Raw-food dieters’ light bones may be healthy

By Jim Dayden

Vegetarians who don’t cook their food have abnormally low bone mass, usually a sign of osteoporosis and increased fracture risk. But a School of Medicine research team has found that raw-food vegetarians have other biological markers indicating their bones, although light in weight, may be healthy.

The study, published in the March 28 issue of the Archive of Internal Medicine, was led by Lingsi Fontana, M.D., Ph.D., a research instructor in medicine in the Division of Geriatrics and Nutritional Science.

Fontana and his colleagues studied 18 strict raw-foodagers ages 28 to 65. They all ate a diet that not only lacked animal products but also included only raw foods, such as a wide variety of grains, legumes, fruits, nuts, seeds, sprouted grains and legumes dressed with olive oil. They had been on this diet for 6 months to 3 years.

The researchers compared them to people who ate a more typical American diet, including refined carbohydrates, animal products and cooked food. The researchers accounted for age, sex and socioeconomic status.

In both groups, Fontana’s team measured body mass index, bone mineral density, markers of bone turnover, levels of vitamin D and inflammatory markers such as C-reactive protein.

Those on the raw-food diet had lower body mass index and significantly lower bone mass in important skeletal regions such as the hip and lumbar spine, sites where low bone mass often means osteoporosis and fracture risk. But they didn’t have other biological markers that typically accompany osteoporosis.

“At first, we thought vitamin D might be a problem for them, but it wasn’t,” Fontana said.

Fontana also measured levels of the hormone leptin, which seems to play an important role in the regulation of bone metabolism. In some transgenic mice, low leptin levels are related to high bone mass. But interestingly, the raw-food dieters had both low levels of leptin and low bone mass.

In short, the people on the raw-food diet are lighter with lower body fat. They have lower bone mass but they have normal markers of bone turnover, higher vitamin D levels and very low levels of leptin and inflammatory markers.

“So are their bones healthy or not?”

Current clinical measurements would indicate that many in this group have osteoporosis.

Fontana, page 6

University plan offers prompt, substantial response to SWA

A group of undergraduate students known as the Student Worker Alliance (SWA) began a sit-in at the campus of South Brookings Hall, named after university President David W. Wrighton, April 15. It was in protest of low wages and poor working conditions for employees of contract services companies that provide basic services to the University.

John E. Klein, executive vice chancellor for administration, subsequently made a presentation at the April 11 University Council meeting, meeting with two SWA members and student representative from President David W. Wrighton earlier present as observers. The plan Klein presented provided a prompt and substantial response to the SWA concerns, including:

- Convening a dialogue with SWA students and contract employees to discuss how improvements can be made, either individual or collaboratively, with special attention to benefits packages for employees.
- Establishing a group to re-examine priorities in order to identify resources to assist lower-paid contract service employees.
- Chancellors Mark S. Wrighton, at Washington University, who had met with the SWA students on several occasions about their concerns, who began the sit-in, presented the plan in a campus-wide April 15 campus-wide meeting.

"I know that all in the community care about those who face financial hardships," Wrighton wrote. "We provide generous supplemental compensation in ways, including financial aid for needy students and special responses when financial changes have occurred in the families of our students.

"We have also, as a community, assisted the Greater St. Louis community through our Supplier Diversity Initiative and through our volunteer contributions to the United Way. I believe it is important to take seriously the concerns raised by our students and others regarding workers at Washington University.

"We believe the University is a premier employer and that all who work here should be respected and appreciated. But we also know that even the best can improve."

The SWA students did not accept the plan.

Later that day, the students occupying South Brookings Hall were notified in writing that they were in violation of the University’s Judicial Code, which prohibits

"interfering with the rights of other members of the University community and visitors to the University to engage in educational, recreational, residential, administrative, professional, business, and ceremonial activities or other functions."

The Judicial Code is typically written by faculty, students and administrators and reaffirmed as recently as spring of this year, in reviewed annually with all students and serves as the University’s policies and procedures regarding student conduct.

