INTERACTION POINT

June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

Ray Orbach to Talk to SLAC Staff

Raymond L. Orbach
Director, DOE Office of Science

Will Give a Special Address

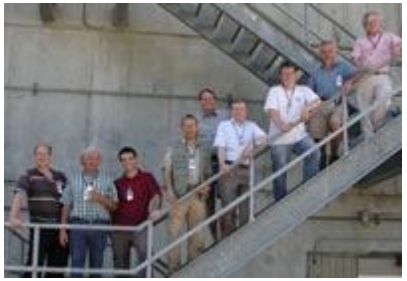
June 23
2:15 - 3:15 p.m.

On The Green

See complete announcement...

E-166: Sultans of Spin

By Monica Bobra



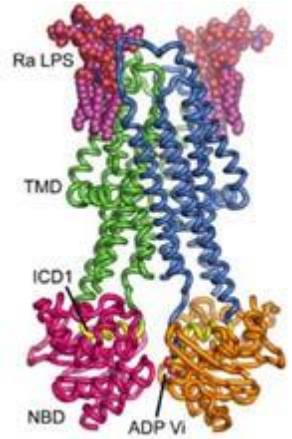
On June 6th, the E-166 experiment began taking data at SLAC in the first of two month-long experimental runs. The experiment is designed to produce polarized positron beams, in which most of the positrons spin in the same direction. This technology is an important component in the research and development of the International Linear Collider (ILC).

See whole story...

Light Sources Study Protein Involved in Drug Resistance

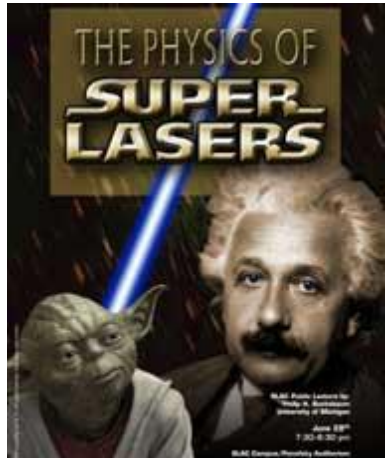
By Heather Rock Woods

Scientists at The Scripps



Public Lecture: The Physics of Super Lasers

June 28
7:30 p.m.



- Milestones

EVENTS

- Public Lecture: The Physics of Super Lasers
- Electric Power Consortium at SLAC
- Juneteenth: Friday, June 17

ABOUT TIP

- Staff/Contact
- Submission Guidelines

Research Institute have solved the structure of a protein called MsbA which is used by bacteria and cancer cells to resist therapeutic drugs. Researchers Geoffrey Chang and Christopher Reyes solved the structure using high-resolution x-ray crystallography at SSRL, and at the Advanced Light Source in Berkeley.

See whole story...

Panofsky Auditorium

Find out what happens when you turn the lights ALL THE WAY UP!

See complete announcement...

The Stanford Linear Accelerator Center is managed by Stanford University for the US Department of Energy

Last update Wednesday June 15, 2005 by Topher White

INTERACTION POINT

June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

You are all invited to a Special Address to Staff by

Raymond L. Orbach

Director, DOE Office of Science

June 23
2:15 - 3:15 p.m.

The Green
(across from the cafeteria and A&E building)

A tent will be set up on the Green to house the event.

(Photo by Diana Rogers)

INTERACTION POINT
June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

FRONT PAGE

FEATURES

- Ray Orbach to Talk to SLAC Staff
- E-166: Sultans of Spin
- Light Sources Study Protein Involved in Drug Resistance
- SSRL Celebrates 25 Years of Pioneering Insertion Devices

ANNOUNCEMENTS & UPDATES

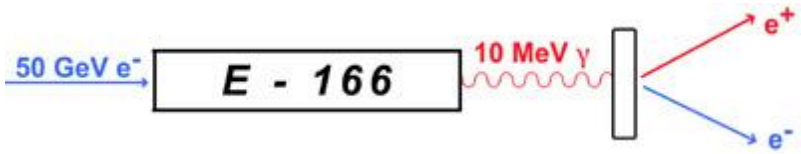
- DOE Honors Luda Fieguth as Energy Champion
- Introducing New SSO DOE Safety Engineers
- EMS - On the Path to Environmental Improvement
- Australia Honors Helen Quinn
- 2005 Pope Fellow Announced
- Register Now for the SSI!
- Welcome New Employees
- SLAC Emergency Hotline Number

E-166: The Sultans of Spin

By Monica Bobra

On June 6th, the E-166 experiment began taking data at SLAC in the first of two month-long experimental runs. The experiment is designed to produce polarized positron beams, in which most of the positrons spin in the same direction. This technology is an important component in the research and development of the International Linear Collider (ILC).

