Washington University Record, September 24, 2004

Follow this and additional works at: https://digitalcommons.wustl.edu/record

Recommended Citation

This Article is brought to you for free and open access by the Washington University Publications at Digital Commons@Becker. It has been accepted for inclusion in Washington University Record by an authorized administrator of Digital Commons@Becker. For more information, please contact vanam@wustl.edu.
By Barbara Rea

A team of biologists and engineers led by WUSTL faculty is seeking to find the Fountain of Youth — not in Florida, but in photosynthetic cyanobacteria (ancient little blue-green algae). Looking at the cellular systems in cyanobacteria, and then in a model plant and a moss species, these researchers want to deter-
mine how these organisms pro-
tect themselves from radicals —
these researchers want to deter-
harm oxygen in their cells.

These are products of oxida-
tion, which are key culprits of
cellular aging. Cyanobacteria have developed a system to survive a gradually in-
ncreasing oxidative environment.

Pakrasi and plants,
and model the system that these organisms use to cope with rad-
icals. These products of oxida-
tion and reduction (redox) pro-
cesses, and are key culprits of
cellular aging. Cyanobacteria are organisms that gave rise to chloroplasts, the oxygen factory in plant cells. A half-billion years ago, cyanobact-
eria predated more complex or-
ganisms such as multicellular plants and fungi in a world where the oxygen level of the biosphere was much lower than it is today. Cyanobacteria have developed a system to survive a gradually in-
ncreasing oxidative environment.

See Biology, Page 6

Faculty, friends to receive Founders Day awards

By Tony Fitzpatrick

A solution to the exercise situation might be to
pick up steam

"New biology"
Grant enables an integrative methodology

BY ANDY CLENDENNEN

WUashington University will undergo a comprehensive
evaluation visit Sept. 27-29 by a team representing the
Higher Learning Commission of the North Central Associa-
tion of Colleges and Accrediting.

The commission has ac-
credited the University since 1913, the most recent accredi-
tation took place in 1994.

The Higher Learning Com-
mission is one of six accredi-
ting agencies in the United States that provides instru-
tional accreditation on a regi-
nonal basis.

The commission accredits approximately 1,000 institu-
tions of higher education in a 19-state region.

The self-study also addresses the requirements and criteria for accreditation.

The visiting team, consist-
ing of eight faculty and ad-
ministrators from comparable institutions, will review the University's ongoing ability to meet the commission's criteria for accreditation and general institutional requirements.

During their visit, the team is expected to speak with stu-
dents, faculty, administrators, alumni and members of the Board of Trustees from across the University.

Upon conclusion of the visit, the team will prepare a report for the NCA.

Accreditation team to visit Sept. 27-29

BY ANDY CLENDENNEN

Exercise helps reduce heart mass

BY Gila Z. Reckless

"New biology"
Grant enables an integrative methodology

A team of biologists and engineers led by WUSTL faculty is seeking to find the Fountain of Youth — not in Florida, but in photosynthetic cyanobacteria (ancient little blue-green algae). Looking at the cellular systems in cyanobacteria, and then in a model plant and a moss species, these researchers want to deter-
migrate how these organisms pro-
tect themselves from radicals —
these researchers want to deter-
harm oxygen in their cells.

These are products of oxida-
tion, which are key culprits of
cellular aging. Cyanobacteria have developed a system to survive a gradually in-
ncreasing oxidative environment.

Pakrasi and plants,
and model the system that these organisms use to cope with rad-
icals. These products of oxida-
tion and reduction (redox) pro-
cesses, and are key culprits of
cellular aging. Cyanobacteria are organisms that gave rise to chloroplasts, the oxygen factory in plant cells. A half-billion years ago, cyanobact-
eria predated more complex or-
ganisms such as multicellular plants and fungi in a world where the oxygen level of the biosphere was much lower than it is today. Cyanobacteria have developed a system to survive a gradually in-
ncreasing oxidative environment.

See Biology, Page 6
Talented and diverse! Class of 2008 boasts impressive accomplishments

By ANDY CLENDENNIN

The Melting Pot might be one of the better restaurants in the University City Loop, but one could also call the University campus a melting pot — especially after looking at the incoming freshman class.

