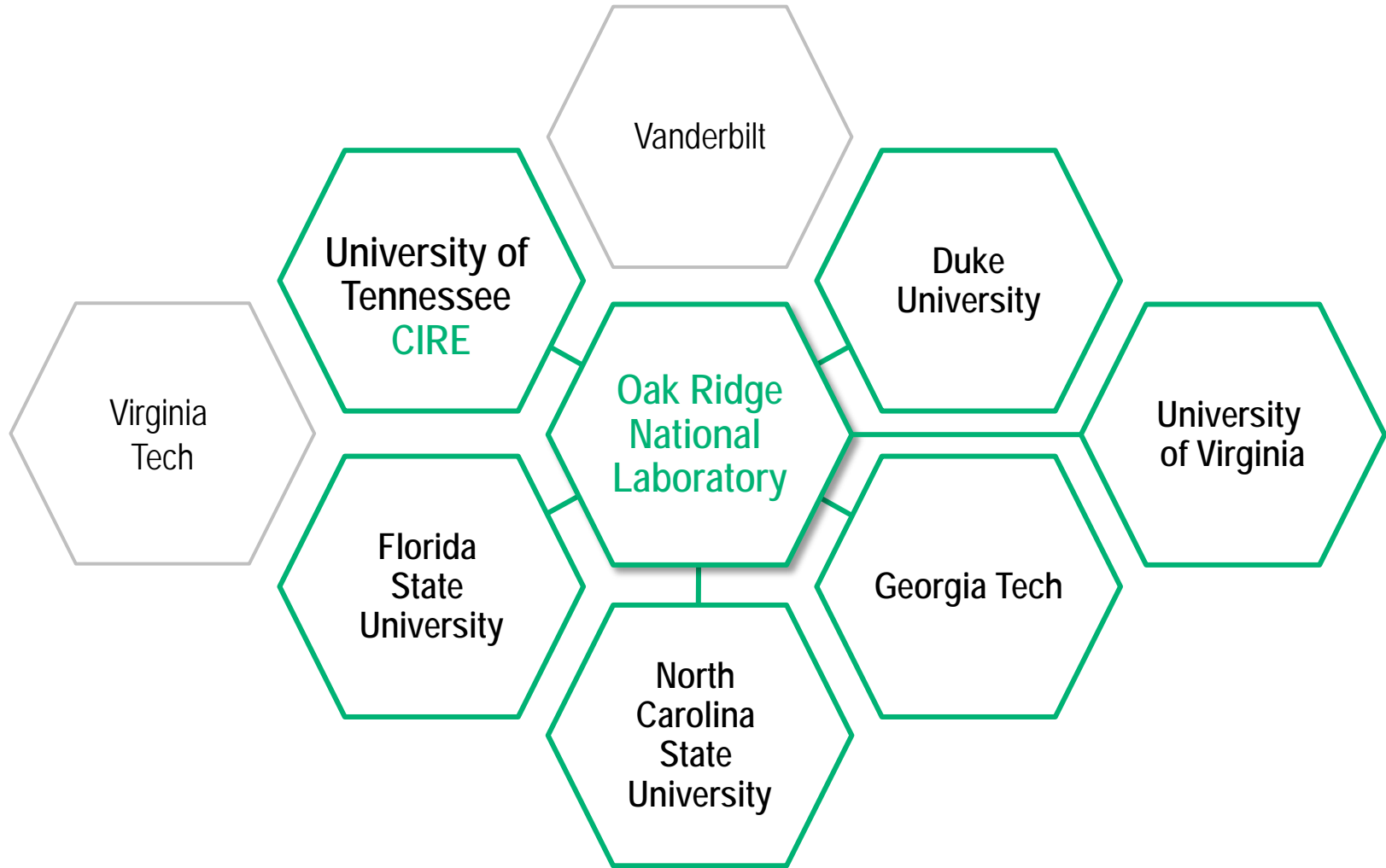
Where we are headed: Problem-inspired education

Learning
distributed across
time and space
where students
make use of what
they learn
to actively engage
with their world