In the experiment, a 50 GeV electron beam coils through a hollow cylinder, called an undulator, nearly one meter long and only 0.8 millimeters in diameter. The electrons' helical path causes them to release radiation in the form of polarized gamma-ray photons. The photons then hit a titanium target to create polarized electron-positron pairs.



A 50 GeV electron beam traveling through the undulator cylinder is transformed into a 10 MeV beam of gamma ray photons before striking a titanum target to create electron-positron pairs.

The group is most concerned about the electron beam passing through such a narrow cylinder. If even a thousandth of the beam hits the cylinder's edge, "we're finished," said University of Tennessee collaborator William Bugg. "This is what makes every night exciting," added Princeton University professor Kirk McDonald. As a result, the group uses a SLAC-engineered beam some 45 microns in diameter — approximately the thickness of a human hair — to fill only 5 percent of the undulator's volume.

Such tight constraints arise from the experimental goal to generate up to 10 MeV positrons with a 50 GeV beam. That's only possible by passing the electron beam through a scaled-down undulator. However, since the electron beam at the ILC would be 250 GeV, scientists can use a larger undulator. As a result, implementing the technology at the ILC "is an easier problem," according to SLAC scientist John Sheppard.

Using polarized positron and electron beams will aid scientists in many measurements, such as the study of supersymmetric particles. By specifying the spin orientations of both electrons and positrons during a collision, researchers can better compare experimental evidence with theory to identify supersymmetric particles.

Though scientists have been producing polarized positrons for years in the accelerator at DESY, the German Synchrotron Radiation Centre, the polarization mechanism employed there relies on a circular geometry and therefore won't work in the linear structure of the ILC. That's why E-166 scientists developed a method to create

- Milestones

EVENTS

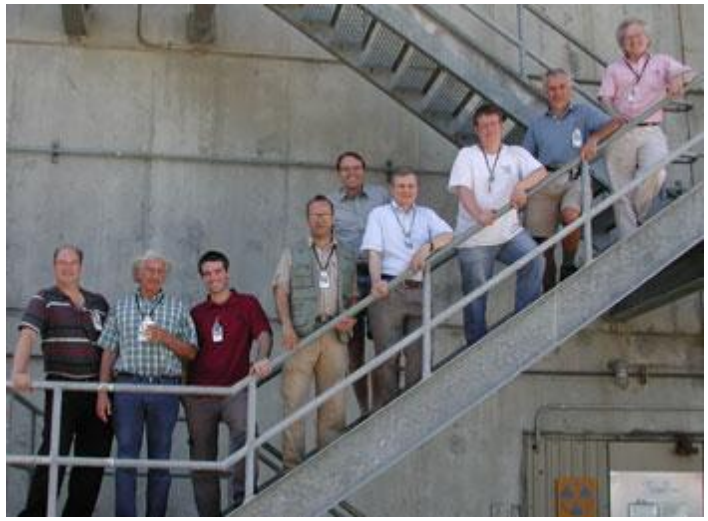
- Public Lecture: The Physics of Super Lasers
- Electric Power Consortium at SLAC
- Juneteenth: Friday, June 17

ABOUT TIP

- Staff/Contact
- Submission Guidelines

polarized positrons by relying on the exceptional beam quality achievable in the Final Focus Test Beam (FFTB).

The experiment was approved two years ago, in June 2003. By October 2004, the "hardware was ready and the installation had begun, but was interrupted," said McDonald. For the past eight months, the 55-member team—which includes 15 SLAC scientists—has been awaiting the experiment's results. This week, they'll begin to find out.



Some of the physicists working on E-166 gather for a photo outside of the FFTB. From left to right, Carsten Hast (CEF), John Sheppard (ILC), Erez Reinherz (ILC), Karim Laihem (ILC), Franz-Josef Decker (AD), Peter Schuler (ILC), Roman Poeschl (ILC), Zenon Szalata (CEF) & Kirk McDonald (CEF).
(Photo by Monica Bobra & Topher White)

The Stanford Linear Accelerator Center is managed by Stanford University for the US Department of Energy

Last update Wednesday June 15, 2005 by Topher White

INTERACTION POINT

June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

FRONT PAGE

FEATURES

- Ray Orbach to Talk to SLAC Staff
- E-166: Sultans of Spin
- Light Sources Study Protein Involved in Drug Resistance
- SSRL Celebrates 25 Years of Pioneering Insertion Devices

ANNOUNCEMENTS & UPDATES

- DOE Honors Luda Fieguth as Energy Champion
- Introducing New SSO DOE Safety Engineers
- EMS - On the Path to Environmental Improvement
- Australia Honors Helen Quinn
- 2005 Pope Fellow Announced
- Register Now for the SSI!
- Welcome New Employees
- SLAC Emergency Hotline Number