References to the code had been shared with the sit in students at least 24 prior to the example. They have been written in "informal language and not signing up for a civil TV that was heard a few years ago."

"When given a chance, individually or in groups, they find the power of being in the majority that interfere with the conduct of its official activities or functions.

"The University cannot permit actions that interfere with the conduct of its official activities or functions."

"The University’s policies and procedures regarding student conduct..."

See Spending, Page 9

University plan offers prompt, substantial response to SWA

by Shelia Neuman

Today is tax deadline day.

For many people, today means handing some hard-earned money over to Uncle Sam for many others, it’s refund time. Theoretically, that refund is money you’ve earned as part of your salary, and should be accounted for in the budget. But practically, most people thought of the refund as if it were ‘free money,” said Amar Cheema, Ph.D., assistant professor of marketing at the University of Toronto, have co-authored "Attractive Consumption and Spending Decisions." Cheema defines mental accounting as a process where consumers use mental accounts — intuitive bookkeeping mechanisms — to track and control spending. Everyone has in their own mind a budget, set up and signed up for a cable TV that was heard a few years ago."

"When given a chance, individually or in groups, they find the power of being in the majority that interfere with the conduct of its official activities or functions."
The “Be Our Guest Dinner” program that gives international students an opportunity to experience an American family's way of life. Society has implemented several programs over the years, including JoAnn Sanditz, current president of The Women's Society and a host parent, and biomedical engineering doctoral candidate Gang Xu and Women's Society celebrates 40 years women from the soon-to-be-closed School of Nursing. It was at Thomas Eliot's behest that the Society of Washington University (SWSU) was formed in 1905. In 1965, Chancellor Thomas Eliot, hen for Wash-ington University in St. Louis, was marking that anniversary with...
Park receives award for neurosurgery procedure

BY KEVIN LEGGIO

T.S. Park, M.D., the Shi H. Hung Professor of Neurosurgery and neurosurgeon in chief at St. Louis Children's Hospital, received a Korean Overseas Contributions Award from the Korean Broadcasting System (KBS) at a ceremony in Seoul.

"I am so honored to receive this award because it allows our team's work at Washington University to reach nearly 10 million Koreans," said senior author Gregory A. Lanza, M.D., Ph.D., associate professor of medicine.

"This study shows us that by treating the skeleton or otherwise decreasing phosphorus levels, we have the potential to decrease a serious vascular calcification and marked improvements in cardiovascular outcome," said Keith A. Hruska, M.D., the head of pediatric nephrology and investigator Keith A. Hruska, M.D., head of pediatric nephrology and investigator Keith A. Hruska, M.D., head of pediatric nephrology and investigator.

This study uses that we have not been able to see in the past. The new technique allows us to look at the skeleton-kidney links that lead to vascular calcification. When drug-bearing nanoparticles are administered, you can see a visible signal that allows you to measure the imaging material that spottles the anatomical calcification. The mice develop metabolic syndrome as a result of both a high-fat, high-cholesterol diet. This study shows that by treating the skeleton or otherwise decreasing phosphorus levels, we have the potential to reduce the risks of diabetes and heart disease.

\[ \text{null} \]

The body normally takes minerals such as calcium and phosphorus circulating in the bloodstream and puts them in the bones during bone reconstruction.

With those processes shut down, scientists theorized, the bloodstream levels of minerals increase, raising pressure to deposit them in other places. Hruska and his colleagues first showed that injection of BMP-7, a growth factor that promotes bone growth, also stops vascular calcification.

"We believe the technology is very promising in a hospital setting," said senior author Samuel M. Wickline, M.D., professor of medicine, who is co-inventor of this nanoparticle therapy.

The spherical nanoparticles are specially designed nanoparticles that can be used for cancer detection, treatment, and follow-up. The nanoparticles, drug delivery systems, can be used to deliver drugs to tumors using the same MRI equipment that is used to provide contrast in MRI images. This creates a high density of contrast agent, and when the particles bind to a specific area, that site grows brighter on scans.

