Near-infrared imaging helps doctors detect, treat breast cancer

By James E. Kloeppel
News Bureau Staff Writer

A near-infrared imaging technique being developed by UI researchers at the center of technology to move the microscopic examination of tissue from the pathology lab to the patient’s point of care, and the analysis of images.

The adult human breast consists of two main types of tissue: fibrous tissue and fat cells. Because breast tumors are very dense, they stand out in sharp optical contrast against both types of normal breast tissue. Pinpointing a suspicious mass from a mammogram during a needle biopsy, however, can be difficult for the doctor and painful for the patient.”What we need is a real-time imaging system to accurately guide us to the site of tissue collection,” said Boppart, who is also a physician and a researcher at the Beckman Institute for Advanced Science and Technology and at the Institute for Genomic Biology at the UI. He has devised two techniques for providing imaging using optical coherence tomography.

Conventional biopsy needles have an outer sheath and an inner shaft tipped with pins for snipping small pieces of tissue for pathological analysis. In his first technique, Boppart temporarily replaces the inner shaft with an optical fiber that provides optical coherence imaging at the needle tip. When positioned against a suspicious mass, the fiber is withdrawn, pins inserted and tissue specimen collected.

In his second technique, Boppart uses a specially designed needle with an integrated optical fiber and lens assembly terminating at a groove in the needle shaft. As the needle penetrates the breast, tissue slides through the groove. By monitoring the index of refraction and other optical tissue properties, Boppart can differentiate tissue types as the needle approaches a suspicious mass. Doctors using the technique may eventually not require tissue specimen for an accurate diagnosis.

Boppart and graduate student Freddy Nguyen have also developed a portable optical coherence tomography system for use in hospital operating rooms. In collaboration with surgeons at Carle Foundation Hospital in Urbana, they have used the system to image tumor tissue immediately upon removal from the patient. SEE BOPPART, PAGE 3

Dancing cancer

Stephen Boppart, a UI professor of electrical and computer engineering, of bioengineering, and of medicine, is creating innovative thinking about it and the ways doctors detect, diagnose and treat breast cancer.

The UI will kick-off its 96th annual homecoming celebration with a new volunteer project involving hundreds of UI students assisting dozens of community organizations. “Help a Neighbor, Build a Community,” is based on the Chicago Cares Service model. The project will get under way at 10 a.m. Sept. 30 at the Alice Campbell Alumni Center.

The following week’s activities will include a “Homecoming Kickoff and Soccer fest” Oct. 1 at the track and soccer stadium, between Fourth Street and Maryland Drive on Kirby Avenue, Champaign. The celebration takes place from 11 a.m. to 1 p.m.; the UI women’s soccer team plays Penn State at 1 p.m. During the celebration, the Marching Illini drum line will perform, as will the Fighting Illini cheerleaders. Free food and free admissions will be offered.

Lunch on the Quad, also on Oct. 1, takes place from 11 a.m. to 1 p.m. and will feature a cookout, entertainment, UI athletes and the Homecoming Court. Cost: $5 per person or swipe of residence hall card. For a complete schedule of events, visit the Homecoming Web site at www.admin.uiuc.edu/homecoming/schedule.html.

This year’s theme is “Illinois: Now and Forever.” Event highlights:

Oct. 4
IUB African-American Homecoming Pageant, 7 p.m., Illini Union Courtyard Café. UI students will showcase their talents and their contributions to the campus community. Cost: $4.

Oct. 6
ACES campus tours, 1:30 to 3:30 p.m., starting at the ACES Library, Information and Alumni Center. These free, public tours celebrate the 50th anniversary of the ACES Site. HOMECOMING, PAGE 3

Task force studying civic-engagement activities

By Shariia Forrest
Assistant Editor

James Wescoat, a professor of landscape architecture, uses the analogy of a flowering prairie to describe civic engagement at the Urbana campus and the identity of the institution.

The project will get under way at 10 a.m. Sept. 30 at the Alice Campbell Alumni Center.

The following week’s activities will include a “Homecoming Kickoff and Soccer fest” Oct. 1 at the track and soccer stadium, between Fourth Street and Maryland Drive on Kirby Avenue, Champaign. The celebration takes place from 11 a.m. to 1 p.m.; the UI women’s soccer team plays Penn State at 1 p.m. During the celebration, the Marching Illini drum line will perform, as will the Fighting Illini cheerleaders. Free food and free admissions will be offered.

