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Kumar Publication Marks 100



Kumar in the NMR lab. Research associate Kathir Karuppanan works on the instrument.

The publication of a recent paper in the *Journal of Molecular Biology* marks 100 peer-reviewed publications by Assistant Professor T.K.S. Kumar. He published his first paper in 1988 as a graduate student and has several invited review articles with more than 1100 citations.

This spring he was selected for the Robert C. and Sandra Connor Endowed Faculty Fellowship by the Fulbright College. This award supports the career advancement of assistant-level faculty who provide the highest quality of teaching, research and service to the college.

Recent papers published:

“Is Association of Labile Enediyne Chromophore a Mutually Assured Protection for Carrier Protein?” Kandasamy, J.; Hariharan, P.; Kumar, T. K. S.; Yu, C.; Lu, T.J.; Chin, D. H. (2008) *Analytical Biochemistry*. DOI: 10.1016/j.ab.2008.06.017 1.

“Assembly of Chloroplast Signal Recognition Particle Involves Structural Rearrangement in Cpsrp43,” Kathir, K. M.; Rajalingam, D.; Sivaraja, V.; Kight, A.; Goforth, R. L.; Yu, C.; Henry, R.; Kumar, T. K. S. (2008) *Journal of Molecular Biology*. DOI: 10.1016/jmb.2008.05.065.

His research group includes three post-doctoral associates, four research students and 12 honors undergraduate students.

Biochemistry Paper 19th Most Cited

Roger Koepppe and alumna Anna Daily are coauthors, together with colleagues from Utrecht University, Netherlands, of the 19th most accessed article from January to March 2008, in the American Chemical Society journal *Biochemistry*.

“Is There a Preferential Interaction between Cholesterol and Tryptophan Residues in Membrane Proteins?” Holt, Andrea; de Almeida, R. F. M.; Nyholm, T. K. M.; Loura, L. M. S.; Daily, Anna E.; Staffhorst, R. W. H. M.; Rijkers, D. T. S.; Koepppe, Roger E., II; Prieto, M.; Killian, J. A. *Biochemistry*; (Article); 2008; 47(8); 2638-2649.

Star of Arkansas

The department gained a valuable asset with the shared state-of-the-art supercomputer, Star of Arkansas, which was installed on campus in May.

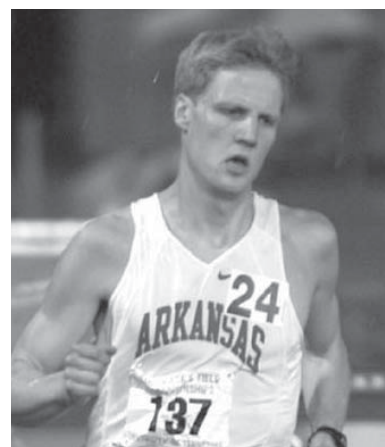
It is the most powerful computer in the state, and is listed as one of the world’s 500 fastest supercomputers. The university is one of only 33 entries from U.S. academic institutions to make the list. Star of Arkansas was ranked at No. 339.

The supercomputer helps scientists and engineers design and execute vastly more complicated experiments, models and simulations than previously possible. It has 1260 processing cores, which allows for large-scale computational modeling, for example the prediction of molecular properties.

It is funded in part by the National Science Foundation with matching funds from the university, in partnership with Dell Corp. Professor Amy Apon, computer science and computer engineering, is the PI and Peter Pulay is the co-PI.

For more information see <http://hpc.uark.edu/>

Honors Continue for Lincoln



Alumnus Daniel Lincoln, B.S. '02, M.S. '04, will be inducted into the UA Sports Hall of Honor. More on Lincoln inside.

Faculty News

On the Go

Lorraine Brewer attended in the 5th International Conference on Supplemental Instruction in Orlando May 28-30. She presented "Moving from Voluntary to Required SI: A Chemistry Case Study," with Anne Raines from the Enhanced Learning Center. She gained helpful ideas to enhance the learning in large chemistry classes.

Matt McIntosh will attend the Cottrell Scholar conference in Tucson, Ariz., July 10-12.

He will attend the Gordon Research conference on Organic Reactions and Processes in Smithfield, R.I., July 13-17.



From left: David Paul with Professor Otto Wolfbeis, head of the Institute of Analytical Chemistry at the University Regensburg

David Paul traveled to the University of Regensburg in Germany June 11-18 as part of the Atlantis program. He gave a lecture to the faculty on chemical sensor work in Arkansas, and two lectures to their undergraduate analytical students on acoustic sensors.

Peter Pulay spent a month in Poland giving a series of graduate lectures at the University of Wroclaw. The course was entitled "Selected Topics in Molecular Modeling."

Julie Stenken made the following presentations in May.