The approximately 1,450 first-year students hail from all over the world and represent approximately 18 countries, 49 states, the District of Columbia and Puerto Rico. Their first day of classes was Sept. 3.

In many of the select group were academic leaders, officers in student government and participants in extracurricular activities and athletics at high school. Collectively, the incoming class has received more than 2,200 special and national recognition awards.

In addition:

• Nearly 925 students are National Honor Society members.
• Nearly 200 were school honors officers, and nearly 500 were officers in service organizations.
• Many served as editors — 108 of yearbooks and 140 of zines.
• Musically, 357 were members of school bands or orchestras, and 239 were members of choirs or chorus.

In athletics, 411 were team participants.

Dancer Solomons to perform Sept. 30

By LISA OTTEN

Solomons Jr., a distinguished D.B.A. in music, is now in high school. Collectively, the incoming class has received more than 2,200 special and national recognition awards.

In addition:

• Nearly 925 students are National Honor Society members.
• Nearly 200 were school honors officers, and nearly 500 were officers in service organizations.
• Many served as editors — 108 of yearbooks and 140 of zines.
• Musically, 357 were members of school bands or orchestras, and 239 were members of choirs or chorus.

In athletics, 411 were team participants.

Dancer Solomons to perform Sept. 30

By LISA OTTEN

Solomons Jr., a distinguished D.B.A. in music, is now in high school. Collectively, the incoming class has received more than 2,200 special and national recognition awards.

In addition:

• Nearly 925 students are National Honor Society members.
• Nearly 200 were school honors officers, and nearly 500 were officers in service organizations.
• Many served as editors — 108 of yearbooks and 140 of zines.
• Musically, 357 were members of school bands or orchestras, and 239 were members of choirs or chorus.

In athletics, 411 were team participants.
a diagnosis of juvenile rheumatoid arthritis. The disease, which most often affects kids ages 1-3, causes the immune system to malfunction and attack the joints. Patients often have stiff and swollen joints, making it difficult to walk or move. He explains that the first thing that comes to most parents' minds when they learn their child has juvenile arthritis is "wheelchair" or "crippled." "What gives me the most satisfaction is telling them that's not the case," he says. "Most of the time I can help patients have normal lives again. We know so much about medicine these days, but we really have no idea what causes juvenile rheumatoid arthritis. I want to find a way to understand it, treat it and fix it.

During his pediatric residency at St. Louis Children's Hospital, White treated a few patients with a rare, puzzling skin disease called sclerodermia en coup de sabre. The condition gets its name — the stroke of the saber — from an arched stripe that forms down the face, affecting the skin, muscle, bone and sometimes brain.

"What fascinates me is that we can't understand why the disease looks exactly the same from person to person," says White, who adds that the mysterious condition — which mostly affects teenage girls — is what drew him to the field. "We have no clue what causes it and no medicines appear to treat it."

An excellent educator

As division director, White says he aims to make the pediatric rheumatology fellowship training program the top in the nation. While advancing the fellowship program, he also continues overseeing the general pediatrics residency program, in which he mentors more than 70 residents every year.

When he's not teaching students or residents, White breeds and raises freshwater fish, from cichlids to catfish. He has more than 500 fish in 12 tanks at home. He writes stories about fish and also sells fish on Web sites like aquadot.com — some for more than $100. "My wife says I have a fish problem," White jokes. He met his wife, Hilary Babcock, M.D., an instructor of medicine and an infectious disease physician, on the first day of medical school at the University of Texas, Southwestern Medical School. The couple is also members of Webster Groves and has 6-year-old twins, Hannah and Jackson.

White came to St. Louis Children's Hospital for a general pediatric residency in 1994, and also completed a fellowship in pediatric rheumatology and immunology in 1997. He joined the University as an instructor of pediatrics in 2000 and became an assistant professor of pediatrics in 2001. He is also the director of rheumatology and immunology at St. Louis Children's Hospital.

"What I love most about this field is that most of the time we can help patients get better," he says. "It's rare when patients don't respond to drugs and need to be in a wheelchair or can't walk or play sports. We can treat, and often cure, many patients — and that's extremely rewarding."
Unidentified text due to poor quality of the image.
Mumford to speak on new book

By LIAM OTTEN

Eric Mumford, Ph.D., associate professor of architecture and the Urban Design Program in the School of Architecture, will speak in "Modern Architecture in St. Louis," Washington University and Postwar American Architecture, 1948-1973 (2004), the first in a series of modern architecture as it evolved in the United States. Mumford will include a history of the Modern Movement and the Modernist architecture of the city, rounding in art in art in the postmodern world and the postmodernism in the city. Mumford will be presented by the School of Architecture, its faculty and alumni.