Lunch on the Quad, also on Oct. 1, takes place from 11 a.m. to 1 p.m. and will feature a cookout, entertainment, UI athletes and the Homecoming Court. Cost: $5 per person or swipe of residence hall card. For a complete schedule of events, visit the Homecoming Web site at www.admin.uiuc.edu/homecoming/schedule.html.

This year’s theme is “Illinois: Now and Forever.” Event highlights:

Oct. 4
IUB African-American Homecoming Pageant, 7 p.m., Illini Union Courtyard Café. UI students will showcase their talents and their contributions to the campus community. Cost: $4.

Oct. 6
ACES campus tours, 1:30 to 3:30 p.m., starting at the ACES Library, Information and Alumni Center. These free, public tours celebrate the 50th anniversary of the ACES Site. HOMECOMING, PAGE 3
The proposal, the university would create a limited liability company—related to the Global Campus—organization that would receive the Research Park and IllinoisVEN.

While many institutions, including Corel University, and others have started online degree programs that are not degree programs, the University of Illinois is currently exploring the feasibility of implementing an extensive online degree program. The Global Campus. White andChung G. Chang, special assistant to the Global Campus, outlined the initiative, which would be based primarily on current courses for students.
Private gifts to university increase by 22 percent

Private gifts totaling more than $15 million earmarked for UI programs at Chicago, Springfield and Urbana-Champaign were announced at the UI Foundation’s annual meeting.

Gifts made to the Urbana-Champaign campus included:

- $4.5 million to the Division of Intercollegiate Athletics from the Irwin Family Foundation to double the size of the Irwin Academic Services Center.
- Richard Irwin was a UI graduate and founder of the publishing house of Richard D. Irwin, Inc., now DeWolfe-Irwin Inc. The Foundation’s other major gifts to the DIA include $1.5 million toward construction of the football coaching and training headquarters near Memorial Stadium and $7 million for the construction of the Irwin Indoor Football Facility.
- $2 million from Martin Whitten Rinkhart, of Urbana, to endow the Kenneth L. Rinkhart Chair in Natural Products Chemistry in the College of Liberal Arts and Sciences. The chair honors the late professor Rinkhart, who for many years led the department of chemistry’s marine natural products division. Martin Rinkhart earned her master’s degree in English from the UI. John F. Hammel, most recently at Yale University, will serve as the first Kenneth L. Rinkhart Chair.
- $2.5 million from Smallford “Sandy” and Mimi Furman, of Tampa, Fla., to enhance educational programs and promote academic excellence in the School of Architecture. The Furmans also have gifted $747,660 to the Balfour Building and $60,000 to the UI Foundation.
- $6 million from Jones-Irwin Inc. The foundation’s gift of $3.2 million to the UI provided more than $28 million to academic programs and student loans received last fiscal year, $64.3 million (35 percent) came from alumni and friends, $26.4 million (15 percent) was from foundations and $24.2 million (14 percent) was from associations.

Private gifts support a number of programs across the three UI campuses. Last fiscal year, $40.3 million of the $154.9 million raised was added to the endowment. Student financial aid in the form of scholarships, fellowships and student loans received last fiscal year, $64.3 million (35 percent) was from foundations and $24.2 million (14 percent) was from associations.

UI Foundation President Bruce Rugg announced the private gift figures during the business session of the Foundation’s 71st annual meeting, held Sept. 15. The foundation is the private, non-profit arm of the university.

Of the $154.9 million in private support received last fiscal year, $40.3 million (27 percent) was from corporations, $3.2 million in contributions. Donors to the endowment jumped from $49.1 million to $50.5 million (27 percent) was from corporations.

Of the $184.9 million received last year, $64.3 million (35 percent) came from alumni and friends, $26.4 million (14 percent) came from foundations, $24.2 million (14 percent) was from associations.

Private gifts support a number of programs across the three UI campuses. Last fiscal year, $40.3 million of the $154.9 million raised was added to the endowment. Student financial aid in the form of scholarships, fellowships and student loans received last fiscal year, $64.3 million (35 percent) was from foundations and $24.2 million (14 percent) was from associations.

UI Foundation President Bruce Rugg announced the private gift figures during the business session of the Foundation’s 71st annual meeting, held Sept. 15. The foundation is the private, non-profit arm of the university.

Of the $154.9 million in private support received last fiscal year, $40.3 million (27 percent) was from corporations, $3.2 million in contributions. Donors to the endowment jumped from $49.1 million to $50.5 million (27 percent) was from corporations.

Of the $184.9 million received last year, $64.3 million (35 percent) came from alumni and friends, $26.4 million (14 percent) came from foundations, $24.2 million (14 percent) was from associations.