"Alternative Applications of Microdialysis Sampling," at the department of pharmaceuticals, Uppsala University, Uppsala, Sweden.

"Microdialysis Sampling for Assessment of Complex Signaling Systems," department of pharmaceutical chemistry, Vrije University, Brussels, Belgium.

"Localized Modulator Delivery and Solute Collection during the Foreign Body Response," at the 8th World Biomaterials Congress, in Amsterdam, The Netherlands.

She contributed to the following poster presentations.

"Affinity Microdialysis Sampling of Cytokines Using Heparin-Immobilized Microspheres," at the Biosensors 10th World Congress, in Shanghai, China, presented by Jia Duo.

"In Vitro and in Vivo Multiplexed Detection of Matrix Metalloproteinases (MMPs) Using Microdialysis Sampling and LC/MS/MS," at the 56th ASMS Conference on Mass Spectrometry and Allied Topics, authors Y. Wang, D. Loegering, D. Zagorevski, M. Lennartz, and J. Stenken.

Research News

The following papers by **Julie Stenken** are now in press.

"An in Vitro Comparison of Microdialysis Relative Recovery of Met-And Leu-enkephalin Using Cyclodextrins and Antibodies as Affinity Agents," H. J. Fletcher and J.A. Stenken *Analytica Chimica Acta*. 2008.

"Multiplexed Cytokine Detection of Interstitial Fluid Collected From Polymeric Hollow Tube Implants," X. Wang, D. J. Loegering, M.R. Lennartz and J. A. Stenken. *Cytokine*, 2008.

From the Library by Lutishoor Salisbury

Wireless connection is now available in the CHBC Library. The library will be closed Friday, July 4. See back page for summer hours

New books

QD31.3 .R39 2008 CHBC - Raymond, Kenneth William. *General, Organic, and Biological Chemistry: An Integrated Approach* Hoboken, NJ : Wiley, 2008

QD502.5 .Y36 2008 CHBC - Yang, Jaemoon. *Six-membered Transition States in Organic Synthesis* Hoboken, N.J. : Wiley-Interscience, c2008

Q130 .F563 2007 Main - Fisher, Robert L. *Making Science Fair: How Can We Achieve Equal Opportunity for Men and Women In Science?* Robert Leslie Fisher. Lanham : University Press of America, c2007

Q147 .H35 2007 Main - Hall, Linley Erin. *Who's Afraid of Marie Curie?: The Challenges Facing Women in Science and Technology*. Emeryville, CA : Seal Press, c2007

Q175.5 .F846 2007 Main - Fuller, Steve. *New frontiers in Science and Technology*. Cambridge, UK ; Malden, MA : Polity, 2007

QD262 .N53 2008 Main - Nicolaou, K. C. *Molecules that Changed the World : A Brief History of the Art and Science of Synthesis and its Impact on Society*. Weinheim : Wiley-VCH, c2008

Tobacco Ban Begins July 1

Each year, approximately 440,000 people die prematurely of diseases caused by smoking, accounting for one out of every five deaths in the United States (CDC 2003).

On July 1, 2008, the University of Arkansas will be tobacco free. This means that there will be no cigarettes, dip, snuff, pipes, cigars, hookas - no tobacco of any kind - on campus. The use of the above is prohibited at all times in all interior and outdoors spaces on university property.

For more information and resources to help kick the habit see the Campaign for a Tobacco-Free Campus
<http://fresh.uark.edu/home.html>

Student News

Gammill Takes First Prize



Gammill presents her research during Honors Night in April

Whitney Gammill won first prize in a poster competition awarded by the Nutrition and Health Division of the American Oil Chemists Society (AOCS) during the annual meeting in May in Seattle.

This achievement is especially significant as she was the only student presenter that was an undergraduate.

Undergraduate Degrees Awarded

Bachelor of Arts

Fredisha Manning
Nicole Nooner
Rachael Sharum

Bachelor of Science

Rebecca Adair *Honors Cum Laude*
Natalie Anderson *Honors Summa Cum Laude*
Drew Bockenfeld *Honors Magna Cum Laude*
Sherri Brixey *Cum Laude*
Samuel Burns *Cum Laude*
Randy Carney *Honors Summa Cum Laude*
Christopher Carter *Magna Cum Laude*
Zachary Donnell *Summa Cum Laude*
Rachel Ellis *Cum Laude*
Dartagnan Hinds
James Hoffman
Khalil Ibrahim *Summa Cum Laude*
Kristopher Keen
Megan Mainord *Cum Laude*
Melissa Mathews
Nicole McClellan *Honors Summa Cum Laude*
Kristin Nagle *Summa Cum Laude*
Sean Pendleton
Lindsey Pharis
Dhaval Shah *Honors Cum Laude*
Christopher Sichmeller *Honors Magna Cum Laude*
Preston Stewart
Robert Taylor
Tara Teff
Whitney Tharp *Magna Cum Laude*
Roberta Trandev
David Vester *Honors Cum Laude*
Blake Williams *Honors Magna Cum Laude*
Kyle Woodson

July Safety Tip

Shorts and sandals are inappropriate dress for laboratory work.