Scholarship
built on
knowledge
networks that
make new
connections
between
disciplines

Enabling problem-inspired graduate education: Formal agreements



ORNL is now managing its own Postdoctoral Program

OAK RIDGE
National Laboratory

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Postdoctoral Program
Graduate Opportunities
Education and Outreach Programs

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ORNL's Postdoc Program

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Welcome to the ORNL Postdoctoral Program

The mission of the Postdoctoral Program is two-fold:

1. Maintain and raise the quality of highly qualified postdoctoral scholars at ORNL necessary to accomplish the laboratory mission
2. Deliver a worthwhile research and professional development experience for ORNL postdoctoral scholars

The postdoctoral program comprises several components:

- Postdocs are a strategic asset: Most early-career PhD staff come from our postdoc pool
- Direct hiring of postdocs as limited-term employees brings ORNL practice into line with that of other national laboratories

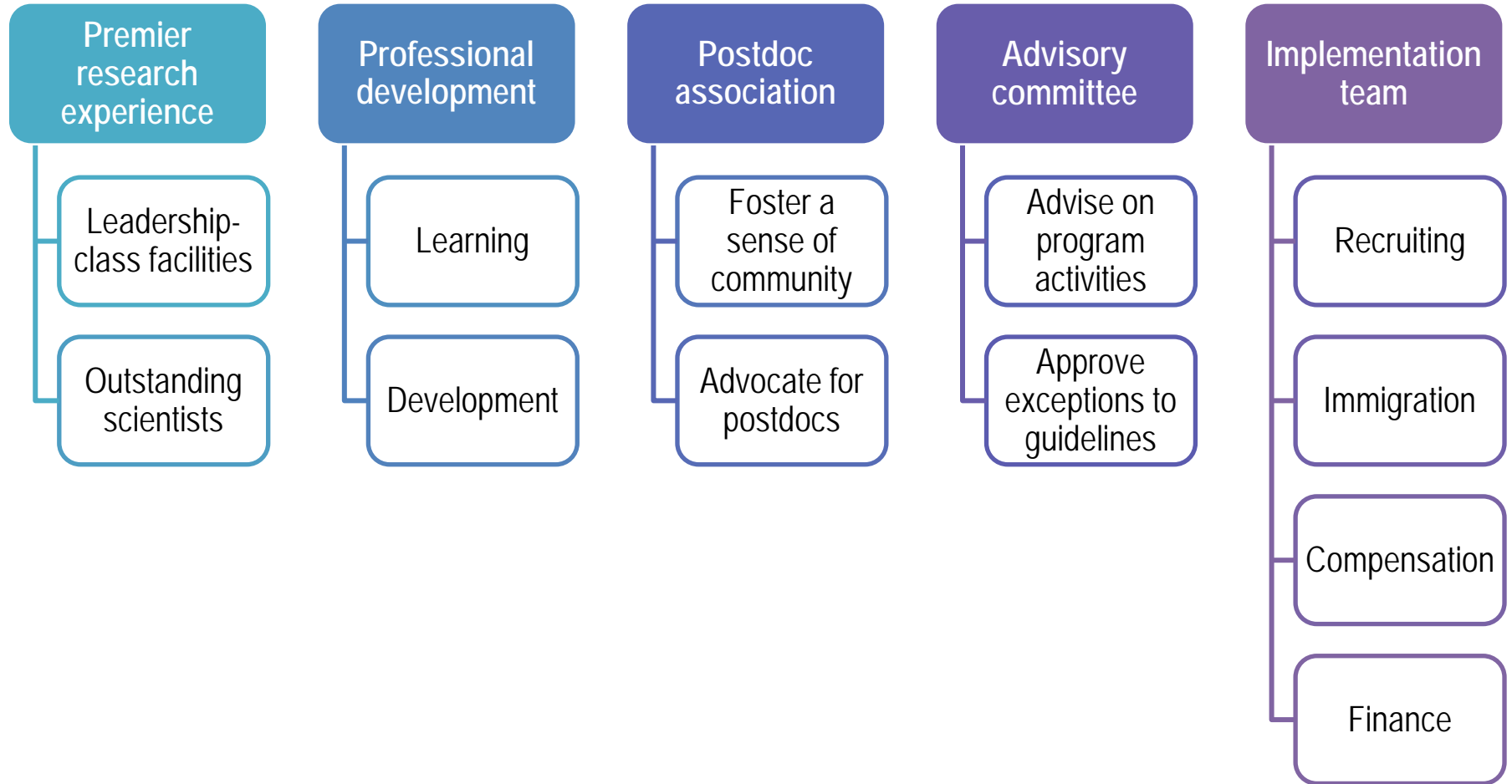
Establish a signature Postdoctoral Fellows Program that enhances the ORNL brand