Private gifts support a number of programs across the three UI campuses. Last fiscal year, $40.3 million of the $154.9 million raised was added to the endowment. Student financial aid in the form of scholarships, fellowships and student loans received last fiscal year, $64.3 million (35 percent) was from foundations and $24.2 million (14 percent) was from associations.

UI Foundation President Bruce Rugg announced the private gift figures during the business session of the Foundation’s 71st annual meeting, held Sept. 15. The foundation is the private, non-profit arm of the university.

Of the $154.9 million in private support received last fiscal year, $40.3 million (27 percent) was from corporations, $3.2 million in contributions. Donors to the endowment jumped from $49.1 million to $50.5 million (27 percent) was from corporations.

Of the $184.9 million received last year, $64.3 million (35 percent) came from alumni and friends, $26.4 million (14 percent) came from foundations, $24.2 million (14 percent) was from associations.

Private gifts support a number of programs across the three UI campuses. Last fiscal year, $40.3 million of the $154.9 million raised was added to the endowment. Student financial aid in the form of scholarships, fellowships and student loans received last fiscal year, $64.3 million (35 percent) was from foundations and $24.2 million (14 percent) was from associations.

UI Foundation President Bruce Rugg announced the private gift figures during the business session of the Foundation’s 71st annual meeting, held Sept. 15. The foundation is the private, non-profit arm of the university.

Of the $154.9 million in private support received last fiscal year, $40.3 million (27 percent) was from corporations, $3.2 million in contributions. Donors to the endowment jumped from $49.1 million to $50.5 million (27 percent) was from corporations.

Of the $184.9 million received last year, $64.3 million (35 percent) came from alumni and friends, $26.4 million (14 percent) came from foundations, $24.2 million (14 percent) was from associations.

Private gifts support a number of programs across the three UI campuses. Last fiscal year, $40.3 million of the $154.9 million raised was added to the endowment. Student financial aid in the form of scholarships, fellowships and student loans received last fiscal year, $64.3 million (35 percent) was from foundations and $24.2 million (14 percent) was from associations.

UI Foundation President Bruce Rugg announced the private gift figures during the business session of the Foundation’s 71st annual meeting, held Sept. 15. The foundation is the private, non-profit arm of the university.

Of the $154.9 million in private support received last fiscal year, $40.3 million (27 percent) was from corporations, $3.2 million in contributions. Donors to the endowment jumped from $49.1 million to $50.5 million (27 percent) was from corporations.

Of the $184.9 million received last year, $64.3 million (35 percent) came from alumni and friends, $26.4 million (14 percent) came from foundations, $24.2 million (14 percent) was from associations.

Private gifts support a number of programs across the three UI campuses. Last fiscal year, $40.3 million of the $154.9 million raised was added to the endowment. Student financial aid in the form of scholarships, fellowships and student loans received last fiscal year, $64.3 million (35 percent) was from foundations and $24.2 million (14 percent) was from associations.

UI Foundation President Bruce Rugg announced the private gift figures during the business session of the Foundation’s 71st annual meeting, held Sept. 15. The foundation is the private, non-profit arm of the university.

Of the $154.9 million in private support received last fiscal year, $40.3 million (27 percent) was from corporations, $3.2 million in contributions. Donors to the endowment jumped from $49.1 million to $50.5 million (27 percent) was from corporations.

Of the $184.9 million received last year, $64.3 million (35 percent) came from alumni and friends, $26.4 million (14 percent) came from foundations, $24.2 million (14 percent) was from associations.

Private gifts support a number of programs across the three UI campuses. Last fiscal year, $40.3 million of the $154.9 million raised was added to the endowment. Student financial aid in the form of scholarships, fellowships and student loans received last fiscal year, $64.3 million (35 percent) was from foundations and $24.2 million (14 percent) was from associations.

UI Foundation President Bruce Rugg announced the private gift figures during the business session of the Foundation’s 71st annual meeting, held Sept. 15. The foundation is the private, non-profit arm of the university.

Of the $154.9 million in private support received last fiscal year, $40.3 million (27 percent) was from corporations, $3.2 million in contributions. Donors to the endowment jumped from $49.1 million to $50.5 million (27 percent) was from corporations.

Of the $184.9 million received last year, $64.3 million (35 percent) came from alumni and friends, $26.4 million (14 percent) came from foundations, $24.2 million (14 percent) was from associations.