Light Sources Study Protein Involved in Drug Resistance

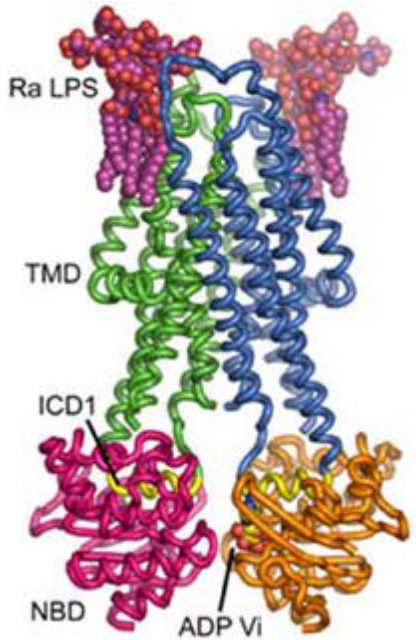
By Heather Rock Woods

Scientists at The Scripps Research Institute have solved the structure of a protein called MsbA which is used by bacteria and cancer cells to resist therapeutic drugs. Researchers Geoffrey Chang and Christopher Reyes solved the structure using high-resolution x-ray crystallography at SSRL and at the Advanced Light Source in Berkeley.

The protein's shape is described in the May 13 issue of the journal *Science*. MsbA is a protein that sits in cell membranes and transports items between the outside and the inside of cells. Bacteria use MsbA transporters to quash antibiotics; human cancer cells have similar membrane transporters on their surfaces that undermine the potency of chemotherapy drugs. The research has revealed molecular details that could be useful for improving cancer therapy and fighting antibiotic-resistant bacteria that have become an increasingly dangerous problem in recent years.

MsbA molecules play an essential role for bacteria because they help build bacterial cell walls by flipping molecules from the inner membrane to the outer membrane. This is likely what happens when transporters neutralize antibiotics by pumping them out of cells. Knowing the structure of MsbA may help scientists to design compounds to block the transporter's action.

People have transporter proteins similar to MsbA that play an essential protective role by removing harmful toxins. This protective role can reduce the efficacy of certain cancer treatments because the drugs are perceived as toxins. Understanding the high-resolution structure could open the door for scientists to design a new class of drugs to keep antibiotic or chemotherapeutic agents inside target cells, thus increasing the drugs' efficacy.



Overall structure of MsbA in complex with ADP, vanadate, Mg2+ and Ra lipopolysaccharide (LPS).
(Image courtesy of Geoffrey Chang & Christopher Reyes)

INTERACTION POINT

June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

FRONT PAGE

FEATURES

- Ray Orbach to Talk to SLAC Staff
- E-166: Sultans of Spin
- Light Sources Study Protein Involved in Drug Resistance
- SSRL Celebrates 25 Years of Pioneering Insertion Devices

ANNOUNCEMENTS & UPDATES

- DOE Honors Luda Fieguth as Energy Champion
- Introducing New SSO DOE Safety Engineers
- EMS - On the Path to Environmental Improvement
- Australia Honors Helen Quinn
- 2005 Pope Fellow Announced
- Register Now for the SSI!
- Welcome New Employees
- SLAC Emergency Hotline Number

SSRL Celebrates 25 Years of Pioneering Insertion Devices

By Herman Winick

Twenty five years ago the first permanent magnet undulator to be used for synchrotron radiation research was implemented at SSRL, in collaboration with LBNL. A year earlier the first electromagnet wiggler, designed by Jim Spencer, was implemented at SSRL. These two pioneering insertion devices started the revolution in synchrotron radiation sources and research.

Due to the success of these devices, and similar experience at the Budker Institute in Novosibirsk, many third generation synchrotron radiation sources (storage rings optimized for such insertion devices rather than merely using radiation from the ring bending magnets) were built starting in the late 1980's. The latest of these is the SPEAR3 storage ring at SLAC.

To mark this 25th anniversary, some of those who contributed to the design, construction and characterization of the spectrum for the first permanent magnet undulator gathered around the magnet itself, which is on display on the SSRL experimental floor. The concept for this magnet was the brainchild of Klaus Halbach of LBNL. The mechanical design was done by LBNL engineers Egon Hoyer and John Chin, now retired.

The electronic controls for varying the gap and compensating the end fields was done by John Yang, recently retired from SSRL.