Attract highly qualified, limited-term staff to contribute to and refresh our research mission

Build a pipeline of superb early-career talent

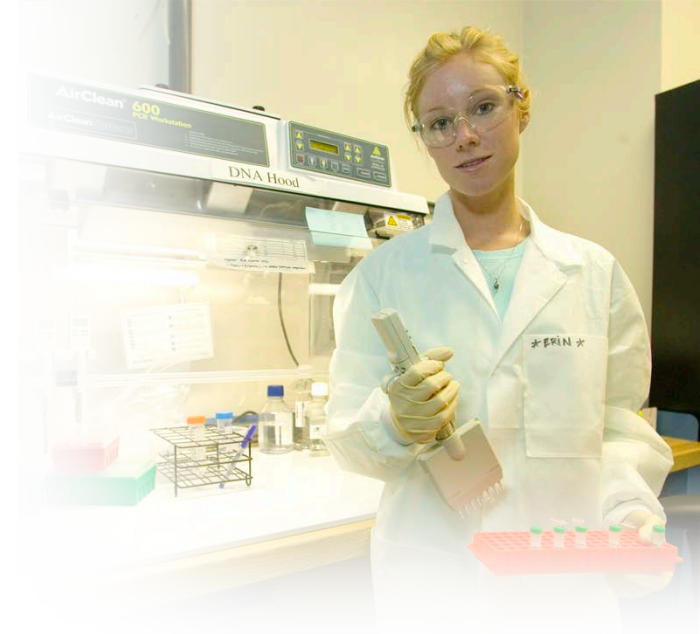
Develop a cadre of ORNL "alumni"