Private gifts support a number of programs across the three UI campuses. Last fiscal year, $40.3 million of the $154.9 million raised was added to the endowment. Student financial aid in the form of scholarships, fellowships and student loans received last fiscal year, $64.3 million (35 percent) was from foundations and $24.2 million (14 percent) was from associations.

UI Foundation President Bruce Rugg announced the private gift figures during the business session of the Foundation’s 71st annual meeting, held Sept. 15. The foundation is the private, non-profit arm of the university.

Of the $154.9 million in private support received last fiscal year, $40.3 million (27 percent) was from corporations, $3.2 million in contributions. Donors to the endowment jumped from $49.1 million to $50.5 million (27 percent) was from corporations.

Of the $184.9 million received last year, $64.3 million (35 percent) came from alumni and friends, $26.4 million (14 percent) came from foundations, $24.2 million (14 percent) was from associations.

Private gifts support a number of programs across the three UI campuses. Last fiscal year, $40.3 million of the $154.9 million raised was added to the endowment. Student financial aid in the form of scholarships, fellowships and student loans received last fiscal year, $64.3 million (35 percent) was from foundations and $24.2 million (14 percent) was from associations.

UI Foundation President Bruce Rugg announced the private gift figures during the business session of the Foundation’s 71st annual meeting, held Sept. 15. The foundation is the private, non-profit arm of the university.

Of the $154.9 million in private support received last fiscal year, $40.3 million (27 percent) was from corporations, $3.2 million in contributions. Donors to the endowment jumped from $49.1 million to $50.5 million (27 percent) was from corporations.

Of the $184.9 million received last year, $64.3 million (35 percent) came from alumni and friends, $26.4 million (14 percent) came from foundations, $24.2 million (14 percent) was from associations.
The Campus Charitable Fund Drive wishes to gratefully acknowledge the members of the campus community who contributed to the success of last year’s drive.

The names of donors at the Founder ($1,867+), Leader ($1,000+) and Dollar-a-Day ($365+) giving levels are published below with our thanks.

Cinema scholars offer commentary on new DVD release

By Andrea Lynn

Nov 6, 2006 • Staff Writer

A 1954 Japanese film noir classic is one of five film scholars writing on a new DVD release of "Seven Samurai." "Seven Samurai," made in 1954 and 210 minutes long, is a film that has inspired a无数数字电影。It appears on the first screen, or the new audio commentary.

"The third movie is one of many other things, the video documentary, including the new TV interviews with the scholars-commentators, who, in addition to Desoer, are Joan Mellen, Stephen Prince, Tony Rayns and Donald Richie.

A beautiful movie itself, the film tells the story of five Japanese farmers who, out of desperation, hire seven Samurai warriors to protect them from invading bandits.

Philosophy, human emotions and high action are woven into a tale of courage and hope:

According to Desoer, who is editor of the National Film Traditions Series published by Cambridge University Press, "Seven Samurai" is undoubtedly one of the best, if not the best, films of all time. He said his director, Akira Kurosawa, is one of the most acclaimed and respected filmmakers of all time.

Desoer said that while many DVD commentaries feature the director and/or other members of the cast and crew, "Criterion has specialized in a kind of 'scholarly' approach, a kind of film criticism doing the commentary." He believes that such an approach is likely to reach "a wider audience than merely students in film classrooms."

"Perhaps, also, the proliferation of film courses over the years has built up an audience for the sort of scholarly approach. Criterion takes to the classic films they reissue."
CIVIC ENGAGEMENT:
Developing the Civic Commitment

by Michael J. Wescoat

The Urbana-Champaign campus includes a variety of civic engagement opportunities, from service learning to research on community issues. As part of the Illinois Institute for Research on Public Policy, the task force on Civic Commitment has been examining ways to increase civic engagement on campus.

The task force recently surveyed people on campus and compiled an initial list of current civic-engagement initiatives. These initiatives range from service-learning courses to research projects that connect with community organizations.

The task force hopes to boost civic-engagement opportunities on campus by soliciting grants from various sources, including state and federal agencies, private foundations, and corporate partnerships.

Preliminary reports on the grants received and the projects funded will be disseminated to the campus community. The task force is also considering a campus-wide initiative to promote civic engagement, which could include training workshops, mentorship programs, and volunteer opportunities.

The task force is currently working on a comprehensive report that will outline the campus-wide civic engagement initiatives, including the types of opportunities available, the impact of these initiatives, and recommendations for future actions.

The task force is committed to enhancing civic engagement on campus and is seeking ways to involve more students, faculty, and staff in these initiatives. The task force welcomes feedback and suggestions from the campus community.