The effectiveness of the nanoparticles in diagnosis and therapy in humans will be tested in clinical trials in about 1.5-2 years. The spherical nanoparticles are a few thousand times smaller than the dots above this "i," yet each can carry about 100,000 molecules of the necessary ligand to provide contrast in MRI images. This creates a high density of contrast agent, and when the particles bind to a specific area, that site grows brighter on scans.

To follow up, Hruska plans a more direct study of the effects of BMP-7 on vascular calcification and further investigation of the skeleton-kidney links that lead to bone weakening in patients with kidney damage.

By GWEN ERICKSON

Specially designed nanoparticles may reveal tiny cancerous tumors, providing a visual guide by ordinary means of detection, according to a new study of Medicine.

The researchers have demonstrated that very small human melanoma tumors growing in mice — indiscernible from the surrounding tissue by direct MRI scan — could be "hit and easy by local injection as soon as 30 minutes after the mice were injected with the nanoparticles.

Because nanoparticles can be engineered to carry a variety of substances, they also may be able to deliver cancer-fighting drugs to malignant tissues as effectively as they carry the imaging materials that spotlight cancerous growth. "One of the best advantages of the particles is that we designed them to deliver imaging agents to tumors using the same MRI equipment that is used to provide contrast in MRI images. This creates a high density of contrast agent, and when the particles bind to a specific area, that site grows brighter on scans," said senior author Gregory A. Lanza, M.D., Ph.D., associate professor of medicine.

"We believe the technology is very promising in a hospital setting," said senior author Samuel M. Wickline, M.D., professor of medicine, who is co-inventor of this nanoparticle therapy.

The mice develop metabolic syndrome as a result of both a high-fat, high-cholesterol diet. This study shows that by treating the skeleton or otherwise decreasing phosphorus levels, we have the potential to reduce the risks of diabetes and heart disease.

With those processes shut down, scientists theorized, the bloodstream levels of minerals increase, raising pressure to deposit them in other places. Hruska and his colleagues first showed that injection of BMP-7, a growth factor that promotes bone growth, also stops vascular calcification.
Japannese Bunraku-style puppetry and dance are combined in "In Search of Stem Cells in the Normal Stomach and Diabetic Pancreas." Eric P. Newman Education Series. 362-3934.

Wednesday, April 20


12:30-4 p.m. M. Laura STII/IV Preventive Nursing Seminar. Center for Nursing. "Going on a Diet and Aging in Memory." 935-5175.

Thursday, April 21


8 p.m. Conservatory of Music. "The Jazz Section: "The Shoulder of Nafhanael West's "The Day the Earth Changed Colors.""(1997), "The New Hampshire"(2001) and "The Shoulder.""(2002).""The New Hampshire" is directed by Thomas Wilkins, artistic director of Andy's Summer Music Festival since 1980. Previous performances have been announced by a 12-minute toy theater piece. For more information, call 745-6472.

Friday, April 22


7-9 p.m. April 20 in the Mildred Baouh Center, 1 Wohl Student Center. "No. 3 (c. 2001) and "The Day the Earth Changed Colors."(1997), a 12-minute toy theater piece. For more information, call 745-6472. 5 p.m. The Shoulder of Nafhanael West's "The Day the Earth Changed Colors."(1997), "The New Hampshire"(2001) and "The Shoulder.""(2002).""The New Hampshire" is directed by Thomas Wilkins, artistic director of Andy's Summer Music Festival since 1980. Previous performances have been announced by a 12-minute toy theater piece. For more information, call 745-6472.
Dancer Prileoau to present "Movement Lab for Teachers"

Dancer and choreographer Dan Wooll Prileoau, Ph.D., professor and chair of the Department of Dance at New York University's Tisch School of the Arts, will present "Movement Lab for Teachers" from 1:30-3 p.m. April 16 in the 4th Floor Mrets Dance Studio in Millholland Student Center.