Pioneers gather in front of the first permanent undulator magnet display. From left to right are Richard Boyce (ASD), John Yang (ESRD, retired), Herman Winick (SSRL), Egon Hoyer (LBNL, retired), and John Chin (LBNL, retired).
(Photo by Topher White)

- Milestones

EVENTS

- Public Lecture: The Physics of Super Lasers
- Electric Power Consortium at SLAC
- Juneteenth: Friday, June 17

ABOUT TIP

- Staff/Contact
- Submission Guidelines

The spectrum from this device was characterized by George Brown, Teresa Troxel, and Herman Winick of SSRL along with Zahid Hussain and Eberhard Umbach at LBNL.

INTERACTION POINT
June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

FRONT PAGE

FEATURES

- Ray Orbach to Talk to SLAC Staff
- E-166: Sultans of Spin
- Light Sources Study Protein Involved in Drug Resistance
- SSRL Celebrates 25 Years of Pioneering Insertion Devices

ANNOUNCEMENTS & UPDATES

- DOE Honors Luda Fieguth as Energy Champion
- Introducing New SSO DOE Safety Engineers
- EMS - On the Path to Environmental Improvement
- Australia Honors Helen Quinn
- 2005 Pope Fellow Announced
- Register Now for the SSI!
- Welcome New Employees
- SLAC Emergency Hotline Number

DOE Honors Luda Fieguth as Energy Champion

By Nina Adelman Stolar

DOE's Federal Energy Management Program (FEMP) has recognized Luda Fieguth (CEF) as one of two DOE Energy Champions for the year. The 'You Have the Power' campaign is a DOE initiative to promote energy-efficient practices and products among 24 Federal agencies, including DOE, DOD, DOT, NASA and SSA. As one of the two individuals selected from the DOE national laboratories, Fieguth has been invited to Washington, D.C. for the Award ceremony in October.

The award recognizes that through her initiative, SLAC is currently saving 32 billion British Thermal Units—Hours (BTUH) of energy annually, which is equivalent to usage of about 1,800 households. This saves the Lab over $400,000 annually (in the 2005 energy market) and is reflecting our decreased use by approximately 6,000 Megawatt-hours (MWH) of electrical energy and about 11.5 billion BTUH of energy from natural gas.

DOE Poster depicting Fieguth as role model.
(Poster courtesy of DOE)

Fieguth has initiated many energy conservation projects in the last decade and has obtained $1.5 million in funding from FEMP and the California Energy Commission (CEC). For example, a significant savings in natural gas use was achieved by replacing two hot water boilers in the central plant.

There is competition for limited funds from DOE and CEC. Fieguth submits proposals with detailed life-cycle cost analysis. Grants are based on economic attractiveness and a demonstrated payback within five years. Working closely with DOE FEMP officials, she has been successful in justifying and obtaining funding for the energy conservation projects at the Laboratory.

Last year, Fieguth initiated and implemented the Linac Lighting Control project. This project yields approximately 356 MWH of electrical energy savings per year. More recently, she is working on the implementation of for lighting control of the North and South Arc Tunnels with DOE FEMP approved funding.

- Milestones

EVENTS

- Public Lecture: The Physics of Super Lasers
- Electric Power Consortium at SLAC
- Juneteenth: Friday, June 17

ABOUT TIP

- Staff/Contact
- Submission Guidelines

In addition to this latest award, last year Fieguth received an Environmental Protection Agency Award (see TIP, June 18, 2004) for her work on the Klystron Gallery Lighting Upgrade project.

INTERACTION POINT
June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

FRONT PAGE

FEATURES

- Ray Orbach to Talk to SLAC Staff
- E-166: Sultans of Spin
- Light Sources Study Protein Involved in Drug Resistance
- SSRL Celebrates 25 Years of Pioneering Insertion Devices

ANNOUNCEMENTS & UPDATES

- DOE Honors Luda Fieguth as Energy Champion
- Introducing New SSO DOE Safety Engineers
- EMS - On the Path to Environmental Improvement
- Australia Honors Helen Quinn
- 2005 Pope Fellow Announced
- Register Now for the SSI!
- Welcome New Employees
- SLAC Emergency Hotline Number

Introducing New SSO DOE Safety Engineers

By Linda DuShane White

With the arrival of Jeff Logan and Don Wilhem in May, the DOE Stanford Site Office (SSO) tripled the size of its SSO Operations and ES&H Group. Logan and Wilhelm join Dave Osugi as Safety Engineers. Both bring extensive government experience to their new jobs.

Logan comes to us from 15 years with NASA Ames in Mountain View and Wilhelm from 10 years at Lawrence Livermore DOE (DOE at LLNL) and 20 years in the Navy. Coming as he does from Safety Oversight in another DOE lab, Wilhelm finds that he is tailoring what he already knows into this arena.