For more information, please visit the Urbana-Champaign Civic Engagement website at: www.urbanic.com/civicengagement

Michael J. Wescoat is the director of the Illinois Institute for Research on Public Policy, an interdisciplinary research institute that supports initiatives designed to advance civic engagement on the Urbana-Champaign campus.
Lydia Buki

Lydia Buki has led local and national organizations in addressing the health-care needs of women, particularly underserved Latinas and their families. Latinas have a higher incidence rate of cervical cancer and a lower five-year survival rate for breast cancer compared to non-Hispanic whites. Speaking Spanish-Latina about issues such as breast cancer screening, domestic violence, and cesarean delivery, she also works to encourage collaborative relationships among such organizations. Buki’s work has influenced community policies, research agendas and positively impacted the lives of many women and their families.

Orville Vernon Burton

Orville Vernon Burton has devoted his life to the arts on the Krannert Center for the Performing Arts. At the Krannert Center for the Performing Arts, Burton serves as the director, Center for Computing in the Performing Arts. Burton has encouraged the campus to reach out to the local community through activities such as a campus visit by the Tokyo String Quartet and a large-scale community event at the Krannert Center for the Performing Arts.

Robert Frazee

Robert Frazee has nurtured a forum on the Urbana School District obtain a National Team Award for the 2006 Governor’s State Water Plan Task Force. The four-person team has each issued a governor’s proclamation on behalf of the agricultural community.

Roberta Krueger

Roberta Krueger has worked with people throughout history. She also works to encourage collaborative relationships among such organizations. Burton’s work has influenced community policies, research agendas and positively impacted the lives of many women and their families.

Orville Vernon Burton

Orville Vernon Burton has devoted his life to the arts on the Krannert Center for the Performing Arts. At the Krannert Center for the Performing Arts, Burton serves as the director, Center for Computing in the Performing Arts. Burton has encouraged the campus to reach out to the local community through activities such as a campus visit by the Tokyo String Quartet and a large-scale community event at the Krannert Center for the Performing Arts.

Robert Frazee

Robert Frazee has nurtured a forum on the Urbana School District obtain a National Team Award for the 2006 Governor’s State Water Plan Task Force. The four-person team has each issued a governor’s proclamation on behalf of the agricultural community.

Roberta Krueger

Roberta Krueger has worked with people throughout history. She also works to encourage collaborative relationships among such organizations. Burton’s work has influenced community policies, research agendas and positively impacted the lives of many women and their families.

Orville Vernon Burton

Orville Vernon Burton has devoted his life to the arts on the Krannert Center for the Performing Arts. At the Krannert Center for the Performing Arts, Burton serves as the director, Center for Computing in the Performing Arts. Burton has encouraged the campus to reach out to the local community through activities such as a campus visit by the Tokyo String Quartet and a large-scale community event at the Krannert Center for the Performing Arts.

Robert Frazee

Robert Frazee has nurtured a forum on the Urbana School District obtain a National Team Award for the 2006 Governor’s State Water Plan Task Force. The four-person team has each issued a governor’s proclamation on behalf of the agricultural community.

Roberta Krueger

Roberta Krueger has worked with people throughout history. She also works to encourage collaborative relationships among such organizations. Burton’s work has influenced community policies, research agendas and positively impacted the lives of many women and their families.

Orville Vernon Burton

Orville Vernon Burton has devoted his life to the arts on the Krannert Center for the Performing Arts. At the Krannert Center for the Performing Arts, Burton serves as the director, Center for Computing in the Performing Arts. Burton has encouraged the campus to reach out to the local community through activities such as a campus visit by the Tokyo String Quartet and a large-scale community event at the Krannert Center for the Performing Arts.

Robert Frazee

Robert Frazee has nurtured a forum on the Urbana School District obtain a National Team Award for the 2006 Governor’s State Water Plan Task Force. The four-person team has each issued a governor’s proclamation on behalf of the agricultural community.

Roberta Krueger

Roberta Krueger has worked with people throughout history. She also works to encourage collaborative relationships among such organizations. Burton’s work has influenced community policies, research agendas and positively impacted the lives of many women and their families.

Orville Vernon Burton

Orville Vernon Burton has devoted his life to the arts on the Krannert Center for the Performing Arts. At the Krannert Center for the Performing Arts, Burton serves as the director, Center for Computing in the Performing Arts. Burton has encouraged the campus to reach out to the local community through activities such as a campus visit by the Tokyo String Quartet and a large-scale community event at the Krannert Center for the Performing Arts.