Program elements



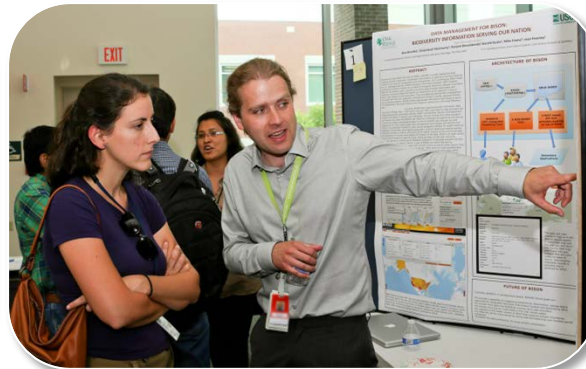
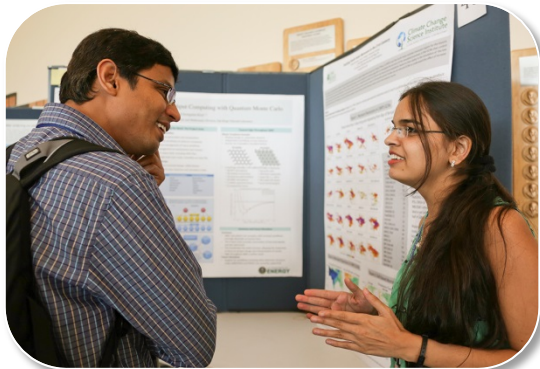
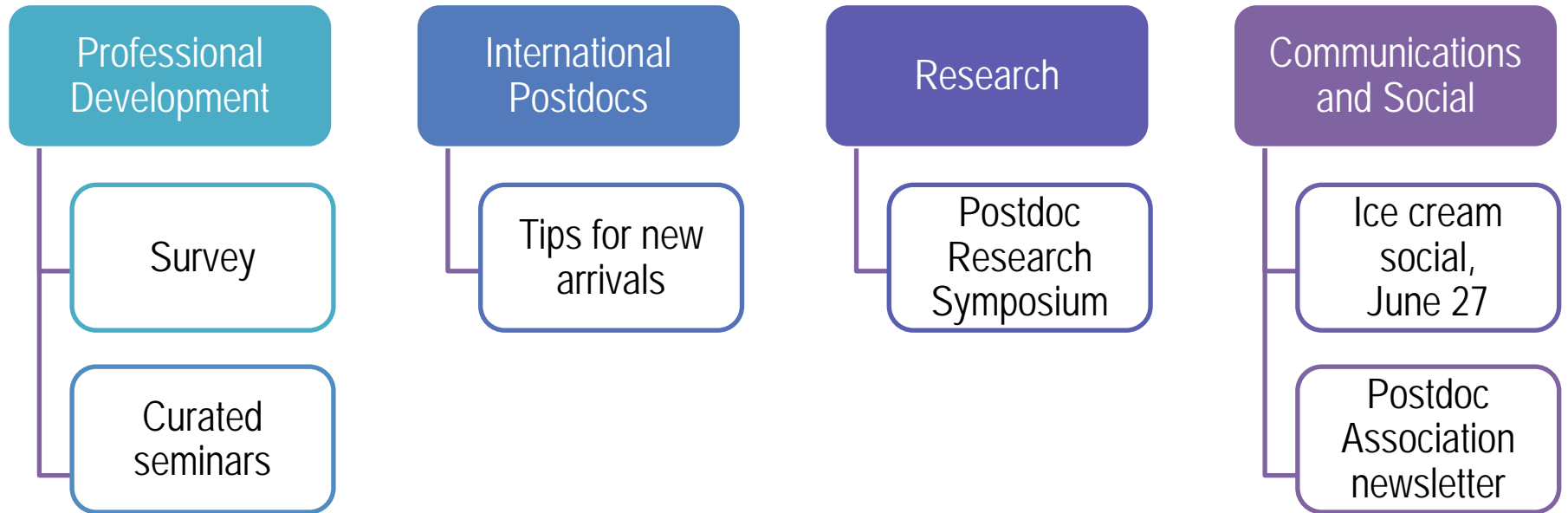
Program activities and achievements

- Program policy guidelines established (<https://portal02.ornl.gov/sites/universityrecruiting/postdoc/SitePages/Home.aspx>)
- Recruiting under way and working well
 - 36 open requisitions
 - 17 positions filled
 - 13 offers accepted and in process
- ORNL Postdoctoral Association launched
 - Kick-off meeting, June 10
 - By-laws adopted
 - Symposium organized
 - Elections planned for September (during Postdoc Appreciation Week)



Meeting “notable outcome” in ORNL’s annual performance plan

Postdoc Association committees are playing an active role



Professional Development committee activities

Delivered

- Résumé writing seminar
- Proposal writing seminar

Scheduled

- Individual development plans (IDPs)

Planned

- Follow-on to IDPs
- Presentation skills
- Writing research papers
- Research budgeting
- Advisor training

Professional development survey

Responses	80
Career plans	~60%: Government lab
Seminar topics of greatest interest	<ul style="list-style-type: none">• Proposal writing• Paper writing• Career planning• Networking skills• Budgeting for research

Postdoctoral Research Symposium

- Opening remarks:
Jeff Smith, Deputy for Operations
- Keynote speech:
Ramamoorthy Ramesh,
Deputy for Science and Technology
- Participation:
 - 90+ abstracts submitted
 - 36 oral presentations
 - 60 posters
 - 335 registered attendees
 - ORNL Weinberg
and Wigner Fellows engaged