Shown here (from left to right), Don Wilhelm and Jeff Logan join Dave Osugi as Safety Engineers at the DOE Stanford Site Office.
(Photo by Topher White)

Background of Reorganization

SSO's enlarged safety team is part of the overall DOE reorganization which began about three years ago. Explains Wilhelm, "There was a time when the Oakland DOE Operations Office had the Western Operations Manager. As they got rid of the Ops Office and things became consolidated, a lot of tasks then got moved out to the Site Offices, which is why more people had to be brought in. When the Op Offices went away we all came under the Offices of Science in Chicago."

Wilhelm's biggest challenge is learning the differences between security requirements at a nuclear lab and at SLAC, which is an unclassified lab. He drives from Richmond and plans his commute so he is on the Bay Bridge before the metering lights come on. He just goes on cruise control and sails right along.

Logan was an Engineering Manager at NASA Ames prior to coming to SLAC. "Unlike Don, I'm new to DOE and to SLAC." He said. "I'm very impressed with SLAC. People are just wonderful." Logan's wife is also an engineer.

Both Logan and Wilhelm say how welcome the Lab folks have made them feel and how glad they are to be members of the SLAC Team. As things shake down over the next few months, they look forward to being part of the evolving atmosphere for great science here at SLAC.

INTERACTION POINT
June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

FRONT PAGE

FEATURES

- Ray Orbach to Talk to SLAC Staff
- E-166: Sultans of Spin
- Light Sources Study Protein Involved in Drug Resistance
- SSRL Celebrates 25 Years of Pioneering Insertion Devices

ANNOUNCEMENTS & UPDATES

- DOE Honors Luda Fieguth as Energy Champion
- Introducing New SSO DOE Safety Engineers
- EMS - On the Path to Environmental Improvement
- Australia Honors Helen Quinn
- 2005 Pope Fellow Announced
- Register Now for the SSI!
- Welcome New Employees
- SLAC Emergency Hotline Number

EMS Update - On the Path to Environmental Improvement

By Mike Grissom

How do we address environmental concerns in our day-to-day work and also plan for future concerns? We use a system, called an Environmental Management System (EMS). EMS offers a methodology for managing our environmental concerns in a systematic manner.
Back in June 2004 (see http://www2.slac.stanford.edu/tip/2004/jun04/horizon.htm), I wrote about how an EMS was on the horizon. Since then, SLAC is progressing in the development of a DOE-verified EMS program. Our deadline for implementing this program is December 31, 2005.

What is an EMS? How Does it Affect Me?

In short, EMS is a system to bring together the people, plans, review mechanisms and procedures for managing environmental issues in an organization.

EMS involves a Plan-Do-Check-Act process. This sequence may sound very familiar, since the same process is also used in our Integrated Safety and Management System (ISMS).

Many of us also use this process to assure that we are managing our day-to-day operations with an eye toward continual improvement so that we do not have to always jump over the same hurdles time and again to get our work done. At the same time, we improve our work performance by learning from past experiences. An EMS helps us set up a system for improving our environmental performance and ensuring feedback reaches the right people to enable change for the better (continual improvement).

A simple analogy shows how EMS helps. You want to put a glass of milk on the table. Where would you place the milk—near the middle of the table or at the edge of the table? The environmental analogy is how do you want to manage your environmental issues—putting a drum of oil near a storm drain or keeping it far from the drain and perhaps in secondary containment? Increasing our ability to avoid spills is an example of continual improvement. Another example is using an electric vehicle for on-site transportation over a gasoline powered vehicle.

Helping to Protect the Environment

EMS can also be viewed as a way of increasing our reliability in protecting the environment.

A part of the EMS is the development of an organizational environmental policy. This policy is a public statement

- Milestones

EVENTS

- Public Lecture: The Physics of Super Lasers
- Electric Power Consortium at SLAC
- Juneteenth: Friday, June 17

ABOUT TIP

- Staff/Contact
- Submission Guidelines

that the SLAC organization is committed to promoting environmental compliance, pollution prevention and improved environmental performance with others—the DOE, our regulators, the SLAC community and our neighbors. The Environmental Policy for SLAC can be found in the ES&H Policy: http://www-group.slac.stanford.edu/esh/isms/eshpolicy.html

Creating this policy helps us affirm the goals we have set to make environmental improvements.

Environmental Management Review

Back in March of this year, SLAC voluntarily invited the U.S. Environmental Protection Agency (EPA) to conduct an Environmental Management Review. Many of you participated in this review. On the behalf of SLAC management, I thank you all for your efforts in demonstrating to the EPA our readiness to implement an EMS.