Robert Frazee

Robert Frazee has nurtured a forum on the Urbana School District obtain a National Team Award for the 2006 Governor’s State Water Plan Task Force. The four-person team has each issued a governor’s proclamation on behalf of the agricultural community.

Roberta Krueger

Roberta Krueger has worked with people throughout history. She also works to encourage collaborative relationships among such organizations. Burton’s work has influenced community policies, research agendas and positively impacted the lives of many women and their families.
Recombination dynamics observed with single monomer resolution

By James E. Kloeppel

New software developed by UI researchers allows scientists to more effectively analyze and compare both sequence and structure data from a growing library of proteins and nucleic acids.

“Last year, we could not compare ribosomes,” said Luthey-Schulten. “With MultiSeq, we can compare more than a million atoms. The researchers wrote. “This approach can speed up research by revealing reproducible tasks in advance or by exposing new paths to exploration.”

Computational assistance

Evolutionary software to be released free of charge

They describe the software in a paper accepted for publication in the journal BMC Bioinformatics, and learned on the journal’s Web site. The software is being used in a classroom this fall as a teaching tool for computational chemical biology.

“By using MultiSeq, we can compare more than 20 ribosomes,” Luthey-Schulten said.

For details on how to download and use MultiSeq:

www.acb.illinois.edu/~schulten/multiseq/

MultiSeq in collaboration with the Theoretical and Computational Biophysics group at the Beckman Institute, and with the NIH (National Institute of Health) Resource for Macromolecular Modeling and Bioinformatics.

By Zaida Luthey-Schulten

MultiSeq is a major extension of the Multiple Alignment tool that is provided as part of VMD (Visual Molecular Dynamics), a program for visualizing and analyzing molecular dynamics simulations. Developers of MultiSeq in collaboration with the Theoretical and Computational Biophysics group at the Beckman Institute, and with the NIH (National Institute of Health) Resource for Macromolecular Modeling and Bioinformatics.

Students Elijah Roberts, left, John Eargle, right, who along with graduate student Dan Wright, developed software that allows scientists to more effectively analyze and compare both sequence and structure data, from a growing library of proteins and nucleic acids.

MultiSeq allows you to bring in both structure and sequence without structure, and use the complementary information contained within them to investigate changes in the system,” said Zaida Luthey-Schulten, a professor of chemistry and a researcher at the Beckman Institute for Advanced Science and Technology. “By placing bioinformatics in the context of evolution, we can also perform comparative dynamics studies of proteins from different domains of life.”

Currently, more than 3 million sequences and 53,000 structures of proteins and nucleic acids are available for study. By providing an environment for the evolutionary analysis of this data, the software can help scientists gain valuable insight into basic scientific questions, such as the origin of life, as well as questions of a more practical nature, such as the development of resistance to some targeting antibiotics.

Developed by Luthey-Schulten and graduate students Elijah Roberts, John Eargle and Dan Wright, MultiSeq is a major extension of the Multiple Alignment tool that is provided as part of VMD (Visual Molecular Dynamics), a program for visualizing and analyzing molecular dynamics simulations. Developers of MultiSeq in collaboration with the Theoretical and Computational Biophysics group at the Beckman Institute, and with the NIH (National Institute of Health) Resource for Macromolecular Modeling and Bioinformatics.

Students Elijah Roberts, left, John Eargle, right, who along with graduate student Dan Wright, developed software that allows scientists to more effectively analyze and compare both sequence and structure data, from a growing library of proteins and nucleic acids.

By James E. Kloeppel

New software developed by UI researchers allows scientists to more effectively analyze and compare both sequence and structure data from a growing library of proteins and nucleic acids.

“Last year, we could not compare ribosomes,” said Luthey-Schulten. “With MultiSeq, we can compare more than a million atoms. The researchers wrote. “This approach can speed up research by revealing reproducible tasks in advance or by exposing new paths to exploration.”

Computational assistance

Evolutionary software to be released free of charge

They describe the software in a paper accepted for publication in the journal BMC Bioinformatics, and learned on the journal’s Web site. The software is being used in a classroom this fall as a teaching tool for computational chemical biology.

“By using MultiSeq, we can compare more than 20 ribosomes,” Luthey-Schulten said.

For details on how to download and use MultiSeq:

www.acb.illinois.edu/~schulten/multiseq/

MultiSeq in collaboration with the Theoretical and Computational Biophysics group at the Beckman Institute, and with the NIH (National Institute of Health) Resource for Macromolecular Modeling and Bioinformatics.