Principal essays are by Mumford, Helen Lopatino, director of the firm DOCOMOMO US and research affiliate at Massachusetts Institute of Technology; and Kathleen James-Chakraborty, an associate professor of architecture at the University of California at Berkeley. The book also features a section on how Washington University and its campus developed.

Friday, Oct. 1

12:30 p.m. Academic Women's Network, which includes more than 100 faculty members, will hold its first meeting of the year at the Kemper Center. The event will include a history of the Modern Movement and the Modernist architecture of the city, rounding in art in art in the postmodern world and the postmodernism in the city.


Mumford came to the School of Architecture in 1994. He is the author of The CAAM Discussion on Urbanism, 1929-1990 (2000), the only book-length history of Modern Architecture in 1929-1990. He has published and lectured nationally and internationally on CAAM, Josep Lluis Sert and a variety of 20th century architecture and urbanism. Mumford also holds three grants from the Graham Foundation, including one in support of Modern Architecture in St. Louis. Mumford earned a doctorate

from the Princeton University School of Architecture in 1994. He is a master of architecture from MIT in 1985, and a bachelor's degree from Harvard College in 1983.

A licensed architect, he practiced in New York City for much of the 1980s and spent a term at the Architectural Association in London in the early 1990s. Mumford was a visiting assistant professor in the Department of Architecture at Harvard.

His lecture is free and open to the public.

Executive Multidisciplinary Center. 935-5930.

4:30 p.m. Student Union Education Forum: 2004 Pre-orientation. "Making the Most of Your First Year."

Wednesday, Sept. 29

4:30 p.m. Student Union Education Forum: 2004 Pre-orientation. "Making the Most of Your First Year."

Washington U held a 10-0 lead to inform them of upcoming volunteer opportunities.

For more information, call 935-7130.


Mumford came to the School of Architecture in 1994. He is the author of The CAAM Discussion on Urbanism, 1929-1990 (2000), the only book-length history of Modern Architecture in 1929-1990. He has published and lectured nationally and internationally on CAAM, Josep Lluis Sert and a variety of 20th century architecture and urbanism. Mumford also holds three grants from the Graham Foundation, including one in support of Modern Architecture in St. Louis. Mumford earned a doctorate

from the Princeton University School of Architecture in 1994. He is a master of architecture from MIT in 1985, and a bachelor's degree from Harvard College in 1983.

A licensed architect, he practiced in New York City for much of the 1980s and spent a term at the Architectural Association in London in the early 1990s. Mumford was a visiting assistant professor in the Department of Architecture at Harvard.

His lecture is free and open to the public.

Executive Multidisciplinary Center. 935-5930.
Nicholas Dudukovic, Ph.D., has been the Ha- rrington M. Judson, Jr., Professor of Chem- ical Engineering and Applied Science. He is widely credited with re- vitalizing the college's doctoral program, which he head- ed until recently — and for insti- tuting policies and search standards in the account- ing department.

He earned a bachelor's degree from Indiana State University (1976) and a Ph.D. (1981) in Structural and Functional Chemistry, both under the direction of his col- leagues to support the Campaign for Tomorrow Fund, estab- lished in 1999, an initiative in which $500 million was raised in 1999, an initiative in which $500 million was raised and is being used by the university.

In addition, he received the American Institute of Chemical Engineers' 1999 Bachem Award and the American Chemical Society's 1999 Award for Outstanding Contribution to Chemical Education. Dudukovic was awarded the 1999 Outstanding Educator Award by the National Institute of Certified Public Accountants.

He has received the American Chemical Society's Millennium Award for his contributions to chemistry education. He earned a bachelor's degree from the University of Minnesota (1976) and a Ph.D. (1981) in Chemical Engineering from Stanford University.

A major component of the FIBR program is the establishment of a center for interdisciplinary research, linking the disciplines of biology, chemistry, and computer science.