Alumni News

Bobbitt Farewell

Department members and friends gathered for a surprise reception for **Donald R. Bobbitt** in May. Bobbitt former dean of the



From left: Bobbitt watches as Bill Durham places mementos in a box.

Fulbright College and former department chair and alumnus, B.S. '80, will be provost and vice president for academic affairs at University of Texas-Arlington July 1.

Bobbitt was presented with the task of matching the faculty member with a memento.

Lincoln continued

Lincoln is among nine other former student-athletes to be inducted Aug. 29 at the John Q. Hammons Convention Center in Rogers.

He received a masters of science degree under the direction of Joshua Sakon. Currently, he is attending medical school at UAMS and is on schedule to begin his residency in 2010. His goal is to be an orthopedic surgeon.

Lincoln is the American record holder in the 3,000-meter steeplechase (8:08.82), was a member of Team USA at the 2004 Athens Olympics and a three-time U.S. champion in the 3,000-meter steeplechase (2004-06).

He was a four-year letterman as a member of the Razorback cross country and track and field teams, and a 14-time All-America honoree. He was a four-time NCAA champion and a seven-time SEC champion.

In 2003, he was named the NCAA Division I National Scholar Athlete of the Year by the U.S. Track and Field and Cross Country Coaches Association.

Unfortunately, he will miss the United States Olympics trials because of an injury but plans to continue training in the fall to compete in the 2009 World Championships next summer.

Summer Calendar of Events

July

- 01..... Last day to register to add a session 2 course
 03..... Last day to drop a session 2 course without a mark of "W"
 04..... Independence Day - U of A CLOSED
 23..... HHMI poster session
 24..... REU poster session
 28..... Last day to drop a session 2 course with a mark of "W"

August

- 08..... Last day of session 2
 08..... Last day to officially withdraw from all session 2 courses

Fall At-A-Glance

August

- 15..... Undergraduate admission deadline for fall
 25..... First day of fall classes
 29..... Last day to register or add a course

September

- 01..... Labor Day - U of A CLOSED
 08..... Fall Seminar Series begins
 13..... Symposium to Honor Charles L. Wilkins

October

- 1-4 64th Southwest Regional ACS Meeting - Little Rock

November

- 7-8 INBRE conference
 26..... Fall break - no classes
 27..... Thanksgiving - U of A CLOSED
 28..... U of A CLOSED

December

- 09..... Last day of fall classes
 10..... Dead day - no classes
 11-17 Final Exams
 24-31 U of A CLOSED

The University of Arkansas will be CLOSED Friday, July 4 in observance of Independence Day

The department of chemistry and biochemistry at the University of Arkansas strives for excellence in research, teaching and service in chemistry—the central science.

We aspire to positions of leadership regarding the discovery of new scientific knowledge, the training of students, and the economic development of the State of Arkansas.

We seek to recruit and retain a diverse group of the best faculty, students and staff to address the challenges of the future through interdisciplinary and multidisciplinary research and education.

July Birthdays

- 01..... Roger Koeppel
 15..... Aaron Beuterbaugh
 20..... Joshua Sakon
 24..... Anupama Aggarwal
 27..... Anna Daily
 29..... Marv Leister

The publishing of birthdays is not intended to invade the privacy of anyone. If you prefer not to be included, please let us know.

Library Hours

Chemistry and Biochemistry

Summer Hours

- Monday - Thursday.... 8 a.m. to 6 p.m.
 Friday 8 a.m. to 5 p.m.
 Saturday CLOSED
 Sunday..... CLOSED

Exceptions to Summer Hours

- July 4 CLOSED

Fall hours begin August 25

<http://libinfo.uark.edu/chemistry/>

Poster Sessions

Howard Hughes Medical Institute (HHMI) Poster Session

Eleven students in the HHMI program from biological sciences, physics and chemistry and biochemistry will make presentations on their research.

Wednesday, July 23
 Harrison Hale Lounge (CHEM 220)
 10 a.m. to noon

Poster session is open to the public.
 Private luncheon to follow.

Research Experience for Undergraduates (REU) Poster Session

Ten students participating in the summer research program in chemistry and biochemistry will make presentations.

Thursday, July 24
 Harrison Hale Lounge (CHEM 220)
 10 a.m. to noon.

Poster session is open to the public.
 Department luncheon from noon to 1 p.m. in CHEM 105.