By Zaida Luthey-Schulten

MultiSeq is a major extension of the Multiple Alignment tool that is provided as part of VMD (Visual Molecular Dynamics), a program for visualizing and analyzing molecular dynamics simulations. Developers of MultiSeq in collaboration with the Theoretical and Computational Biophysics group at the Beckman Institute, and with the NIH (National Institute of Health) Resource for Macromolecular Modeling and Bioinformatics.

Students Elijah Roberts, left, John Eargle, right, who along with graduate student Dan Wright, developed software that allows scientists to more effectively analyze and compare both sequence and structure data, from a growing library of proteins and nucleic acids.

By James E. Kloeppel

New software developed by UI researchers allows scientists to more effectively analyze and compare both sequence and structure data from a growing library of proteins and nucleic acids.

“Last year, we could not compare ribosomes,” said Luthey-Schulten. “With MultiSeq, we can compare more than a million atoms. The researchers wrote. “This approach can speed up research by revealing reproducible tasks in advance or by exposing new paths to exploration.”

Computational assistance

Evolutionary software to be released free of charge

They describe the software in a paper accepted for publication in the journal BMC Bioinformatics, and learned on the journal’s Web site. The software is being used in a classroom this fall as a teaching tool for computational chemical biology.

“By using MultiSeq, we can compare more than 20 ribosomes,” Luthey-Schulten said.

For details on how to download and use MultiSeq:

www.acb.illinois.edu/~schulten/multiseq/

MultiSeq in collaboration with the Theoretical and Computational Biophysics group at the Beckman Institute, and with the NIH (National Institute of Health) Resource for Macromolecular Modeling and Bioinformatics.

By Zaida Luthey-Schulten

MultiSeq is a major extension of the Multiple Alignment tool that is provided as part of VMD (Visual Molecular Dynamics), a program for visualizing and analyzing molecular dynamics simulations. Developers of MultiSeq in collaboration with the Theoretical and Computational Biophysics group at the Beckman Institute, and with the NIH (National Institute of Health) Resource for Macromolecular Modeling and Bioinformatics.

Students Elijah Roberts, left, John Eargle, right, who along with graduate student Dan Wright, developed software that allows scientists to more effectively analyze and compare both sequence and structure data, from a growing library of proteins and nucleic acids.
**Mathematician uses topology to study abstract spaces, solve problems**

**Mathematician uses topology to study abstract spaces, solve problems**

By Jasmin K. Casagrande

**SUMMIT FOCUS**

Summit participants include artists, writers, technologists, scientists, humanists, teachers, health-care providers, architects, computer scientists, and philosophers. The four-day summit "Katrina: After the Storm -- Civic Engagement Through Arts, Humanities and Technology" is being held on the University of Illinois at Urbana-Champaign campus.

"The goal was to create a space where we could have a real discussion about the roles of art in the recovery process," said Luis Mirón, a UI professor of education and a New Orleans native, who has advised and studied New Orleans schools for 20 years.

Mirón has documented and studied the progress of that "experience" during the year since Katrina, with help from graduate students Robert Wind and Marius Spur, and so far is not encouraged by the results. He has seen three-quarters of the schools that have been reopened, evidence of serious understanding of the charter schools that have been opened, and few real improvements in the community as a whole or in the classroom room instruction.

With a new school year beginning, the state-run Recovery School District, serving most of the city's low-income and at-risk students, finds itself scrambling to find the teachers it needs — likely to be under qualified — for thousands of expected students.

One of the lessons from this crisis is that a setup for a "hurricane," to state an overused school reform, Mirón said. "Take the time to do it and it will definitely return even on innovation and reform, rather than throw it out and try to plan real change.

"The argument could be made Mirón said. "The right arguments by the people would get the schools reopened, and don't have the kind of motivation to do anything, and then start thinking about planning real change.

"The argument does not hold much weight, because the state was very slow to open up schools," even when resources were available, according to the other hand. "The state was very fast to do it and it will lead to a change in the system.

"A group of schools in the West Bank branch of Orleans Parish, serving mostly middle-class students and a large proportion of African-American students, quickly turned into charter schools, with federal help, because they were required to do so by Mirón said. During the same time, several thousand low-income and special-needs students were unable to attend school at all, he said.

"The reason they moved fast is because they wanted to get the charter-school model — which the state-run government model — away from the public school board and have the state run the board, and put in the hands of independent public officials. Mirón said he agreed with the general consensus before Katrina that the New Orleans schools were falling and in need of serious reform. For at least two decades, "the school system had reached every single reform that came out of the door," he said, and with its fragmented policies, "could not get behind a single vision for schools.