The FIBR program is being led by Rajeev Pandit, a professor of biology at the University of Illinois at Urbana-Champaign, and co-directed by Paul B. C. Johnson, a professor of chemistry at the University of Chicago.

Pandit and Johnson are working together to develop a plan for the FIBR program, which will be funded by the National Institutes of Health.

The FIBR program will be housed in a new building on the University of Illinois campus, which is scheduled to open in 2003.

In addition, the FIBR program will be supported by a number of other institutions, including the University of California, Berkeley, and the University of California, Los Angeles.

The FIBR program will be led by a team of senior scientists, including Rajeev Pandit, Paul B. C. Johnson, and David P. C. Johnson.

The FIBR program will focus on the development of new technologies for the study of biological systems, with an emphasis on the use of computational methods to analyze data from these systems.

The FIBR program will be funded by a number of sources, including the National Institutes of Health, the Department of Energy, and the National Science Foundation.

The FIBR program will be housed in a new building on the University of Illinois campus, which is scheduled to open in 2003.

In addition, the FIBR program will be supported by a number of other institutions, including the University of California, Berkeley, and the University of California, Los Angeles.

The FIBR program will be led by a team of senior scientists, including Rajeev Pandit, Paul B. C. Johnson, and David P. C. Johnson.

The FIBR program will focus on the development of new technologies for the study of biological systems, with an emphasis on the use of computational methods to analyze data from these systems.

The FIBR program will be funded by a number of sources, including the National Institutes of Health, the Department of Energy, and the National Science Foundation.

The FIBR program will be housed in a new building on the University of Illinois campus, which is scheduled to open in 2003.

In addition, the FIBR program will be supported by a number of other institutions, including the University of California, Berkeley, and the University of California, Los Angeles.

The FIBR program will be led by a team of senior scientists, including Rajeev Pandit, Paul B. C. Johnson, and David P. C. Johnson.

The FIBR program will focus on the development of new technologies for the study of biological systems, with an emphasis on the use of computational methods to analyze data from these systems.

The FIBR program will be funded by a number of sources, including the National Institutes of Health, the Department of Energy, and the National Science Foundation.

The FIBR program will be housed in a new building on the University of Illinois campus, which is scheduled to open in 2003.

In addition, the FIBR program will be supported by a number of other institutions, including the University of California, Berkeley, and the University of California, Los Angeles.

The FIBR program will be led by a team of senior scientists, including Rajeev Pandit, Paul B. C. Johnson, and David P. C. Johnson.

The FIBR program will focus on the development of new technologies for the study of biological systems, with an emphasis on the use of computational methods to analyze data from these systems.

The FIBR program will be funded by a number of sources, including the National Institutes of Health, the Department of Energy, and the National Science Foundation.

The FIBR program will be housed in a new building on the University of Illinois campus, which is scheduled to open in 2003.

In addition, the FIBR program will be supported by a number of other institutions, including the University of California, Berkeley, and the University of California, Los Angeles.

The FIBR program will be led by a team of senior scientists, including Rajeev Pandit, Paul B. C. Johnson, and David P. C. Johnson.

The FIBR program will focus on the development of new technologies for the study of biological systems, with an emphasis on the use of computational methods to an
Debate

Shuttles will be available from West Campus through Oct. 7

Heart

Exercise found to be as effective as the drug in reducing key health factors

- Scott Page 1

medication, group, there were three participants whose blood pressure did not respond to treatment and who were referred back to their primary care physicians for further treatment.

A total of 28 volunteers who aged 66 years old completed the study, which was 16 in the exercise group, 12 in the medication group.

As expected based on previous studies, the medication was about twice as effective in lowering systolic blood pressure — the top number in a person’s blood pressure reading.

But the team found that exercise was as effective as the drug in reducing other key health factors, such as the thickness of the heart muscle in the lower chambers of the heart, called the heart wall.

A key finding, according to Ehsani, was that exercise was as effective as hydrochlorothiazide in reducing the overall mass of the heart.

"One of the most dangerous effects of high blood pressure is its effect on heart mass," he said.

"When you have high blood pressure, the heart has to work harder to pump blood to the rest of the body, which in turn results in a condition called hypertrophy, or an increase in the heart’s mass."

"Hypertrophy itself predisposes patients to conditions like heart-rhythm abnormalities and can lead to heart failure." 