The EPA helped identify some of the gaps in our EMS and helped us gain momentum on the path of continual improvement. A number of observations and areas of improvement recommended by EPA are provided at: http://www-group.slac.stanford.edu/esh/isms/ems/

Next Steps

The EMS Working Group (EMSWG) members and various Line and Environmental Program Managers are currently collaborating on targets and performance indicators that will further steer SLAC on the path to continual environmental improvement.

The EMSWG is also reviewing the EMS Manual that will outline the procedures that SLAC will use to identify how it will continue to achieve environmental compliance and pollution prevention and how it will provide continual improvement in those activities that are deemed to have a potentially significant impact on our environment.

What can you do while this process is developing? For now, please take a look at the environmental policy. Be aware of the environmental impacts of your work and consider options on how you can best mitigate those impacts. If you have questions, contact Rich Cellamare at Ext. 3401, rcellamare@slac.stanford.edu.

Thanks to everyone for your past and future efforts towards continual improvement in our environmental performance.

The Stanford Linear Accelerator Center is managed by Stanford University for the US Department of Energy

Last update Tuesday June 14, 2005 by Topher White

INTERACTION POINT
June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

FRONT PAGE

FEATURES

- Ray Orbach to Talk to SLAC Staff
- E-166: Sultans of Spin
- Light Sources Study Protein Involved in Drug Resistance
- SSRL Celebrates 25 Years of Pioneering Insertion Devices

ANNOUNCEMENTS & UPDATES

- DOE Honors Luda Fieguth as Energy Champion
- Introducing New SSO DOE Safety Engineers
- EMS - On the Path to Environmental Improvement
- Australia Honors Helen Quinn
- 2005 Pope Fellow Announced
- Register Now for the SSI!
- Welcome New Employees
- SLAC Emergency

Australia Honors Helen Quinn

On April 19, Helen Quinn (THP) was appointed an Honorary Officer of the Order of Australia (AO) in the Queen's Birthday Honours list. The award letter from the Governor-General's office credited Quinn's selection in the General Division stating the award is 'By His Excellency's Command, for services to scientific research in the field of theoretical physics and to education.'

Quinn, who received an honorary degree from the University of Melbourne (see TIP, March 19), traveled extensively throughout the Commonwealth in March conducting public lectures, radio interviews and speaking to high school students.

The Order of Australia, instituted in 1975, is an honor society in the Commonwealth of Australia. The award recognizes achievement or meritorious service–in Quinn's case both are applicable.

(Photo by Diana Rogers)

INTERACTION POINT

June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

FRONT PAGE

FEATURES

- Ray Orbach to Talk to SLAC Staff
- E-166: Sultans of Spin
- Light Sources Study Protein Involved in Drug Resistance
- SSRL Celebrates 25 Years of Pioneering Insertion Devices

ANNOUNCEMENTS & UPDATES

- DOE Honors Luda Fieguth as Energy Champion
- Introducing New SSO DOE Safety Engineers
- EMS - On the Path to Environmental Improvement
- Australia Honors Helen Quinn
- 2005 Pope Fellow Announced
- Register Now for the SSI!
- Welcome New Employees
- SLAC Emergency Hotline Number

2005 Pope Fellow Announced

By Erin Shatara

Ming Yi has joined SLAC as the recipient of the 2005 Katherine E. Pope Fellowship. Yi has just finished her second year of studies as an undergraduate student majoring in physics at the Massachusetts Institute of Technology (MIT). She will work with MIT scientist Gabriella Sciolla (BABAR) this summer on the analysis and measurement of the branching fractions of B to radiative penguin decays. Sciolla says of Yi that her "academic achievements at MIT are outstanding… [her] enthusiasm for physics is refreshing and contagious."

Yi is a returning veteran of the summer programs at SLAC, having participated in the 2004 Science Undergraduate Laboratory Internship (SULI) program. She spent last summer working with Charles Young (EA), Peter Kim (EE) and Mark Convery (EB) on determining the optimal flow rate of the gas used in the LST installations. This project offered her exposure to practical hardware skills that are rarely taught in the classroom. "I relished the collaborative and dynamic atmosphere at SLAC," said Yi.

Ming Ly, Recipient of 2005 Katherine E. Pope Fellowship
(Photo by Erin Shatara)

While she is not yet sure what track of physics she will focus on, Yi is sure that she will continue to study physics and diversify her exposure to what specific fields she might pursue. After earning her undergraduate degree, she plans to continue to earn a PhD degree in physics. Eventually, Yi aspires to be a professor of physics.

The Katherine E. Pope Summer Fellowship was established to remember the Smith College undergraduate student, who was working at SLAC when she tragically died in a bicycle accident on Sand Hill Road in July, 2001. The fellowship honors Pope and encourages other undergraduates with an interest in science, especially physics, to pursue their academic interest at SLAC.