The movement lab will integrate teaching techniques based on the work of noted modern choreographer Lester Horton with a variety of body-friendly concepts. These range from the incorporation of breath and movement to Horton technique to be adapted to different body types and skill levels. Prileoau was trained at the Alvin Ailey American Dance Center in New York, which he left to join noted modern choreographer Jose Limon's company. As well as a featured dancer in several off-broadway productions.

In addition to Alvin, he has worked with such major choreographers as Danny Reisch, Joyce Traimer and Matt Matton. Before joining the NYU Dance faculty, Prileoau was assistant dean of the College of Fine and Performing Arts at State University.

Recent education advocacy, he has presented papers on "Leaders of the Arts in Higher Education" at national conferences and published an article in "The Journal of Dance Education and Arts Education Policy Review. He has served on the board of trustees of the National Dance Education Organization and the Alvin Ailey American Dance Company, American Dance Guild and the Dance Alliance of the Netherlands.

Prileoau will be in residence in the Spring Arts Department Program Center April 13-16. In addition to the movement lab he will conduct master's classes in jazz dance and Horton-based modern technique. Cost is $15 for teachers, $5 for students and free for members of the NAESP.

For more information, call 935-5880.
Bone mass

More study needed to prove hypothesis

More study needed to prove hypothesis

If you're really motivated to buy something and there is some ambiguity in categorizing the expense, you'll usually find a way to dupe yourself into spending the money with a little mental accounting. "Another example is if you really want to go out to a dinner and you think of the same kind of accounting can get tricky, but the real trouble is caused by when people don't know how to categorize their purchases. And it's here where people find and incur the loopholes that get them into trouble.

"In Adam Small's studies of mental accounting helps to explain what happens when people are spending money or may not work. Cheema said it's easy for consumers to break their boundaries with "maltable mental accounting. Take a tax refund. "Let's say I've wanted to go on some kind of vacation and, while I and may apply this re-tuned money to my 'vacation' budgetary account to justify tak-ing that vacation, which is what I want to do, rather than paying off some of my mortgage, as I should do," Cheema said.

"In doing so, I exploit the ambiguity associated with the purpose of the item and spend money in ways I would not have thought about. I am willing to spend on luxuries that I wouldn't have thought to justify spending."
James L. Gibson, Ph.D., the Sidney W. Souers Professor in Mathematics, was named the 2005 Chauvenet Lecturer in Mathematics, an award given annually by the Mathematical Association of America. The Chauvenet Prize is the highest award for expository writing on mathematical topics. Gibson was selected for his contribution to the public understanding of mathematics.

The award recognizes high-caliber research that has had a significant influence on public understanding of the mathematical sciences, as well as the use of social and behavioral science knowledge in policy settings.

The "Decade of Behavior" (2000-2010) is a multidisciplinary initiative to focus the talents, energy and creativity of the behavioral and social sciences on meeting some of society's most significant challenges.

The recognition of these research awards are given annually in one of the decade's major themes areas. The theme for 2005 was democracy.

Gibson was selected for his research on political tolerance and the support for civil liberties in the United States, the Soviet Union and South Africa.

"Professor Gibson's research provides important insight into how democracy functions and the minds of everyday citizens," the award committee said.

"By holding the beliefs of liberal democrats philosophically up to empirical examination, the research by Professor Gibson was promoted democracy, showing how individuals, political leaders and public policies are influenced when freedom is in jeopardy.

Gibson and other award recipients will present their work at a special Capitol Hill congressional workshop May 23.

Other awardees were Sharyn O'Halloran and David Epstein, political science professors at Columbia University; Judithterry-Porta, professor of human development at the University of Maryland; William Clark, professor of geography and statistics at the University of California, Los Angeles; and Nathaniel Hall jamison, professor of communication at the University of Pennsylvania.

For more information on the program, go online to www.decadeofbehavior.org/aboutcfm.

Math student teams excel in national, state competitions

By Tony Fitzpatrick

A WUSTL team took first place on the annual Missouri Collegiate Mathematics Competition, sponsored by the Missouri section of the Mathematics Association of America, held March 31-April 1 at Southeast Missouri State University.