Ehsani’s team also evaluated the effect of the two treatments on metabolic conditions such as resistance to insulin, a precursor to diabetes. Exercise significantly reduced insulin resistance and improved aerobic capacity, whereas hydrochlorothiazide had no effect on either.

"Based on our findings, my view is that patients with early stages of high blood pressure should try to exercise and lose weight and see what happens," Ehsani said.

"If that doesn’t work, they need to be treated with medications. But it’s also possible that exercise and drugs have an additive effect in some people, and that some combination of the two will be the best option."

Obituaries

Ryckman, started environmental engineering program

BY TONY FINEBERG

D ean W. "Rick" Ryckman, B.S., D.Sc., retired professor in the School of Engineering & Applied Science, died Tuesday, Sept. 14, 2004, of complications from lymphoma. Johns Hopkins Medical Center in Cave Coeur, Mo., where he died and lived in Baldwin, Mo.

Ryckman was in charge of setting up the environmental engineering department when he came to the University in 1964. He taught there as the A.P. Greenfield Professor of Engineering for the next 15 years.

Recently, the Environmental Engineering Science Program — now headed by Pratim Biswas, Ph.D., the 1968 and Quimette Jen Professor of Environmental Engineering Science — established the Rick and Betty Ryckman Lecture Series. The annual event invites people to further promote environmental engineering science education.

Ryckman was reared on a farm in Seymour, Mich. During World War II he served in the Navy as a member of the construction battalion stationed in the Pacific. After the war, Ryckman entered the University of Michigan in 1947, where he earned a bachelor’s degree in civil engineering from the University’s College of Engineering in 1951. Ehsani, the principal engineer of Remtech Engineers, another engineering consulting firm in Marietta, Ga.

Ryckman was a member of the William Greenleaf Elliot Society, the First Congregational Church of Webster Groves, Mo., and the St. Louis downtown Rotary Club. He served on the board of the Salvation Army. He was a recipient of the Fuller Award from the American Water Works association and the Stanley E. Kapp Award from the American Academy of Environmental Engineers.

Besides his sons, among the survivors are his wife of 55 years, Betty J. Ryckman; a daughter, Jill Ryckman of Dayton, Ohio; William Ryckman of northern Michigan, and Clasen Ryckman of St. Louis; two sisters, Corna Woodworth of Orono, Maine, and Virginia and Vicky of Battle Creek, Mich.; and seven grandchildren.

Memorial contributions may be made to the University’s congregation of Webster Groves, 10 W. N. Solar Blvd., St. Louis, Mo. 63119, or the Salvation Army, 1130 Hampton Ave., St. Louis, MO 63139.

Wonsley, 54

Leon Wonsley, a maintenance mechanic and plumber with facilities until going on disability leave in 2002, died Monday, Sept. 20, 2004, at his home in St. Louis. He was 54.

Born in 1847 in Twist, Ark., Wonsley arrived at the University in September 1971 and started working as a laborer in facilities. In 1975, he became an equipment operator before progressing through the ranks as a foreman, inspector and maintenance helper.

He became a maintenance mechanic in 1999. "He was the last respected mechanic that we have," said Steve Vals, given name son manager in facilities and Wonsley’s superiors. "He had a smile and positive attitude about any difficult job he needed to do. He will be missed."

He is survived by his fiancée, Deborah Erddie, four children, four stepchildren; and 17 grandchildren.

A visitation will be from 4-9 p.m. Sept. 23 at Austin Layne Funeral Home, 7239 W Florissant Ave., Jennings, MO.

The funeral will be at noon Sept. 28 at Austin Layne Funeral Home.

POWERS, 79

Mary Ellen Powers, former faculty member, died Monday, Sept. 13, 2004, after an illness. She was 79.

Powers spent the majority of her 31-year University career at the School of Law. She retired in 1996.

Powers was mother to 13 children, including five boys. Her other survivors are her husband, Army Maj. Ret. James Powers, joined by his son, Patrick Jones, Massachusetts POWs, Toth, Kathleen Morni, Margaret Edwards, Thomas, Kevin, Tim, Michael, Jim, Robert and the late John Powers.

Among her other survivors are 32 grandchildren and her brother, Brian O’Neill.