INTERACTION POINT

June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

http://www-conf.slac.stanford.edu/ssi/2005/

INTERACTION POINT

June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

Welcome New Employees!

The new employee orientation held on June 2 included (left to right): James Tracey (ASD), Sergei Chevtsov (LCLS), Sri Kotta (BAS), Alejandra David (CEF), Ryan Kuhn (CEF), Tala Cadorna (KLY) and Richard Ford (CEF).
(Photo by Erin Shatara)

- Milestones

EVENTS

- Public Lecture: The Physics of Super Lasers
- Electric Power Consortium at SLAC
- Juneteenth: Friday, June 17

ABOUT TIP

- Staff/Contact
- Submission Guidelines

Last update Tuesday June 14, 2005 by Topher White

INTERACTION POINT

June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

The SLAC Emergency Hotline number:

1-877-447-SLAC

(7522)

Please make a note of the SLAC Emergency Hotline number. In the event of an emergency, the most current information about SLAC will be a single phone call away.

INTERACTION POINT

June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

FRONT PAGE

FEATURES

- Ray Orbach to Talk to SLAC Staff
- E-166: Sultans of Spin
- Light Sources Study Protein Involved in Drug Resistance
- SSRL Celebrates 25 Years of Pioneering Insertion Devices

ANNOUNCEMENTS & UPDATES

- DOE Honors Luda Fieguth as Energy Champion
- Introducing New SSO DOE Safety Engineers
- EMS - On the Path to Environmental Improvement
- Australia Honors Helen Quinn
- 2005 Pope Fellow Announced
- Register Now for the SSI!
- Welcome New Employees
- SLAC Emergency Hotline Number

MILESTONES

Service Awards

5 Years
Prado, Francisco (ESRD), 6/16
Wong, Rodney (SCS), 6/16
Bolton, Paul (AD), 6/19

10 Years
Adair, Lisa (CEF), 6/16

25 Years
Troxel, Teresa (ESRD), 6/23
Pace, Mattie (PRC), 6/23

30 Years
Norelitos, Jose (MFD), 6/23

40 Years
Allen, Matthew (DO), 6/24
Maclin, George (SCS), 6/28

Retirements
Pitthan, Rainer (ILC), 5/17
Yang, John (ESRD), 5/31

Deceased
Asher, Wes (ESD), passed away on June 10, 2005.

To submit a Milestone, see: http://www.slac.stanford.edu/pubs/tip/milestoneindex.html

See Awards and Honors at: http://www.slac.stanford.edu/slac/award/

INTERACTION POINT
June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

FRONT PAGE

FEATURES

- Ray Orbach to Talk to SLAC Staff
- E-166: Sultans of Spin
- Light Sources Study Protein Involved in Drug Resistance
- SSRL Celebrates 25 Years of Pioneering Insertion Devices