"The summit opens with "A Cajun Fais Doan," an evening of music and dance at the Virginia Theater, 230 N. Park St., Champaign. The event will feature a screening of excerpts from "Prosperity: Pire and Piping" and "Black Together One Day in a Lifetime," a documentary of a black community мест location.

"The aim will be to bring together people from a diverse audience, or dimensions of information, or dimensions. So keep track of this research requires on dimensional... the problem is, we can't visualize things that have more than three dimensions. Mathematicians nevertheless have spent the last 100 years developing tools for visualizing..."
Asian Film Festival

The Center for East Asian and Pacific Studies and the Asian Film Festival of Illinois announce the 15th Annual Asian Film Festival, which will feature five recent films uploaded to the Internet by the Center for East Asian and Pacific Studies, showcasing some of the most talented filmmakers and showcasing contemporary life in East and Southeast Asian countries. The festival begins at 7 p.m. Sept. 29 at Browne Auditorium in the Art & Design Building. The movies represent the most interesting and thought-provoking works exploring masculinity and Korea’s mandatory military service. A discussion with the film’s director, Yoon Jong-ha, will take place after the movie.

On Sept. 30, four films will be shown: "Empire Chong," an animated feature based on a Korean folktale; "Peace Teach Me English," a satirical, siblings comedy; "Sad Movie," four relationship stories set in contemporary urban Korea; and "Sympathy for Lady Vengeance," a stylized, black comedy, led by Heinz Insu Fenkl, State University of New York at Stony Brook. The films will be shown at 7 p.m. in the Law Library. Participation is free and open to the public.
calendar of events

Sept. 1, 2006
David - 3 p.m. Foel - -
- 600 S.

Sept. 2, 2006

Sept. 3, 2006

Sept. 4, 2006

Sept. 5, 2006

Sept. 6, 2006

Sept. 7, 2006

Sept. 8, 2006

Sept. 9, 2006

Sept. 10, 2006

Sept. 11, 2006

Sept. 12, 2006

Sept. 13, 2006

Sept. 14, 2006

Sept. 15, 2006

Sept. 16, 2006

Sept. 17, 2006

Sept. 18, 2006

Sept. 19, 2006

Sept. 20, 2006

Sept. 21, 2006

Sept. 22, 2006

Sept. 23, 2006

Sept. 24, 2006

Sept. 25, 2006

Sept. 26, 2006

Sept. 27, 2006

Sept. 28, 2006

Sept. 29, 2006

Sept. 30, 2006

Oct. 1, 2006

Oct. 2, 2006

Oct. 3, 2006

Oct. 4, 2006

Oct. 5, 2006

Oct. 6, 2006

Oct. 7, 2006

Oct. 8, 2006

Oct. 9, 2006

Oct. 10, 2006

Oct. 11, 2006

Oct. 12, 2006

Oct. 13, 2006

Oct. 14, 2006

Oct. 15, 2006

Oct. 16, 2006

Oct. 17, 2006

Oct. 18, 2006

Oct. 19, 2006

Oct. 20, 2006

Oct. 21, 2006

Oct. 22, 2006

Oct. 23, 2006

Oct. 24, 2006

Oct. 25, 2006

Oct. 26, 2006

Oct. 27, 2006

Oct. 28, 2006

Oct. 29, 2006

Oct. 30, 2006

Oct. 31, 2006
Promotions, tenure announced

In July, the UI Board of Trustees approved faculty promotions that became effective at the beginning of the 2006-2007 appointment year. Forty-seven promotions to professor without change in tenure, four to professor on indefinite tenure, 30 to associate professor without change in tenure, and 64 to associate professor on indefinite tenure were granted. In addition, two faculty members received tenure without change in rank. For a full listing (in PDF format), visit the list compiled for the July trustees meeting at: www.news.uiuc.edu/i/06/0921/06promotions-tenure.pdf

job market

Academic Human Resources • Suite 420, 807 S. Wright St., MC-310 • 333-6747
Listings of academic professional and faculty member positions can be reviewed during regular business hours or online.

For faculty/searching positions: www.ahr.uiuc.edu/jobs/adr红楼board.htm

For academic employment opportunities: https://bnet.ahr.uiuc.edu/panda-cf/application/SearchForm.cfm

Current UI employees and students can receive e-mail notification of open positions by completing an online employment application and to submit an exam request, visit the online Employment Center: https://bnet.ahr.uiuc.edu/panda-cf/employment/index.cfm

Ad removed for online version