The winning team consisted of Andy Aldman, Jon Puyan, Michael Gardner and Ben Robinson.

A second place team was made of students against 31 teams from 15 colleges and universities in Missouri.

The contest consisted of two sessions of 2.5 hours each. The competition was sponsored by professors in mathematics & sciences, and Ilya Bialal, Ph.D., the Chaouvet Lecturer in Mathemastics.

The Department of Mathematics also announced results of the 2004 Putnam Competition, a renowned contest that pin mathemastics competitions across universities and universities throughout the country.

Students from 515 colleges and universities in the United States and Canada participated in the 2004 competition, which is held on the first Saturday of December each year.

There were a total of 411 student teams.

The WUSTL team comprised of Jon Puyan, Po-Hsiang Lai and JoseMartinez ranked No. 40.

Moham kumar, Ph.D, professor of mathematics; Richard Rochberg, Ph.D., professor of mathematics; and Eric Wofsey, who were in the top 20 percent.

Two other top scorers included Po-Hsiang Lai and Ben Robinson, who were in the top 10 percent of the rankings; and Justin Gilmer, Igor Konfiskhar, Nathaniel Watson and Eric Wofsey, who were in the top 20 percent.

Since 1976, University teams have placed in the top 18 of 29 Putnam competitions, including 11 top-five performances.

The following incidents were reported to University Police April 8-13. Readers with information that could assist in investigating these incidents are urged to call 935-5555. The report is provided as a public service to promote safety awareness and is available on the University Police Web site at police.wustl.edu.

April 7 12:35 p.m. — A sirvemom reported that approximately $100 was stolen from the Coca-Cola machine at the vending area in McDonnell Hall. The theft occurred sometime between March 24 and April 7. There were no signs of forced entry; the investigation is continuing.

April 8 11:47 a.m. — A person stated that his car was broken into after seeing a map that had been in a side pocket of the door lying in the driver's side seat. The car was in lot No. 4, near the southeast corner of Ursas A. Whitehall Hall for Biomedical Engineering. Nothing was taken from the vehicle, and there were a few minor scratches on the passenger-side door.

An investigation is continuing.

April 9 9:12 a.m. — An unknown person threw a rock through a 2- by-3-foot single-pane window in the south side of Babcock Residence Hall, near the kitchen area. The screen and window were damaged. Maintenance personnel responded for temporary repairs.

An investigation is continuing.

April 10 2:34 a.m. — A person was assaulted on the south end of the Millbrook Garage pedestrian overpass. Witnesses stated that the victim was knocked down by an unidentified suspect with whom the victim engaged in a fight.

The victim was transported to the University Hospital for treatment.

Additionally, University Police responded to one report each of forgery, parking violations, lost property and larceny.

Obituary

Korsmeyer, renowned cancer cell researcher, 54

By Kim Leydig

Stanley J. Korsmeyer, M.D., a leader in cancer research at the Dana-Farber Cancer Institute and former director of the Division of Molecular Oncology at the School of Medicine, died Thursday, March 31, 2005, of a nonsmoking related form of lung cancer at Brigham and Women's Hospital in Boston. He was 54.

A renowned cancer cell researcher, Korsmeyer spent many of his productive years at Washington University and his gives research on the survival of cancer cells has helped scientists design new ways to treat patients.

"He was truly a world-class cancer researcher, truly one of the best people I have ever known," said Tim Ley, M.D., the Alan Ash and Katherine Wolff Professor of Medicine and professor of genetics, cited the St. Louis Post-Dispatch. "In addition to all he accomplished scientifically at WashU, he also led the critical groundwork for the creation of the Stowers Institute for Medical Research in the early '90s."

His death "is incredibly ironic," Ley said, "as he spent his life studying cancer and it ended, in his life."

Korsmeyer, who was also a professor of medicine, spent 12 years at the University before being recruited to Harvard-affiliated Dana-Farber Cancer Institute in 1996. In his last year here, Korsmeyer received one of four General Motors Cancer Foundation international awards.