A funeral Mass was held at St. Joseph Church in Clayton, and interment was at Calvary Cemetery.

The following students were reported by University Police Sept. 10-21. Students with that credit point in italics.
All three of Chapman’s children inherited his love for horses. Here his family enjoys a recent trip to a Wyoming ranch.

William C. Chapman, M.D., talks with patient Thelma Stevens during a follow-up exam after liver transplan
t surgery. Jeffrey S. Crippin, M.D., medical director of liver transplantation and associate professor of medicine, says of Chapman, "He’s a true leader — he approaches problems in a very calm and collected fashion and really gets results. He’s very bright and level-headed and is respected by everyone who comes in contact with him."

\[\text{GREGORIO A. SCARD} \]

William C. Chapman enhances the University’s abdominal transplant programs

working in a research laboratory and another helping in the operating room. Though his father was an anesthesiologist, Chapman was awe-struck by the magic of surgery. 

"I now realize anesthesiologists face many challenges in the OR as they do," he says, "but from my naive, high-school perspective, I decided anesthesia was on the surgery side."

On the research track

From high school through medical training, Chapman knew his passion for surgery never wavered. But there was one development he didn’t anticipate: a love for academia. As part of his surgery residency training at Vanderbilt University, Chapman was required to complete at least one year of research. Having intended to go into private practice after finishing his residency, he, like many of his peers, first viewed the research requirement as a simple necessity for training. Instead, it ended up changing the course of his career.

"I found research to be exciting and challenging, and I loved having the ability to pose new questions with important clinical impact," he says. "I also realized that I really enjoy the educational environment. The academic curiosity that house staff and students provide stimulates faculty."

The then-young subspecialty of liver transplantation offered an ideal opportunity to satisfy his years for a challenge. The field was just beginning to blossom when Chapman finished his residency at Vanderbilt in 1991, and he went to King’s College Hospital in London for his fellowship. Liver transplants had been attempted since the 1960s, but few were successful until the mid-1980s, when the cyclosporine drug began helping prevent rejection of transplanted organs.

Chapman gained experience on a wide range of liver procedures in England, including transplantation. When he returned to Van
derbilt the following year, he was asked to join the newly formed transplant team. In addition to the allure of the field’s technical complexity, Chapman realized his expertise both in transplant and in non-transplant liver surgery would allow him to most effectively treat patients.

"I think Chapman was clearly a superb surgeon, and before long he became one of the most popular and sought-after surgeons not only at Vanderbilt but also in the Nashville region," O’Neill says. "He became the mainstay of the liver transplantation team and organized his extensive practice in such a fashion that virtually everything was able to be used for clinical research projects."

"He also had special talents in education and was recognized by our surgical residents with the highest education award our department offers," O’Neill says.

The merit of multidisciplinary medicine is also what ultimately convinced Chapman to accept the position of chief of abdominal transplantation at Washington University. "The opportunity to join Washington University was too good to pass up," he says. "This is one of the only institutions with such a broad spectrum of combined research and clinical excellence."

Now in their third year in St. Louis, Chapman’s family has adapted to their new home. The move has even brought some un-
expected benefits for him and his two sons, who were pleased to dis
cover that this area is one of the best for their favorite pastime, duck hunting.

Enhancing the team

At the School of Medicine, Chap
man already has established a pro-
ductive clinical and basic science laboratory, continuing his research on image-guided liver surgery and on minimizing the effects of liver injury.

But some of his biggest strides have come in his role as head of abdominal transplantation, in which he’s focused on nurturing and enhancing the team’s cohesion and its multidisciplinary approach. "What really impresses me about Will is what a great listener he is," says Jeffrey S. Crippin, M.D., medical director of liver transplantation and associate profes-
sor of medicine. "Some people forget you have two ears and one mouth so you can listen twice as much as you talk. Fortunately, he is one of those who recognizes that listening to the opinions of others is the key to being not only a leader, but also a great doctor and administrator."

Family: Mr., Margaret, William, 17; Robert, 14; Maggie, 11. Hobbies: "We love the outdoors," Chapman says. He plays tennis and in the American Liver Foundation’s annual race with his daughter, goes duck hunting with his two sons and loves reading history textbooks.

Academic title: Professor of surgery and chief of the abdominal transplantation section.