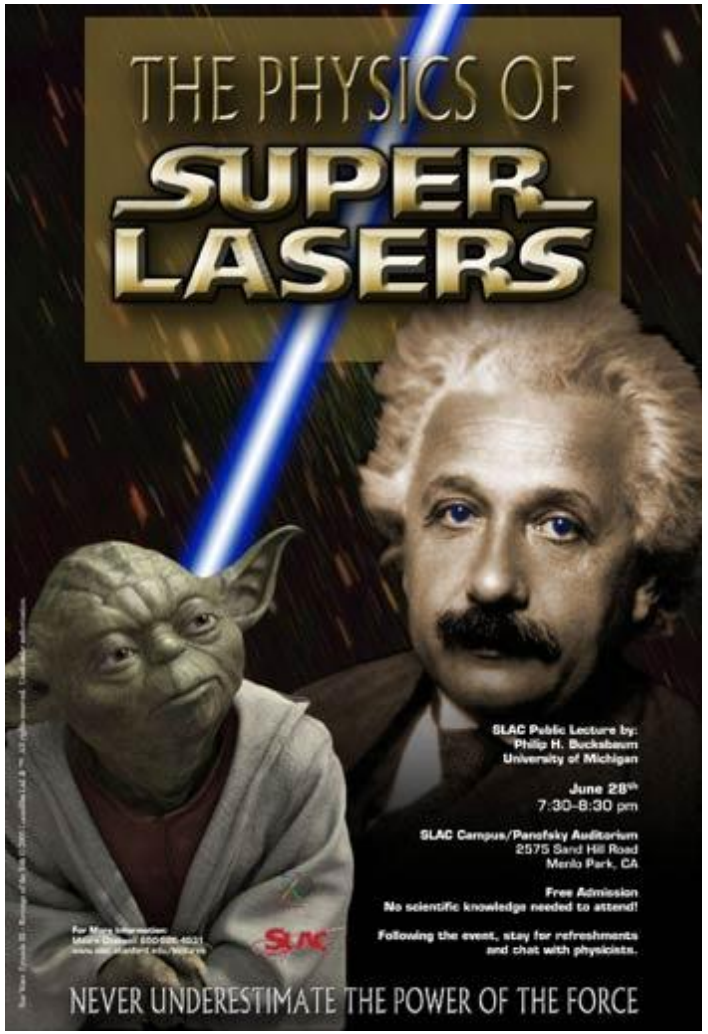
ANNOUNCEMENTS & UPDATES

- DOE Honors Luda Fieguth as Energy Champion
- Introducing New SSO DOE Safety Engineers
- EMS - On the Path to Environmental Improvement
- Australia Honors Helen Quinn
- 2005 Pope Fellow Announced
- Register Now for the SSI!
- Welcome New Employees
- SLAC Emergency

Public Lecture: The Physics of Super Lasers

June 28, 7:30 p.m.
Panofsky Auditorium

Find out what happens when you turn the lights ALL THE WAY UP?!



Everyone knows that lasers can be bright. From Goldfinger to Star Wars, intense lasers carry a 'death ray' reputation in popular culture. But what is intense light, anyway? How can you even make or direct something that will blast any material that it encounters to smithereens? And how can something as ephemeral as a ray of light turn into an irresistible force? Is there an ultimate intensity, a brightest light? We'll answer these questions, and more.

About the Speaker

Philip Bucksbaum is an atomic physicist whose main research interest is fundamental light-matter interactions, and especially the control of quantum systems using ultrafast laser fields. Bucksbaum is a visiting scholar at the Stanford Department of Applied Physics and at SSRL. His permanent position at the University of Michigan is Otto

Hotline Number
- Milestones

EVENTS
- Public Lecture: The Physics of Super Lasers
- Electric Power Consortium at SLAC
- Juneteenth: Friday, June 17

ABOUT TIP
- Staff/Contact
- Submission Guidelines

Laporte Collegiate Professor of Physics. He is Director of FOCUS, the NSF Center for the Advancement of Frontiers in Optical Coherent Ultrafast Science, and editor of VJUltrafast, the APS Virtual Journal of Ultrafast Science.

Last update Tuesday June 14, 2005 by Topher White

INTERACTION POINT

June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

Electric Power Consortium at SLAC!

There were 40 people at the recent 2005 Annual Meeting of the Electric Power Consortium of the DOE Western California Labs. Greg Loew (DO) hosted the meeting, which was attended by staff from LBNL, SLAC, DOE, Exeter and WAPA.
(Photo by Topher White)

INTERACTION POINT

June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

Come Celebrate

Juneteenth

Friday, June 17

at the SLAC Cafeteria Picnic Area!

Event Time:
3:00 - 6:00 p.m.

Cost:
Adult - $11
Child (12 & under) - $6

INTERACTION POINT

June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

Come Celebrate

Juneteenth

Friday, June 17

at the SLAC Cafeteria Picnic Area!

Event Time:
3:00 - 6:00 p.m.

Cost:
Adult - $11
Child (12 & under) - $6

INTERACTION POINT

June 17, 2005

Back to SLAC Homepage

Back to TIP Homepage

In this issue:

FRONT PAGE

FEATURES

- Ray Orbach to Talk to SLAC Staff
- E-166: Sultans of Spin
- Light Sources Study Protein Involved in Drug Resistance
- SSRL Celebrates 25 Years of Pioneering Insertion Devices

ANNOUNCEMENTS & UPDATES

- DOE Honors Luda Fieguth as Energy Champion
- Introducing New SSO DOE Safety Engineers
- EMS - On the Path to Environmental Improvement
- Australia Honors Helen Quinn
- 2005 Pope Fellow Announced
- Register Now for the SSI!
- Welcome New Employees
- SLAC Emergency Hotline Number

About Us:

The Interaction Point

Editorial Team
Neil Calder
Nina Adelman Stolar
Katherine Bellevin
Vickee Flynn
Ziba Mahdavi

Writers
Heather Rock Woods
Linda DuShane White
Monica Bobra

Photography/Graphics
Diana Rogers

Distribution
Tineke Graafland

Layout
Topher White

On-line Edition
Topher White

The Interaction Point is published twice monthly every first and third Friday. Submissions are due the second and fourth Tuesdays of each month.

Send submissions to tip@slac.stanford.edu, or mail to TIP Editor, MS 58, Stanford Linear Accelerator Center, 2575 Sand Hill Road, Menlo Park, CA 94025.

TIP is available online at:
http://www2.slac.stanford.edu/tip/