For 19 years, Korsmeyer worked for the Howard Hughes Medical Institute at Dana-Farber. In his time at Dana-Farber, Korsmeyer was the head of the program in molecular oncology within the Department of Cancer Immunology and AIDS. He was the Sidney Farber Professor of Pathology and professor of medicine at Harvard Medical School.

He grew up on his family's livestock farm in Beardstown, 111., where he originally planned to become a veterinarian. He later chose premedical studies and graduated from the University of Missouri in Chicago in 1972. Then he earned a medical degree from Harvard University School of Medicine in 1976.

He completed his internship and residency at the University of California Hospitals in San Francisco and completed a three-year research fellowship at the National Cancer Institute in 1982.

John D. Byers, M.D., Ph.D., the Lewis T. and Rosalind A. Apple Professor of Medicine and chief of the Division of Oncology at WUSTL, told the Post-Dispatch, "Many of us hoped and thought he would win the Nobel Prize for cancer cell research."

"I don't think there will be anyone more missed in the scientific community than Stan Korsmeyer."

He is survived by his wife of 25 years, Susan; two sons, Evan John and Jacob Louis; father, William; and Karen and Correll Pelkey, three sisters, Lynn Holland, Janet Korsemeyer and Karen Oising and his grandfather, Carl Jolly.

In lieu of flowers, memorial contributions may be made to the Stanley J. Korsmeyer Memorial Fund at Dana-Farber Cancer Institute, 10 Brookline Place, Boston, MA 02245.
Ron King puts the personal touch on his research and teaching

By Sheila Neuman

Ron King, the Myron Northrop Professor of Accounting in the Olin School of Business, takes a break from heavy-metal music to conduct one of his classes. “Anytime you knock on his door, he’ll say, ‘Oh, come on in,’ or, ‘Let’s go for lunch.’ He’s very generous with his time,” says Nicole Thorne Jenkins, Ph.D., assistant professor of accounting.

Ron King, with sons Tyler and Bracken, and his wife, Monica Matheney, pause on the Charles Bridge in Prague while on a family vacation in 2004.

Ron King is a mellow diyer who gets into pretty much anything. As an example of a principle-based system would have to see the man in a ticket because even though Joe wasn’t violating the rule of driving more than 55 mph, he was violating the principle of driving safely.

Adding accounts to judge situations based on principles, however, creates a lot of ambiguity so King is running experiments in the Taylor Experimental Lab to figure out how people make decisions in the face of ambiguity. If people don’t use a principle to guide their actions, they are more likely to be influenced by the context in which they are placed. Therefore, the theory is that the context influences the outcome of the decision-making process.

King says, “When you have ‘right’-line lawyers, lawyers can engineer situations based on principles, making the principle of driving safely even more difficult to circumvent the rules.”

The assumption of economics is clear — people are rational and self-interested. These assumptions add discipline to our thinking and they provide a parsimonious framework,” King says. “However, the challenge now is to understand how business and markets perform when people are more altruistic and less rational than traditional economic assumptions.

That tension between the assumptions in basic economics and the reality of complex and seemingly irrational human behavior continues to drive King’s research.

The assumption of rationality can be a source of great disappointment. In fact, it was a rational act of self-preservation that drove King to accounting. He studied science at the University of Wisconsin-LaCrosse and took a job as a medical researcher after he graduated. He found the work interesting and would work on the lab made one of his co-workers faint.

He’s a natural leader, and he always leads by example. He was never afraid to stand up for what he believed in, even if it meant unconventional methods.

As a result, King has a strong sense of moral integrity, and he always stands up for what he believes in. He is a man of principle, and he never backs down from a challenge.

Ron King is a true example of a person who has dedicated his life to making a difference in the world. His passion for accounting and his dedication to his students and colleagues have inspired many people to follow in his footsteps and make a positive impact on the world.

Ron King is a great teacher, and he always goes above and beyond to make sure his students are successful. He is a mentor who has always been there for his students, and he always encourages them to pursue their dreams.

Ron King is a true role model for all of us, and he will always be remembered as a person who made a difference in the world.